GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
EARTH SYSTEM SCIENCE ORGANIZATION
INDIA METEOROLOGOCAL DEPARTMENT

DAILY NORMALS OF UPPER AIR WINDS

(1971-2000)

OBSERVATION TIME 0530 IST

ISSUED BY
UPPER AIR CLIMATOLOGICAL SECTION
Additional Director General of Meteorology (Research)
India Meteorological Department
Pune
2014

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P R E F A C E

Climate has great influence on our lives as it affects agriculture, commerce, industry, aviation, transportation and so on. Climate varies on all scales of space and time. Climatological normals are a useful way to describe the average conditions of a location and also useful for comparing current climatic conditions. The climatological normals find wide applications in operational, research and educational institutes besides being used by individual users. The World Meteorological Organization (WMO) defines normals as “period averages computed for a uniform and relatively long period comprising at least three consecutive 10 year periods” whereas period averages are arithmetic averages of climatological data computed for shorter periods of at least ten years. It may be mentioned that as per the standing practice the averages for the periods less than 30 years are not regarded as giving the “normal” values but they may be treated as period averages.

The India Meteorological Department has been publishing climatological normals of important meteorological parameters from time to time since 1904. First Radiosonde / Radiowind (RS/RW) station started taking upper air observations at New Delhi in December 1943. Seven stations were recording RS/RW data up to 1950. Gradually, the demand for upper air data increased and more number of RS/RW stations were added in the network. Presently, there is a network of 39 RS/RW stations in India. There is also significant change from the point of view of technology. Prior to year 2000, the upper air data was analyzed manually, however, now it is processed through sophisticated softwares.

Upper Air Section, O/o ADGM (R), IMD, Pune has been publishing monthly normals of Upper Air winds based on morning (0000 UTC) and evening (1200 UTC) data since 1965 and updated regularly. In recent times, the demand for daily normals of upper winds has emerged. As such, the present publication on normals of Upper Air winds has been brought out for the data period 1971 to 2000 for 34 Indian stations for 0000 UTC. Present publication contains daily normal values of upper air resultant wind direction, resultant wind velocity, East and North components of wind for seven pressure levels (925,850,700,500,300,200 and 100 hPa).

This publication has been prepared under the overall guidance of Shri. B. Mukhopadhyay, LACD of ADGM (R). The entire work of this publication has been done by a group of officers and staff members led by Shri. I.J. Verma, Scientist-E, Upper Air Section, O/o ADGM (R), IMD, Pune. The group comprises of Shri. S.H.Bhagwat, Shri.N.D.Sabale, Shri R V Ghoge and Mrs. Sandhya Ravikiran. I appreciate the help rendered by entire team of officers and staff of Printing Section for carrying out the printing work.

It is hoped that the information generated would prove to be useful to the scientific community, operational, weather forecasters, educational institutes and many other individual users.

New Delhi
2014

(Dr. L.S. Rathore)
Director General of Meteorology

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1. Data and Methodology

Upper Air Section, O/o ADGM (R), IMD, Pune is publishing normals of Upper Air winds based on morning and evening data since 1965. The last publication in this series on 'Monthly Normals of RAWIN winds' was updated in 2010 for the period 1971 to 2000 for 34 Indian stations for 0000 UTC and 1200 UTC. The present publication on 'Daily normals of Upper Air winds' has been prepared, for the first time, for the data period 1971 to 2000 for 34 Indian stations for 0000 UTC. The present publication contains daily normal values of upper air resultant wind direction (D), mean resultant wind velocity (Vr), North component (N) and East component (E) at seven standard pressure levels (925, 850, 700, 500, 300, 200 and 100 hPa). It may be mentioned that as per the standing practice the averages for the periods less than 30 years are not regarded as normal values but may be treated as 'period averages'. As wind is a vector quantity, for calculating the normal values of wind, it is necessary to calculate the zonal (E-component) and the meridional (N-component) of the wind for each observation at particular level. These parameters have been calculated by using the following formulae;

$$N = -V \times \cos(D) \qquad E = -V \times \sin(D)$$

$$\tan D = \frac{\sum E}{\sum N}$$

$$Vr = \frac{\sqrt{(\sum N)^2 + (\sum E)^2}}{n}$$

Where,

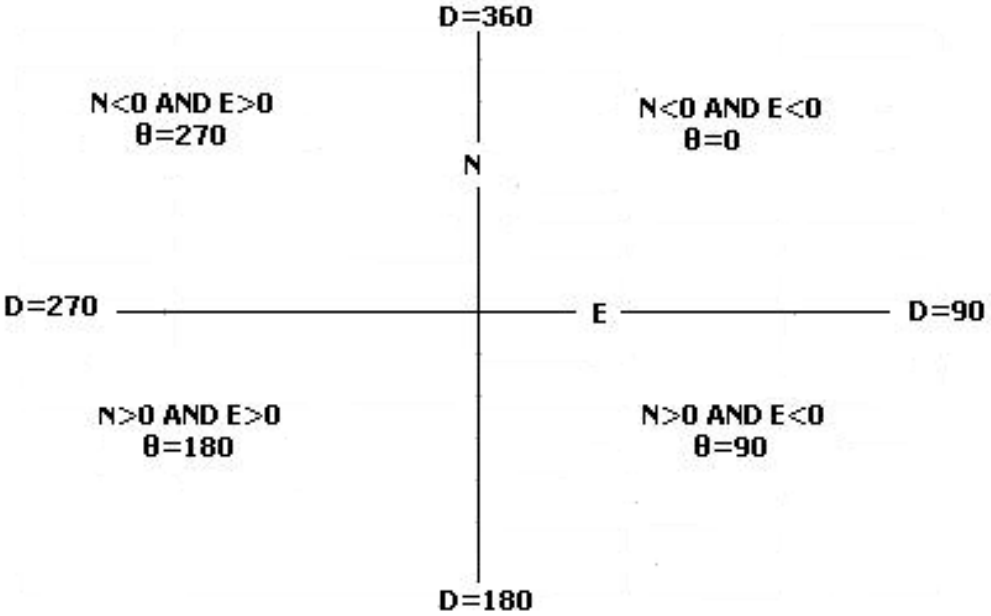
D = mean resultant wind direction in degrees

Vr = mean resultant wind velocity in mps

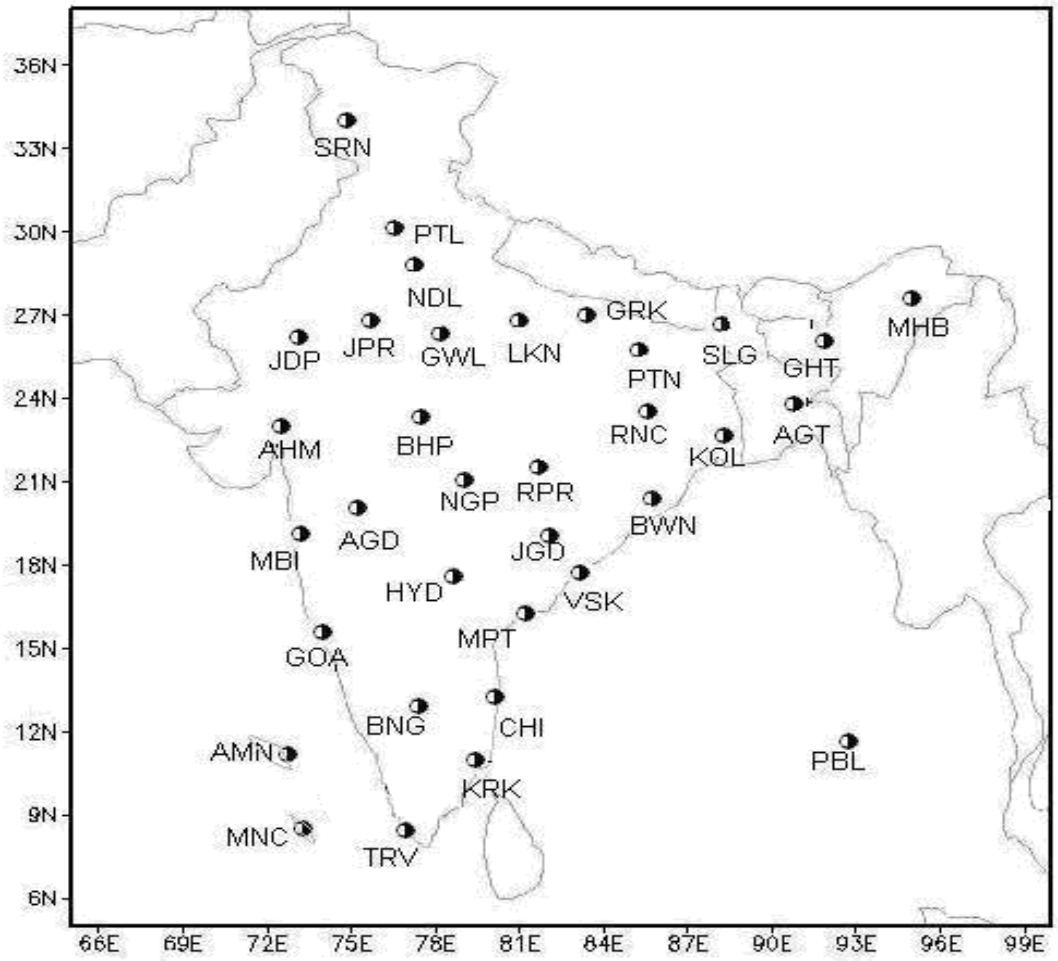
E = the resolved part of wind velocity in East direction (East component)

N = the resolved part of wind velocity in North direction (North component)

As tan(D) is a discontinuous function, the value of θ changes according to the quadrant table given below.



NETWORK OF RSRW STATIONS IN INDIA



AGT	Agartala	LKN	Lucknow
AHM	Ahmedabad	MPT	Machilipatnam
AMN	Amini	MNG	Mangalore
AGD	Aurangabad	MNC	Minicoy
BNG	Bangaluru	MHB	Mohanbari
BHP	Bhopal	MBI	Mumbai
BWN	Bhubaneshwar	NGP	Nagpur
CHI	Chennai	NDL	New Delhi
Goa	Goa	PTL	Patiala
GRK	Gorakhpur	PTN	Patna
GHT	Guwahati	PBL	Port Blair
GWL	Gwalior	RPR	Raipur
HYD	Hyderabad	RNC	Ranchi
JGD	Jagdalpur	SLG	Siliguri
JDP	Jodhpur	SRN	Srinagar
KRK	Karaikal	TRV	Thiruvananthapuram
KOL	Kolkata	VSK	Vishakhapatnam

List of stations taking Upper Air observations and data availability

S.No.	Station	LAT °N (deg min)	LONG °E (deg min)	Elevation amsl(m)	Data Availability
1	Agartala	23 53	91 15	0016	1972-2000
2	Ahmedabad	23 04	72 38	0055	1971-2000
3	Amini	11 07	72 44	0004	1977-2000
4	Aurangabad	19 51	75 24	0579	1980-2000
5	Bangaluru	12 58	77 35	0921	1971-2000
6	Bhopal	23 17	77 21	0523	1982-2000
7	Bhubaneshwar	20 15	85 50	0046	1971-2000
8	Chennai	13 00	80 11	0016	1971-2000
9	Goa	15 29	73 49	0060	1971-2000
10	Gorakhpur	26 45	83 22	0077	1974-2000
11	Guwahati	26 06	91 35	0054	1971-2000
12	Gwalior	26 14	78 15	0207	1971-2000
13	Hyderabad	17 27	78 28	0545	1971-2000
14	Jagdalpur	19 05	82 02	0553	1979-2000
15	Jodhpur	26 18	73 01	0224	1971-2000
16	Karaikal	10 55	79 50	0007	1973-2000
17	Kolkata	22 39	88 27	0006	1971-2000
18	Lucknow	26 45	80 53	0128	1971-2000
19	Machilipatnam	16 12	81 09	0003	1982-2000
20	Mangalore	12 57	50 31	0031	1973-2000
21	Minicoy	08 18	73 09	0002	1971-2000
22	Mohanbari	27 29	95 01	0111	1971-2000
23	Mumbai	19 07	72 51	0014	1971-2000
24	Nagpur	21 06	79 03	0310	1971-2000
25	New Delhi	28 35	77 12	0216	1971-2000

S.No.	Station	LAT °N (deg min)	LONG °E (deg min)	Elevation amsl(m)	Data Availability
26	Patiala	30 20	76 28	0251	1974-2000
27	Patna	25 36	85 06	0060	1983-2000
28	Port Blair	11 40	92 43	0079	1971-2000
29	Raipur	21 14	81 39	0625	1979-2000
30	Ranchi	23 26	85 24	0646	1972-2000
31	Siliguri	26 40	88 22	0123	1972-2000
32	Srinagar	34 05	74 50	1587	1972-2000
33	Thiruvananthapuram	08 29	76 57	0064	1971-2000
34	Vishakhapatnam	17 43	83 14	0045	1971-2000

Description of various terms used in the table (Normals of Upper Air winds)

S N	Terms	Description
1	DIR	Mean resultant wind direction in degrees from true North.
2	Vo	Mean resultant wind velocity in mps.
3	E	the resolved part of wind velocity in East direction (East component) in mps
4	N	the resolved part of wind velocity in North direction (North component) in mps

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SN	STATION	MONTH	PAGE NO.
1	Agartala	January - February	1 - 2
		March - April	3 - 4
		May - June	5 - 6
		July - August	7 - 8
		September - October	9 - 10
		November - December	11 - 12
2	Ahmedabad	January - February	13 - 14
		March - April	15 - 16
		May - June	17 - 18
		July - August	19 - 20
		September - October	21 - 22
		November - December	23 - 24
3	Amini	January - February	25 - 26
		March - April	27 - 28
		May - June	29 - 30
		July - August	31 - 32
		September - October	33 - 34
		November - December	35 - 36
4	Aurangabad	January - February	37 - 38
		March - April	39 - 40
		May - June	41 - 42
		July - August	43 - 44
		September - October	45 - 46
		November - December	47 - 48
5	Bangaluru	January - February	49 - 50
		March - April	51 - 52
		May - June	53 - 54
		July - August	55 - 56
		September - October	57 - 58
		November - December	59 - 60

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SN	STATION	MONTH	PAGE NO.
6	Bhopal	January - February	61 - 62
		March - April	63 - 64
		May - June	65 - 66
		July - August	67 - 68
		September - October	69 - 70
		November - December	71 - 72
7	Bhubaneshwar	January - February	73 - 74
		March - April	75 - 76
		May - June	77 - 78
		July - August	79 - 80
		September - October	81 - 82
		November - December	83 - 84
8	Chennai	January - February	85 - 86
		March - April	87 - 88
		May - June	89 - 90
		July - August	91 - 92
		September - October	93 - 94
		November - December	95 - 96
9	Goa	January - February	97 - 98
		March - April	99 - 100
		May - June	101 - 102
		July - August	103 - 104
		September - October	105 - 106
		November - December	107 - 108
10	Gorakhpur	January - February	109 - 110
		March - April	111 - 112
		May - June	113 - 114
		July - August	115 - 116
		September - October	117 - 118
		November - December	119 - 120

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SN	STATION	MONTH	PAGE NO.
11	Guwahati	January - February	121 - 122
		March - April	123 - 124
		May - June	125 - 126
		July - August	127 - 128
		September - October	129 - 130
		November - December	131 - 132
12	Gwalior	January - February	133 - 134
		March - April	135 - 136
		May - June	137 - 138
		July - August	139 - 140
		September - October	141 - 142
		November - December	143 - 144
13	Hyderabad	January - February	145 - 146
		March - April	147 - 148
		May - June	149 - 150
		July - August	151 - 152
		September - October	153 - 154
		November - December	155 - 156
14	Jagdalpur	January - February	157 - 158
		March - April	159 - 160
		May - June	161 - 162
		July - August	163 - 164
		September - October	165 - 166
		November - December	167 - 168
15	Jodhpur	January - February	169 - 170
		March - April	171 - 172
		May - June	173 - 174
		July - August	175 - 176
		September - October	177 - 178
		November - December	179 - 180

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SN	STATION	MONTH	PAGE NO.
16	Karaikal	January - February	181 - 182
		March - April	183 - 184
		May - June	185 - 186
		July - August	187 - 188
		September - October	189 - 190
		November - December	191 - 192
17	Kolkata	January - February	193 - 194
		March - April	195 - 196
		May - June	197 - 198
		July - August	199 - 200
		September - October	201 - 202
		November - December	203 - 204
18	Lucknow	January - February	205 - 206
		March - April	207 - 208
		May - June	209 - 210
		July - August	211 - 212
		September - October	213 - 214
		November - December	215 - 216
19	Machilipatnam	January - February	217 - 218
		March - April	219 - 220
		May - June	221 - 222
		July - August	223 - 224
		September - October	225 - 226
		November - December	227 - 228
20	Mangalore	January - February	229 - 230
		March - April	231 - 232
		May - June	233 - 234
		July - August	235 - 236
		September - October	237 - 238
		November - December	239 - 240

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SN	STATION	MONTH	PAGE NO.
21	Minicoy	January - February	241 - 242
		March - April	243 - 244
		May - June	245 - 246
		July - August	247 - 248
		September - October	249 - 250
		November - December	251 - 252
22	Mohanbari	January - February	253 - 254
		March - April	255 - 256
		May - June	257 - 258
		July - August	259 - 260
		September - October	261 - 262
		November - December	263 - 264
23	Mumbai	January - February	265 - 266
		March - April	267 - 268
		May - June	269 - 270
		July - August	271 - 272
		September - October	273 - 274
		November - December	275 - 276
24	Nagpur	January - February	277 - 278
		March - April	279 - 280
		May - June	281 - 282
		July - August	283 - 284
		September - October	285 - 286
		November - December	287 - 288
25	New Delhi	January - February	289 - 290
		March - April	291 - 292
		May - June	293 - 294
		July - August	295 - 296
		September - October	297 - 298
		November - December	299 - 300

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SN	STATION	MONTH	PAGE NO.
26	Patiala	January - February	301 - 302
		March - April	303 - 304
		May - June	305 - 306
		July - August	307 - 308
		September - October	309 - 310
		November - December	311 - 312
27	Patna	January - February	313 - 314
		March - April	315 - 316
		May - June	317 - 318
		July - August	319 - 320
		September - October	321 - 322
		November - December	323 - 324
28	Port Blair	January - February	325 - 326
		March - April	327 - 328
		May - June	329 - 330
		July - August	331 - 332
		September - October	333 - 334
		November - December	335 - 336
29	Raipur	January - February	337 - 338
		March - April	339 - 340
		May - June	341 - 342
		July - August	343 - 344
		September - October	345 - 346
		November - December	347 - 348
30	Ranchi	January - February	349 - 350
		March - April	351 - 352
		May - June	353 - 354
		July - August	355 - 356
		September - October	357 - 358
		November - December	359 - 360

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SN	STATION	MONTH	PAGE NO.
31	Siliguri	January - February	361 - 362
		March - April	363 - 364
		May - June	365 - 366
		July - August	367 - 368
		September - October	369 - 370
		November - December	371 - 372
32	Srinagar	January - February	373 - 374
		March - April	375 - 376
		May - June	377 - 378
		July - August	379 - 380
		September - October	381 - 382
		November - December	383 - 384

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SN	STATION	MONTH	PAGE NO.
33	Thiruvananthapuram	January - February	385 - 386
		March - April	387 - 388
		May - June	389 - 390
		July - August	391 - 392
		September - October	393 - 394
		November - December	395 - 396
34	Vishakhapatnam	January - February	397 - 398
		March - April	399 - 400
		May - June	401 - 402
		July - August	403 - 404
		September - October	405 - 406
		November - December	407 - 408

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	355	1.1	0.1	-1.1	293	2.1	1.9	-0.8	281	9.2	9.0	-1.7	271	20.1	20.1	-0.2	284	26.0	25.3	-6.1	286	30.1	29.0	-8.1	299	16.0	14.0	-7.8
2	335	1.4	0.6	-1.3	302	1.5	1.3	-0.8	276	9.2	9.1	-1.0	273	19.4	19.4	-1.0	274	29.3	29.2	-2.0	268	40.4	40.4	1.3	253	58.0	55.5	17.0
3	299	1.0	0.9	-0.5	266	1.4	1.4	0.1	279	9.4	9.3	-1.5	272	17.5	17.5	-0.5	271	36.8	36.8	-0.7	272	37.8	37.8	-1.0	265	26.0	25.9	2.3
4	333	0.7	0.3	-0.6	291	2.2	2.1	-0.8	288	9.0	8.6	-2.8	276	19.8	19.7	-2.0	273	36.1	36.0	-1.9	264	37.9	37.7	4.1	260	36.1	35.5	6.3
5	309	1.3	1.0	-0.8	292	2.7	2.5	-1.0	279	10.6	10.5	-1.6	276	18.1	18.0	-2.0	271	33.3	33.3	-0.5	268	39.0	39.0	1.7	—	—	—	—
6	351	1.9	0.3	-1.9	300	3.4	2.9	-1.7	275	8.1	8.1	-0.7	270	23.3	23.3	-0.1	275	32.8	32.7	-3.1	268	36.0	36.0	1.5	274	32.0	31.9	-2.2
7	10	1.7	-0.3	-1.7	315	1.1	0.8	-0.8	265	6.1	6.1	0.5	261	16.8	16.6	2.6	264	26.1	25.9	2.8	267	27.8	27.8	1.6	249	49.5	46.3	17.5
8	350	2.8	0.5	-2.8	316	3.0	2.1	-2.2	277	9.5	9.4	-1.1	266	20.9	20.9	1.3	258	35.4	34.6	7.5	259	46.6	45.7	9.1	—	—	—	—
9	2	3.1	-0.1	-3.1	288	4.0	3.8	-1.2	271	8.9	8.9	-0.1	265	20.5	20.4	1.8	265	30.2	30.1	2.8	278	31.9	31.6	-4.5	291	23.0	21.5	-8.2
10	324	2.2	1.3	-1.8	295	3.3	3.0	-1.4	284	9.6	9.3	-2.4	272	19.6	19.6	-0.6	272	35.4	35.4	-1.1	270	35.0	35.0	-0.2	—	—	—	—
11	353	2.5	0.3	-2.5	300	3.8	3.3	-1.9	271	9.9	9.9	-0.1	277	19.5	19.3	-2.5	276	28.0	27.8	-3.1	265	40.6	40.4	3.5	256	40.0	38.8	9.7
12	288	1.9	1.8	-0.6	279	2.6	2.6	-0.4	276	11.3	11.2	-1.1	275	23.4	23.3	-2.2	270	25.5	25.5	0.2	279	38.5	38.0	-6.3	277	13.3	13.2	-1.6
13	347	2.3	0.5	-2.2	304	3.2	2.7	-1.8	283	10.0	9.7	-2.3	270	20.5	20.5	-0.1	271	30.6	30.6	-0.8	267	50.0	49.9	2.6	—	—	—	—
14	305	2.4	2.0	-1.4	302	3.2	2.7	-1.7	269	10.2	10.2	0.1	267	23.7	23.7	1.4	251	28.5	26.9	9.5	265	35.3	35.2	3.0	294	38.0	34.7	-15.5
15	12	3.0	-0.6	-2.9	312	3.1	2.3	-2.1	289	10.4	9.8	-3.4	275	23.5	23.4	-1.9	271	32.9	32.9	-0.7	267	27.4	27.4	1.6	265	34.0	33.9	3.0
16	289	2.1	2.0	-0.7	300	3.9	3.4	-2.0	298	9.4	8.3	-4.5	269	19.3	19.3	0.5	269	31.5	31.5	0.6	262	37.7	37.3	5.3	—	—	—	—
17	268	2.6	2.6	0.1	283	4.6	4.5	-1.0	283	10.1	9.8	-2.3	277	22.0	21.9	-2.5	268	39.3	39.3	1.6	269	37.0	37.0	0.4	—	—	—	—
18	313	2.2	1.6	-1.5	297	4.6	4.1	-2.1	289	10.9	10.3	-3.6	285	20.3	19.6	-5.4	276	35.4	35.2	-3.5	278	38.5	38.1	-5.6	251	24.4	23.0	8.0
19	326	3.4	1.9	-2.8	295	2.9	2.6	-1.2	283	10.4	10.1	-2.3	268	19.2	19.2	0.7	281	35.9	35.3	-6.8	259	26.4	25.9	5.1	274	29.0	28.9	-2.0
20	330	1.6	0.8	-1.4	314	3.5	2.5	-2.4	283	11.5	11.2	-2.5	267	21.2	21.2	1.1	257	33.3	32.4	7.7	274	42.9	42.8	-2.7	—	—	—	—
21	299	1.3	1.1	-0.6	294	3.2	2.9	-1.3	281	10.6	10.4	-2.1	275	20.4	20.3	-1.9	272	37.5	37.5	-1.4	263	39.8	39.5	4.8	—	—	—	—
22	324	3.6	2.1	-2.9	295	4.3	3.9	-1.8	278	10.2	10.1	-1.5	273	23.7	23.7	-1.4	275	33.8	33.7	-2.8	269	39.6	39.6	0.4	280	27.0	26.6	-4.7
23	315	3.3	2.3	-2.3	296	5.5	5.0	-2.4	280	11.0	10.8	-1.9	280	26.6	26.2	-4.5	264	28.6	28.5	2.9	265	37.1	36.9	3.5	—	—	—	—
24	309	1.9	1.5	-1.2	282	3.5	3.4	-0.7	283	11.3	11.0	-2.5	272	23.1	23.1	-0.8	268	28.9	28.9	1.1	257	31.8	30.9	7.3	296	21.0	18.9	-9.2
25	304	2.2	1.8	-1.2	307	4.3	3.4	-2.6	281	10.2	10.0	-2.0	277	17.1	17.0	-2.1	277	24.9	24.7	-2.9	268	27.7	27.7	0.9	294	13.0	11.9	-5.3
26	330	2.2	1.1	-1.9	300	3.4	2.9	-1.7	287	11.0	10.5	-3.2	271	21.9	21.9	-0.4	272	30.5	30.5	-0.8	271	38.0	38.0	-0.6	285	47.3	45.7	-12.3
27	23	1.5	-0.6	-1.4	309	1.4	1.1	-0.9	288	8.1	7.7	-2.5	278	19.4	19.2	-2.7	269	27.5	27.5	0.6	264	37.9	37.7	3.8	—	—	—	—
28	335	1.7	0.7	-1.5	279	3.1	3.1	-0.5	287	8.7	8.3	-2.6	280	16.9	16.7	-2.8	261	29.2	28.9	4.4	260	36.1	35.6	6.0	267	29.0	29.0	1.5
29	342	0.6	0.2	-0.6	304	3.4	2.8	-1.9	282	9.8	9.6	-2.0	274	19.9	19.8	-1.5	264	33.7	33.5	3.5	277	39.7	39.4	-5.0	—	—	—	—
30	315	2.7	1.9	-1.9	281	4.7	4.6	-0.9	274	9.6	9.6	-0.6	275	21.4	21.3	-2.0	267	29.3	29.3	1.4	272	36.0	36.0	-1.3	—	—	—	—
31	320	1.6	1.0	-1.2	262	3.7	3.7	0.5	274	10.1	10.1	-0.7	265	20.7	20.6	1.8	262	34.8	34.5	4.9	272	42.2	42.2	-1.2	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	360	1.4	0.0	-1.4	286	3.6	3.5	-1.0	279	10.6	10.5	-1.6	270	17.2	17.2	0.1	263	25.6	25.4	3.2	247	24.3	22.4	9.5	—	—	—	—
2	8	2.1	-0.3	-2.1	281	4.6	4.5	-0.9	271	10.1	10.1	-0.2	271	20.3	20.3	-0.2	266	34.6	34.5	2.3	270	50.3	50.3	0.2	257	46.0	44.8	10.3
3	320	1.7	1.1	-1.3	310	3.3	2.5	-2.1	273	10.8	10.8	-0.6	269	20.5	20.5	0.4	263	35.3	35.0	4.4	255	36.6	35.4	9.3	257	38.0	37.0	8.5
4	344	0.7	0.2	-0.7	272	3.3	3.3	-0.1	287	10.5	10.0	-3.1	278	21.1	20.9	-3.1	253	36.2	34.7	10.3	251	47.5	44.8	15.7	233	33.1	26.4	19.9
5	309	3.6	2.8	-2.3	293	5.9	5.4	-2.3	285	9.9	9.6	-2.5	272	22.1	22.1	-0.6	264	35.6	35.4	4.0	260	44.3	43.6	7.7	—	—	—	—
6	314	3.7	2.7	-2.6	286	3.6	3.5	-1.0	286	10.1	9.7	-2.8	279	17.2	17.0	-2.6	274	30.5	30.4	-2.1	282	31.3	30.6	-6.5	266	30.0	29.9	2.0
7	340	3.0	1.0	-2.8	295	4.7	4.2	-2.0	282	10.1	9.9	-2.1	268	16.5	16.5	0.7	265	32.5	32.4	2.8	282	33.9	33.1	-7.3	—	—	—	—
8	317	2.5	1.7	-1.8	284	4.0	3.9	-1.0	275	9.5	9.5	-0.8	271	18.9	18.9	-0.3	260	32.4	31.9	5.4	272	28.5	28.5	-1.0	282	20.0	19.6	-4.2
9	323	1.5	0.9	-1.2	302	4.6	3.9	-2.4	284	10.0	9.7	-2.5	270	16.6	16.6	0.0	266	33.7	33.6	2.5	262	35.4	35.1	4.7	263	44.0	43.7	5.4
10	63	0.9	-0.8	-0.4	288	4.0	3.8	-1.2	277	7.9	7.8	-1.0	267	13.7	13.7	0.7	262	25.9	25.7	3.4	269	36.0	36.0	0.6	—	—	—	—
11	333	0.7	0.3	-0.6	281	3.1	3.0	-0.6	281	8.6	8.4	-1.7	275	21.1	21.0	-1.7	270	27.3	27.3	-0.1	278	33.8	33.5	-4.5	301	27.8	23.8	-14.4
12	323	2.1	1.3	-1.7	296	3.2	2.9	-1.4	280	9.4	9.2	-1.7	279	19.2	19.0	-3.0	276	27.0	26.8	-2.9	274	35.7	35.6	-2.5	290	3.0	2.8	-1.0
13	270	1.6	1.6	0.0	284	3.8	3.7	-0.9	288	8.1	7.7	-2.5	279	21.3	21.0	-3.4	283	36.9	36.0	-8.1	283	33.0	32.1	-7.6	284	29.4	28.6	-6.9
14	254	1.5	1.4	0.4	287	3.7	3.5	-1.1	289	9.1	8.6	-3.0	278	20.5	20.3	-2.7	277	30.9	30.7	-3.5	269	45.5	45.5	0.7	—	—	—	—
15	225	0.6	0.4	0.4	265	4.7	4.7	0.4	275	9.3	9.3	-0.8	274	18.9	18.9	-1.2	275	29.1	29.0	-2.3	297	23.6	21.1	-10.6	—	—	—	—
16	246	2.4	2.2	1.0	259	5.1	5.0	1.0	263	9.7	9.6	1.1	268	18.7	18.7	0.8	260	33.2	32.7	6.0	265	33.0	32.9	3.0	—	—	—	—
17	263	2.5	2.5	0.3	287	5.8	5.5	-1.7	282	13.0	12.7	-2.7	280	21.8	21.5	-3.8	277	37.5	37.2	-4.6	280	29.7	29.2	-5.4	267	29.5	29.5	1.7
18	250	3.0	2.8	1.0	276	4.6	4.6	-0.5	279	12.3	12.2	-1.9	272	22.5	22.5	-0.7	273	29.7	29.7	-1.4	266	41.3	41.2	2.9	258	48.1	47.0	10.0
19	261	2.0	2.0	0.3	293	5.0	4.6	-2.0	282	13.3	13.0	-2.7	276	23.6	23.5	-2.3	267	31.5	31.4	1.8	273	36.2	36.2	-1.6	297	15.0	13.4	-6.8
20	270	2.4	2.4	0.0	289	3.9	3.7	-1.3	282	10.5	10.3	-2.2	269	22.2	22.2	0.3	267	40.9	40.9	1.8	275	35.3	35.2	-3.2	289	28.0	26.5	-9.1
21	278	0.7	0.7	-0.1	275	4.6	4.6	-0.4	278	9.5	9.4	-1.4	265	21.6	21.5	2.0	265	42.3	42.1	3.7	266	39.6	39.5	3.1	271	38.0	38.0	-0.7
22	326	1.8	1.0	-1.5	291	5.9	5.5	-2.1	279	10.8	10.7	-1.6	260	22.8	22.4	4.0	270	36.3	36.3	0.3	274	42.7	42.6	-3.0	266	39.3	39.2	2.9
23	246	2.0	1.8	0.8	274	4.4	4.4	-0.3	279	11.1	11.0	-1.8	270	21.1	21.1	0.1	269	28.7	28.7	0.3	281	31.8	31.2	-6.3	266	8.0	8.0	0.6
24	360	0.5	0.0	-0.5	275	4.2	4.2	-0.4	285	11.9	11.5	-3.0	282	23.6	23.1	-4.9	277	33.0	32.8	-3.8	297	41.1	36.8	-18.4	—	—	—	—
25	275	2.2	2.2	-0.2	304	5.8	4.8	-3.2	290	12.3	11.6	-4.2	278	18.7	18.5	-2.7	267	30.8	30.8	1.6	274	45.1	45.0	-3.4	—	—	—	—
26	276	2.9	2.9	-0.3	285	5.3	5.1	-1.4	291	13.1	12.2	-4.7	272	21.2	21.2	-0.9	274	28.3	28.2	-1.9	292	24.3	22.5	-9.1	267	34.4	34.4	1.6
27	278	4.1	4.1	-0.6	296	6.4	5.7	-2.8	281	12.8	12.6	-2.5	273	18.1	18.1	-0.8	267	34.0	34.0	1.7	272	34.4	34.4	-1.3	283	48.0	46.8	-10.8
28	281	2.1	2.1	-0.4	270	4.9	4.9	0.0	273	13.5	13.5	-0.7	268	22.7	22.7	0.8	267	33.1	33.1	1.5	267	38.4	38.4	1.9	262	35.9	35.6	5.0
29	223	1.9	1.3	1.4	267	6.6	6.6	0.3	279	15.7	15.5	-2.4	288	24.2	23.0	-7.5	277	19.0	18.9	-2.3	—	—	—	—	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	296	3.2	2.9	-1.4	270	6.0	6.0	0.0	279	12.1	11.9	-1.9	277	20.7	20.6	-2.4	265	34.2	34.1	2.7	254	25.6	24.6	7.1	278	6.0	5.9	-0.8
2	315	1.4	1.0	-1.0	282	4.2	4.1	-0.9	275	11.3	11.3	-1.0	276	20.4	20.3	-2.3	272	31.0	31.0	-1.3	275	30.6	30.5	-2.7	265	29.0	28.9	2.5
3	326	3.2	1.8	-2.7	305	5.8	4.8	-3.3	286	13.0	12.5	-3.5	273	22.3	22.3	-1.1	266	29.7	29.6	2.2	260	33.2	32.7	6.0	256	31.9	31.0	7.7
4	284	5.3	5.1	-1.3	284	5.4	5.2	-1.3	291	12.3	11.5	-4.3	282	20.3	19.9	-4.2	271	26.8	26.8	-0.5	275	31.8	31.7	-2.9	276	34.7	34.5	-3.7
5	264	2.9	2.9	0.3	281	4.2	4.1	-0.8	282	11.7	11.5	-2.4	279	22.7	22.4	-3.7	269	27.9	27.9	0.7	260	41.1	40.5	7.0	265	26.0	25.9	2.3
6	267	3.4	3.4	0.2	288	6.7	6.4	-2.1	284	13.3	12.9	-3.1	274	19.0	19.0	-1.3	275	29.7	29.6	-2.5	266	35.1	35.0	2.5	277	37.0	36.7	-4.5
7	254	2.6	2.5	0.7	276	4.5	4.5	-0.5	281	10.3	10.1	-1.9	281	17.6	17.3	-3.3	267	35.0	35.0	1.8	271	35.5	35.5	-0.4	321	41.9	26.4	-32.6
8	292	4.2	3.9	-1.6	288	4.8	4.6	-1.5	280	11.1	10.9	-2.0	281	21.1	20.7	-4.1	273	31.7	31.6	-1.9	274	36.9	36.8	-2.6	—	—	—	—
9	273	3.5	3.5	-0.2	278	5.6	5.5	-0.8	280	12.7	12.5	-2.1	274	19.3	19.3	-1.3	272	31.0	31.0	-0.9	268	35.4	35.4	1.0	265	26.6	26.5	2.5
10	249	2.2	2.1	0.8	268	5.0	5.0	0.2	278	11.7	11.6	-1.7	276	19.0	18.9	-2.0	268	31.8	31.8	1.0	254	45.9	44.2	12.4	—	—	—	—
11	221	4.0	2.6	3.0	257	5.8	5.7	1.3	277	11.9	11.8	-1.5	275	19.2	19.1	-1.8	267	32.1	32.1	1.5	245	34.9	31.7	14.6	272	17.0	17.0	-0.6
12	212	3.4	1.8	2.9	253	4.9	4.7	1.4	272	12.6	12.6	-0.5	272	22.5	22.5	-0.8	274	32.2	32.1	-2.5	267	34.7	34.7	1.7	—	—	—	—
13	229	3.8	2.9	2.5	264	5.8	5.8	0.6	274	11.7	11.7	-0.8	268	16.4	16.4	0.5	263	30.6	30.4	3.8	251	30.4	28.8	9.8	272	37.2	37.2	-1.4
14	209	6.3	3.1	5.5	272	5.8	5.8	-0.2	268	10.0	10.0	0.3	269	18.1	18.1	0.4	267	25.5	25.5	1.3	265	36.5	36.4	3.1	275	26.0	25.9	-2.3
15	248	5.6	5.2	2.1	270	5.5	5.5	0.0	279	10.4	10.3	-1.7	276	15.7	15.6	-1.6	264	28.0	27.8	2.9	254	31.0	29.9	8.3	—	—	—	—
16	232	4.4	3.5	2.7	271	6.3	6.3	-0.1	286	10.3	9.9	-2.8	269	16.9	16.9	0.4	274	24.8	24.7	-1.8	263	27.1	26.9	3.5	241	25.0	21.9	12.1
17	274	3.2	3.2	-0.2	265	6.3	6.3	0.6	272	11.4	11.4	-0.4	276	21.5	21.4	-2.1	274	22.6	22.6	-1.4	252	40.4	38.3	12.8	—	—	—	—
18	247	4.8	4.4	1.9	265	8.4	8.4	0.8	273	13.5	13.5	-0.8	276	19.9	19.8	-2.2	263	31.3	31.1	3.6	226	31.5	22.7	21.8	—	—	—	—
19	239	6.3	5.4	3.3	267	6.2	6.2	0.3	279	11.9	11.8	-1.8	278	23.4	23.2	-3.2	270	27.5	27.5	0.0	279	32.2	31.8	-4.9	—	—	—	—
20	231	7.0	5.5	4.4	249	7.7	7.2	2.8	272	12.7	12.7	-0.5	276	19.8	19.7	-2.0	281	27.2	26.7	-5.0	270	31.4	31.4	0.2	—	—	—	—
21	221	5.7	3.7	4.3	257	6.3	6.1	1.4	279	12.7	12.6	-1.9	282	20.4	19.9	-4.3	268	23.7	23.7	0.7	265	32.6	32.5	2.9	262	37.0	36.6	5.1
22	222	4.3	2.9	3.2	262	5.5	5.4	0.8	275	12.8	12.8	-1.1	283	17.2	16.8	-3.9	268	21.0	21.0	0.7	258	27.4	26.8	5.6	267	18.0	18.0	0.9
23	229	7.7	5.8	5.1	269	7.1	7.1	0.1	289	11.5	10.9	-3.7	279	16.5	16.3	-2.6	266	22.6	22.6	1.4	262	30.2	29.9	4.2	298	28.0	24.7	-13.1
24	240	5.9	5.1	3.0	258	7.5	7.3	1.5	270	13.6	13.6	0.1	275	22.7	22.6	-1.9	276	30.2	30.1	-3.0	277	24.7	24.5	-2.8	259	12.0	11.8	2.3
25	228	5.9	4.4	4.0	263	4.9	4.9	0.6	276	9.9	9.8	-1.0	272	16.5	16.5	-0.6	269	26.5	26.5	0.4	268	29.7	29.7	1.2	264	19.4	19.3	2.1
26	218	7.5	4.6	5.9	258	6.1	6.0	1.3	267	11.1	11.1	0.5	265	18.5	18.4	1.5	270	27.2	27.2	0.0	267	36.7	36.7	1.7	261	2.5	2.5	0.4
27	232	2.9	2.3	1.8	262	5.7	5.6	0.8	282	11.4	11.2	-2.3	272	18.2	18.2	-0.6	257	30.4	29.6	6.9	244	30.1	27.0	13.2	—	—	—	—
28	261	2.6	2.6	0.4	273	5.4	5.4	-0.3	275	10.5	10.5	-1.0	276	16.8	16.7	-1.7	275	26.5	26.4	-2.2	276	31.5	31.3	-3.5	220	7.5	4.8	5.7
29	236	4.0	3.3	2.2	271	4.8	4.8	-0.1	286	11.7	11.2	-3.3	284	16.5	16.0	-4.0	279	23.6	23.3	-3.7	269	37.7	37.7	0.5	248	32.5	30.0	12.4
30	204	4.9	2.0	4.5	247	6.1	5.6	2.4	268	9.4	9.4	0.3	271	16.5	16.5	-0.4	266	22.5	22.4	1.7	263	28.6	28.4	3.4	264	32.0	31.8	3.3
31	221	5.0	3.3	3.8	259	6.6	6.5	1.3	272	11.6	11.6	-0.5	272	17.9	17.9	-0.5	272	29.4	29.4	-0.8	265	26.8	26.7	2.2	267	27.1	27.1	1.2

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	231	3.8	3.0	2.4	251	6.0	5.7	2.0	280	9.9	9.8	-1.7	274	18.4	18.3	-1.4	264	28.5	28.3	3.1	262	32.4	32.1	4.7	268	18.2	18.2	0.7
2	226	7.4	5.3	5.2	261	9.4	9.3	1.4	275	12.4	12.4	-1.0	278	18.3	18.1	-2.7	279	23.9	23.6	-3.6	271	22.9	22.9	-0.3	270	16.3	16.3	0.1
3	269	4.1	4.1	0.1	251	5.3	5.0	1.7	278	10.4	10.3	-1.5	267	16.4	16.4	0.9	261	25.2	24.9	3.9	267	29.7	29.7	1.4	272	23.1	23.1	-0.7
4	230	5.6	4.3	3.6	244	7.7	6.9	3.4	287	11.2	10.7	-3.2	277	16.5	16.4	-1.9	255	28.8	27.8	7.5	248	38.4	35.7	14.2	—	—	—	—
5	228	4.2	3.1	2.8	256	6.7	6.5	1.6	276	9.9	9.8	-1.0	276	17.0	16.9	-1.8	271	27.5	27.5	-0.6	257	32.3	31.5	7.1	245	26.5	24.1	11.0
6	231	6.7	5.2	4.2	255	7.4	7.2	1.9	278	11.2	11.1	-1.5	280	16.1	15.8	-2.9	259	26.0	25.6	4.8	262	30.0	29.7	4.4	—	—	—	—
7	227	6.4	4.7	4.4	245	6.0	5.4	2.5	266	9.6	9.6	0.6	275	16.8	16.7	-1.6	267	26.0	26.0	1.5	273	28.9	28.9	-1.6	261	24.5	24.2	3.9
8	233	6.2	5.0	3.7	253	7.7	7.4	2.3	281	11.0	10.8	-2.1	280	18.4	18.1	-3.1	283	27.9	27.1	-6.5	265	32.1	32.0	2.6	—	—	—	—
9	212	4.9	2.6	4.1	243	6.2	5.5	2.8	275	11.7	11.6	-1.1	276	18.7	18.6	-2.1	269	26.1	26.1	0.5	250	39.9	37.6	13.4	—	—	—	—
10	215	4.7	2.7	3.9	248	6.8	6.3	2.6	279	10.4	10.3	-1.7	273	14.5	14.5	-0.7	258	22.8	22.3	4.8	258	30.7	30.0	6.5	247	23.0	21.2	9.0
11	195	3.8	1.0	3.7	238	6.2	5.3	3.3	274	11.2	11.2	-0.8	274	15.7	15.7	-1.0	274	23.7	23.7	-1.5	270	26.5	26.5	-0.2	252	12.8	12.2	4.0
12	217	5.5	3.3	4.4	245	7.2	6.5	3.0	267	10.9	10.9	0.5	275	16.8	16.7	-1.6	270	23.1	23.1	-0.2	264	23.4	23.3	2.6	267	24.9	24.9	1.3
13	227	4.0	2.9	2.7	257	5.4	5.3	1.2	279	10.0	9.9	-1.5	273	14.3	14.3	-0.8	268	15.8	15.8	0.6	263	26.9	26.7	3.3	261	27.0	26.7	4.1
14	196	3.5	1.0	3.4	234	6.2	5.0	3.6	268	11.1	11.1	0.4	274	14.9	14.9	-1.1	268	22.3	22.3	0.9	264	24.2	24.1	2.5	279	6.2	6.1	-1.0
15	215	3.5	2.0	2.9	232	5.3	4.2	3.3	279	8.5	8.4	-1.4	278	13.4	13.3	-1.8	266	21.7	21.7	1.4	267	25.1	25.1	1.1	274	14.7	14.7	-1.1
16	218	4.4	2.7	3.5	238	7.5	6.3	4.0	263	11.5	11.4	1.4	277	15.3	15.2	-1.9	253	24.6	23.5	7.3	261	27.9	27.6	4.3	258	18.4	18.0	3.9
17	215	5.2	3.0	4.3	235	6.1	5.0	3.5	271	10.5	10.5	-0.1	268	16.5	16.5	0.5	260	28.1	27.7	4.7	250	25.4	23.9	8.7	250	11.7	11.0	4.0
18	206	5.5	2.4	4.9	240	5.4	4.7	2.7	276	10.1	10.1	-1.0	269	15.9	15.9	0.2	261	19.4	19.2	3.1	265	23.0	22.9	2.0	267	10.5	10.5	0.5
19	206	5.0	2.2	4.5	236	5.4	4.5	3.0	271	12.1	12.1	-0.2	280	17.5	17.2	-3.0	269	24.2	24.2	0.3	264	23.4	23.3	2.6	259	26.3	25.8	4.9
20	184	5.4	0.4	5.4	228	5.4	4.0	3.6	283	9.6	9.3	-2.2	273	15.2	15.2	-0.7	271	20.8	20.8	-0.4	267	25.2	25.2	1.4	257	11.5	11.2	2.5
21	171	4.4	-0.7	4.3	227	5.7	4.2	3.9	268	10.7	10.7	0.4	284	12.8	12.4	-3.0	274	22.2	22.1	-1.5	265	27.3	27.2	2.5	244	8.5	7.7	3.7
22	198	5.9	1.8	5.6	229	6.3	4.8	4.1	279	9.6	9.5	-1.5	276	9.3	9.3	-0.9	267	19.5	19.5	1.0	263	27.7	27.5	3.4	267	16.1	16.1	0.8
23	204	3.9	1.6	3.6	233	5.9	4.7	3.5	272	9.4	9.4	-0.3	273	12.5	12.5	-0.7	260	21.7	21.4	3.6	266	23.2	23.1	1.7	277	16.8	16.7	-2.0
24	207	6.3	2.8	5.6	228	7.3	5.4	4.9	265	10.1	10.1	0.9	278	14.0	13.9	-1.9	266	22.1	22.0	1.5	261	28.9	28.6	4.3	280	22.3	21.9	-4.0
25	179	4.4	-0.1	4.4	220	5.2	3.3	4.0	258	7.3	7.1	1.5	263	10.9	10.8	1.3	254	19.9	19.2	5.4	245	27.2	24.6	11.7	260	28.0	27.6	4.9
26	202	6.4	2.4	5.9	237	5.9	5.0	3.2	271	10.5	10.5	-0.1	272	14.2	14.2	-0.4	262	20.2	20.0	2.7	260	25.7	25.3	4.4	258	15.7	15.4	3.3
27	181	5.3	0.1	5.3	234	6.0	4.9	3.5	274	9.6	9.6	-0.6	277	12.3	12.2	-1.5	263	19.2	19.0	2.5	256	20.8	20.2	4.9	209	5.0	2.4	4.4
28	198	4.0	1.2	3.8	237	5.9	5.0	3.2	267	8.1	8.1	0.4	281	11.7	11.5	-2.3	270	13.9	13.9	0.1	267	20.1	20.1	0.9	298	4.7	4.1	-2.2
29	184	5.5	0.4	5.5	229	5.7	4.3	3.7	270	6.0	6.0	0.0	288	4.9	4.7	-1.5	265	16.4	16.3	1.3	252	21.6	20.6	6.6	260	24.0	23.7	4.0
30	191	5.9	1.1	5.8	221	7.3	4.8	5.5	258	10.1	9.9	2.1	268	13.7	13.7	0.5	269	15.3	15.3	0.2	257	16.5	16.1	3.7	284	15.6	15.1	-3.9

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	212	4.9	2.6	4.1	239	6.0	5.1	3.1	271	8.2	8.2	-0.1	274	12.4	12.4	-0.8	258	14.2	13.9	3.0	265	21.4	21.3	1.9	305	13.3	10.8	-7.7
2	178	2.6	-0.1	2.6	229	5.7	4.3	3.8	273	8.5	8.5	-0.4	293	10.8	9.9	-4.3	277	16.7	16.6	-2.0	257	14.9	14.5	3.3	227	4.2	3.1	2.9
3	204	6.8	2.7	6.2	235	6.2	5.1	3.6	277	11.7	11.6	-1.5	288	12.6	12.0	-3.9	259	13.1	12.9	2.4	273	15.5	15.5	-0.7	253	22.3	21.4	6.4
4	196	5.7	1.6	5.5	231	5.9	4.6	3.7	279	9.2	9.1	-1.5	282	14.1	13.8	-2.9	273	16.5	16.5	-0.9	262	16.5	16.4	2.2	251	18.9	17.8	6.3
5	206	6.8	3.0	6.1	219	6.9	4.3	5.4	269	8.9	8.9	0.1	272	12.2	12.2	-0.4	269	18.8	18.8	0.2	267	19.1	19.1	0.9	264	11.5	11.4	1.2
6	199	6.0	2.0	5.7	226	5.6	4.0	3.9	272	7.6	7.6	-0.3	278	9.7	9.6	-1.3	257	15.4	15.0	3.5	268	20.0	20.0	0.7	297	44.0	39.2	-20.0
7	184	5.7	0.4	5.7	215	5.5	3.1	4.5	267	8.2	8.2	0.5	270	11.5	11.5	0.1	259	22.2	21.8	4.2	264	24.3	24.1	2.7	241	16.2	14.2	7.9
8	172	1.4	-0.2	1.4	247	3.3	3.0	1.3	283	7.0	6.8	-1.6	284	10.1	9.8	-2.5	269	14.0	14.0	0.3	262	22.6	22.4	3.2	267	15.2	15.2	0.7
9	205	4.7	2.0	4.2	231	5.1	4.0	3.2	283	7.7	7.5	-1.7	283	9.2	9.0	-2.1	267	17.5	17.5	0.8	261	26.2	25.9	3.9	263	17.8	17.7	2.1
10	212	3.8	2.0	3.2	241	5.2	4.6	2.5	284	9.1	8.8	-2.2	281	10.4	10.2	-1.9	257	18.8	18.3	4.2	251	18.9	17.9	6.2	260	9.0	8.9	1.6
11	201	4.2	1.5	3.9	224	5.3	3.7	3.8	271	8.3	8.3	-0.2	272	13.8	13.8	-0.5	260	19.4	19.1	3.2	268	16.6	16.6	0.7	274	10.3	10.3	-0.7
12	204	4.7	1.9	4.3	239	5.7	4.9	2.9	278	8.2	8.1	-1.1	274	10.8	10.8	-0.8	259	18.6	18.3	3.5	262	21.0	20.8	3.1	293	11.5	10.6	-4.4
13	210	6.9	3.4	6.0	235	5.6	4.6	3.2	270	8.1	8.1	0.0	279	12.3	12.2	-1.9	263	15.3	15.2	1.9	260	18.3	18.0	3.2	225	5.5	3.9	3.9
14	188	5.0	0.7	5.0	216	6.2	3.6	5.0	262	6.7	6.6	0.9	278	9.7	9.6	-1.3	259	13.6	13.3	2.7	263	12.3	12.2	1.5	239	7.1	6.1	3.6
15	191	4.2	0.8	4.1	217	4.9	2.9	3.9	257	6.3	6.1	1.4	269	9.5	9.5	0.2	274	11.9	11.9	-0.9	240	18.9	16.4	9.3	268	6.7	6.7	0.2
16	190	3.4	0.6	3.3	222	4.7	3.1	3.5	270	8.3	8.3	0.0	278	9.2	9.1	-1.2	261	15.8	15.6	2.6	256	14.7	14.3	3.6	224	6.2	4.3	4.4
17	193	4.7	1.1	4.6	225	5.2	3.7	3.7	273	7.0	7.0	-0.4	268	7.4	7.4	0.3	252	17.7	16.8	5.5	243	13.2	11.8	5.9	—	—	—	—
18	180	4.8	0.0	4.8	224	5.8	4.0	4.2	275	6.3	6.3	-0.5	261	9.4	9.3	1.4	244	14.6	13.1	6.5	250	17.5	16.5	5.9	189	9.9	1.6	9.8
19	141	2.6	-1.6	2.0	215	5.0	2.9	4.1	256	4.9	4.7	1.2	256	6.6	6.4	1.6	239	13.5	11.6	7.0	221	14.7	9.6	11.1	257	6.5	6.3	1.5
20	189	4.4	0.7	4.3	198	4.7	1.5	4.5	276	6.2	6.2	-0.7	271	8.5	8.5	-0.2	254	16.8	16.2	4.6	242	15.1	13.3	7.2	213	7.5	4.1	6.3
21	192	4.9	1.0	4.8	221	5.2	3.4	3.9	270	6.2	6.2	0.0	261	7.4	7.3	1.1	254	16.0	15.4	4.3	251	15.3	14.5	4.9	248	6.8	6.3	2.6
22	169	4.9	-0.9	4.8	208	4.2	2.0	3.7	272	6.3	6.3	-0.2	252	7.6	7.2	2.3	253	9.5	9.1	2.7	232	11.5	9.1	7.1	253	5.7	5.4	1.7
23	163	4.7	-1.4	4.5	215	4.7	2.7	3.9	280	6.3	6.2	-1.1	261	6.9	6.8	1.1	241	9.6	8.4	4.6	232	13.9	10.9	8.6	240	3.8	3.3	1.9
24	180	3.1	0.0	3.1	209	3.1	1.5	2.7	276	4.7	4.7	-0.5	271	6.0	6.0	-0.1	259	10.8	10.6	2.0	247	15.0	13.8	5.9	247	7.5	6.9	3.0
25	169	4.6	-0.9	4.5	210	4.3	2.1	3.7	280	5.1	5.0	-0.9	268	7.1	7.1	0.2	248	11.8	10.9	4.5	228	16.4	12.2	10.9	188	9.4	1.3	9.3
26	184	4.7	0.3	4.7	215	5.1	2.9	4.2	242	4.2	3.7	2.0	246	4.7	4.3	1.9	239	10.5	9.0	5.5	234	15.1	12.2	8.9	232	9.6	7.6	5.9
27	189	3.9	0.6	3.9	222	4.3	2.9	3.2	255	4.8	4.6	1.2	256	5.6	5.4	1.3	246	10.5	9.6	4.3	230	10.8	8.2	7.0	222	6.7	4.5	5.0
28	178	5.9	-0.2	5.9	204	8.1	3.3	7.4	255	7.3	7.0	1.9	264	7.1	7.1	0.7	249	11.0	10.3	4.0	245	11.8	10.7	4.9	267	4.2	4.2	0.2
29	171	6.9	-1.1	6.8	209	5.7	2.8	5.0	253	6.3	6.0	1.8	259	6.4	6.3	1.2	257	10.6	10.3	2.4	247	12.0	11.0	4.7	279	2.0	2.0	-0.3
30	218	4.7	2.9	3.7	228	4.7	3.5	3.2	265	7.7	7.7	0.7	259	9.2	9.0	1.8	234	12.2	9.9	7.1	225	13.6	9.6	9.6	179	4.6	-0.1	4.6
31	201	8.1	2.9	7.6	227	5.6	4.1	3.8	276	7.0	7.0	-0.7	271	8.3	8.3	-0.1	245	7.7	7.0	3.3	240	9.9	8.5	5.0	243	6.5	5.8	2.9

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	195	7.9	2.0	7.6	219	5.0	3.2	3.9	268	5.3	5.3	0.2	282	4.2	4.1	-0.9	271	10.6	10.6	-0.1	268	12.0	12.0	0.4	245	2.3	2.1	1.0
2	189	7.9	1.2	7.8	209	4.7	2.3	4.1	278	5.6	5.5	-0.8	299	5.0	4.4	-2.4	253	7.0	6.7	2.0	246	9.9	9.0	4.1	277	2.3	2.3	-0.3
3	194	4.4	1.1	4.3	207	3.9	1.8	3.5	250	2.7	2.5	0.9	259	3.8	3.7	0.7	233	7.7	6.2	4.6	216	8.9	5.2	7.2	305	1.6	1.3	-0.9
4	188	6.5	0.9	6.4	208	5.4	2.5	4.8	247	5.0	4.6	2.0	264	4.0	4.0	0.4	228	7.0	5.2	4.7	224	8.3	5.8	6.0	156	4.4	-1.8	4.0
5	193	3.6	0.8	3.5	219	4.5	2.8	3.5	248	4.0	3.7	1.5	242	4.9	4.3	2.3	237	8.7	7.3	4.7	247	6.9	6.3	2.7	20	2.0	-0.7	-1.9
6	178	6.5	-0.2	6.5	216	5.7	3.4	4.6	258	5.5	5.4	1.1	259	6.4	6.3	1.2	250	4.4	4.1	1.5	246	7.2	6.6	3.0	83	7.8	-7.7	-0.9
7	209	5.6	2.7	4.9	209	6.0	2.9	5.2	267	5.9	5.9	0.3	255	5.4	5.2	1.4	234	8.4	6.8	5.0	251	6.5	6.2	2.1	139	5.3	-3.5	4.0
8	195	4.7	1.2	4.5	210	5.0	2.5	4.3	243	4.8	4.3	2.2	257	2.8	2.7	0.6	234	4.7	3.8	2.8	255	5.1	4.9	1.3	326	2.2	1.2	-1.8
9	185	5.0	0.4	5.0	204	4.9	2.0	4.5	249	3.4	3.2	1.2	247	3.0	2.8	1.2	219	2.6	1.6	2.0	211	0.6	0.3	0.5	342	2.0	0.6	-1.9
10	187	5.1	0.6	5.1	208	4.3	2.0	3.8	248	2.9	2.7	1.1	270	1.4	1.4	0.0	227	2.2	1.6	1.5	315	0.8	0.6	-0.6	44	6.2	-4.3	-4.5
11	189	6.7	1.0	6.6	193	4.6	1.0	4.5	232	2.4	1.9	1.5	238	4.7	4.0	2.5	223	4.7	3.2	3.4	222	3.9	2.6	2.9	79	4.8	-4.7	-0.9
12	192	6.2	1.3	6.1	189	3.7	0.6	3.7	230	3.0	2.3	1.9	169	2.6	-0.5	2.6	168	5.5	-1.1	5.4	267	1.8	1.8	0.1	56	7.8	-6.5	-4.4
13	181	6.1	0.1	6.1	181	5.4	0.1	5.4	201	2.2	0.8	2.1	226	3.5	2.5	2.4	158	3.5	-1.3	3.2	196	2.5	0.7	2.4	33	3.0	-1.6	-2.5
14	181	5.9	0.1	5.9	186	5.8	0.6	5.8	211	3.9	2.0	3.3	176	1.6	-0.1	1.6	111	0.9	-0.8	0.3	27	1.8	-0.8	-1.6	51	6.4	-5.0	-4.0
15	171	6.2	-1.0	6.1	196	6.6	1.8	6.4	223	4.8	3.3	3.5	189	5.3	0.8	5.2	110	4.9	-4.6	1.7	71	7.9	-7.5	-2.6	77	8.1	-7.9	-1.8
16	173	7.4	-0.9	7.3	193	6.9	1.5	6.7	193	3.7	0.8	3.6	167	3.5	-0.8	3.4	125	3.7	-3.0	2.1	76	3.6	-3.5	-0.9	51	7.0	-5.4	-4.4
17	165	7.0	-1.8	6.8	189	7.7	1.2	7.6	206	6.4	2.8	5.7	141	1.9	-1.2	1.5	150	4.0	-2.0	3.5	158	3.8	-1.4	3.5	63	8.1	-7.2	-3.7
18	167	7.4	-1.7	7.2	195	7.3	1.9	7.0	203	4.9	1.9	4.5	189	6.1	1.0	6.0	139	4.3	-2.8	3.2	104	4.6	-4.5	1.1	61	8.6	-7.5	-4.2
19	180	7.2	0.0	7.2	203	6.2	2.4	5.7	221	5.0	3.3	3.8	193	2.2	0.5	2.1	161	2.4	-0.8	2.3	81	2.0	-2.0	-0.3	69	7.4	-6.9	-2.7
20	169	7.3	-1.4	7.2	190	6.9	1.2	6.8	210	3.4	1.7	2.9	173	3.4	-0.4	3.4	116	3.2	-2.9	1.4	122	5.3	-4.5	2.8	82	11.9	-11.8	-1.6
21	175	5.5	-0.5	5.5	179	5.8	-0.1	5.8	188	3.6	0.5	3.6	171	4.3	-0.7	4.2	135	3.8	-2.7	2.7	122	3.4	-2.9	1.8	71	10.7	-10.1	-3.5
22	178	9.1	-0.3	9.1	186	6.2	0.7	6.2	191	4.9	0.9	4.8	159	4.9	-1.8	4.6	100	2.2	-2.2	0.4	107	6.2	-5.9	1.8	56	12.2	-10.1	-6.9
23	175	8.4	-0.8	8.4	191	7.9	1.5	7.8	208	4.9	2.3	4.3	160	5.8	-2.0	5.4	141	5.5	-3.5	4.3	87	5.2	-5.2	-0.3	74	12.0	-11.5	-3.3
24	189	8.1	1.3	8.0	195	7.9	2.1	7.6	204	5.9	2.4	5.4	165	5.4	-1.4	5.2	109	7.4	-7.0	2.4	76	10.8	-10.5	-2.7	14	9.8	-2.3	-9.5
25	181	9.1	0.1	9.1	193	8.8	2.0	8.6	195	4.7	1.2	4.5	190	3.6	0.6	3.5	120	5.2	-4.5	2.6	87	8.9	-8.9	-0.4	79	13.0	-12.8	-2.4
26	169	9.1	-1.8	8.9	196	6.9	1.9	6.6	209	5.0	2.4	4.4	149	4.5	-2.3	3.9	119	5.5	-4.8	2.7	60	8.5	-7.3	-4.3	67	15.0	-13.8	-6.0
27	171	8.1	-1.3	8.0	181	6.7	0.1	6.7	182	5.5	0.2	5.5	144	6.0	-3.5	4.9	117	6.0	-5.4	2.7	83	11.1	-11.0	-1.4	85	13.5	-13.5	-1.1
28	182	9.6	0.3	9.6	197	7.1	2.1	6.8	181	5.3	0.1	5.3	175	4.2	-0.4	4.2	120	6.7	-5.8	3.3	74	12.4	-11.9	-3.4	77	19.4	-18.9	-4.5
29	186	8.0	0.8	8.0	196	7.3	2.0	7.0	197	5.0	1.5	4.8	164	2.5	-0.7	2.4	92	5.5	-5.5	0.2	82	9.6	-9.5	-1.3	82	15.1	-15.0	-2.1
30	186	8.0	0.8	8.0	199	8.0	2.6	7.6	220	5.2	3.4	4.0	197	4.1	1.2	3.9	102	5.1	-5.0	1.1	70	11.6	-10.9	-3.9	103	18.8	-18.3	4.3

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	198	6.8	2.1	6.5	215	6.3	3.6	5.2	229	4.8	3.6	3.1	214	4.7	2.6	3.9	137	5.3	-3.6	3.9	71	9.6	-9.1	-3.2	86	18.7	-18.6	-1.4
2	194	5.7	1.4	5.5	217	6.6	4.0	5.3	225	5.2	3.7	3.7	183	4.2	0.2	4.2	108	6.0	-5.7	1.9	87	10.3	-10.3	-0.5	100	18.5	-18.2	3.1
3	171	9.3	-1.4	9.2	208	7.2	3.4	6.3	227	5.4	4.0	3.7	206	3.2	1.4	2.9	111	6.9	-6.4	2.5	80	10.5	-10.3	-1.8	101	19.9	-19.6	3.7
4	190	8.8	1.6	8.7	221	7.5	4.9	5.7	238	5.2	4.4	2.7	173	2.6	-0.3	2.6	85	4.7	-4.7	-0.4	73	9.9	-9.5	-2.9	88	14.3	-14.3	-0.6
5	200	8.0	2.8	7.5	205	7.0	3.0	6.3	223	5.7	3.9	4.2	229	3.0	2.3	2.0	121	6.6	-5.7	3.4	80	7.8	-7.7	-1.4	92	17.7	-17.7	0.5
6	194	7.2	1.7	7.0	206	4.9	2.1	4.4	217	4.0	2.4	3.2	173	4.3	-0.5	4.3	105	7.1	-6.9	1.8	77	10.0	-9.8	-2.2	85	14.2	-14.1	-1.3
7	180	6.3	0.0	6.3	194	6.3	1.5	6.1	200	4.5	1.5	4.2	157	3.9	-1.5	3.6	118	5.0	-4.4	2.3	61	9.5	-8.3	-4.6	70	19.2	-18.1	-6.5
8	174	7.5	-0.8	7.5	196	7.0	1.9	6.7	198	4.0	1.2	3.8	150	4.0	-2.0	3.5	120	5.6	-4.8	2.8	72	8.2	-7.8	-2.5	94	16.8	-16.7	1.3
9	184	8.9	0.6	8.9	203	7.8	3.1	7.2	213	5.1	2.8	4.3	192	2.5	0.5	2.4	84	6.0	-6.0	-0.6	55	9.5	-7.8	-5.4	69	17.6	-16.4	-6.3
10	182	6.8	0.2	6.8	201	7.0	2.5	6.5	220	6.2	4.0	4.8	180	3.1	0.0	3.1	104	6.5	-6.3	1.6	67	8.3	-7.6	-3.3	80	16.1	-15.8	-2.9
11	165	7.5	-1.9	7.3	176	5.7	-0.4	5.7	195	3.4	0.9	3.3	177	3.5	-0.2	3.5	107	5.9	-5.6	1.7	82	8.9	-8.8	-1.2	82	17.2	-17.0	-2.4
12	168	10.2	-2.2	10.0	182	7.5	0.2	7.5	176	4.6	-0.3	4.6	155	5.0	-2.1	4.5	113	6.2	-5.7	2.4	58	8.5	-7.2	-4.5	62	15.9	-14.1	-7.4
13	162	7.1	-2.2	6.8	189	6.7	1.0	6.6	200	4.0	1.4	3.8	156	4.6	-1.9	4.2	88	7.3	-7.3	-0.3	79	13.8	-13.5	-2.7	94	20.5	-20.5	1.4
14	152	7.1	-3.3	6.3	183	6.3	0.3	6.3	189	4.6	0.7	4.5	154	3.2	-1.4	2.9	89	8.1	-8.1	-0.1	74	13.4	-12.9	-3.8	83	16.8	-16.7	-2.1
15	167	7.4	-1.7	7.2	195	5.8	1.5	5.6	196	5.1	1.4	4.9	172	3.0	-0.4	3.0	96	5.0	-5.0	0.5	88	9.6	-9.6	-0.4	77	20.7	-20.2	-4.7
16	164	7.0	-1.9	6.7	181	6.7	0.1	6.7	180	4.8	0.0	4.8	137	3.4	-2.3	2.5	101	6.5	-6.4	1.3	90	8.0	-8.0	0.0	64	17.7	-15.9	-7.7
17	165	7.7	-2.0	7.4	179	5.6	-0.1	5.6	180	4.0	0.0	4.0	153	3.8	-1.7	3.4	98	5.7	-5.6	0.8	59	7.2	-6.2	-3.7	75	19.7	-19.1	-5.0
18	156	9.3	-3.8	8.5	175	7.9	-0.7	7.9	171	6.3	-1.0	6.2	194	3.2	0.8	3.1	110	4.0	-3.8	1.4	76	7.2	-7.0	-1.8	79	16.4	-16.1	-3.1
19	159	7.0	-2.5	6.5	184	5.2	0.4	5.2	180	3.2	0.0	3.2	166	3.8	-0.9	3.7	94	4.2	-4.2	0.3	52	6.2	-4.9	-3.8	72	15.0	-14.2	-4.7
20	178	7.2	-0.3	7.2	189	6.5	1.0	6.4	179	4.0	-0.1	4.0	146	1.1	-0.6	0.9	113	5.0	-4.6	2.0	65	5.9	-5.3	-2.5	72	15.7	-14.9	-4.9
21	165	9.0	-2.3	8.7	173	7.6	-0.9	7.5	177	5.6	-0.3	5.6	154	5.8	-2.5	5.2	99	4.6	-4.5	0.7	84	4.8	-4.8	-0.5	59	16.5	-14.2	-8.5
22	179	8.0	-0.2	8.0	195	7.7	2.0	7.4	191	4.2	0.8	4.1	154	6.8	-3.0	6.1	122	6.7	-5.7	3.5	79	6.9	-6.8	-1.3	63	21.2	-18.9	-9.5
23	184	7.9	0.5	7.9	198	8.0	2.4	7.6	207	4.7	2.1	4.2	166	4.2	-1.0	4.1	91	5.7	-5.7	0.1	59	9.7	-8.3	-5.0	73	17.1	-16.3	-5.1
24	170	5.9	-1.0	5.8	196	7.0	1.9	6.7	201	4.9	1.8	4.6	183	1.8	0.1	1.8	67	9.0	-8.3	-3.6	73	16.2	-15.5	-4.7	81	18.2	-18.0	-2.9
25	172	6.4	-0.9	6.3	197	5.4	1.6	5.2	207	3.7	1.7	3.3	126	3.4	-2.8	2.0	100	9.0	-8.9	1.5	98	15.2	-15.0	2.2	87	17.9	-17.9	-0.8
26	171	5.1	-0.8	5.0	215	5.8	3.3	4.8	228	3.8	2.8	2.5	128	1.1	-0.9	0.7	90	7.9	-7.9	0.0	87	11.8	-11.8	-0.6	79	20.1	-19.8	-3.7
27	164	5.4	-1.5	5.2	197	6.2	1.8	5.9	199	3.4	1.1	3.2	140	3.8	-2.4	2.9	102	9.5	-9.3	1.9	70	13.5	-12.7	-4.7	95	12.6	-12.6	1.0
28	162	6.9	-2.1	6.6	192	5.9	1.2	5.8	188	2.8	0.4	2.8	120	4.8	-4.1	2.4	88	5.6	-5.6	-0.2	75	16.2	-15.6	-4.3	81	19.5	-19.3	-3.1
29	169	6.0	-1.2	5.9	191	4.7	0.9	4.6	190	2.9	0.5	2.9	138	4.7	-3.1	3.5	95	11.0	-11.0	1.0	90	14.5	-14.5	0.0	78	18.9	-18.5	-4.0
30	172	5.8	-0.8	5.7	188	4.9	0.7	4.8	186	2.9	0.3	2.9	118	3.2	-2.8	1.5	85	11.1	-11.1	-1.0	79	13.6	-13.3	-2.6	75	18.3	-17.7	-4.8
31	156	6.0	-2.4	5.5	178	5.0	-0.2	5.0	152	2.7	-1.3	2.4	90	5.2	-5.2	0.0	89	7.4	-7.4	-0.1	75	10.0	-9.7	-2.6	89	20.3	-20.3	-0.3

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	180	5.9	0.0	5.9	167	4.3	-1.0	4.2	144	3.2	-1.9	2.6	151	3.1	-1.5	2.7	102	7.7	-7.5	1.6	60	14.0	-12.1	-7.1	75	17.4	-16.8	-4.6
2	162	7.2	-2.2	6.9	160	6.7	-2.3	6.3	149	4.9	-2.5	4.2	134	5.2	-3.7	3.6	81	6.6	-6.5	-1.0	42	9.5	-6.3	-7.1	79	16.9	-16.6	-3.1
3	158	6.1	-2.3	5.7	167	7.2	-1.6	7.0	155	7.2	-3.0	6.5	180	1.9	0.0	1.9	107	5.5	-5.3	1.6	88	9.1	-9.1	-0.3	88	12.8	-12.8	-0.5
4	178	5.4	-0.2	5.4	184	5.2	0.4	5.2	167	3.6	-0.8	3.5	142	2.9	-1.8	2.3	106	7.1	-6.8	1.9	75	8.4	-8.1	-2.2	75	16.3	-15.7	-4.2
5	181	6.1	0.1	6.1	178	4.6	-0.2	4.6	155	2.9	-1.2	2.6	132	3.0	-2.2	2.0	112	6.1	-5.6	2.3	94	10.7	-10.7	0.7	68	14.9	-13.8	-5.5
6	183	6.4	0.3	6.4	170	5.1	-0.9	5.0	155	4.0	-1.7	3.6	136	6.2	-4.3	4.4	99	8.5	-8.4	1.4	71	11.6	-11.0	-3.7	69	19.1	-17.8	-6.8
7	170	5.1	-0.9	5.0	161	3.6	-1.2	3.4	146	4.0	-2.2	3.3	120	6.7	-5.8	3.3	93	10.0	-10.0	0.5	88	14.0	-14.0	-0.5	114	11.2	-10.2	4.6
8	178	5.3	-0.2	5.3	167	5.3	-1.2	5.2	155	5.3	-2.2	4.8	116	6.0	-5.4	2.6	92	9.9	-9.9	0.4	85	15.5	-15.4	-1.4	87	19.6	-19.6	-0.9
9	171	7.3	-1.2	7.2	174	5.6	-0.6	5.6	163	4.1	-1.2	3.9	125	4.5	-3.7	2.6	89	8.9	-8.9	-0.2	77	14.6	-14.2	-3.3	83	15.9	-15.8	-1.9
10	168	6.9	-1.4	6.8	181	5.8	0.1	5.8	176	4.5	-0.3	4.5	127	3.5	-2.8	2.1	83	7.9	-7.8	-1.0	69	14.2	-13.3	-5.0	74	20.4	-19.6	-5.5
11	177	8.8	-0.4	8.8	176	4.1	-0.3	4.1	178	2.6	-0.1	2.6	150	3.4	-1.7	3.0	103	8.2	-8.0	1.8	70	11.2	-10.5	-3.9	70	19.2	-18.0	-6.6
12	180	6.8	0.0	6.8	186	5.0	0.5	5.0	184	3.9	0.3	3.9	131	3.5	-2.6	2.3	119	6.0	-5.2	2.9	78	8.8	-8.6	-1.8	72	16.5	-15.7	-5.1
13	191	8.2	1.6	8.0	195	5.8	1.5	5.6	192	4.5	0.9	4.4	155	3.1	-1.3	2.8	95	7.4	-7.4	0.7	84	11.1	-11.0	-1.2	76	17.5	-17.0	-4.2
14	197	6.1	1.8	5.8	182	4.9	0.2	4.9	181	3.9	0.1	3.9	152	4.4	-2.1	3.9	112	6.1	-5.7	2.3	62	10.4	-9.2	-4.8	76	12.2	-11.8	-2.9
15	167	6.9	-1.6	6.7	171	6.1	-0.9	6.0	170	4.5	-0.8	4.4	115	4.7	-4.3	2.0	91	7.9	-7.9	0.2	72	12.1	-11.5	-3.7	80	18.1	-17.8	-3.2
16	164	6.5	-1.8	6.2	169	4.6	-0.9	4.5	161	4.6	-1.5	4.3	128	5.3	-4.2	3.3	94	10.4	-10.4	0.7	81	14.2	-14.0	-2.2	76	18.6	-18.0	-4.6
17	162	5.8	-1.8	5.5	180	5.3	0.0	5.3	171	3.9	-0.6	3.9	140	3.4	-2.2	2.6	94	6.9	-6.9	0.5	67	14.6	-13.4	-5.7	86	18.6	-18.6	-1.2
18	152	6.7	-3.1	5.9	160	5.5	-1.9	5.2	148	4.4	-2.3	3.7	144	3.7	-2.2	3.0	89	9.4	-9.4	-0.1	77	12.4	-12.1	-2.8	65	20.7	-18.8	-8.6
19	164	5.7	-1.6	5.5	176	4.1	-0.3	4.1	172	4.1	-0.6	4.1	134	3.6	-2.6	2.5	99	6.6	-6.5	1.0	74	10.0	-9.6	-2.8	71	14.3	-13.5	-4.7
20	177	5.6	-0.3	5.6	166	3.8	-0.9	3.7	167	4.0	-0.9	3.9	128	3.6	-2.8	2.2	97	5.0	-5.0	0.6	64	12.3	-11.1	-5.3	67	20.8	-19.1	-8.3
21	175	7.3	-0.6	7.3	184	5.7	0.4	5.7	170	3.4	-0.6	3.3	144	3.7	-2.2	3.0	107	5.5	-5.3	1.6	52	8.6	-6.8	-5.3	65	17.1	-15.5	-7.2
22	169	6.2	-1.2	6.1	177	6.9	-0.4	6.9	187	4.2	0.5	4.2	187	3.5	0.4	3.5	107	6.3	-6.0	1.8	76	10.2	-9.9	-2.5	87	14.2	-14.2	-0.7
23	171	3.8	-0.6	3.8	190	5.2	0.9	5.1	214	4.0	2.2	3.3	140	3.4	-2.2	2.6	97	4.6	-4.6	0.6	72	10.4	-9.9	-3.2	71	13.5	-12.8	-4.4
24	188	3.6	0.5	3.6	209	6.0	2.9	5.2	217	3.6	2.2	2.9	152	1.5	-0.7	1.3	88	5.5	-5.5	-0.2	59	8.2	-7.1	-4.2	76	18.5	-18.0	-4.4
25	175	4.3	-0.4	4.3	193	4.0	0.9	3.9	218	3.4	2.1	2.7	111	1.9	-1.8	0.7	101	8.7	-8.6	1.6	34	4.0	-2.2	-3.3	83	12.6	-12.5	-1.6
26	156	3.0	-1.2	2.7	159	2.5	-0.9	2.3	154	2.8	-1.2	2.5	131	3.3	-2.5	2.2	102	6.9	-6.8	1.4	69	9.0	-8.4	-3.3	81	16.6	-16.4	-2.6
27	130	2.3	-1.8	1.5	163	5.4	-1.6	5.2	152	3.6	-1.7	3.2	138	6.4	-4.3	4.8	109	7.2	-6.8	2.3	80	10.8	-10.6	-1.8	80	17.1	-16.9	-2.9
28	169	6.3	-1.2	6.2	177	5.3	-0.3	5.3	187	3.9	0.5	3.9	155	4.2	-1.8	3.8	112	8.0	-7.4	3.0	85	11.7	-11.7	-1.0	75	18.1	-17.5	-4.6
29	171	6.0	-0.9	5.9	179	4.2	-0.1	4.2	175	3.2	-0.3	3.2	146	4.0	-2.2	3.3	102	7.2	-7.0	1.5	91	9.3	-9.3	0.1	80	14.0	-13.8	-2.4
30	168	5.7	-1.2	5.6	178	3.3	-0.1	3.3	158	1.6	-0.6	1.5	134	3.3	-2.4	2.3	109	8.7	-8.2	2.9	80	12.3	-12.1	-2.1	82	16.6	-16.4	-2.4
31	166	6.2	-1.5	6.0	164	4.6	-1.3	4.4	162	3.3	-1.0	3.1	147	3.3	-1.8	2.8	98	7.2	-7.1	1.0	84	10.8	-10.7	-1.2	87	15.4	-15.4	-0.9

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	168	7.4	-1.5	7.2	169	3.7	-0.7	3.6	172	2.2	-0.3	2.2	129	4.4	-3.4	2.8	101	6.5	-6.4	1.3	89	10.7	-10.7	-0.2	86	11.7	-11.7	-0.8
2	148	5.1	-2.7	4.3	166	3.6	-0.9	3.5	132	3.1	-2.3	2.1	110	3.3	-3.1	1.1	103	8.1	-7.9	1.8	85	11.8	-11.7	-1.1	84	15.6	-15.5	-1.5
3	164	6.1	-1.7	5.9	177	4.1	-0.2	4.1	162	3.3	-1.0	3.1	180	1.7	0.0	1.7	120	8.5	-7.4	4.2	81	11.7	-11.6	-1.8	73	13.0	-12.4	-3.9
4	164	5.2	-1.4	5.0	184	4.7	0.3	4.7	191	4.2	0.8	4.1	194	4.1	1.0	4.0	130	5.0	-3.8	3.2	90	4.8	-4.8	0.0	83	13.4	-13.3	-1.7
5	157	6.2	-2.4	5.7	181	5.0	0.1	5.0	193	3.6	0.8	3.5	173	5.2	-0.6	5.2	117	6.3	-5.6	2.9	76	10.0	-9.7	-2.4	69	13.8	-12.9	-5.0
6	164	3.7	-1.0	3.6	197	3.4	1.0	3.3	189	3.1	0.5	3.1	157	3.4	-1.3	3.1	119	4.3	-3.8	2.1	77	5.7	-5.5	-1.3	83	12.7	-12.6	-1.5
7	157	4.3	-1.7	4.0	182	3.1	0.1	3.1	166	2.9	-0.7	2.8	125	3.7	-3.0	2.1	98	6.1	-6.0	0.8	94	6.9	-6.9	0.5	89	12.5	-12.5	-0.2
8	158	6.2	-2.3	5.8	176	4.4	-0.3	4.4	154	3.2	-1.4	2.9	132	4.0	-3.0	2.7	112	6.4	-5.9	2.4	105	6.1	-5.9	1.6	85	14.8	-14.7	-1.4
9	169	3.2	-0.6	3.1	189	4.0	0.6	4.0	176	3.1	-0.2	3.1	170	2.8	-0.5	2.8	105	5.8	-5.6	1.5	88	8.5	-8.5	-0.3	110	14.5	-13.6	4.9
10	175	4.3	-0.4	4.3	185	3.8	0.3	3.8	176	3.2	-0.2	3.2	173	4.6	-0.6	4.6	136	3.9	-2.7	2.8	94	6.2	-6.2	0.4	98	15.6	-15.5	2.1
11	177	3.5	-0.2	3.5	191	3.2	0.6	3.1	192	2.5	0.5	2.4	168	4.0	-0.8	3.9	116	7.6	-6.8	3.3	74	10.9	-10.5	-3.0	84	13.3	-13.2	-1.3
12	175	4.5	-0.4	4.5	193	5.5	1.2	5.4	198	2.2	0.7	2.1	159	3.0	-1.1	2.8	89	5.6	-5.6	-0.1	43	7.3	-5.0	-5.3	79	9.9	-9.7	-1.8
13	157	2.3	-0.9	2.1	198	4.1	1.3	3.9	209	3.1	1.5	2.7	185	2.4	0.2	2.4	105	3.8	-3.7	1.0	80	4.8	-4.7	-0.8	93	12.5	-12.5	0.7
14	154	3.9	-1.7	3.5	186	4.9	0.5	4.9	193	4.7	1.1	4.6	191	2.6	0.5	2.6	112	3.5	-3.2	1.3	118	5.4	-4.8	2.5	103	7.8	-7.6	1.8
15	172	2.2	-0.3	2.2	182	2.8	0.1	2.8	192	3.4	0.7	3.3	215	2.8	1.6	2.3	145	3.8	-2.2	3.1	99	5.2	-5.1	0.8	113	9.9	-9.1	3.9
16	166	2.5	-0.6	2.4	185	2.4	0.2	2.4	202	2.4	0.9	2.2	162	2.8	-0.9	2.7	137	2.3	-1.6	1.7	108	3.3	-3.1	1.0	85	8.8	-8.8	-0.8
17	187	5.2	0.6	5.2	199	5.0	1.6	4.7	217	3.6	2.2	2.9	212	1.5	0.8	1.3	130	1.7	-1.3	1.1	33	2.0	-1.1	-1.7	66	4.8	-4.4	-2.0
18	187	4.2	0.5	4.2	207	4.0	1.8	3.6	227	3.5	2.6	2.4	266	2.9	2.9	0.2	225	1.0	0.7	0.7	346	3.8	0.9	-3.7	48	6.4	-4.7	-4.3
19	219	2.7	1.7	2.1	216	3.2	1.9	2.6	217	3.4	2.0	2.7	244	2.8	2.5	1.2	326	1.1	0.6	-0.9	23	1.5	-0.6	-1.4	19	1.8	-0.6	-1.7
20	176	4.2	-0.3	4.2	193	2.8	0.6	2.7	167	1.8	-0.4	1.8	281	0.5	0.5	-0.1	180	1.1	0.0	1.1	20	1.5	-0.5	-1.4	74	5.0	-4.8	-1.4
21	178	2.4	-0.1	2.4	184	2.9	0.2	2.9	200	3.2	1.1	3.0	251	2.4	2.3	0.8	207	0.7	0.3	0.6	324	2.4	1.4	-1.9	59	2.9	-2.5	-1.5
22	217	2.6	1.6	2.1	219	1.9	1.2	1.5	215	2.1	1.2	1.7	257	1.7	1.7	0.4	286	1.5	1.4	-0.4	285	3.5	3.4	-0.9	3	1.8	-0.1	-1.8
23	186	4.0	0.4	4.0	208	2.4	1.1	2.1	218	2.4	1.5	1.9	209	2.1	1.0	1.8	234	1.9	1.5	1.1	304	1.1	0.9	-0.6	92	4.8	-4.8	0.2
24	185	2.5	0.2	2.5	195	1.1	0.3	1.1	193	1.3	0.3	1.3	180	1.4	0.0	1.4	256	2.1	2.0	0.5	247	4.1	3.8	1.6	19	1.8	-0.6	-1.7
25	209	1.3	0.6	1.1	203	2.1	0.8	1.9	216	2.9	1.7	2.3	218	2.4	1.5	1.9	223	3.7	2.5	2.7	295	4.2	3.8	-1.8	9	2.5	-0.4	-2.5
26	157	3.8	-1.5	3.5	193	3.9	0.9	3.8	210	4.2	2.1	3.6	229	3.5	2.6	2.3	232	2.4	1.9	1.5	255	3.9	3.8	1.0	115	3.8	-3.4	1.6
27	186	2.7	0.3	2.7	199	2.8	0.9	2.6	198	3.8	1.2	3.6	227	4.8	3.5	3.3	208	3.8	1.8	3.4	263	1.6	1.6	0.2	106	4.8	-4.6	1.3
28	163	3.8	-1.1	3.6	192	4.0	0.8	3.9	210	3.2	1.6	2.8	226	6.3	4.5	4.4	238	2.5	2.1	1.3	345	2.3	0.6	-2.2	102	6.2	-6.1	1.3
29	194	5.4	1.3	5.2	201	4.5	1.6	4.2	217	4.5	2.7	3.6	255	5.9	5.7	1.5	279	5.2	5.1	-0.8	265	5.7	5.7	0.5	50	6.4	-4.9	-4.1
30	190	1.7	0.3	1.7	223	2.1	1.4	1.5	225	3.5	2.5	2.5	253	6.4	6.1	1.9	251	6.8	6.4	2.2	231	4.4	3.4	2.8	69	0.9	-0.8	-0.3

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	90	0.1	-0.1	0.0	209	1.3	0.6	1.1	209	2.1	1.0	1.8	240	3.9	3.4	2.0	245	7.5	6.8	3.1	271	6.1	6.1	-0.1	171	1.8	-0.3	1.8
2	167	0.9	-0.2	0.9	183	1.8	0.1	1.8	207	2.8	1.3	2.5	232	4.3	3.4	2.7	248	5.9	5.5	2.2	262	5.0	5.0	0.7	6	0.9	-0.1	-0.9
3	253	1.0	1.0	0.3	180	0.6	0.0	0.6	187	2.6	0.3	2.6	231	4.4	3.4	2.8	234	6.9	5.6	4.0	240	8.3	7.2	4.2	206	5.1	2.2	4.6
4	220	0.8	0.5	0.6	180	1.8	0.0	1.8	239	0.6	0.5	0.3	232	1.8	1.4	1.1	264	4.9	4.9	0.5	264	4.1	4.1	0.4	175	2.5	-0.2	2.5
5	229	0.9	0.7	0.6	196	2.2	0.6	2.1	197	2.8	0.8	2.7	235	4.4	3.6	2.5	265	9.4	9.4	0.8	266	6.7	6.7	0.5	226	5.2	3.7	3.6
6	190	3.5	0.6	3.4	195	4.3	1.1	4.2	205	4.1	1.7	3.7	225	4.1	2.9	2.9	237	8.2	6.8	4.5	260	7.2	7.1	1.3	297	3.3	2.9	-1.5
7	291	1.4	1.3	-0.5	243	0.9	0.8	0.4	242	2.6	2.3	1.2	236	5.5	4.6	3.1	253	6.3	6.0	1.8	237	7.2	6.1	3.9	222	6.9	4.6	5.1
8	250	2.0	1.9	0.7	246	2.0	1.8	0.8	238	2.8	2.4	1.5	241	6.0	5.3	2.9	255	7.8	7.5	2.0	267	10.2	10.2	0.6	294	6.0	5.5	-2.4
9	153	0.9	-0.4	0.8	243	1.1	1.0	0.5	245	1.7	1.5	0.7	253	6.9	6.6	2.0	262	8.5	8.4	1.2	267	9.7	9.7	0.5	313	5.9	4.3	-4.0
10	241	1.0	0.9	0.5	229	1.8	1.4	1.2	232	3.4	2.7	2.1	246	5.8	5.3	2.4	265	10.5	10.5	0.9	271	13.0	13.0	-0.2	253	8.6	8.2	2.5
11	342	0.6	0.2	-0.6	225	1.4	1.0	1.0	245	3.3	3.0	1.4	259	6.8	6.7	1.3	261	8.0	7.9	1.3	280	8.3	8.2	-1.4	291	5.0	4.7	-1.8
12	220	0.8	0.5	0.6	281	0.5	0.5	-0.1	237	2.7	2.3	1.5	264	5.1	5.1	0.5	267	10.5	10.5	0.6	266	10.9	10.9	0.8	81	1.3	-1.3	-0.2
13	233	0.5	0.4	0.3	360	0.4	0.0	-0.4	280	1.1	1.1	-0.2	260	4.5	4.4	0.8	266	9.7	9.7	0.7	249	8.0	7.5	2.9	170	1.7	-0.3	1.7
14	261	1.8	1.8	0.3	229	0.9	0.7	0.6	222	2.7	1.8	2.0	246	6.0	5.5	2.4	261	12.0	11.9	1.8	263	11.1	11.0	1.3	232	12.4	9.7	7.7
15	280	1.1	1.1	-0.2	238	1.3	1.1	0.7	224	4.7	3.3	3.4	251	8.2	7.7	2.7	265	11.4	11.4	1.0	261	10.3	10.2	1.7	232	11.5	9.1	7.0
16	225	0.3	0.2	0.2	237	1.7	1.4	0.9	243	3.0	2.7	1.4	247	6.6	6.1	2.6	254	12.7	12.2	3.5	256	15.3	14.8	3.8	238	14.2	12.1	7.5
17	90	0.4	-0.4	0.0	360	0.3	0.0	-0.3	249	2.6	2.4	0.9	249	7.1	6.6	2.5	260	10.4	10.2	1.8	253	13.4	12.8	3.8	269	9.5	9.5	0.2
18	346	0.8	0.2	-0.8	222	1.3	0.9	1.0	226	3.6	2.6	2.5	240	6.0	5.2	3.0	280	11.6	11.4	-2.0	282	14.6	14.3	-3.0	275	14.7	14.6	-1.3
19	172	1.4	-0.2	1.4	211	1.7	0.9	1.5	248	4.0	3.7	1.5	260	7.8	7.7	1.4	261	10.9	10.8	1.8	283	9.3	9.1	-2.1	239	16.1	13.9	8.2
20	152	2.4	-1.1	2.1	207	2.8	1.3	2.5	211	3.5	1.8	3.0	260	5.9	5.8	1.0	256	10.4	10.1	2.5	249	12.9	12.0	4.7	258	8.8	8.6	1.8
21	82	1.5	-1.5	-0.2	204	2.7	1.1	2.5	221	3.7	2.4	2.8	251	9.7	9.2	3.1	247	13.8	12.7	5.3	246	12.5	11.4	5.1	245	9.0	8.2	3.8
22	83	0.8	-0.8	-0.1	360	0.2	0.0	-0.2	248	3.5	3.2	1.3	263	10.8	10.7	1.3	265	15.8	15.7	1.5	255	15.0	14.5	3.9	251	12.2	11.5	4.0
23	4	1.5	-0.1	-1.5	153	0.4	-0.2	0.4	238	3.1	2.6	1.6	258	8.9	8.7	1.8	261	11.6	11.5	1.8	266	16.8	16.7	1.3	269	5.9	5.9	0.1
24	9	1.3	-0.2	-1.3	203	0.8	0.3	0.7	233	5.0	4.0	3.0	254	9.7	9.3	2.7	266	11.4	11.4	0.8	260	17.2	16.9	3.0	233	6.1	4.9	3.7
25	354	2.0	0.2	-2.0	288	0.9	0.9	-0.3	250	4.4	4.1	1.5	264	7.9	7.9	0.8	266	16.2	16.2	1.1	266	16.9	16.9	1.2	261	12.2	12.1	1.9
26	37	1.5	-0.9	-1.2	292	0.5	0.5	-0.2	246	3.9	3.6	1.6	265	10.6	10.6	1.0	259	17.1	16.8	3.3	252	20.5	19.5	6.3	253	13.9	13.3	4.1
27	38	1.8	-1.1	-1.4	324	0.9	0.5	-0.7	248	4.5	4.2	1.7	266	10.2	10.2	0.7	261	17.4	17.2	2.6	259	21.2	20.8	4.1	252	13.9	13.3	4.2
28	61	3.3	-2.9	-1.6	45	0.3	-0.2	-0.2	239	2.7	2.3	1.4	247	8.3	7.6	3.3	257	16.7	16.3	3.8	255	18.6	17.9	4.9	267	12.4	12.4	0.7
29	104	3.4	-3.3	0.8	167	1.7	-0.4	1.7	226	3.5	2.5	2.4	247	11.4	10.5	4.4	246	18.4	16.8	7.4	255	27.5	26.6	7.1	256	15.4	14.9	3.7
30	65	1.7	-1.5	-0.7	117	0.9	-0.8	0.4	232	3.4	2.7	2.1	261	8.9	8.8	1.4	249	15.3	14.3	5.4	253	19.0	18.2	5.5	272	22.9	22.9	-0.8
31	67	1.3	-1.2	-0.5	101	1.0	-1.0	0.2	244	3.9	3.5	1.7	256	9.2	8.9	2.2	264	16.1	16.0	1.8	257	19.4	18.9	4.2	257	13.3	13.0	2.9

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	7	2.4	-0.3	-2.4	270	0.5	0.5	0.0	259	5.2	5.1	1.0	255	10.5	10.1	2.7	253	18.8	18.0	5.5	242	24.4	21.6	11.3	272	14.7	14.7	-0.6
2	24	3.0	-1.2	-2.7	264	0.9	0.9	0.1	238	4.5	3.8	2.4	247	9.6	8.9	3.7	253	19.0	18.2	5.6	254	22.6	21.7	6.3	265	14.6	14.5	1.3
3	8	1.4	-0.2	-1.4	285	2.0	1.9	-0.5	249	5.1	4.8	1.8	271	10.9	10.9	-0.2	261	17.7	17.5	2.9	258	22.9	22.4	4.9	276	16.3	16.2	-1.6
4	36	2.2	-1.3	-1.8	307	1.0	0.8	-0.6	254	3.7	3.6	1.0	279	10.4	10.3	-1.7	260	18.6	18.3	3.1	248	24.2	22.4	9.2	276	10.3	10.3	-1.0
5	34	0.7	-0.4	-0.6	279	1.2	1.2	-0.2	260	4.1	4.0	0.7	266	11.8	11.8	0.9	263	20.9	20.8	2.4	265	23.3	23.2	2.0	260	11.6	11.4	2.1
6	5	2.3	-0.2	-2.3	304	1.4	1.2	-0.8	256	4.0	3.9	1.0	276	12.3	12.2	-1.3	255	23.1	22.4	5.8	255	28.0	27.0	7.4	266	13.0	13.0	1.0
7	19	1.8	-0.6	-1.7	351	1.2	0.2	-1.2	251	3.6	3.4	1.2	262	12.1	12.0	1.6	266	21.5	21.4	1.6	265	26.5	26.4	2.3	276	24.7	24.6	-2.4
8	24	3.2	-1.3	-2.9	9	1.2	-0.2	-1.2	258	3.4	3.3	0.7	274	10.0	10.0	-0.7	281	25.9	25.4	-5.1	253	32.4	31.0	9.5	296	6.0	5.4	-2.6
9	350	2.3	0.4	-2.3	257	0.9	0.9	0.2	263	2.5	2.5	0.3	259	12.3	12.1	2.4	262	22.3	22.1	3.1	263	27.4	27.2	3.4	265	11.7	11.6	1.1
10	122	1.3	-1.1	0.7	295	1.4	1.3	-0.6	258	4.7	4.6	1.0	260	14.6	14.4	2.5	265	21.8	21.7	2.0	265	29.2	29.1	2.6	276	2.0	2.0	-0.2
11	150	0.8	-0.4	0.7	331	1.3	0.6	-1.1	254	4.8	4.6	1.3	256	11.9	11.6	2.8	257	23.1	22.5	5.3	259	24.4	23.9	4.8	275	23.2	23.1	-2.0
12	360	1.2	0.0	-1.2	68	0.5	-0.5	-0.2	256	4.0	3.9	1.0	259	11.8	11.6	2.3	263	21.8	21.7	2.5	266	25.9	25.9	1.6	268	21.2	21.2	0.7
13	9	2.0	-0.3	-2.0	101	0.5	-0.5	0.1	254	2.6	2.5	0.7	267	9.2	9.2	0.5	260	20.6	20.3	3.4	276	34.6	34.4	-3.9	275	39.6	39.4	-3.5
14	13	2.6	-0.6	-2.5	315	0.6	0.4	-0.4	269	3.9	3.9	0.1	281	9.9	9.7	-1.8	267	23.2	23.2	1.2	271	29.6	29.6	-0.7	286	17.4	16.7	-4.9
15	360	2.0	0.0	-2.0	281	1.0	1.0	-0.2	276	3.1	3.1	-0.3	261	8.6	8.5	1.4	266	18.8	18.8	1.3	260	22.6	22.2	4.0	271	18.5	18.5	-0.4
16	66	1.7	-1.6	-0.7	256	0.4	0.4	0.1	279	3.6	3.6	-0.6	288	12.0	11.4	-3.6	265	26.3	26.2	2.2	265	28.2	28.1	2.4	272	16.8	16.8	-0.7
17	58	1.3	-1.1	-0.7	288	0.9	0.9	-0.3	266	5.5	5.5	0.4	277	12.8	12.7	-1.6	266	26.6	26.5	2.0	265	29.0	28.9	2.7	285	21.6	20.9	-5.5
18	360	2.0	0.0	-2.0	4	1.6	-0.1	-1.6	275	5.3	5.3	-0.5	271	10.5	10.5	-0.2	253	26.6	25.4	8.0	245	29.1	26.4	12.3	262	18.6	18.4	2.6
19	14	0.8	-0.2	-0.8	332	1.5	0.7	-1.3	261	5.4	5.3	0.8	266	12.9	12.9	1.0	272	25.0	25.0	-1.0	274	26.7	26.6	-1.7	282	23.3	22.8	-5.0
20	343	1.0	0.3	-1.0	236	0.7	0.6	0.4	257	4.7	4.6	1.1	266	12.2	12.2	0.8	262	24.6	24.4	3.3	254	25.1	24.1	6.9	266	28.2	28.1	1.9
21	22	1.6	-0.6	-1.5	252	0.3	0.3	0.1	269	4.1	4.1	0.1	265	14.1	14.0	1.3	259	23.0	22.6	4.2	261	27.7	27.4	4.3	253	19.7	18.9	5.6
22	16	3.5	-1.0	-3.4	34	0.4	-0.2	-0.3	269	5.3	5.3	0.1	263	13.4	13.3	1.6	260	19.9	19.6	3.5	264	30.0	29.8	3.1	258	21.8	21.3	4.6
23	18	1.6	-0.5	-1.5	261	0.6	0.6	0.1	265	5.9	5.9	0.5	261	14.7	14.5	2.3	260	26.6	26.2	4.6	251	31.3	29.7	10.0	243	28.9	25.7	13.3
24	278	0.7	0.7	-0.1	257	1.8	1.8	0.4	268	5.2	5.2	0.2	266	13.9	13.9	1.0	268	27.7	27.7	1.1	263	34.3	34.0	4.2	239	21.2	18.2	10.9
25	24	1.7	-0.7	-1.6	302	0.9	0.8	-0.5	281	7.4	7.3	-1.4	270	15.4	15.4	0.1	253	24.7	23.7	7.1	262	34.1	33.8	4.6	275	11.2	11.2	-1.0
26	14	1.6	-0.4	-1.6	280	2.2	2.2	-0.4	278	6.9	6.8	-1.0	274	15.4	15.4	-1.1	265	24.2	24.1	2.1	272	30.5	30.5	-1.1	328	10.0	5.3	-8.5
27	22	1.8	-0.7	-1.7	312	1.5	1.1	-1.0	273	7.0	7.0	-0.4	272	16.5	16.5	-0.5	269	27.4	27.4	0.6	265	30.2	30.1	2.7	—	—	—	—
28	343	1.7	0.5	-1.6	304	1.1	0.9	-0.6	270	7.4	7.4	0.0	272	18.1	18.1	-0.5	259	23.4	23.0	4.5	245	26.2	23.7	11.1	254	26.0	25.0	7.0
29	90	0.3	-0.3	0.0	266	1.4	1.4	0.1	265	7.3	7.3	0.7	265	17.4	17.3	1.5	258	30.4	29.7	6.5	265	33.3	33.2	2.8	245	4.0	3.6	1.7
30	346	0.4	0.1	-0.4	284	0.8	0.8	-0.2	273	6.9	6.9	-0.4	268	16.7	16.7	0.6	257	26.9	26.2	5.9	251	29.9	28.3	9.5	251	29.0	27.4	9.4

Daily Normals of Upper Air Winds (1971-2000)

AGARTALA **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	31	1.2	-0.6	-1.0	306	1.9	1.5	-1.1	274	7.7	7.7	-0.5	270	19.0	19.0	-0.1	267	27.3	27.3	1.4	263	30.9	30.7	3.6	266	32.0	31.9	2.2
2	3	1.9	-0.1	-1.9	297	0.7	0.6	-0.3	272	5.6	5.6	-0.2	278	14.3	14.2	-2.0	273	27.6	27.6	-1.5	261	35.6	35.2	5.6	271	26.4	26.4	-0.4
3	10	2.8	-0.5	-2.8	37	1.0	-0.6	-0.8	274	4.4	4.4	-0.3	280	14.1	13.9	-2.4	262	25.9	25.6	3.6	257	37.3	36.4	8.2	284	25.0	24.2	-6.2
4	32	1.5	-0.8	-1.3	352	0.7	0.1	-0.7	284	4.9	4.8	-1.2	271	15.0	15.0	-0.2	265	29.2	29.1	2.4	263	39.2	38.9	5.1	277	36.5	36.2	-4.4
5	5	1.1	-0.1	-1.1	278	1.4	1.4	-0.2	268	7.7	7.7	0.3	281	13.2	12.9	-2.6	272	27.5	27.5	-0.9	270	34.4	34.4	-0.1	275	35.5	35.4	-2.8
6	18	1.9	-0.6	-1.8	304	1.4	1.2	-0.8	286	6.4	6.1	-1.8	279	14.4	14.2	-2.2	263	20.2	20.1	2.3	254	29.4	28.3	7.9	251	26.0	24.6	8.5
7	9	2.0	-0.3	-2.0	297	0.9	0.8	-0.4	269	6.5	6.5	0.1	277	12.8	12.7	-1.5	263	27.5	27.3	3.2	237	32.9	27.7	17.8	259	33.1	32.5	6.2
8	11	0.5	-0.1	-0.5	279	0.6	0.6	-0.1	281	5.7	5.6	-1.1	285	11.9	11.5	-3.1	270	25.8	25.8	-0.2	265	32.9	32.8	2.6	276	28.7	28.5	-3.0
9	355	2.1	0.2	-2.1	323	0.5	0.3	-0.4	285	6.6	6.4	-1.7	277	14.1	14.0	-1.7	277	25.5	25.3	-3.3	275	27.9	27.8	-2.3	270	10.0	10.0	0.0
10	8	1.4	-0.2	-1.4	165	1.6	-0.4	1.5	275	7.6	7.6	-0.7	267	15.8	15.8	0.8	266	29.4	29.3	1.9	272	41.6	41.6	-1.5	272	16.0	16.0	-0.6
11	360	1.9	0.0	-1.9	284	1.6	1.6	-0.4	268	6.4	6.4	0.2	267	15.4	15.4	0.8	270	28.9	28.9	0.1	247	31.4	28.8	12.5	283	24.0	23.4	-5.4
12	345	1.1	0.3	-1.1	291	0.9	0.8	-0.3	283	8.0	7.8	-1.8	276	15.6	15.5	-1.6	267	24.6	24.6	1.2	253	31.9	30.5	9.4	244	22.0	19.8	9.6
13	360	1.2	0.0	-1.2	273	2.1	2.1	-0.1	280	6.6	6.5	-1.2	268	18.4	18.4	0.7	267	28.1	28.1	1.6	279	29.1	28.7	-4.8	271	32.2	32.2	-0.4
14	14	1.2	-0.3	-1.2	298	1.5	1.3	-0.7	272	7.5	7.5	-0.3	270	14.2	14.2	-0.1	265	33.2	33.1	3.1	268	33.7	33.7	1.3	255	29.0	28.0	7.5
15	337	1.5	0.6	-1.4	322	2.4	1.5	-1.9	288	8.2	7.8	-2.6	261	15.5	15.3	2.5	271	28.5	28.5	-0.4	257	35.9	35.0	8.2	263	30.0	29.8	3.7
16	4	1.6	-0.1	-1.6	311	2.8	2.1	-1.8	281	6.5	6.4	-1.2	270	16.0	16.0	0.1	271	28.2	28.2	-0.6	265	31.6	31.5	3.0	278	19.5	19.3	-2.6
17	354	1.8	0.2	-1.8	299	1.8	1.6	-0.9	277	7.7	7.6	-1.0	284	14.7	14.3	-3.6	270	28.6	28.6	0.1	265	33.1	33.0	3.1	253	77.0	73.6	22.5
18	329	0.6	0.3	-0.5	299	2.3	2.0	-1.1	276	6.2	6.2	-0.6	272	15.1	15.1	-0.5	274	29.5	29.4	-2.0	280	40.3	39.7	-6.7	283	28.0	27.3	-6.3
19	18	2.8	-0.9	-2.7	319	2.3	1.5	-1.7	281	8.7	8.5	-1.7	281	19.8	19.4	-3.8	276	27.9	27.8	-2.7	272	37.1	37.1	-1.3	318	21.9	14.7	-16.3
20	45	1.1	-0.8	-0.8	304	1.4	1.2	-0.8	289	7.6	7.2	-2.5	274	15.8	15.8	-1.2	272	28.8	28.8	-1.0	264	31.8	31.6	3.5	269	24.1	24.1	0.5
21	11	1.6	-0.3	-1.6	319	1.8	1.2	-1.4	286	8.5	8.2	-2.3	271	16.0	16.0	-0.4	262	29.4	29.1	4.2	262	31.7	31.4	4.3	322	7.0	4.3	-5.5
22	348	2.4	0.5	-2.3	286	1.5	1.4	-0.4	279	9.5	9.4	-1.5	279	19.5	19.3	-2.9	273	29.9	29.9	-1.4	275	34.7	34.6	-2.9	268	27.3	27.3	0.9
23	332	1.5	0.7	-1.3	300	1.6	1.4	-0.8	281	6.4	6.3	-1.2	278	17.8	17.6	-2.5	272	32.5	32.5	-1.4	266	37.2	37.1	2.6	298	19.9	17.5	-9.5
24	315	0.6	0.4	-0.4	241	1.0	0.9	0.5	272	6.9	6.9	-0.3	272	15.3	15.3	-0.6	283	28.0	27.3	-6.1	286	29.2	28.1	-7.9	289	18.5	17.5	-6.0
25	61	2.1	-1.8	-1.0	252	1.3	1.2	0.4	273	8.6	8.6	-0.4	269	18.6	18.6	0.2	265	32.4	32.3	2.6	270	31.6	31.6	-0.2	—	—	—	—
26	3	1.9	-0.1	-1.9	325	1.2	0.7	-1.0	285	8.2	7.9	-2.1	265	17.7	17.6	1.6	275	27.1	27.0	-2.4	274	33.1	33.0	-2.3	—	—	—	—
27	13	0.9	-0.2	-0.9	307	2.0	1.6	-1.2	271	5.8	5.8	-0.1	267	15.2	15.2	0.7	270	31.1	31.1	-0.1	260	34.4	33.8	6.2	239	19.0	16.3	9.8
28	336	1.2	0.5	-1.1	301	2.3	2.0	-1.2	277	8.8	8.7	-1.1	266	18.8	18.8	1.3	264	33.2	33.0	3.5	254	40.3	38.8	10.8	255	47.0	45.4	12.2
29	34	1.8	-1.0	-1.5	302	1.9	1.6	-1.0	284	9.8	9.5	-2.3	270	18.9	18.9	-0.1	272	32.1	32.1	-1.0	272	35.3	35.3	-1.0	278	16.5	16.3	-2.3
30	25	1.9	-0.8	-1.7	313	2.6	1.9	-1.8	285	9.8	9.5	-2.6	270	18.0	18.0	0.1	270	33.4	33.4	-0.2	261	38.5	38.1	5.8	—	—	—	—
31	347	1.3	0.3	-1.3	309	2.1	1.6	-1.3	273	7.6	7.6	-0.4	270	16.7	16.7	-0.1	271	26.9	26.9	-0.6	281	28.8	28.2	-5.7	293	28.0	25.7	-11.1

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	94	4.2	-4.2	0.3	360	0.3	0.0	-0.3	269	6.2	6.2	0.1	267	17.4	17.4	1.0	267	31.4	31.4	1.6	256	33.8	32.8	8.3	262	25.1	24.9	3.5
2	101	4.2	-4.1	0.8	307	0.5	0.4	-0.3	282	5.2	5.1	-1.1	273	16.5	16.5	-0.9	269	34.3	34.3	0.8	260	33.7	33.1	6.1	269	23.0	23.0	0.4
3	73	2.4	-2.3	-0.7	282	1.4	1.4	-0.3	287	6.5	6.2	-1.9	270	16.7	16.7	0.0	264	34.1	33.9	3.4	265	37.0	36.8	3.5	259	19.7	19.3	3.8
4	61	2.6	-2.3	-1.3	315	1.4	1.0	-1.0	271	6.7	6.7	-0.1	271	16.7	16.7	-0.2	275	33.4	33.3	-2.9	264	43.2	43.0	4.2	263	29.9	29.7	3.8
5	63	2.8	-2.5	-1.3	293	1.5	1.4	-0.6	270	6.8	6.8	0.0	272	18.1	18.1	-0.6	271	34.9	34.9	-0.6	274	37.4	37.3	-2.6	263	24.6	24.4	3.1
6	360	1.4	0.0	-1.4	248	1.1	1.0	0.4	265	6.7	6.7	0.6	276	18.5	18.4	-1.9	273	31.8	31.8	-1.4	271	37.1	37.1	-0.6	268	23.4	23.4	0.8
7	98	2.2	-2.2	0.3	262	2.1	2.1	0.3	273	6.6	6.6	-0.3	273	19.9	19.9	-1.2	272	33.8	33.8	-1.1	275	34.1	34.0	-3.1	269	23.9	23.9	0.5
8	111	1.7	-1.6	0.6	275	2.1	2.1	-0.2	265	7.7	7.7	0.7	270	20.1	20.1	-0.1	270	35.4	35.4	0.2	262	37.6	37.2	5.3	259	30.9	30.3	6.0
9	20	2.3	-0.8	-2.2	292	1.6	1.5	-0.6	268	6.4	6.4	0.2	271	16.2	16.2	-0.3	280	38.0	37.5	-6.4	272	40.1	40.1	-1.2	270	25.8	25.8	0.1
10	81	3.0	-3.0	-0.5	257	1.7	1.7	0.4	268	7.7	7.7	0.3	272	17.4	17.4	-0.6	278	36.5	36.1	-5.1	274	40.0	39.9	-3.0	263	31.4	31.2	3.9
11	43	3.5	-2.4	-2.6	275	2.1	2.1	-0.2	270	7.5	7.5	0.0	272	18.9	18.9	-0.7	274	36.7	36.6	-2.4	255	46.0	44.5	11.8	275	28.8	28.7	-2.6
12	341	2.1	0.7	-2.0	292	1.8	1.7	-0.7	267	7.3	7.3	0.4	277	19.9	19.8	-2.4	272	35.4	35.4	-1.0	273	39.4	39.3	-2.1	270	26.9	26.9	-0.1
13	355	2.2	0.2	-2.2	285	2.0	1.9	-0.5	270	7.4	7.4	0.0	278	18.0	17.8	-2.6	269	36.0	36.0	0.4	275	36.4	36.2	-3.3	293	17.9	16.5	-6.9
14	203	0.8	0.3	0.7	258	2.5	2.4	0.5	260	8.5	8.4	1.5	276	18.4	18.3	-1.8	276	37.1	36.9	-4.2	269	38.6	38.6	0.6	291	26.4	24.6	-9.6
15	317	2.3	1.6	-1.7	273	3.8	3.8	-0.2	259	9.9	9.7	1.8	271	21.3	21.3	-0.2	274	37.2	37.1	-2.7	268	35.5	35.5	1.2	280	28.7	28.2	-5.2
16	25	3.8	-1.6	-3.5	304	3.0	2.5	-1.7	283	8.7	8.5	-1.9	272	22.5	22.5	-0.6	270	38.2	38.2	0.0	261	35.8	35.3	5.8	269	20.1	20.1	0.5
17	68	4.5	-4.2	-1.7	327	1.7	0.9	-1.4	280	7.0	6.9	-1.2	272	18.0	18.0	-0.5	269	39.3	39.3	0.8	257	46.7	45.5	10.7	258	16.4	16.1	3.3
18	101	3.2	-3.1	0.6	251	1.8	1.7	0.6	273	6.2	6.2	-0.3	268	18.0	18.0	0.6	270	38.6	38.6	0.2	272	41.5	41.5	-1.4	270	28.7	28.7	0.1
19	56	2.2	-1.8	-1.2	323	2.1	1.3	-1.7	266	8.9	8.9	0.6	271	21.6	21.6	-0.3	271	38.0	38.0	-0.6	271	40.1	40.1	-1.0	265	25.7	25.6	2.4
20	333	3.5	1.6	-3.1	285	2.3	2.2	-0.6	263	8.1	8.0	1.0	269	22.6	22.6	0.2	265	34.8	34.7	3.1	263	36.2	35.9	4.6	264	22.3	22.2	2.4
21	27	3.4	-1.5	-3.0	265	1.2	1.2	0.1	272	8.2	8.2	-0.3	269	22.1	22.1	0.5	272	34.4	34.4	-1.3	260	36.8	36.3	6.3	275	11.0	11.0	-1.0
22	346	3.7	0.9	-3.6	273	1.9	1.9	-0.1	277	10.1	10.0	-1.2	274	23.2	23.1	-1.6	270	36.2	36.2	0.1	264	41.9	41.6	4.6	272	20.7	20.7	-0.7
23	11	3.6	-0.7	-3.5	276	1.8	1.8	-0.2	278	8.2	8.1	-1.1	267	19.7	19.7	1.1	270	36.7	36.7	0.0	270	40.1	40.1	-0.3	269	31.9	31.9	0.3
24	65	3.1	-2.8	-1.3	260	2.2	2.2	0.4	262	7.2	7.1	1.0	272	18.7	18.7	-0.7	268	32.7	32.7	1.1	264	38.0	37.8	3.7	277	14.7	14.6	-1.9
25	31	1.7	-0.9	-1.5	252	2.9	2.8	0.9	262	7.0	6.9	1.0	267	18.8	18.8	1.0	273	32.4	32.4	-1.7	267	35.9	35.9	1.6	276	25.7	25.6	-2.7
26	55	2.1	-1.7	-1.2	265	2.5	2.5	0.2	262	8.3	8.2	1.1	268	19.0	19.0	0.5	262	31.9	31.6	4.3	262	41.8	41.4	5.6	233	12.0	9.6	7.2
27	348	2.5	0.5	-2.4	262	3.4	3.4	0.5	262	8.8	8.7	1.2	269	21.9	21.9	0.3	268	34.6	34.6	1.2	269	40.1	40.1	0.9	268	45.0	45.0	1.6
28	42	2.7	-1.8	-2.0	295	2.6	2.4	-1.1	275	8.9	8.9	-0.8	273	22.7	22.7	-1.2	272	35.9	35.9	-1.1	264	37.7	37.5	3.9	286	42.0	40.4	-11.6
29	39	4.3	-2.7	-3.3	307	2.5	2.0	-1.5	281	9.3	9.1	-1.8	276	21.6	21.5	-2.3	274	38.6	38.5	-2.5	265	43.0	42.8	3.7	264	33.3	33.1	3.5
30	49	3.2	-2.4	-2.1	243	1.8	1.6	0.8	267	8.7	8.7	0.4	268	22.8	22.8	0.6	274	39.5	39.4	-2.5	267	40.4	40.3	2.4	271	38.4	38.4	-1.0
31	328	0.9	0.5	-0.8	285	2.8	2.7	-0.7	271	10.5	10.5	-0.2	269	22.3	22.3	0.3	272	35.3	35.3	-1.1	267	32.1	32.0	1.8	269	19.1	19.1	0.4

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	31	2.3	-1.2	-2.0	293	3.0	2.8	-1.2	277	10.3	10.2	-1.2	271	20.7	20.7	-0.2	265	33.4	33.3	2.8	274	42.5	42.4	-3.1	260	30.3	29.8	5.2
2	90	1.7	-1.7	0.0	289	2.4	2.3	-0.8	265	8.6	8.6	0.7	274	22.8	22.8	-1.4	270	36.1	36.1	-0.1	268	38.9	38.9	1.3	277	27.5	27.3	-3.4
3	23	3.4	-1.3	-3.1	293	2.5	2.3	-1.0	276	9.9	9.8	-1.0	269	21.8	21.8	0.2	269	38.8	38.8	0.5	274	44.4	44.3	-3.0	272	33.5	33.5	-1.4
4	28	2.7	-1.3	-2.4	258	2.5	2.4	0.5	271	9.5	9.5	-0.1	272	22.7	22.7	-0.6	273	39.8	39.7	-2.0	270	47.5	47.5	0.3	269	29.4	29.4	0.4
5	12	4.4	-0.9	-4.3	317	3.4	2.3	-2.5	274	9.1	9.1	-0.7	279	22.3	22.0	-3.4	277	38.6	38.3	-4.5	280	43.4	42.8	-7.3	276	26.5	26.3	-2.9
6	38	3.7	-2.3	-2.9	339	2.5	0.9	-2.3	284	8.1	7.9	-2.0	286	19.3	18.6	-5.3	281	33.9	33.3	-6.2	282	40.7	39.8	-8.4	289	16.1	15.2	-5.3
7	350	2.9	0.5	-2.9	300	2.0	1.7	-1.0	293	6.4	5.9	-2.5	284	17.2	16.7	-4.2	284	30.5	29.6	-7.4	272	40.6	40.6	-1.1	273	19.2	19.2	-0.9
8	353	0.8	0.1	-0.8	309	2.7	2.1	-1.7	289	7.7	7.3	-2.5	278	20.6	20.4	-2.9	282	34.2	33.4	-7.2	280	38.9	38.4	-6.5	294	21.0	19.2	-8.6
9	345	5.4	1.4	-5.2	308	3.7	2.9	-2.3	286	9.3	9.0	-2.5	284	22.0	21.3	-5.4	285	35.7	34.4	-9.5	270	41.4	41.4	0.0	278	31.7	31.4	-4.4
10	18	2.6	-0.8	-2.5	313	2.3	1.7	-1.6	281	7.6	7.4	-1.5	284	18.3	17.7	-4.5	279	27.8	27.5	-4.3	289	30.8	29.1	-10.1	284	18.7	18.2	-4.5
11	356	3.1	0.2	-3.1	276	2.9	2.9	-0.3	268	7.6	7.6	0.2	277	17.1	17.0	-2.1	279	31.7	31.3	-5.2	283	38.2	37.3	-8.4	277	22.4	22.2	-2.7
12	53	3.4	-2.7	-2.0	263	2.6	2.6	0.3	266	6.9	6.9	0.5	272	18.6	18.6	-0.8	272	29.7	29.7	-0.9	278	36.4	36.1	-5.0	269	31.6	31.6	0.5
13	28	2.6	-1.2	-2.3	270	3.5	3.5	0.0	257	7.9	7.7	1.8	267	19.1	19.1	1.0	265	36.3	36.1	3.4	269	37.5	37.5	0.6	278	23.2	23.0	-3.1
14	317	2.6	1.8	-1.9	282	3.8	3.7	-0.8	259	9.4	9.2	1.8	264	21.2	21.1	2.1	274	39.8	39.7	-2.7	268	39.7	39.7	1.5	268	21.0	21.0	0.9
15	317	3.7	2.5	-2.7	275	3.4	3.4	-0.3	259	9.9	9.7	1.9	268	20.7	20.7	0.9	270	38.2	38.2	0.0	267	45.5	45.4	2.7	270	15.2	15.2	-0.1
16	297	3.4	3.0	-1.5	253	2.8	2.7	0.8	266	9.2	9.2	0.7	272	21.9	21.9	-0.6	268	39.6	39.6	1.7	262	44.8	44.4	5.9	258	30.0	29.4	6.0
17	314	3.6	2.6	-2.5	262	2.8	2.8	0.4	263	9.8	9.7	1.2	271	21.1	21.1	-0.4	266	37.3	37.2	2.7	259	39.0	38.3	7.5	274	26.0	25.9	-2.0
18	315	3.0	2.1	-2.1	285	2.7	2.6	-0.7	264	9.3	9.3	0.9	270	23.2	23.2	0.0	267	39.0	38.9	2.3	256	39.0	37.9	9.2	275	33.7	33.5	-3.2
19	326	2.5	1.4	-2.1	270	2.4	2.4	0.0	261	10.2	10.1	1.6	269	22.6	22.6	0.4	267	35.9	35.8	2.1	272	37.7	37.7	-1.1	258	17.6	17.2	3.6
20	320	3.4	2.2	-2.6	275	3.7	3.7	-0.3	265	8.6	8.6	0.7	269	19.7	19.7	0.3	265	37.3	37.1	3.4	268	38.2	38.2	1.6	274	37.5	37.4	-2.9
21	323	3.8	2.3	-3.0	298	3.6	3.2	-1.7	268	8.5	8.5	0.3	276	19.5	19.4	-2.1	273	34.8	34.8	-1.6	259	40.0	39.2	7.9	249	22.9	21.4	8.1
22	330	4.4	2.2	-3.8	314	2.9	2.1	-2.0	275	7.7	7.7	-0.7	277	20.2	20.1	-2.3	277	31.1	30.9	-3.8	269	37.9	37.9	0.6	260	22.6	22.2	4.1
23	38	1.8	-1.1	-1.4	270	2.7	2.7	0.0	266	7.8	7.8	0.6	277	19.3	19.1	-2.5	280	34.3	33.8	-5.8	278	31.3	31.0	-4.3	276	21.5	21.4	-2.2
24	337	0.8	0.3	-0.7	262	2.9	2.9	0.4	266	8.9	8.9	0.6	274	20.1	20.0	-1.5	271	31.5	31.5	-0.8	273	35.1	35.1	-1.8	263	15.6	15.5	1.9
25	28	1.9	-0.9	-1.7	256	3.3	3.2	0.8	261	9.5	9.4	1.5	278	19.5	19.3	-2.8	272	29.5	29.5	-1.0	270	35.8	35.8	-0.3	261	20.3	20.0	3.2
26	332	5.2	2.4	-4.6	283	4.5	4.4	-1.0	274	9.8	9.8	-0.7	272	18.6	18.6	-0.6	267	31.9	31.9	1.6	266	37.0	36.9	2.3	258	16.7	16.3	3.5
27	341	5.0	1.6	-4.7	292	3.7	3.4	-1.4	271	8.0	8.0	-0.2	277	19.5	19.3	-2.5	267	32.1	32.1	1.7	273	36.5	36.5	-1.6	268	24.0	24.0	0.8
28	348	3.3	0.7	-3.2	279	3.7	3.7	-0.6	269	8.9	8.9	0.2	274	17.1	17.1	-1.3	276	33.4	33.2	-3.2	270	38.4	38.4	-0.3	277	26.1	25.9	-3.4
29	28	1.5	-0.7	-1.3	315	1.6	1.1	-1.1	268	7.0	7.0	0.3	269	23.6	23.6	0.4	262	35.6	35.3	4.7	252	33.2	31.7	10.0	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	44	2.9	-2.0	-2.1	309	2.6	2.0	-1.6	271	7.2	7.2	-0.1	277	17.3	17.2	-2.1	273	32.3	32.3	-1.6	270	35.3	35.3	0.1	276	26.0	25.8	-2.8
2	336	3.9	1.6	-3.6	307	3.1	2.5	-1.9	275	7.5	7.5	-0.7	277	16.6	16.5	-2.1	275	28.9	28.8	-2.5	266	34.6	34.5	2.3	263	28.2	28.0	3.2
3	30	1.6	-0.8	-1.4	286	2.5	2.4	-0.7	270	7.2	7.2	0.0	271	16.4	16.4	-0.4	273	30.5	30.5	-1.4	272	32.8	32.8	-1.3	253	21.7	20.8	6.3
4	298	1.5	1.3	-0.7	270	2.9	2.9	0.0	253	8.4	8.0	2.5	259	17.1	16.8	3.3	280	28.4	28.0	-4.8	278	27.9	27.7	-3.7	266	20.4	20.3	1.5
5	340	3.5	1.2	-3.3	285	3.5	3.4	-0.9	256	7.7	7.5	1.9	274	15.6	15.6	-1.0	277	32.1	31.9	-3.8	272	33.0	33.0	-1.4	276	22.0	21.9	-2.3
6	333	1.6	0.7	-1.4	268	2.5	2.5	0.1	270	7.1	7.1	0.0	267	16.7	16.7	0.9	276	30.2	30.0	-3.2	271	29.0	29.0	-0.5	288	11.9	11.3	-3.7
7	328	5.9	3.1	-5.0	289	2.8	2.6	-0.9	266	6.3	6.3	0.4	271	15.8	15.8	-0.3	269	32.4	32.4	0.7	264	36.1	35.9	3.9	260	22.6	22.3	3.8
8	358	2.8	0.1	-2.8	283	2.7	2.6	-0.6	253	8.1	7.7	2.4	263	16.2	16.1	2.1	261	29.5	29.2	4.5	271	31.2	31.2	-0.5	272	14.1	14.1	-0.6
9	337	4.0	1.6	-3.7	274	3.0	3.0	-0.2	261	7.3	7.2	1.2	264	18.1	18.0	1.9	266	32.4	32.3	2.4	264	30.4	30.2	3.3	263	13.2	13.1	1.5
10	348	3.8	0.8	-3.7	282	4.4	4.3	-0.9	261	9.9	9.8	1.6	262	15.0	14.9	2.0	264	27.0	26.9	2.8	259	32.3	31.7	6.4	271	17.6	17.6	-0.4
11	338	5.0	1.9	-4.6	293	3.4	3.1	-1.3	259	9.0	8.8	1.7	267	18.4	18.4	0.9	269	31.5	31.5	0.5	265	34.2	34.1	3.1	260	24.5	24.2	4.1
12	312	6.4	4.8	-4.3	301	4.1	3.5	-2.1	274	7.7	7.7	-0.5	277	17.4	17.3	-2.0	275	29.5	29.4	-2.4	272	32.8	32.8	-0.9	273	26.9	26.9	-1.4
13	327	3.8	2.1	-3.2	279	2.6	2.6	-0.4	268	7.0	7.0	0.2	282	14.0	13.7	-2.8	282	27.3	26.7	-5.7	277	35.0	34.7	-4.2	266	22.3	22.2	1.6
14	27	3.0	-1.4	-2.7	299	3.1	2.7	-1.5	264	6.8	6.8	0.7	278	14.8	14.7	-2.0	277	25.5	25.3	-3.0	272	27.6	27.6	-1.1	270	17.0	17.0	0.0
15	358	3.3	0.1	-3.3	287	1.7	1.6	-0.5	259	8.7	8.6	1.6	276	14.1	14.0	-1.4	274	28.9	28.8	-2.0	271	34.2	34.2	-0.7	259	15.2	14.9	2.9
16	346	3.3	0.8	-3.2	299	2.6	2.3	-1.3	261	8.4	8.3	1.3	265	15.4	15.3	1.3	262	28.6	28.3	3.9	256	32.2	31.2	7.8	262	13.4	13.3	1.9
17	330	4.3	2.1	-3.7	274	4.0	4.0	-0.3	260	9.7	9.6	1.7	264	15.5	15.4	1.6	268	27.0	27.0	1.0	267	31.2	31.2	1.4	275	22.8	22.7	-1.8
18	333	5.9	2.7	-5.3	288	4.1	3.9	-1.3	261	9.3	9.2	1.4	267	17.9	17.9	1.0	268	30.3	30.3	0.9	263	37.3	37.0	4.4	270	21.7	21.7	0.0
19	305	5.5	4.5	-3.1	278	4.2	4.2	-0.6	261	8.0	7.9	1.3	263	17.3	17.2	2.0	265	29.8	29.7	2.5	263	29.3	29.1	3.6	251	15.7	14.9	5.1
20	309	6.4	5.0	-4.0	297	6.2	5.5	-2.8	263	10.3	10.2	1.3	258	16.6	16.2	3.4	265	27.6	27.5	2.4	263	29.1	28.9	3.4	246	13.0	11.9	5.2
21	316	5.6	3.9	-4.0	298	4.1	3.6	-1.9	261	7.5	7.4	1.2	270	15.4	15.4	-0.1	283	28.1	27.4	-6.1	281	34.1	33.5	-6.4	262	15.6	15.4	2.3
22	310	5.6	4.3	-3.6	290	4.7	4.4	-1.6	264	7.3	7.3	0.8	266	15.8	15.8	1.1	277	29.0	28.8	-3.4	270	30.6	30.6	0.0	282	16.7	16.3	-3.4
23	330	5.4	2.7	-4.7	297	4.4	3.9	-2.0	267	8.2	8.2	0.4	268	14.5	14.5	0.4	277	24.8	24.6	-2.9	275	29.3	29.2	-2.5	277	24.2	24.0	-3.1
24	337	3.3	1.3	-3.0	293	5.3	4.9	-2.1	271	9.2	9.2	-0.1	268	16.0	16.0	0.5	269	26.3	26.3	0.3	262	27.4	27.1	3.7	279	21.4	21.1	-3.5
25	339	4.0	1.4	-3.7	296	2.8	2.5	-1.2	276	6.4	6.4	-0.7	282	13.5	13.2	-2.8	285	20.2	19.5	-5.3	287	26.1	24.9	-7.8	280	14.4	14.2	-2.6
26	327	4.6	2.5	-3.9	296	4.3	3.9	-1.9	261	5.4	5.3	0.8	275	15.3	15.2	-1.4	295	24.7	22.4	-10.3	285	27.4	26.5	-6.9	268	19.0	19.0	0.6
27	346	4.1	1.0	-4.0	306	3.2	2.6	-1.9	278	5.3	5.3	-0.7	278	13.4	13.3	-1.9	272	19.6	19.6	-0.8	272	22.6	22.6	-0.8	269	14.1	14.1	0.3
28	358	3.4	0.1	-3.4	294	3.5	3.2	-1.4	262	5.0	5.0	0.7	268	12.7	12.7	0.5	284	23.4	22.7	-5.5	282	30.7	30.0	-6.4	279	20.8	20.6	-3.1
29	305	2.8	2.3	-1.6	280	3.6	3.5	-0.6	258	7.3	7.1	1.5	267	12.2	12.2	0.7	271	24.3	24.3	-0.5	266	27.7	27.6	2.0	257	18.4	17.9	4.2
30	309	5.3	4.1	-3.3	285	4.2	4.1	-1.1	249	7.9	7.4	2.8	266	16.2	16.2	1.1	265	28.6	28.5	2.7	259	31.2	30.6	5.9	263	23.7	23.5	2.8
31	316	6.4	4.5	-4.6	274	4.4	4.4	-0.3	261	8.1	8.0	1.3	263	14.3	14.2	1.8	258	25.2	24.7	5.2	261	31.5	31.1	4.8	245	12.7	11.5	5.4

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	313	5.6	4.1	-3.8	291	3.4	3.2	-1.2	256	5.4	5.2	1.3	267	12.5	12.5	0.7	267	22.0	22.0	1.1	267	25.7	25.7	1.4	262	12.4	12.3	1.7
2	332	3.8	1.8	-3.4	288	4.0	3.8	-1.2	241	7.1	6.2	3.4	257	12.7	12.4	2.8	260	24.5	24.2	4.1	251	28.4	26.8	9.4	270	22.3	22.3	-0.1
3	29	2.3	-1.1	-2.0	276	4.0	4.0	-0.4	252	7.7	7.3	2.4	258	13.2	12.9	2.7	268	24.5	24.5	1.0	262	28.1	27.9	3.7	265	22.5	22.4	2.0
4	355	3.4	0.3	-3.4	286	4.8	4.6	-1.3	255	8.1	7.8	2.1	257	11.7	11.4	2.7	266	25.0	24.9	1.6	262	34.2	33.9	4.5	263	19.4	19.2	2.5
5	298	5.1	4.5	-2.4	277	4.6	4.6	-0.6	260	7.3	7.2	1.3	266	12.5	12.5	0.9	269	24.1	24.1	0.3	264	32.4	32.2	3.4	272	17.0	17.0	-0.6
6	321	5.7	3.6	-4.4	284	4.0	3.9	-1.0	252	6.0	5.7	1.8	273	11.6	11.6	-0.6	274	23.5	23.5	-1.5	271	30.6	30.6	-0.5	260	19.1	18.8	3.4
7	295	6.5	5.9	-2.8	278	4.5	4.5	-0.6	257	6.5	6.3	1.4	271	14.9	14.9	-0.2	279	26.5	26.1	-4.3	274	30.1	30.0	-1.9	273	20.3	20.3	-1.0
8	291	5.7	5.3	-2.0	276	5.4	5.4	-0.6	268	7.0	7.0	0.3	277	13.7	13.6	-1.6	276	26.3	26.2	-2.6	270	34.2	34.2	-0.1	262	18.6	18.4	2.6
9	306	6.0	4.9	-3.5	290	5.3	5.0	-1.8	259	7.2	7.1	1.4	266	12.9	12.9	1.0	272	25.1	25.1	-1.0	263	31.8	31.5	4.0	265	19.6	19.5	1.7
10	304	5.7	4.7	-3.2	282	3.9	3.8	-0.8	240	6.1	5.3	3.1	270	12.1	12.1	0.1	276	23.0	22.9	-2.6	274	29.1	29.0	-1.9	279	16.9	16.7	-2.6
11	318	5.8	3.9	-4.3	290	3.5	3.3	-1.2	256	6.4	6.2	1.5	267	12.6	12.6	0.7	271	23.1	23.1	-0.3	271	29.9	29.9	-0.3	280	16.4	16.1	-2.9
12	324	4.6	2.7	-3.7	286	4.8	4.6	-1.3	265	5.7	5.7	0.5	272	13.0	13.0	-0.4	274	22.1	22.1	-1.4	269	28.6	28.6	0.4	264	21.2	21.1	2.2
13	312	6.3	4.7	-4.2	291	5.3	4.9	-1.9	258	6.8	6.7	1.4	259	13.7	13.4	2.7	269	26.9	26.9	0.6	272	32.3	32.3	-1.2	274	19.8	19.8	-1.3
14	285	5.3	5.1	-1.4	274	5.7	5.7	-0.4	237	8.3	7.0	4.5	254	13.0	12.5	3.7	258	25.7	25.1	5.3	254	31.6	30.4	8.5	260	24.1	23.8	4.0
15	318	5.9	3.9	-4.4	290	4.9	4.6	-1.7	269	7.0	7.0	0.1	268	12.2	12.2	0.5	270	24.0	24.0	-0.2	272	29.6	29.6	-0.9	277	19.4	19.2	-2.5
16	326	4.6	2.6	-3.8	311	3.7	2.8	-2.4	270	5.3	5.3	0.0	279	11.4	11.3	-1.8	274	22.5	22.5	-1.5	270	27.4	27.4	-0.2	266	18.6	18.6	1.3
17	301	6.2	5.3	-3.2	290	3.3	3.1	-1.1	272	4.7	4.7	-0.2	275	9.9	9.9	-0.8	276	19.7	19.6	-2.0	270	23.4	23.4	0.0	260	17.1	16.8	3.0
18	299	3.1	2.7	-1.5	297	4.2	3.7	-1.9	268	5.4	5.4	0.2	281	11.1	10.9	-2.1	276	20.5	20.4	-2.2	270	24.8	24.8	-0.1	258	14.8	14.5	3.2
19	321	6.3	4.0	-4.9	302	3.9	3.3	-2.1	266	5.6	5.6	0.4	279	9.7	9.6	-1.6	261	21.3	21.0	3.3	261	26.5	26.1	4.3	258	18.5	18.1	3.7
20	310	8.8	6.7	-5.7	288	4.3	4.1	-1.3	254	5.1	4.9	1.4	261	8.5	8.4	1.4	268	21.5	21.5	0.7	263	27.0	26.8	3.2	267	17.9	17.9	0.8
21	302	7.0	5.9	-3.7	284	4.0	3.9	-1.0	250	5.1	4.8	1.7	265	9.0	9.0	0.8	261	20.7	20.5	3.2	255	23.9	23.1	6.0	260	16.9	16.6	3.0
22	303	6.8	5.7	-3.7	282	4.8	4.7	-1.0	249	6.6	6.2	2.4	267	8.0	8.0	0.4	268	19.7	19.7	0.8	259	25.6	25.1	5.0	263	16.7	16.6	1.9
23	298	4.5	4.0	-2.1	287	4.2	4.0	-1.2	249	6.4	6.0	2.3	269	6.9	6.9	0.1	275	17.5	17.4	-1.6	261	22.3	22.0	3.4	259	12.2	12.0	2.4
24	313	7.1	5.2	-4.8	304	4.7	3.9	-2.6	247	3.9	3.6	1.5	267	6.1	6.1	0.3	273	14.6	14.6	-0.7	266	20.4	20.3	1.5	251	11.1	10.5	3.6
25	294	7.7	7.0	-3.1	281	5.3	5.2	-1.0	245	5.1	4.6	2.1	288	6.0	5.7	-1.8	283	16.3	15.9	-3.8	280	21.5	21.2	-3.6	262	11.6	11.5	1.7
26	300	7.2	6.2	-3.6	285	5.0	4.8	-1.3	261	4.0	4.0	0.6	273	7.2	7.2	-0.4	271	15.1	15.1	-0.2	261	24.5	24.2	3.7	240	9.9	8.5	5.0
27	297	7.2	6.4	-3.2	277	6.1	6.1	-0.7	251	4.6	4.4	1.5	280	6.0	5.9	-1.0	272	16.1	16.1	-0.7	270	21.0	21.0	0.0	248	10.8	10.0	4.1
28	303	4.8	4.0	-2.6	286	5.5	5.3	-1.5	252	5.1	4.8	1.6	271	7.0	7.0	-0.1	268	16.9	16.9	0.7	256	24.7	24.0	5.8	240	8.1	7.0	4.1
29	296	7.7	6.9	-3.4	281	5.8	5.7	-1.1	245	4.2	3.8	1.8	277	7.0	7.0	-0.8	279	16.8	16.6	-2.6	276	24.1	23.9	-2.7	246	13.2	12.0	5.4
30	296	9.0	8.1	-3.9	273	5.3	5.3	-0.3	260	6.5	6.4	1.1	279	7.8	7.7	-1.2	276	17.6	17.5	-1.7	265	21.5	21.4	1.7	241	12.4	10.9	6.0

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	288	7.5	7.1	-2.3	268	5.2	5.2	0.2	255	6.7	6.5	1.8	266	8.8	8.8	0.6	264	19.6	19.5	1.9	256	22.8	22.2	5.4	280	6.3	6.2	-1.1
2	288	6.5	6.2	-2.0	272	4.8	4.8	-0.2	255	7.4	7.2	1.9	266	6.7	6.7	0.5	273	16.7	16.7	-0.9	263	22.5	22.3	2.7	229	10.2	7.7	6.7
3	290	5.8	5.4	-2.0	267	5.5	5.5	0.3	242	4.3	3.8	2.0	269	9.1	9.1	0.2	262	20.0	19.8	2.7	260	25.9	25.5	4.7	247	10.2	9.4	4.0
4	283	6.4	6.2	-1.4	266	6.5	6.5	0.4	251	6.5	6.2	2.1	284	7.6	7.4	-1.8	268	19.3	19.3	0.7	260	24.5	24.1	4.2	264	18.4	18.3	2.0
5	283	7.7	7.5	-1.8	271	6.2	6.2	-0.1	255	7.1	6.9	1.8	279	7.3	7.2	-1.1	259	20.9	20.5	3.9	256	24.1	23.4	5.8	249	9.9	9.3	3.5
6	304	7.0	5.8	-3.9	270	5.1	5.1	0.0	255	5.2	5.0	1.3	267	7.2	7.2	0.4	266	19.3	19.3	1.2	253	23.3	22.3	6.8	235	8.3	6.8	4.7
7	294	7.0	6.4	-2.9	281	5.7	5.6	-1.1	276	5.5	5.5	-0.6	279	6.2	6.1	-1.0	271	15.9	15.9	-0.2	262	21.3	21.1	3.1	262	7.5	7.4	1.1
8	287	6.8	6.5	-2.0	277	5.7	5.7	-0.7	280	4.6	4.5	-0.8	291	7.6	7.1	-2.7	268	17.3	17.3	0.7	268	20.9	20.9	0.6	276	7.0	7.0	-0.7
9	274	6.5	6.5	-0.5	276	5.8	5.8	-0.6	275	4.2	4.2	-0.4	286	7.8	7.5	-2.1	274	17.3	17.3	-1.2	265	20.2	20.1	1.6	268	8.3	8.3	0.3
10	285	5.8	5.6	-1.5	281	5.1	5.0	-1.0	270	3.3	3.3	0.0	283	7.3	7.1	-1.7	279	15.4	15.2	-2.3	278	20.1	19.9	-2.7	250	3.0	2.8	1.0
11	277	5.6	5.6	-0.7	288	5.4	5.1	-1.7	299	2.9	2.5	-1.4	293	5.9	5.4	-2.3	275	14.7	14.6	-1.4	263	18.3	18.2	2.3	237	8.8	7.4	4.8
12	291	6.3	5.9	-2.3	287	3.4	3.3	-1.0	254	2.9	2.8	0.8	299	4.8	4.2	-2.3	279	11.3	11.2	-1.8	267	14.9	14.9	0.8	241	10.3	9.0	5.0
13	283	6.1	5.9	-1.4	279	5.3	5.2	-0.8	233	2.5	2.0	1.5	297	4.2	3.8	-1.9	284	10.0	9.7	-2.5	269	15.7	15.7	0.2	275	7.6	7.6	-0.6
14	294	7.0	6.4	-2.8	273	5.8	5.8	-0.3	254	4.0	3.8	1.1	300	3.0	2.6	-1.5	281	12.5	12.3	-2.3	261	18.7	18.5	3.0	246	8.1	7.4	3.3
15	287	5.6	5.4	-1.6	264	4.5	4.5	0.5	246	4.5	4.1	1.8	276	4.0	4.0	-0.4	263	10.5	10.4	1.3	248	11.6	10.8	4.3	251	8.0	7.6	2.6
16	297	5.8	5.2	-2.6	282	5.3	5.2	-1.1	247	4.1	3.8	1.6	282	4.3	4.2	-0.9	272	13.3	13.3	-0.4	264	14.7	14.6	1.5	237	8.0	6.7	4.4
17	281	6.1	6.0	-1.2	280	5.6	5.5	-1.0	252	2.6	2.5	0.8	287	5.4	5.2	-1.6	266	14.6	14.6	1.1	259	17.1	16.8	3.4	215	8.3	4.7	6.8
18	260	6.3	6.2	1.1	265	6.5	6.5	0.6	276	4.7	4.7	-0.5	311	5.6	4.2	-3.7	274	13.5	13.5	-1.0	263	14.3	14.2	1.7	230	7.0	5.4	4.5
19	269	5.7	5.7	0.1	266	5.7	5.7	0.4	282	2.4	2.3	-0.5	308	5.4	4.3	-3.3	277	9.8	9.7	-1.2	260	12.1	11.9	2.1	232	2.9	2.3	1.8
20	249	6.7	6.3	2.4	260	5.7	5.6	1.0	287	3.4	3.3	-1.0	297	7.2	6.4	-3.3	284	9.7	9.4	-2.3	270	10.3	10.3	0.0	213	5.4	2.9	4.5
21	255	6.2	6.0	1.6	270	5.5	5.5	0.0	277	3.2	3.2	-0.4	300	5.6	4.9	-2.8	278	10.3	10.2	-1.5	258	10.5	10.3	2.2	243	4.7	4.2	2.1
22	266	5.3	5.3	0.4	267	5.0	5.0	0.3	306	2.9	2.3	-1.7	300	5.8	5.0	-2.9	292	8.0	7.4	-3.0	264	8.9	8.9	0.9	219	2.7	1.7	2.1
23	279	7.1	7.0	-1.1	272	5.9	5.9	-0.2	268	2.8	2.8	0.1	316	5.3	3.7	-3.8	289	8.8	8.3	-2.8	265	9.0	9.0	0.8	186	3.0	0.3	3.0
24	272	6.3	6.3	-0.2	274	5.7	5.7	-0.4	283	2.6	2.5	-0.6	325	3.9	2.2	-3.2	309	7.0	5.4	-4.4	285	9.1	8.8	-2.4	198	4.4	1.4	4.2
25	268	6.4	6.4	0.2	271	6.2	6.2	-0.1	290	3.3	3.1	-1.1	332	5.2	2.4	-4.6	305	6.6	5.4	-3.8	273	7.1	7.1	-0.4	154	5.8	-2.5	5.2
26	272	6.3	6.3	-0.2	270	6.6	6.6	0.0	280	3.5	3.4	-0.6	328	3.6	1.9	-3.0	285	5.3	5.1	-1.4	263	7.0	6.9	0.9	183	3.5	0.2	3.5
27	278	6.6	6.5	-0.9	286	6.2	6.0	-1.7	293	3.4	3.1	-1.3	329	4.7	2.4	-4.0	278	7.3	7.2	-1.0	257	10.3	10.0	2.3	216	3.1	1.8	2.5
28	273	6.4	6.4	-0.3	276	6.8	6.8	-0.7	287	2.8	2.7	-0.8	316	3.7	2.6	-2.7	263	8.6	8.5	1.1	250	9.3	8.7	3.2	163	1.7	-0.5	1.6
29	266	8.0	8.0	0.6	277	7.5	7.4	-0.9	276	3.8	3.8	-0.4	296	6.4	5.7	-2.8	270	9.8	9.8	0.0	248	10.1	9.4	3.8	176	2.7	-0.2	2.7
30	262	7.6	7.5	1.1	262	6.8	6.7	0.9	283	3.1	3.0	-0.7	332	4.2	2.0	-3.7	267	8.2	8.2	0.5	253	9.9	9.5	2.9	130	3.5	-2.7	2.3
31	263	8.3	8.2	1.0	253	5.5	5.3	1.6	247	3.8	3.5	1.5	303	2.7	2.3	-1.5	260	5.8	5.7	1.0	257	6.5	6.3	1.4	173	1.7	-0.2	1.7

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	284	7.2	7.0	-1.7	266	6.5	6.5	0.5	270	3.6	3.6	0.0	295	3.3	3.0	-1.4	262	7.6	7.5	1.1	248	7.9	7.3	2.9	230	4.2	3.2	2.7
2	284	9.2	8.9	-2.3	272	5.1	5.1	-0.2	10	1.1	-0.2	-1.1	318	2.7	1.8	-2.0	278	5.6	5.5	-0.8	248	9.8	9.1	3.7	159	2.5	-0.9	2.3
3	279	8.5	8.4	-1.4	270	5.7	5.7	0.0	315	3.0	2.1	-2.1	340	2.7	0.9	-2.5	272	3.2	3.2	-0.1	262	8.0	7.9	1.1	198	3.3	1.0	3.1
4	273	5.9	5.9	-0.3	257	4.0	3.9	0.9	313	1.6	1.2	-1.1	19	2.1	-0.7	-2.0	284	3.2	3.1	-0.8	243	4.9	4.4	2.2	106	4.4	-4.2	1.2
5	293	7.2	6.6	-2.8	281	4.3	4.2	-0.8	23	2.5	-1.0	-2.3	355	2.3	0.2	-2.3	273	3.4	3.4	-0.2	263	2.6	2.6	0.3	116	6.6	-5.9	2.9
6	277	7.1	7.0	-0.9	262	5.3	5.3	0.7	324	1.4	0.8	-1.1	2	3.8	-0.1	-3.8	268	5.1	5.1	0.2	221	5.5	3.6	4.1	118	9.0	-8.0	4.2
7	251	6.2	5.9	2.0	243	5.4	4.8	2.4	279	1.2	1.2	-0.2	15	3.0	-0.8	-2.9	269	4.4	4.4	0.1	275	4.4	4.4	-0.4	150	5.9	-3.0	5.1
8	253	6.9	6.6	2.0	242	5.0	4.4	2.3	238	0.9	0.8	0.5	357	3.9	0.2	-3.9	281	2.5	2.5	-0.5	241	2.5	2.2	1.2	97	7.2	-7.1	0.9
9	241	5.6	4.9	2.7	231	4.4	3.4	2.8	216	1.4	0.8	1.1	9	2.4	-0.4	-2.4	33	2.0	-1.1	-1.7	29	1.3	-0.6	-1.1	93	9.5	-9.5	0.5
10	270	7.3	7.3	0.0	229	6.0	4.5	3.9	207	0.2	0.1	0.2	46	4.2	-3.0	-2.9	26	3.2	-1.4	-2.9	56	3.2	-2.7	-1.8	56	7.6	-6.3	-4.2
11	264	7.2	7.2	0.7	244	6.1	5.5	2.7	194	0.8	0.2	0.8	24	1.0	-0.4	-0.9	284	0.4	0.4	-0.1	96	1.0	-1.0	0.1	118	7.3	-6.5	3.4
12	261	7.4	7.3	1.2	242	5.1	4.5	2.4	180	0.4	0.0	0.4	6	2.0	-0.2	-2.0	111	1.9	-1.8	0.7	90	2.7	-2.7	0.0	94	12.1	-12.1	0.8
13	243	5.6	5.0	2.5	236	5.3	4.4	3.0	315	0.6	0.4	-0.4	33	2.7	-1.5	-2.3	61	1.8	-1.6	-0.9	103	3.7	-3.6	0.8	91	11.9	-11.9	0.3
14	286	4.8	4.6	-1.3	231	3.8	3.0	2.4	135	0.4	-0.3	0.3	44	3.5	-2.4	-2.5	356	1.5	0.1	-1.5	90	1.8	-1.8	0.0	77	9.5	-9.3	-2.1
15	261	3.6	3.6	0.6	251	4.3	4.1	1.4	202	0.5	0.2	0.5	8	1.4	-0.2	-1.4	81	1.8	-1.8	-0.3	127	3.5	-2.8	2.1	97	13.7	-13.6	1.7
16	267	5.8	5.8	0.3	254	4.4	4.2	1.2	95	1.1	-1.1	0.1	25	2.9	-1.2	-2.6	75	5.8	-5.6	-1.5	77	5.2	-5.1	-1.2	80	13.0	-12.8	-2.3
17	267	5.2	5.2	0.3	260	5.8	5.7	1.0	5	1.2	-0.1	-1.2	25	2.1	-0.9	-1.9	79	3.2	-3.1	-0.6	112	2.9	-2.7	1.1	88	10.6	-10.6	-0.3
18	255	8.8	8.5	2.3	253	6.7	6.4	2.0	354	1.0	0.1	-1.0	49	2.8	-2.1	-1.8	48	2.4	-1.8	-1.6	95	4.3	-4.3	0.4	85	11.6	-11.6	-1.0
19	253	4.9	4.7	1.4	254	6.4	6.1	1.8	283	0.9	0.9	-0.2	17	2.4	-0.7	-2.3	67	3.9	-3.6	-1.5	90	4.9	-4.9	0.0	83	11.0	-10.9	-1.3
20	243	9.4	8.4	4.2	241	6.8	5.9	3.3	261	1.8	1.8	0.3	20	2.0	-0.7	-1.9	53	3.9	-3.1	-2.3	103	5.1	-5.0	1.2	88	13.3	-13.3	-0.4
21	249	8.4	7.8	3.0	246	6.6	6.0	2.7	337	2.3	0.9	-2.1	17	2.7	-0.8	-2.6	97	1.6	-1.6	0.2	105	5.8	-5.6	1.5	84	16.1	-16.0	-1.8
22	251	6.8	6.4	2.2	250	6.3	5.9	2.2	331	1.0	0.5	-0.9	52	1.8	-1.4	-1.1	133	2.2	-1.6	1.5	107	5.4	-5.2	1.6	91	10.9	-10.9	0.2
23	245	7.2	6.5	3.0	246	5.8	5.3	2.4	326	1.1	0.6	-0.9	33	3.0	-1.6	-2.5	80	2.8	-2.8	-0.5	101	6.9	-6.8	1.3	81	14.9	-14.7	-2.2
24	254	9.2	8.9	2.5	248	6.9	6.4	2.6	342	0.9	0.3	-0.9	38	2.3	-1.4	-1.8	61	3.1	-2.7	-1.5	108	6.0	-5.7	1.9	93	16.1	-16.1	0.9
25	260	8.9	8.8	1.5	234	5.7	4.6	3.4	360	1.3	0.0	-1.3	360	2.3	0.0	-2.3	97	2.6	-2.6	0.3	103	7.3	-7.1	1.7	93	15.7	-15.7	0.7
26	255	9.1	8.8	2.4	244	5.9	5.3	2.6	33	2.0	-1.1	-1.7	33	2.7	-1.5	-2.3	91	4.0	-4.0	0.1	113	9.4	-8.6	3.7	91	15.6	-15.6	0.2
27	253	8.9	8.5	2.6	247	6.0	5.5	2.3	56	1.4	-1.2	-0.8	38	3.9	-2.4	-3.1	66	6.1	-5.6	-2.5	76	9.4	-9.1	-2.3	75	17.9	-17.3	-4.7
28	255	7.5	7.3	1.9	243	5.6	5.0	2.5	78	1.4	-1.4	-0.3	75	4.3	-4.2	-1.1	67	6.5	-6.0	-2.6	81	10.8	-10.7	-1.7	83	19.6	-19.5	-2.4
29	234	6.7	5.4	3.9	244	7.4	6.7	3.2	41	0.9	-0.6	-0.7	54	3.1	-2.5	-1.8	54	5.1	-4.1	-3.0	74	11.1	-10.7	-3.1	83	23.0	-22.8	-2.7
30	250	5.8	5.4	2.0	241	6.0	5.2	2.9	29	1.0	-0.5	-0.9	25	3.8	-1.6	-3.4	88	6.4	-6.4	-0.2	89	8.7	-8.7	-0.2	86	22.3	-22.2	-1.5

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	252	6.9	6.6	2.1	242	6.9	6.1	3.2	262	2.7	2.7	0.4	72	2.5	-2.4	-0.8	84	4.8	-4.8	-0.5	97	11.1	-11.0	1.4	86	19.6	-19.5	-1.4
2	242	8.0	7.0	3.8	253	7.9	7.6	2.3	264	1.8	1.8	0.2	56	1.4	-1.2	-0.8	83	5.1	-5.1	-0.6	82	9.1	-9.0	-1.2	83	21.5	-21.3	-2.8
3	241	8.3	7.3	4.0	249	7.9	7.4	2.8	240	3.4	2.9	1.7	45	1.0	-0.7	-0.7	93	6.6	-6.6	0.4	84	9.7	-9.6	-1.0	87	19.5	-19.5	-1.0
4	246	8.7	7.9	3.6	251	9.1	8.6	2.9	247	3.3	3.0	1.3	27	1.6	-0.7	-1.4	82	5.6	-5.5	-0.8	84	10.9	-10.8	-1.2	74	17.7	-17.0	-4.8
5	228	7.4	5.5	4.9	242	6.4	5.7	3.0	262	2.2	2.2	0.3	41	2.0	-1.3	-1.5	82	3.6	-3.6	-0.5	90	9.2	-9.2	0.0	87	17.7	-17.7	-0.9
6	256	8.2	8.0	2.0	247	5.7	5.3	2.2	252	1.6	1.5	0.5	58	1.9	-1.6	-1.0	88	5.5	-5.5	-0.2	94	11.0	-11.0	0.7	90	23.9	-23.9	0.2
7	253	8.8	8.4	2.5	259	6.2	6.1	1.2	310	0.8	0.6	-0.5	56	3.4	-2.8	-1.9	70	5.4	-5.1	-1.9	85	12.8	-12.8	-1.1	74	19.4	-18.7	-5.2
8	253	7.3	7.0	2.1	255	6.4	6.2	1.7	299	1.8	1.6	-0.9	43	3.3	-2.2	-2.4	84	6.4	-6.4	-0.7	85	10.0	-10.0	-0.8	92	23.8	-23.8	0.9
9	243	7.6	6.8	3.4	254	6.8	6.5	1.9	259	1.6	1.6	0.3	57	4.5	-3.8	-2.5	81	6.3	-6.2	-1.0	91	12.8	-12.8	0.3	87	24.1	-24.1	-1.4
10	251	6.5	6.2	2.1	253	6.6	6.3	1.9	225	0.3	0.2	0.2	71	3.1	-2.9	-1.0	85	7.5	-7.5	-0.7	85	11.1	-11.1	-0.9	76	24.9	-24.1	-6.2
11	245	9.3	8.4	3.9	252	7.1	6.7	2.2	278	2.1	2.1	-0.3	47	1.8	-1.3	-1.2	90	8.6	-8.6	0.0	96	13.6	-13.5	1.5	76	20.6	-20.0	-4.9
12	248	6.8	6.3	2.5	244	7.3	6.6	3.2	286	2.9	2.8	-0.8	65	1.9	-1.7	-0.8	97	7.8	-7.7	0.9	93	13.1	-13.1	0.6	88	21.2	-21.2	-0.8
13	231	7.9	6.1	5.0	251	6.9	6.5	2.2	242	2.1	1.9	1.0	68	2.2	-2.0	-0.8	82	7.0	-6.9	-1.0	89	13.2	-13.2	-0.2	82	17.2	-17.0	-2.3
14	249	6.9	6.4	2.5	259	6.6	6.5	1.3	260	1.1	1.1	0.2	16	2.6	-0.7	-2.5	88	7.0	-7.0	-0.2	83	11.5	-11.4	-1.5	86	18.0	-17.9	-1.4
15	262	7.4	7.3	1.0	249	7.7	7.2	2.7	238	1.5	1.3	0.8	44	3.5	-2.4	-2.5	87	7.6	-7.6	-0.4	95	10.3	-10.3	0.9	87	23.0	-23.0	-1.1
16	259	9.9	9.7	1.9	258	8.1	7.9	1.7	328	1.5	0.8	-1.3	77	0.9	-0.9	-0.2	98	8.3	-8.2	1.2	86	13.8	-13.8	-1.0	95	25.9	-25.8	2.4
17	251	9.0	8.5	3.0	255	8.3	8.0	2.2	312	2.5	1.9	-1.7	17	2.4	-0.7	-2.3	77	7.0	-6.8	-1.6	100	11.9	-11.7	2.1	89	24.2	-24.2	-0.4
18	247	8.3	7.7	3.2	248	7.1	6.6	2.6	296	2.8	2.5	-1.2	35	1.6	-0.9	-1.3	72	6.3	-6.0	-1.9	85	11.4	-11.4	-0.9	94	24.4	-24.4	1.5
19	261	5.1	5.0	0.8	248	7.0	6.5	2.6	264	1.8	1.8	0.2	66	2.7	-2.5	-1.1	78	5.6	-5.5	-1.2	85	12.1	-12.1	-1.1	100	21.0	-20.7	3.8
20	262	8.4	8.3	1.1	249	8.2	7.7	2.9	268	2.4	2.4	0.1	353	1.6	0.2	-1.6	73	7.6	-7.3	-2.2	77	13.7	-13.3	-3.1	88	21.0	-21.0	-0.8
21	256	7.3	7.1	1.8	252	7.9	7.5	2.4	261	3.1	3.1	0.5	29	3.7	-1.8	-3.2	79	8.3	-8.1	-1.6	92	14.9	-14.9	0.6	83	24.4	-24.2	-3.0
22	243	8.0	7.2	3.6	262	7.5	7.4	1.0	262	2.1	2.1	0.3	19	2.8	-0.9	-2.6	87	8.8	-8.8	-0.4	100	16.1	-15.8	2.9	91	23.8	-23.8	0.4
23	248	9.4	8.7	3.5	250	6.7	6.3	2.3	270	3.1	3.1	0.0	53	3.1	-2.5	-1.9	80	7.8	-7.7	-1.3	90	13.7	-13.7	0.1	86	22.4	-22.3	-1.6
24	272	10.8	10.8	-0.4	262	8.3	8.2	1.1	292	1.8	1.7	-0.7	77	2.6	-2.5	-0.6	80	6.5	-6.4	-1.1	95	14.1	-14.0	1.2	91	20.4	-20.4	0.4
25	268	10.6	10.6	0.4	263	10.4	10.3	1.2	310	4.7	3.6	-3.0	15	3.5	-0.9	-3.4	90	8.1	-8.1	0.0	89	13.7	-13.7	-0.2	90	27.8	-27.8	-0.1
26	263	10.8	10.7	1.3	252	10.1	9.6	3.2	260	4.2	4.1	0.7	30	2.0	-1.0	-1.7	83	6.1	-6.1	-0.7	82	13.4	-13.3	-1.9	85	23.4	-23.3	-2.2
27	261	8.1	8.0	1.3	256	9.2	8.9	2.3	270	5.5	5.5	0.0	360	1.1	0.0	-1.1	93	8.5	-8.5	0.4	85	12.5	-12.5	-1.0	90	24.4	-24.4	-0.2
28	254	10.1	9.7	2.7	258	9.2	9.0	1.9	280	4.6	4.5	-0.8	12	2.9	-0.6	-2.8	78	8.4	-8.2	-1.8	87	13.8	-13.8	-0.7	85	27.2	-27.1	-2.5
29	257	8.3	8.1	1.8	258	7.9	7.7	1.7	289	2.4	2.3	-0.8	360	2.2	0.0	-2.2	80	8.8	-8.7	-1.5	90	15.9	-15.9	0.0	88	25.8	-25.8	-0.8
30	248	6.9	6.4	2.6	251	8.2	7.7	2.7	284	4.0	3.9	-1.0	30	2.2	-1.1	-1.9	84	6.9	-6.9	-0.7	96	15.1	-15.0	1.6	92	23.2	-23.2	0.9
31	246	8.3	7.6	3.4	256	7.1	6.9	1.7	306	4.1	3.3	-2.4	45	4.7	-3.3	-3.3	89	7.9	-7.9	-0.1	89	15.1	-15.1	-0.2	91	24.4	-24.4	0.5

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	250	8.0	7.5	2.8	256	7.2	7.0	1.8	287	3.7	3.5	-1.1	58	3.6	-3.0	-1.9	89	8.7	-8.7	-0.1	90	14.2	-14.2	0.0	84	23.2	-23.1	-2.6
2	260	9.0	8.9	1.5	253	7.6	7.3	2.2	315	2.4	1.7	-1.7	37	4.4	-2.6	-3.5	88	9.5	-9.5	-0.4	88	14.8	-14.8	-0.4	87	24.7	-24.7	-1.3
3	254	10.2	9.8	2.8	258	6.7	6.6	1.4	306	2.2	1.8	-1.3	41	2.9	-1.9	-2.2	87	9.6	-9.6	-0.5	83	13.5	-13.4	-1.7	80	23.8	-23.4	-4.3
4	258	6.8	6.7	1.4	247	7.5	6.9	3.0	263	2.4	2.4	0.3	59	2.9	-2.5	-1.5	88	7.7	-7.7	-0.3	86	12.1	-12.1	-0.8	82	21.6	-21.4	-3.1
5	267	8.5	8.5	0.5	254	7.5	7.2	2.1	275	2.1	2.1	-0.2	47	2.5	-1.8	-1.7	83	8.9	-8.8	-1.1	90	13.6	-13.6	-0.1	84	28.4	-28.2	-3.1
6	256	9.4	9.1	2.2	243	8.5	7.6	3.8	253	4.4	4.2	1.3	34	1.1	-0.6	-0.9	87	8.2	-8.2	-0.4	87	17.9	-17.9	-1.0	89	22.6	-22.6	-0.3
7	264	8.1	8.1	0.8	257	7.2	7.0	1.6	289	2.4	2.3	-0.8	33	3.0	-1.6	-2.5	72	6.1	-5.8	-1.9	90	13.1	-13.1	0.0	91	20.7	-20.7	0.3
8	258	6.3	6.2	1.3	249	6.4	6.0	2.3	288	2.9	2.8	-0.9	33	3.8	-2.1	-3.2	71	8.5	-8.0	-2.8	82	13.1	-13.0	-1.8	94	22.9	-22.8	1.6
9	261	8.6	8.5	1.3	249	6.6	6.2	2.4	317	2.6	1.8	-1.9	45	5.7	-4.0	-4.0	77	7.8	-7.6	-1.8	75	14.7	-14.2	-3.7	92	23.9	-23.9	0.9
10	255	7.1	6.9	1.8	247	5.6	5.2	2.2	355	1.2	0.1	-1.2	66	4.4	-4.0	-1.8	85	7.8	-7.8	-0.7	86	16.8	-16.7	-1.3	88	25.6	-25.6	-0.9
11	259	5.7	5.6	1.1	257	6.2	6.0	1.4	270	1.3	1.3	0.0	50	4.5	-3.5	-2.9	84	9.0	-9.0	-0.9	93	16.0	-16.0	0.8	91	22.3	-22.3	0.4
12	262	7.6	7.5	1.0	248	6.8	6.3	2.5	295	1.7	1.5	-0.7	34	4.0	-2.2	-3.3	76	6.8	-6.6	-1.6	91	12.8	-12.8	0.3	88	20.7	-20.7	-0.8
13	246	9.3	8.5	3.8	250	7.8	7.3	2.7	268	2.5	2.5	0.1	52	3.7	-2.9	-2.3	68	5.9	-5.5	-2.2	99	8.5	-8.4	1.4	87	20.9	-20.9	-1.2
14	251	10.3	9.8	3.3	251	7.8	7.4	2.5	277	2.3	2.3	-0.3	24	3.6	-1.5	-3.3	86	5.2	-5.2	-0.4	88	11.1	-11.1	-0.4	85	19.0	-18.9	-1.7
15	248	9.4	8.7	3.6	254	6.0	5.8	1.7	305	2.4	2.0	-1.4	30	3.4	-1.7	-2.9	73	6.4	-6.1	-1.9	82	10.7	-10.6	-1.4	85	18.1	-18.0	-1.7
16	257	9.0	8.8	2.1	266	6.7	6.7	0.5	318	3.6	2.4	-2.7	55	3.9	-3.2	-2.2	92	6.2	-6.2	0.2	93	12.4	-12.4	0.7	89	23.0	-23.0	-0.3
17	264	8.3	8.3	0.8	265	6.7	6.7	0.6	352	1.4	0.2	-1.4	33	3.5	-1.9	-2.9	88	5.4	-5.4	-0.2	92	11.5	-11.5	0.5	86	21.3	-21.3	-1.4
18	271	8.0	8.0	-0.1	257	6.2	6.0	1.4	276	1.8	1.8	-0.2	25	2.1	-0.9	-1.9	93	6.3	-6.3	0.3	89	11.8	-11.8	-0.2	83	17.5	-17.4	-2.0
19	270	9.2	9.2	0.0	265	6.4	6.4	0.6	313	1.9	1.4	-1.3	27	3.6	-1.6	-3.2	70	7.0	-6.6	-2.4	89	11.1	-11.1	-0.2	92	19.8	-19.8	0.7
20	267	7.3	7.3	0.4	252	6.1	5.8	1.9	312	1.5	1.1	-1.0	50	3.4	-2.6	-2.2	90	6.3	-6.3	0.0	95	12.4	-12.4	1.0	92	21.2	-21.2	0.7
21	263	8.3	8.2	1.0	261	6.7	6.6	1.0	346	2.1	0.5	-2.0	46	4.5	-3.2	-3.1	100	5.9	-5.8	1.0	88	13.0	-13.0	-0.5	92	20.7	-20.7	0.6
22	265	6.4	6.4	0.6	259	6.3	6.2	1.2	312	2.4	1.8	-1.6	18	3.5	-1.1	-3.3	78	7.5	-7.3	-1.5	96	14.2	-14.1	1.5	87	22.8	-22.8	-1.0
23	261	5.2	5.1	0.8	253	5.6	5.4	1.6	38	1.6	-1.0	-1.3	61	3.8	-3.3	-1.8	88	6.9	-6.9	-0.3	90	15.5	-15.5	-0.1	93	23.3	-23.3	1.4
24	288	6.4	6.1	-2.0	268	5.0	5.0	0.2	27	1.3	-0.6	-1.2	57	3.1	-2.6	-1.7	82	7.8	-7.7	-1.1	81	12.8	-12.7	-1.9	94	22.6	-22.5	1.6
25	274	4.4	4.4	-0.3	266	4.0	4.0	0.3	5	2.3	-0.2	-2.3	51	1.9	-1.5	-1.2	83	7.6	-7.5	-0.9	98	12.2	-12.1	1.6	94	19.2	-19.1	1.5
26	250	4.9	4.6	1.7	247	6.0	5.5	2.3	315	0.7	0.5	-0.5	13	1.8	-0.4	-1.8	76	5.0	-4.9	-1.2	99	9.2	-9.1	1.4	88	18.1	-18.1	-0.7
27	256	6.1	5.9	1.5	252	5.8	5.5	1.8	335	1.7	0.7	-1.5	29	2.6	-1.3	-2.3	62	5.5	-4.9	-2.6	91	10.8	-10.8	0.1	84	18.1	-18.0	-2.0
28	271	7.4	7.4	-0.1	260	5.0	4.9	0.9	352	3.0	0.4	-3.0	50	3.9	-3.0	-2.5	91	6.4	-6.4	0.1	86	8.9	-8.9	-0.6	83	19.3	-19.2	-2.3
29	272	7.1	7.1	-0.2	272	4.9	4.9	-0.2	360	2.1	0.0	-2.1	48	4.0	-3.0	-2.7	81	5.9	-5.8	-0.9	81	9.9	-9.8	-1.5	86	18.4	-18.4	-1.3
30	274	7.6	7.6	-0.5	273	5.8	5.8	-0.3	354	2.0	0.2	-2.0	56	4.0	-3.3	-2.2	88	6.6	-6.6	-0.2	98	9.8	-9.7	1.4	99	19.0	-18.7	3.1
31	274	7.7	7.7	-0.5	266	4.9	4.9	0.3	16	1.9	-0.5	-1.8	54	4.8	-3.9	-2.8	99	7.7	-7.6	1.2	103	8.3	-8.1	1.8	94	15.6	-15.6	1.1

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	281	6.1	6.0	-1.2	270	4.5	4.5	0.0	4	1.5	-0.1	-1.5	40	2.5	-1.6	-1.9	67	3.3	-3.0	-1.3	113	8.3	-7.6	3.3	82	13.3	-13.2	-1.9
2	284	7.9	7.7	-1.9	271	6.3	6.3	-0.1	3	3.3	-0.2	-3.3	13	1.3	-0.3	-1.3	84	4.9	-4.9	-0.5	104	9.7	-9.4	2.4	103	13.8	-13.5	3.0
3	272	8.2	8.2	-0.3	267	5.0	5.0	0.3	2	2.6	-0.1	-2.6	57	3.3	-2.8	-1.8	89	4.7	-4.7	-0.1	95	7.3	-7.3	0.7	88	15.9	-15.9	-0.6
4	255	6.5	6.3	1.7	253	5.2	5.0	1.5	336	1.7	0.7	-1.6	94	2.8	-2.8	0.2	91	5.9	-5.9	0.1	95	11.9	-11.8	1.1	86	15.4	-15.4	-1.2
5	255	5.9	5.7	1.5	241	5.5	4.8	2.7	243	0.2	0.2	0.1	38	1.6	-1.0	-1.3	81	5.3	-5.2	-0.8	94	9.5	-9.5	0.7	88	15.8	-15.8	-0.5
6	282	6.7	6.6	-1.4	257	4.9	4.8	1.1	333	0.7	0.3	-0.6	360	0.6	0.0	-0.6	62	3.4	-3.0	-1.6	88	8.6	-8.6	-0.3	90	14.1	-14.1	0.1
7	274	5.9	5.9	-0.4	249	4.8	4.5	1.7	360	0.3	0.0	-0.3	360	0.3	0.0	-0.3	70	3.2	-3.0	-1.1	90	6.1	-6.1	0.0	85	16.3	-16.2	-1.4
8	256	5.8	5.6	1.4	247	4.9	4.5	1.9	252	2.6	2.5	0.8	75	1.6	-1.5	-0.4	72	1.9	-1.8	-0.6	97	7.0	-7.0	0.8	78	15.3	-15.0	-3.2
9	241	7.3	6.4	3.5	244	5.0	4.5	2.2	304	0.4	0.3	-0.2	215	1.2	0.7	1.0	84	0.9	-0.9	-0.1	109	4.6	-4.4	1.5	73	11.4	-10.9	-3.3
10	251	7.7	7.3	2.5	250	4.0	3.8	1.4	80	1.1	-1.1	-0.2	129	0.6	-0.5	0.4	93	2.0	-2.0	0.1	130	3.9	-3.0	2.5	87	14.2	-14.2	-0.8
11	268	5.8	5.8	0.2	245	2.9	2.6	1.2	83	0.8	-0.8	-0.1	90	1.5	-1.5	0.0	106	3.3	-3.2	0.9	113	7.6	-7.0	2.9	88	12.3	-12.3	-0.5
12	260	4.1	4.0	0.7	273	1.7	1.7	-0.1	97	0.8	-0.8	0.1	153	0.7	-0.3	0.6	111	3.0	-2.8	1.1	129	6.7	-5.2	4.2	97	11.6	-11.5	1.5
13	299	6.3	5.5	-3.0	239	2.6	2.2	1.3	14	1.6	-0.4	-1.6	283	1.7	1.7	-0.4	111	1.9	-1.8	0.7	154	5.8	-2.5	5.2	101	10.6	-10.4	2.0
14	278	6.2	6.1	-0.9	255	2.3	2.2	0.6	153	0.7	-0.3	0.6	279	1.3	1.3	-0.2	138	1.2	-0.8	0.9	120	4.8	-4.1	2.4	97	10.4	-10.3	1.2
15	290	5.4	5.1	-1.9	262	2.7	2.7	0.4	135	1.3	-0.9	0.9	310	2.5	1.9	-1.6	166	0.4	-0.1	0.4	108	4.2	-4.0	1.3	101	11.1	-10.9	2.1
16	302	6.0	5.1	-3.2	281	2.1	2.1	-0.4	113	0.8	-0.7	0.3	45	0.6	-0.4	-0.4	56	2.7	-2.2	-1.5	128	4.9	-3.9	3.0	95	8.4	-8.4	0.7
17	296	6.4	5.8	-2.8	292	1.6	1.5	-0.6	158	0.5	-0.2	0.5	308	1.1	0.9	-0.7	135	1.0	-0.7	0.7	142	4.1	-2.5	3.2	85	7.4	-7.4	-0.7
18	291	6.9	6.4	-2.5	272	2.5	2.5	-0.1	297	0.2	0.2	-0.1	304	1.8	1.5	-1.0	169	1.0	-0.2	1.0	127	4.5	-3.6	2.7	108	8.5	-8.1	2.6
19	277	7.1	7.0	-0.9	252	2.2	2.1	0.7	354	0.9	0.1	-0.9	259	2.1	2.1	0.4	225	0.8	0.6	0.6	171	2.5	-0.4	2.5	104	7.9	-7.7	1.9
20	272	6.7	6.7	-0.2	255	1.6	1.5	0.4	122	0.9	-0.8	0.5	171	0.6	-0.1	0.6	197	3.1	0.9	3.0	207	3.7	1.7	3.3	108	6.5	-6.2	2.0
21	302	4.1	3.5	-2.2	34	1.4	-0.8	-1.2	61	2.5	-2.2	-1.2	270	0.4	0.4	0.0	212	1.5	0.8	1.3	156	4.3	-1.7	3.9	93	5.8	-5.8	0.3
22	311	2.1	1.6	-1.4	20	1.2	-0.4	-1.1	58	2.2	-1.9	-1.2	40	1.7	-1.1	-1.3	211	1.7	0.9	1.5	207	2.7	1.2	2.4	66	6.6	-6.0	-2.7
23	302	2.6	2.2	-1.4	348	1.4	0.3	-1.4	30	2.0	-1.0	-1.7	27	1.1	-0.5	-1.0	238	2.5	2.1	1.3	199	2.4	0.8	2.3	103	6.5	-6.3	1.4
24	318	2.5	1.7	-1.9	360	0.8	0.0	-0.8	63	2.0	-1.8	-0.9	342	2.6	0.8	-2.5	235	4.4	3.6	2.5	220	4.7	3.0	3.6	104	4.0	-3.9	1.0
25	279	3.1	3.1	-0.5	356	1.3	0.1	-1.3	78	2.4	-2.3	-0.5	315	0.4	0.3	-0.3	239	4.4	3.8	2.3	209	4.8	2.3	4.2	93	6.6	-6.6	0.3
26	318	4.0	2.7	-3.0	59	0.6	-0.5	-0.3	105	2.0	-1.9	0.5	321	0.6	0.4	-0.5	254	4.4	4.2	1.2	220	4.3	2.8	3.3	106	2.9	-2.8	0.8
27	301	1.7	1.5	-0.9	324	0.9	0.5	-0.7	77	1.3	-1.3	-0.3	346	1.2	0.3	-1.2	235	2.4	2.0	1.4	217	3.4	2.0	2.7	101	4.1	-4.0	0.8
28	310	2.5	1.9	-1.6	292	1.6	1.5	-0.6	35	1.2	-0.7	-1.0	291	1.4	1.3	-0.5	257	4.3	4.2	1.0	237	5.9	5.0	3.2	93	3.4	-3.4	0.2
29	286	2.5	2.4	-0.7	333	0.2	0.1	-0.2	14	1.2	-0.3	-1.2	286	1.5	1.4	-0.4	238	4.1	3.5	2.2	222	4.3	2.9	3.2	108	4.7	-4.5	1.5
30	325	1.2	0.7	-1.0	11	0.5	-0.1	-0.5	39	0.6	-0.4	-0.5	300	2.8	2.4	-1.4	258	6.6	6.5	1.4	246	9.5	8.7	3.8	261	0.6	0.6	0.1

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	356	1.3	0.1	-1.3	225	0.1	0.1	0.1	119	1.3	-1.1	0.6	252	2.6	2.5	0.8	247	5.0	4.6	2.0	238	8.4	7.1	4.4	170	4.7	-0.8	4.6
2	318	1.5	1.0	-1.1	90	1.6	-1.6	0.0	103	0.9	-0.9	0.2	309	3.8	3.0	-2.4	261	5.9	5.8	0.9	242	6.2	5.5	2.9	201	1.9	0.7	1.8
3	9	1.2	-0.2	-1.2	55	1.2	-1.0	-0.7	45	1.8	-1.3	-1.3	330	2.2	1.1	-1.9	265	5.3	5.3	0.5	242	7.0	6.2	3.3	158	3.5	-1.3	3.3
4	328	2.6	1.4	-2.2	37	0.5	-0.3	-0.4	14	1.2	-0.3	-1.2	357	4.0	0.2	-4.0	269	6.4	6.4	0.1	234	6.6	5.3	3.9	151	2.9	-1.4	2.5
5	310	3.9	3.0	-2.5	45	0.8	-0.6	-0.6	68	0.5	-0.5	-0.2	16	3.2	-0.9	-3.1	260	7.4	7.3	1.3	235	7.0	5.8	4.0	153	1.6	-0.7	1.4
6	324	2.7	1.6	-2.2	22	2.2	-0.8	-2.0	45	2.4	-1.7	-1.7	360	3.6	0.0	-3.6	262	5.9	5.8	0.8	234	8.9	7.2	5.3	202	2.9	1.1	2.7
7	358	2.8	0.1	-2.8	16	1.5	-0.4	-1.4	38	1.1	-0.7	-0.9	335	3.1	1.3	-2.8	265	6.1	6.1	0.5	240	9.7	8.4	4.9	227	4.1	3.0	2.8
8	36	1.9	-1.1	-1.5	24	1.7	-0.7	-1.6	35	1.9	-1.1	-1.6	310	3.8	2.9	-2.4	255	8.5	8.2	2.2	246	11.5	10.5	4.7	229	6.4	4.8	4.2
9	57	3.5	-2.9	-1.9	23	1.5	-0.6	-1.4	36	2.9	-1.7	-2.3	325	2.9	1.7	-2.4	263	8.2	8.1	1.0	236	10.7	8.9	5.9	248	4.3	4.0	1.6
10	90	1.6	-1.6	0.0	360	1.1	0.0	-1.1	4	1.3	-0.1	-1.3	315	3.8	2.7	-2.7	273	6.3	6.3	-0.3	261	8.3	8.2	1.3	238	3.9	3.3	2.1
11	50	3.0	-2.3	-1.9	7	2.5	-0.3	-2.5	356	1.3	0.1	-1.3	317	4.1	2.8	-3.0	265	9.9	9.9	0.9	249	12.4	11.6	4.5	249	8.5	8.0	3.0
12	31	1.7	-0.9	-1.5	352	1.5	0.2	-1.5	278	0.7	0.7	-0.1	291	4.5	4.2	-1.6	262	9.2	9.1	1.3	250	12.6	11.8	4.3	242	3.0	2.6	1.4
13	90	0.1	-0.1	0.0	346	0.8	0.2	-0.8	61	1.0	-0.9	-0.5	297	4.0	3.6	-1.8	275	9.0	9.0	-0.8	258	9.3	9.1	1.9	243	3.6	3.2	1.6
14	315	0.4	0.3	-0.3	280	1.1	1.1	-0.2	63	1.6	-1.4	-0.7	304	5.0	4.1	-2.8	268	10.0	10.0	0.4	250	11.0	10.3	3.8	253	2.8	2.7	0.8
15	63	1.8	-1.6	-0.8	346	1.2	0.3	-1.2	39	0.6	-0.4	-0.5	301	4.8	4.1	-2.5	267	10.2	10.2	0.6	249	13.9	13.0	4.9	242	3.2	2.8	1.5
16	114	1.7	-1.6	0.7	15	1.6	-0.4	-1.5	90	0.3	-0.3	0.0	297	2.9	2.6	-1.3	265	10.4	10.4	0.9	245	14.6	13.2	6.2	259	6.7	6.6	1.3
17	236	1.1	0.9	0.6	360	0.2	0.0	-0.2	50	0.8	-0.6	-0.5	308	3.4	2.7	-2.1	278	11.8	11.7	-1.7	256	16.5	16.0	3.9	214	5.5	3.1	4.6
18	44	2.9	-2.0	-2.1	28	1.5	-0.7	-1.3	320	0.8	0.5	-0.6	292	5.7	5.3	-2.1	259	13.2	12.9	2.6	247	16.1	14.8	6.3	235	10.3	8.4	5.9
19	90	0.7	-0.7	0.0	24	1.2	-0.5	-1.1	27	0.9	-0.4	-0.8	309	5.1	4.0	-3.2	265	12.5	12.5	1.1	254	16.2	15.6	4.5	232	9.3	7.3	5.7
20	344	1.8	0.5	-1.7	32	0.9	-0.5	-0.8	38	1.6	-1.0	-1.3	290	5.2	4.9	-1.8	260	13.5	13.3	2.4	252	17.9	17.0	5.5	237	5.6	4.7	3.0
21	19	2.1	-0.7	-2.0	54	1.4	-1.1	-0.8	60	1.4	-1.2	-0.7	288	3.9	3.7	-1.2	278	13.0	12.9	-1.8	268	15.0	15.0	0.5	240	9.5	8.2	4.8
22	40	3.5	-2.3	-2.7	99	2.0	-2.0	0.3	150	0.8	-0.4	0.7	271	6.4	6.4	-0.1	264	13.9	13.8	1.5	260	18.2	17.9	3.2	249	8.0	7.5	2.9
23	101	1.5	-1.5	0.3	129	2.2	-1.7	1.4	202	1.8	0.7	1.7	273	7.0	7.0	-0.4	271	17.0	17.0	-0.2	254	18.5	17.8	5.2	238	9.1	7.7	4.9
24	86	1.6	-1.6	-0.1	66	1.0	-0.9	-0.4	305	1.6	1.3	-0.9	290	6.4	6.0	-2.2	270	17.1	17.1	-0.1	260	20.0	19.7	3.4	259	12.1	11.9	2.3
25	87	1.9	-1.9	-0.1	98	0.7	-0.7	0.1	321	0.6	0.4	-0.5	279	7.5	7.4	-1.2	264	17.0	16.9	1.8	259	21.4	21.0	4.2	251	9.8	9.3	3.2
26	75	2.4	-2.3	-0.6	61	2.5	-2.2	-1.2	225	0.1	0.1	0.1	279	5.9	5.8	-0.9	262	18.8	18.6	2.5	255	26.3	25.4	6.9	255	13.6	13.1	3.5
27	47	3.4	-2.5	-2.3	54	1.9	-1.5	-1.1	56	0.7	-0.6	-0.4	288	6.0	5.7	-1.8	255	14.8	14.3	3.7	259	16.8	16.5	3.2	246	9.0	8.2	3.6
28	45	3.3	-2.3	-2.3	36	2.2	-1.3	-1.8	350	1.1	0.2	-1.1	272	7.1	7.1	-0.3	260	18.8	18.5	3.3	252	25.6	24.4	7.7	248	12.2	11.3	4.5
29	15	3.8	-1.0	-3.7	50	3.8	-2.9	-2.4	338	0.5	0.2	-0.5	284	6.7	6.5	-1.6	266	17.5	17.5	1.2	254	22.6	21.7	6.3	257	10.3	10.0	2.3
30	73	4.1	-3.9	-1.2	52	1.6	-1.3	-1.0	15	1.6	-0.4	-1.5	283	6.2	6.0	-1.4	267	18.0	18.0	1.1	244	22.5	20.2	9.9	229	6.5	4.9	4.3
31	38	3.6	-2.2	-2.8	53	2.5	-2.0	-1.5	12	1.4	-0.3	-1.4	280	7.4	7.3	-1.3	270	18.1	18.1	0.1	257	24.4	23.8	5.3	247	12.7	11.7	5.0

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	68	5.0	-4.6	-1.9	76	3.4	-3.3	-0.8	55	1.6	-1.3	-0.9	306	8.6	7.0	-5.0	279	18.2	18.0	-3.0	260	21.6	21.3	3.7	269	12.7	12.7	0.3
2	65	4.7	-4.2	-2.0	85	3.5	-3.5	-0.3	38	3.3	-2.0	-2.6	315	5.7	4.0	-4.0	277	16.9	16.8	-2.1	260	21.6	21.3	3.7	257	9.4	9.2	2.1
3	79	3.8	-3.7	-0.7	79	1.6	-1.6	-0.3	333	1.1	0.5	-1.0	292	7.9	7.3	-3.0	273	18.9	18.9	-0.9	256	22.5	21.8	5.5	272	7.3	7.3	-0.2
4	61	2.9	-2.5	-1.4	61	3.3	-2.9	-1.6	10	2.2	-0.4	-2.2	296	7.7	6.9	-3.4	274	16.4	16.4	-1.2	254	19.0	18.3	5.2	252	11.7	11.1	3.7
5	53	2.6	-2.1	-1.6	36	1.9	-1.1	-1.5	330	2.2	1.1	-1.9	314	6.9	5.0	-4.8	297	15.6	13.9	-7.1	264	20.5	20.4	2.1	289	8.0	7.6	-2.6
6	59	4.3	-3.7	-2.2	57	2.4	-2.0	-1.3	350	2.2	0.4	-2.2	305	6.6	5.4	-3.8	274	16.1	16.1	-1.0	258	19.0	18.6	3.8	271	10.4	10.4	-0.1
7	39	3.3	-2.1	-2.6	57	2.0	-1.7	-1.1	330	2.0	1.0	-1.7	293	6.9	6.4	-2.7	268	17.9	17.9	0.5	256	23.2	22.5	5.5	256	12.1	11.7	3.0
8	39	4.0	-2.5	-3.1	81	1.3	-1.3	-0.2	283	0.9	0.9	-0.2	270	7.5	7.5	0.0	264	17.5	17.4	1.7	262	22.7	22.5	3.3	280	8.7	8.6	-1.5
9	43	3.5	-2.4	-2.6	81	0.6	-0.6	-0.1	315	1.4	1.0	-1.0	272	7.3	7.3	-0.2	272	20.0	20.0	-0.7	258	23.6	23.1	4.9	286	14.9	14.3	-4.1
10	61	4.8	-4.2	-2.3	60	1.6	-1.4	-0.8	15	1.6	-0.4	-1.5	310	6.4	4.9	-4.1	284	17.8	17.3	-4.2	271	16.6	16.6	-0.2	270	10.6	10.6	0.0
11	74	2.9	-2.8	-0.8	60	0.8	-0.7	-0.4	338	1.1	0.4	-1.0	294	6.4	5.8	-2.6	277	19.7	19.6	-2.3	271	24.0	24.0	-0.3	269	18.3	18.3	0.2
12	33	2.4	-1.3	-2.0	53	0.5	-0.4	-0.3	319	2.1	1.4	-1.6	285	7.8	7.5	-2.0	271	21.7	21.7	-0.2	267	23.8	23.8	1.3	272	9.5	9.5	-0.4
13	45	3.1	-2.2	-2.2	43	1.8	-1.2	-1.3	360	2.5	0.0	-2.5	308	6.8	5.4	-4.2	280	17.6	17.3	-3.1	261	21.9	21.6	3.4	277	13.5	13.4	-1.6
14	66	5.2	-4.8	-2.1	94	2.7	-2.7	0.2	329	0.6	0.3	-0.5	290	5.2	4.9	-1.8	264	16.3	16.2	1.6	255	22.2	21.4	5.8	263	15.4	15.3	1.9
15	82	5.2	-5.2	-0.7	77	2.6	-2.5	-0.6	327	1.7	0.9	-1.4	278	4.5	4.5	-0.6	268	18.4	18.4	0.7	255	25.2	24.3	6.7	258	12.4	12.1	2.5
16	78	4.5	-4.4	-0.9	99	2.0	-2.0	0.3	283	1.7	1.7	-0.4	284	7.0	6.8	-1.7	268	17.5	17.5	0.6	252	23.2	22.0	7.3	254	12.8	12.3	3.6
17	76	4.6	-4.5	-1.1	100	1.1	-1.1	0.2	292	1.1	1.0	-0.4	278	9.1	9.0	-1.3	265	22.0	21.9	2.1	252	28.6	27.2	8.7	247	14.2	13.1	5.5
18	62	3.4	-3.0	-1.6	119	1.8	-1.6	0.9	261	3.3	3.3	0.5	280	10.3	10.1	-1.8	267	22.0	22.0	1.3	255	27.3	26.4	7.0	256	12.4	12.0	3.1
19	63	2.8	-2.5	-1.3	59	1.7	-1.5	-0.9	301	2.9	2.5	-1.5	285	10.5	10.1	-2.8	273	23.4	23.4	-1.3	254	26.7	25.7	7.3	256	15.1	14.7	3.6
20	61	4.8	-4.2	-2.3	40	2.6	-1.7	-2.0	309	2.6	2.0	-1.6	276	12.1	12.0	-1.3	262	26.0	25.7	3.6	256	33.4	32.4	8.3	259	19.5	19.1	3.7
21	78	3.8	-3.7	-0.8	41	1.1	-0.7	-0.8	308	2.3	1.8	-1.4	285	7.9	7.6	-2.0	265	18.9	18.8	1.5	256	23.7	23.0	5.7	248	10.0	9.3	3.7
22	78	3.5	-3.4	-0.7	108	0.6	-0.6	0.2	282	1.9	1.9	-0.4	275	10.9	10.9	-1.0	262	24.9	24.7	3.4	249	25.3	23.6	9.1	259	14.9	14.6	2.9
23	76	3.6	-3.5	-0.9	97	1.7	-1.7	0.2	263	3.4	3.4	0.4	276	10.5	10.4	-1.1	274	23.1	23.0	-1.6	258	25.1	24.5	5.4	248	14.2	13.2	5.2
24	76	6.3	-6.1	-1.5	74	2.2	-2.1	-0.6	281	2.5	2.5	-0.5	281	10.4	10.2	-2.0	269	17.9	17.9	0.2	267	23.3	23.3	1.2	265	13.6	13.6	1.1
25	76	4.2	-4.1	-1.0	90	1.3	-1.3	0.0	276	3.6	3.6	-0.4	284	10.7	10.4	-2.6	273	25.1	25.1	-1.5	268	28.5	28.5	1.2	253	15.7	15.0	4.5
26	70	2.0	-1.9	-0.7	338	0.5	0.2	-0.5	274	4.7	4.7	-0.3	272	11.0	11.0	-0.4	270	23.0	23.0	0.2	271	31.4	31.4	-0.4	261	18.6	18.4	2.8
27	65	2.1	-1.9	-0.9	56	0.4	-0.3	-0.2	284	4.2	4.1	-1.0	275	12.2	12.2	-1.0	258	24.5	24.0	5.1	260	29.0	28.5	5.1	261	22.9	22.6	3.6
28	62	3.6	-3.2	-1.7	37	1.5	-0.9	-1.2	278	4.9	4.8	-0.7	278	12.9	12.8	-1.8	267	24.8	24.8	1.2	261	28.9	28.6	4.3	259	15.6	15.3	2.9
29	73	4.2	-4.0	-1.2	113	1.5	-1.4	0.6	292	3.1	2.9	-1.2	273	11.9	11.9	-0.6	260	27.0	26.6	4.6	254	35.3	34.0	9.6	257	24.3	23.7	5.5
30	51	2.2	-1.7	-1.4	94	1.5	-1.5	0.1	294	2.7	2.5	-1.1	272	13.3	13.3	-0.5	267	28.6	28.6	1.4	264	31.2	31.0	3.4	265	11.1	11.1	0.9

Daily Normals of Upper Air Winds (1971-2000)

AHMEDABAD **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	78	4.4	-4.3	-0.9	105	2.4	-2.3	0.6	297	3.6	3.2	-1.6	277	12.9	12.8	-1.5	267	29.8	29.7	1.8	259	34.3	33.6	6.7	248	23.9	22.2	8.8
2	89	5.2	-5.2	-0.1	53	0.5	-0.4	-0.3	272	2.7	2.7	-0.1	268	13.5	13.5	0.4	262	27.4	27.1	3.7	255	32.0	30.9	8.2	256	18.0	17.5	4.4
3	75	2.3	-2.2	-0.6	127	1.0	-0.8	0.6	283	4.0	3.9	-0.9	272	11.9	11.9	-0.4	263	26.5	26.3	3.3	262	29.8	29.5	4.1	264	20.8	20.7	2.3
4	77	3.2	-3.1	-0.7	49	1.1	-0.8	-0.7	267	3.4	3.4	0.2	274	13.8	13.8	-0.9	260	30.5	30.0	5.3	251	35.9	34.0	11.6	257	23.6	23.0	5.4
5	78	3.4	-3.3	-0.7	114	1.2	-1.1	0.5	291	4.2	3.9	-1.5	271	13.2	13.2	-0.3	262	28.3	28.0	3.9	252	35.1	33.3	11.0	248	17.0	15.8	6.4
6	99	3.3	-3.3	0.5	135	0.6	-0.4	0.4	269	4.0	4.0	0.1	279	12.5	12.4	-1.9	265	25.0	24.9	2.0	252	31.0	29.5	9.4	248	15.1	14.0	5.7
7	102	3.5	-3.4	0.7	79	0.5	-0.5	-0.1	284	4.2	4.1	-1.0	283	12.1	11.8	-2.7	267	23.9	23.9	1.4	258	30.6	29.9	6.5	268	21.1	21.1	0.8
8	93	2.0	-2.0	0.1	30	0.8	-0.4	-0.7	277	4.1	4.1	-0.5	263	13.8	13.7	1.8	260	24.5	24.1	4.4	251	29.3	27.7	9.7	257	26.6	26.0	5.8
9	53	3.4	-2.7	-2.0	311	1.1	0.8	-0.7	283	5.0	4.9	-1.1	268	13.7	13.7	0.5	264	28.7	28.5	3.1	254	33.3	32.1	9.0	251	16.2	15.3	5.3
10	58	4.7	-4.0	-2.5	48	1.3	-1.0	-0.9	302	5.1	4.3	-2.7	277	12.9	12.8	-1.5	269	27.6	27.6	0.3	263	36.5	36.2	4.4	260	24.9	24.5	4.2
11	65	5.2	-4.7	-2.2	27	1.1	-0.5	-1.0	289	3.6	3.4	-1.2	268	16.0	16.0	0.5	266	28.9	28.8	1.8	266	33.1	33.0	2.1	267	19.9	19.9	0.9
12	90	3.9	-3.9	0.0	23	1.3	-0.5	-1.2	300	4.2	3.6	-2.1	272	15.1	15.1	-0.5	269	26.0	26.0	0.6	268	29.5	29.5	1.0	266	21.8	21.7	1.5
13	66	3.4	-3.1	-1.4	90	0.8	-0.8	0.0	286	3.2	3.1	-0.9	273	13.2	13.2	-0.6	269	25.8	25.8	0.5	255	31.6	30.5	8.3	269	23.7	23.7	0.4
14	79	4.4	-4.3	-0.8	103	1.3	-1.3	0.3	293	4.3	4.0	-1.7	280	13.2	13.0	-2.2	267	25.7	25.7	1.2	265	33.8	33.7	2.8	248	32.1	29.8	11.9
15	82	2.7	-2.7	-0.4	156	1.0	-0.4	0.9	279	5.4	5.3	-0.8	273	13.1	13.1	-0.6	271	29.7	29.7	-0.3	267	35.8	35.7	2.1	274	17.9	17.9	-1.1
16	86	5.2	-5.2	-0.4	207	1.3	0.6	1.2	260	4.8	4.7	0.8	271	14.3	14.3	-0.2	268	28.3	28.3	0.9	270	37.5	37.5	0.3	266	32.6	32.5	2.3
17	85	2.4	-2.4	-0.2	169	0.5	-0.1	0.5	261	3.0	3.0	0.5	265	12.2	12.2	1.0	265	26.3	26.2	2.1	263	32.7	32.5	3.8	266	22.1	22.0	1.7
18	76	3.2	-3.1	-0.8	124	0.4	-0.3	0.2	271	4.1	4.1	-0.1	273	13.2	13.2	-0.6	270	29.2	29.2	0.1	268	41.9	41.9	1.8	276	24.3	24.1	-2.7
19	90	2.8	-2.8	0.0	263	0.8	0.8	0.1	261	4.0	4.0	0.6	275	14.3	14.2	-1.3	272	26.9	26.9	-0.8	265	35.3	35.2	3.1	271	28.7	28.7	-0.5
20	101	4.1	-4.0	0.8	270	0.7	0.7	0.0	279	6.3	6.2	-1.0	274	14.9	14.9	-1.0	263	31.2	31.0	3.8	264	34.0	33.8	3.8	293	17.8	16.4	-6.9
21	38	1.8	-1.1	-1.4	234	0.9	0.7	0.5	271	4.5	4.5	-0.1	270	14.8	14.8	0.0	272	29.5	29.5	-1.0	261	40.6	40.1	6.4	256	28.4	27.6	6.9
22	85	1.2	-1.2	-0.1	326	0.4	0.2	-0.3	283	6.3	6.1	-1.4	271	15.7	15.7	-0.2	264	27.2	27.0	2.9	266	34.6	34.5	2.4	270	27.3	27.3	0.1
23	70	2.7	-2.5	-0.9	261	1.3	1.3	0.2	274	6.3	6.3	-0.4	274	15.9	15.9	-1.2	271	29.1	29.1	-0.5	265	34.5	34.4	3.1	272	21.2	21.2	-0.7
24	82	2.1	-2.1	-0.3	267	1.9	1.9	0.1	282	5.9	5.8	-1.2	271	17.0	17.0	-0.3	272	31.8	31.8	-1.1	266	37.7	37.6	2.6	259	28.6	28.1	5.5
25	83	3.5	-3.5	-0.4	286	1.5	1.4	-0.4	271	5.3	5.3	-0.1	274	16.9	16.9	-1.2	264	29.3	29.1	3.0	271	31.7	31.7	-0.8	262	21.7	21.5	3.0
26	80	4.7	-4.6	-0.8	218	1.1	0.7	0.9	275	5.7	5.7	-0.5	270	16.3	16.3	0.0	264	30.6	30.5	3.0	266	36.7	36.6	2.4	261	29.4	29.1	4.5
27	93	3.3	-3.3	0.2	274	1.5	1.5	-0.1	279	7.1	7.0	-1.1	269	17.2	17.2	0.2	261	30.6	30.3	4.6	265	31.8	31.7	2.6	266	27.0	26.9	1.7
28	70	2.9	-2.7	-1.0	254	0.7	0.7	0.2	276	6.2	6.2	-0.7	281	16.6	16.3	-3.2	266	30.7	30.6	2.1	262	36.6	36.3	4.8	267	25.5	25.5	1.3
29	139	0.9	-0.6	0.7	252	2.0	1.9	0.6	274	6.4	6.4	-0.4	273	18.3	18.3	-1.0	271	31.2	31.2	-0.4	270	35.4	35.4	-0.3	265	25.5	25.4	2.3
30	36	2.7	-1.6	-2.2	273	1.9	1.9	-0.1	282	8.3	8.1	-1.7	273	18.9	18.9	-1.0	271	36.6	36.6	-0.6	263	38.9	38.6	4.7	267	23.8	23.8	1.1
31	93	4.1	-4.1	0.2	236	1.1	0.9	0.6	269	5.3	5.3	0.1	262	16.4	16.2	2.4	263	32.9	32.7	4.0	258	33.0	32.3	7.0	250	13.5	12.7	4.5

Daily Normals of Upper Air Winds (1971-2000)

AMINI **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	64	3.4	-3.1	-1.5	83	3.4	-3.4	-0.4	80	2.3	-2.3	-0.4	101	2.5	-2.5	0.5	282	7.9	7.7	-1.6	235	5.4	4.4	3.1	251	5.6	5.3	1.8
2	58	2.8	-2.4	-1.5	88	2.9	-2.9	-0.1	118	1.5	-1.3	0.7	324	0.9	0.5	-0.7	242	8.1	7.2	3.8	230	7.7	5.9	5.0	—	—	—	—
3	49	2.9	-2.2	-1.9	105	2.4	-2.3	0.6	105	1.6	-1.5	0.4	304	1.4	1.2	-0.8	224	6.0	4.2	4.3	221	9.2	6.0	7.0	187	4.7	0.6	4.7
4	51	2.8	-2.2	-1.8	92	2.9	-2.9	0.1	114	2.4	-2.2	1.0	42	1.5	-1.0	-1.1	234	6.3	5.1	3.7	188	9.6	1.3	9.5	260	1.1	1.1	0.2
5	47	2.5	-1.8	-1.7	103	3.1	-3.0	0.7	90	1.8	-1.8	0.0	225	0.6	0.4	0.4	234	4.8	3.9	2.8	209	9.2	4.5	8.0	15	3.0	-0.8	-2.9
6	9	3.2	-0.5	-3.2	74	3.3	-3.2	-0.9	112	0.5	-0.5	0.2	322	1.6	1.0	-1.3	232	5.0	3.9	3.1	256	11.1	10.8	2.6	307	13.2	10.6	-7.9
7	60	3.4	-2.9	-1.7	105	3.0	-2.9	0.8	360	0.3	0.0	-0.3	273	1.7	1.7	-0.1	259	7.3	7.2	1.4	250	9.0	8.5	3.1	293	13.0	12.0	-5.1
8	39	1.9	-1.2	-1.5	90	3.7	-3.7	0.0	131	0.9	-0.7	0.6	256	0.4	0.4	0.1	297	4.2	3.7	-1.9	212	6.4	3.4	5.4	182	2.8	0.1	2.8
9	85	3.3	-3.3	-0.3	111	4.5	-4.2	1.6	87	1.9	-1.9	-0.1	12	1.4	-0.3	-1.4	266	6.6	6.6	0.5	230	5.9	4.5	3.8	356	5.1	0.4	-5.1
10	39	1.4	-0.9	-1.1	101	3.1	-3.0	0.6	118	1.7	-1.5	0.8	72	2.9	-2.8	-0.9	254	2.6	2.5	0.7	263	3.5	3.5	0.4	—	—	—	—
11	29	2.1	-1.0	-1.8	96	2.9	-2.9	0.3	104	0.8	-0.8	0.2	38	1.8	-1.1	-1.4	202	2.2	0.8	2.0	191	6.3	1.2	6.2	60	4.8	-4.1	-2.4
12	68	1.6	-1.5	-0.6	96	1.9	-1.9	0.2	171	1.3	-0.2	1.3	90	1.0	-1.0	0.0	243	3.3	2.9	1.5	178	4.7	-0.2	4.7	247	4.0	3.7	1.6
13	18	1.9	-0.6	-1.8	110	3.0	-2.8	1.0	140	0.8	-0.5	0.6	153	1.1	-0.5	1.0	221	4.5	3.0	3.4	180	5.8	0.0	5.8	90	15.7	-15.7	-0.1
14	38	2.8	-1.7	-2.2	78	2.4	-2.3	-0.5	131	1.1	-0.8	0.7	58	2.6	-2.2	-1.4	258	5.4	5.3	1.1	252	6.3	6.0	1.9	16	2.9	-0.8	-2.8
15	5	2.3	-0.2	-2.3	112	3.8	-3.5	1.4	124	2.5	-2.1	1.4	45	3.7	-2.6	-2.6	252	5.4	5.1	1.7	179	10.0	-0.2	10.0	285	8.0	7.7	-2.1
16	23	2.3	-0.9	-2.1	95	3.8	-3.8	0.3	124	1.4	-1.2	0.8	117	2.9	-2.6	1.3	281	3.2	3.1	-0.6	208	6.1	2.9	5.4	121	0.6	-0.5	0.3
17	30	3.8	-1.9	-3.3	83	3.8	-3.8	-0.5	114	3.6	-3.3	1.5	148	2.5	-1.3	2.1	159	2.5	-0.9	2.3	161	8.3	-2.7	7.8	357	8.0	0.4	-8.0
18	55	3.9	-3.2	-2.2	91	4.9	-4.9	0.1	95	3.4	-3.4	0.3	76	3.0	-2.9	-0.7	193	2.7	0.6	2.6	187	11.0	1.3	10.9	124	4.0	-3.3	2.2
19	36	4.1	-2.4	-3.3	87	4.0	-4.0	-0.2	133	1.6	-1.2	1.1	63	4.7	-4.2	-2.1	164	0.7	-0.2	0.7	170	8.3	-1.4	8.2	196	0.7	0.2	0.7
20	28	3.6	-1.7	-3.2	82	3.4	-3.4	-0.5	58	0.9	-0.8	-0.5	87	3.5	-3.5	-0.2	70	2.3	-2.2	-0.8	211	6.1	3.1	5.2	103	6.2	-6.0	1.4
21	12	5.7	-1.2	-5.6	67	2.6	-2.4	-1.0	38	1.6	-1.0	-1.3	129	3.8	-3.0	2.4	194	3.2	0.8	3.1	181	7.2	0.1	7.2	224	6.2	4.3	4.5
22	17	4.7	-1.4	-4.5	92	4.7	-4.7	0.2	78	3.3	-3.2	-0.7	116	3.7	-3.3	1.6	174	2.7	-0.3	2.7	207	5.8	2.6	5.2	156	4.7	-1.9	4.3
23	41	4.0	-2.6	-3.0	99	4.5	-4.4	0.7	94	4.5	-4.5	0.3	83	3.5	-3.5	-0.4	238	2.8	2.4	1.5	172	9.2	-1.3	9.1	71	7.5	-7.1	-2.4
24	30	4.8	-2.4	-4.2	90	4.4	-4.4	0.0	69	4.8	-4.5	-1.7	92	2.9	-2.9	0.1	103	1.3	-1.3	0.3	211	6.6	3.4	5.6	341	3.9	1.3	-3.7
25	31	4.2	-2.2	-3.6	94	5.2	-5.2	0.4	96	6.2	-6.2	0.6	82	4.3	-4.3	-0.6	262	0.7	0.7	0.1	209	4.5	2.2	3.9	292	2.7	2.5	-1.0
26	64	3.7	-3.3	-1.6	92	5.4	-5.4	0.2	87	4.0	-4.0	-0.2	82	4.4	-4.4	-0.6	306	2.7	2.2	-1.6	201	3.9	1.4	3.6	290	15.0	14.1	-5.1
27	59	3.5	-3.0	-1.8	93	4.5	-4.5	0.2	105	2.8	-2.7	0.7	48	4.8	-3.6	-3.2	68	4.2	-3.9	-1.6	145	6.4	-3.7	5.2	295	12.0	10.9	-5.1
28	46	3.2	-2.3	-2.2	88	4.9	-4.9	-0.2	87	4.2	-4.2	-0.2	76	3.0	-2.9	-0.7	242	4.3	3.8	2.0	245	10.6	9.6	4.5	91	12.0	-12.0	0.2
29	30	3.8	-1.9	-3.3	93	4.5	-4.5	0.2	85	3.8	-3.8	-0.3	82	4.5	-4.5	-0.6	288	3.2	3.0	-1.0	246	7.2	6.6	3.0	176	1.5	-0.1	1.5
30	16	3.3	-0.9	-3.2	92	5.3	-5.3	0.2	105	3.0	-2.9	0.8	50	3.1	-2.4	-2.0	304	2.3	1.9	-1.3	255	3.9	3.8	1.0	—	—	—	—
31	20	4.0	-1.4	-3.8	85	3.7	-3.7	-0.3	87	5.2	-5.2	-0.3	109	2.4	-2.3	0.8	271	4.2	4.2	-0.1	266	8.0	8.0	0.5	280	8.9	8.8	-1.6

Daily Normals of Upper Air Winds (1971-2000)

AMINI **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	63	2.2	-2.0	-1.0	94	4.0	-4.0	0.3	85	4.8	-4.8	-0.4	8	2.7	-0.4	-2.7	293	4.0	3.7	-1.6	280	7.6	7.5	-1.3	324	13.3	7.8	-10.8
2	38	4.4	-2.7	-3.5	89	4.8	-4.8	-0.1	84	5.0	-5.0	-0.5	88	3.0	-3.0	-0.1	256	5.8	5.6	1.4	285	7.1	6.9	-1.8	129	7.0	-5.4	4.4
3	14	2.1	-0.5	-2.0	102	3.5	-3.4	0.7	93	3.4	-3.4	0.2	259	1.5	1.5	0.3	259	2.1	2.1	0.4	275	5.7	5.7	-0.5	220	3.0	1.9	2.3
4	42	3.0	-2.0	-2.2	101	3.6	-3.5	0.7	98	4.4	-4.4	0.6	83	1.6	-1.6	-0.2	291	4.2	3.9	-1.5	278	8.2	8.1	-1.1	281	11.5	11.3	-2.2
5	79	2.0	-2.0	-0.4	89	4.5	-4.5	-0.1	96	4.6	-4.6	0.5	22	1.6	-0.6	-1.5	282	8.1	7.9	-1.7	247	5.2	4.8	2.0	—	—	—	—
6	19	4.0	-1.3	-3.8	93	4.3	-4.3	0.2	94	4.6	-4.6	0.3	11	2.5	-0.5	-2.5	281	6.1	6.0	-1.2	231	6.4	5.0	4.0	287	1.0	1.0	-0.3
7	4	3.9	-0.3	-3.9	88	3.2	-3.2	-0.1	82	2.2	-2.2	-0.3	24	3.5	-1.4	-3.2	299	3.1	2.7	-1.5	247	5.2	4.8	2.0	10	2.9	-0.5	-2.9
8	28	2.6	-1.2	-2.3	98	3.7	-3.7	0.5	86	2.7	-2.7	-0.2	11	4.3	-0.8	-4.2	265	7.6	7.6	0.6	304	10.4	8.6	-5.9	77	4.7	-4.6	-1.1
9	14	2.5	-0.6	-2.4	112	2.7	-2.5	1.0	114	1.0	-0.9	0.4	353	2.6	0.3	-2.6	294	4.9	4.5	-2.0	283	11.1	10.8	-2.4	37	4.6	-2.8	-3.7
10	36	1.4	-0.8	-1.1	115	3.1	-2.8	1.3	81	1.3	-1.3	-0.2	50	5.0	-3.8	-3.2	291	4.4	4.1	-1.6	287	7.7	7.4	-2.2	44	3.3	-2.3	-2.4
11	25	1.4	-0.6	-1.3	111	3.9	-3.6	1.4	121	2.9	-2.5	1.5	54	2.7	-2.2	-1.6	305	7.4	6.1	-4.2	299	6.5	5.7	-3.2	86	5.6	-5.6	-0.4
12	13	2.6	-0.6	-2.5	107	3.0	-2.9	0.9	82	3.0	-3.0	-0.4	41	0.9	-0.6	-0.7	328	5.7	3.0	-4.8	311	6.9	5.2	-4.6	50	3.5	-2.7	-2.3
13	34	1.8	-1.0	-1.5	90	3.2	-3.2	0.0	104	1.6	-1.6	0.4	53	2.0	-1.6	-1.2	291	3.1	2.9	-1.1	215	2.1	1.2	1.7	137	9.8	-6.6	7.2
14	18	2.8	-0.9	-2.7	101	3.1	-3.0	0.6	135	1.6	-1.1	1.1	82	0.7	-0.7	-0.1	271	4.7	4.7	-0.1	234	5.6	4.5	3.3	46	5.0	-3.6	-3.5
15	32	2.8	-1.5	-2.4	99	3.1	-3.1	0.5	113	2.3	-2.1	0.9	246	2.4	2.2	1.0	237	6.9	5.8	3.8	229	4.0	3.0	2.6	278	2.8	2.8	-0.4
16	21	2.8	-1.0	-2.6	110	2.7	-2.5	0.9	112	3.2	-3.0	1.2	32	2.2	-1.2	-1.9	272	6.2	6.2	-0.2	337	5.8	2.3	-5.3	271	9.8	9.8	-0.1
17	358	4.9	0.2	-4.9	60	2.4	-2.1	-1.2	90	1.9	-1.9	0.0	18	0.3	-0.1	-0.3	244	5.0	4.5	2.2	213	7.7	4.2	6.5	357	5.0	0.3	-5.0
18	353	5.1	0.6	-5.1	102	1.9	-1.9	0.4	107	1.7	-1.6	0.5	352	1.5	0.2	-1.5	266	4.2	4.2	0.3	246	8.4	7.7	3.4	223	5.3	3.6	3.9
19	7	3.4	-0.4	-3.4	115	2.3	-2.1	1.0	121	2.9	-2.5	1.5	333	2.0	0.9	-1.8	245	6.1	5.5	2.6	228	2.5	1.9	1.7	205	5.0	2.1	4.5
20	5	4.4	-0.4	-4.4	99	3.3	-3.3	0.5	86	1.4	-1.4	-0.1	45	1.4	-1.0	-1.0	234	1.4	1.1	0.8	258	1.9	1.9	0.4	280	4.5	4.4	-0.8
21	11	4.4	-0.8	-4.3	98	2.7	-2.7	0.4	92	3.2	-3.2	0.1	12	2.9	-0.6	-2.8	268	4.9	4.9	0.2	278	4.1	4.1	-0.6	112	1.1	-1.0	0.4
22	7	3.4	-0.4	-3.4	81	2.6	-2.6	-0.4	81	3.0	-3.0	-0.5	344	2.2	0.6	-2.1	276	6.1	6.1	-0.6	298	5.5	4.9	-2.6	229	2.9	2.2	1.9
23	68	0.5	-0.5	-0.2	101	3.1	-3.0	0.6	90	3.8	-3.8	0.0	50	2.3	-1.8	-1.5	293	4.9	4.5	-1.9	271	4.7	4.7	-0.1	48	7.0	-5.2	-4.7
24	36	1.9	-1.1	-1.5	97	3.1	-3.1	0.4	82	3.4	-3.4	-0.5	70	2.9	-2.7	-1.0	252	1.3	1.2	0.4	316	4.0	2.8	-2.9	251	6.5	6.1	2.1
25	17	2.1	-0.6	-2.0	93	4.1	-4.1	0.2	99	4.4	-4.3	0.7	105	3.1	-3.0	0.8	286	3.3	3.2	-0.9	233	3.9	3.1	2.3	235	2.8	2.3	1.6
26	27	2.7	-1.2	-2.4	90	3.1	-3.1	0.0	76	4.5	-4.4	-1.1	67	0.8	-0.7	-0.3	290	3.2	3.0	-1.1	258	4.8	4.7	1.0	355	9.0	0.8	-9.0
27	45	2.7	-1.9	-1.9	97	3.2	-3.2	0.4	91	4.3	-4.3	0.1	55	2.9	-2.4	-1.7	258	5.9	5.8	1.2	230	6.7	5.2	4.3	360	3.8	0.0	-3.8
28	53	3.0	-2.4	-1.8	90	1.9	-1.9	0.0	103	4.6	-4.5	1.0	53	0.5	-0.4	-0.3	263	9.6	9.5	1.1	273	6.0	6.0	-0.3	92	2.8	-2.8	0.1
29	69	6.0	-5.6	-2.2	69	5.6	-5.2	-2.0	78	3.9	-3.8	-0.8	82	7.4	-7.3	-1.0	201	14.2	5.1	13.3	258	19.0	18.6	4.0	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

AMINI **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	45	2.3	-1.6	-1.6	111	1.4	-1.3	0.5	90	3.6	-3.6	0.0	42	1.3	-0.9	-1.0	270	3.2	3.2	0.0	230	3.0	2.3	1.9	135	5.1	-3.6	3.6
2	333	1.8	0.8	-1.6	102	2.9	-2.8	0.6	68	3.5	-3.2	-1.3	91	4.3	-4.3	0.1	238	3.1	2.6	1.6	265	5.4	5.4	0.5	100	5.0	-4.9	0.9
3	19	3.7	-1.2	-3.5	70	2.7	-2.5	-0.9	97	2.6	-2.6	0.3	29	3.7	-1.8	-3.2	300	3.6	3.1	-1.8	256	7.0	6.8	1.7	355	3.5	0.3	-3.5
4	18	3.9	-1.2	-3.7	68	2.9	-2.7	-1.1	88	2.9	-2.9	-0.1	55	2.8	-2.3	-1.6	270	4.3	4.3	0.0	255	1.6	1.5	0.4	—	—	—	—
5	17	2.7	-0.8	-2.6	78	2.5	-2.4	-0.5	82	4.2	-4.2	-0.6	65	3.1	-2.8	-1.3	228	3.6	2.7	2.4	180	0.9	0.0	0.9	25	3.1	-1.3	-2.8
6	5	3.2	-0.3	-3.2	96	2.7	-2.7	0.3	100	3.5	-3.4	0.6	63	2.2	-2.0	-1.0	258	5.6	5.5	1.2	263	10.2	10.1	1.3	180	2.8	0.0	2.8
7	17	3.4	-1.0	-3.3	90	3.0	-3.0	0.0	99	4.0	-4.0	0.6	106	3.7	-3.6	1.0	270	5.9	5.9	0.0	260	7.2	7.1	1.2	245	2.9	2.6	1.2
8	5	3.6	-0.3	-3.6	108	3.3	-3.1	1.0	91	4.6	-4.6	0.1	81	3.1	-3.1	-0.5	270	7.5	7.5	0.0	295	7.6	6.9	-3.2	285	4.9	4.7	-1.3
9	349	1.0	0.2	-1.0	122	2.6	-2.2	1.4	91	4.6	-4.6	0.1	355	2.5	0.2	-2.5	238	4.1	3.5	2.2	269	4.2	4.2	0.1	270	3.3	3.3	0.0
10	342	1.9	0.6	-1.8	97	4.0	-4.0	0.5	90	7.3	-7.3	0.0	71	2.4	-2.3	-0.8	307	10.3	8.2	-6.2	280	4.0	3.9	-0.7	280	2.9	2.9	-0.5
11	345	1.6	0.4	-1.5	90	2.4	-2.4	0.0	113	4.3	-4.0	1.7	51	1.4	-1.1	-0.9	298	3.2	2.8	-1.5	293	3.9	3.6	-1.5	272	5.1	5.1	-0.2
12	352	2.2	0.3	-2.2	51	2.1	-1.6	-1.3	79	4.3	-4.2	-0.8	56	3.2	-2.7	-1.8	300	4.8	4.1	-2.4	304	8.0	6.6	-4.5	244	3.0	2.7	1.3
13	352	3.0	0.4	-3.0	94	1.6	-1.6	0.1	96	3.1	-3.1	0.3	18	1.9	-0.6	-1.8	289	6.7	6.3	-2.2	306	5.2	4.2	-3.1	256	11.0	10.7	2.7
14	355	2.3	0.2	-2.3	83	2.5	-2.5	-0.3	95	4.5	-4.5	0.4	41	0.9	-0.6	-0.7	320	9.6	6.2	-7.3	293	8.3	7.7	-3.2	—	—	—	—
15	3	3.3	-0.2	-3.3	129	1.3	-1.0	0.8	81	4.6	-4.5	-0.7	54	3.7	-3.0	-2.2	320	5.3	3.4	-4.1	319	5.2	3.4	-3.9	—	—	—	—
16	338	3.5	1.3	-3.2	48	2.5	-1.9	-1.7	81	8.3	-8.2	-1.3	84	4.8	-4.8	-0.5	336	1.7	0.7	-1.6	267	5.7	5.7	0.3	95	7.4	-7.4	0.7
17	343	2.1	0.6	-2.0	122	2.2	-1.9	1.2	80	6.6	-6.5	-1.2	68	4.2	-3.9	-1.6	292	3.1	2.9	-1.2	217	3.0	1.8	2.4	64	7.0	-6.3	-3.1
18	22	2.9	-1.1	-2.7	84	1.9	-1.9	-0.2	93	6.5	-6.5	0.3	66	2.2	-2.0	-0.9	304	2.7	2.2	-1.5	248	5.2	4.8	1.9	250	11.0	10.3	3.8
19	21	3.9	-1.4	-3.6	72	2.8	-2.7	-0.9	93	6.3	-6.3	0.3	72	2.8	-2.7	-0.9	249	2.5	2.3	0.9	247	8.8	8.1	3.4	213	8.1	4.4	6.8
20	35	1.9	-1.1	-1.6	65	1.7	-1.5	-0.7	91	5.6	-5.6	0.1	85	4.4	-4.4	-0.4	238	3.2	2.7	1.7	255	8.6	8.3	2.3	307	1.5	1.2	-0.9
21	294	2.2	2.0	-0.9	45	1.7	-1.2	-1.2	83	5.9	-5.9	-0.7	85	3.3	-3.3	-0.3	299	4.3	3.8	-2.1	245	4.0	3.6	1.7	180	1.5	0.0	1.5
22	356	3.0	0.2	-3.0	81	2.0	-2.0	-0.3	86	4.5	-4.5	-0.3	96	3.0	-3.0	0.3	225	1.3	0.9	0.9	189	5.9	0.9	5.8	302	1.3	1.1	-0.7
23	15	2.7	-0.7	-2.6	32	3.2	-1.7	-2.7	88	4.6	-4.6	-0.2	81	3.0	-3.0	-0.5	251	3.1	2.9	1.0	209	5.7	2.8	5.0	66	3.2	-2.9	-1.3
24	348	2.4	0.5	-2.3	21	1.9	-0.7	-1.8	85	4.7	-4.7	-0.4	76	1.2	-1.2	-0.3	236	4.5	3.7	2.5	255	5.6	5.4	1.4	273	2.0	2.0	-0.1
25	344	3.2	0.9	-3.1	20	3.0	-1.0	-2.8	97	5.1	-5.1	0.6	114	1.2	-1.1	0.5	265	4.6	4.6	0.4	267	6.2	6.2	0.3	318	2.8	1.9	-2.1
26	326	0.7	0.4	-0.6	30	3.2	-1.6	-2.8	102	3.9	-3.8	0.8	32	2.8	-1.5	-2.4	287	2.4	2.3	-0.7	247	2.8	2.6	1.1	23	3.0	-1.2	-2.8
27	320	1.7	1.1	-1.3	95	1.1	-1.1	0.1	67	3.8	-3.5	-1.5	43	2.2	-1.5	-1.6	306	5.2	4.2	-3.0	305	1.2	1.0	-0.7	340	4.7	1.6	-4.4
28	305	3.2	2.6	-1.8	72	1.6	-1.5	-0.5	86	6.7	-6.7	-0.5	54	1.9	-1.5	-1.1	17	3.7	-1.1	-3.5	241	2.3	2.0	1.1	99	3.0	-3.0	0.5
29	349	1.0	0.2	-1.0	77	1.3	-1.3	-0.3	86	7.9	-7.9	-0.5	62	5.4	-4.8	-2.5	315	5.8	4.1	-4.1	293	5.1	4.7	-2.0	86	5.5	-5.5	-0.4
30	27	5.4	-2.4	-4.8	88	2.8	-2.8	-0.1	91	5.7	-5.7	0.1	82	4.9	-4.8	-0.7	48	1.5	-1.1	-1.0	285	6.4	6.2	-1.7	218	10.5	6.5	8.3
31	360	1.2	0.0	-1.2	56	2.7	-2.2	-1.5	90	6.3	-6.3	0.0	104	1.2	-1.2	0.3	133	2.1	-1.5	1.4	280	6.7	6.6	-1.2	54	4.2	-3.4	-2.5

Daily Normals of Upper Air Winds (1971-2000)

AMINI **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	304	3.4	2.8	-1.9	24	3.0	-1.2	-2.7	84	6.2	-6.2	-0.6	88	3.0	-3.0	-0.1	217	4.0	2.4	3.2	232	9.3	7.3	5.8	90	4.3	-4.3	0.0
2	316	2.8	1.9	-2.0	360	2.0	0.0	-2.0	93	6.7	-6.7	0.3	88	3.3	-3.3	-0.1	184	5.4	0.4	5.4	221	6.9	4.6	5.2	292	23.0	21.3	-8.6
3	299	1.8	1.6	-0.9	34	1.4	-0.8	-1.2	81	8.5	-8.4	-1.4	107	4.5	-4.3	1.3	244	5.5	5.0	2.4	255	8.3	8.0	2.1	186	3.1	0.3	3.1
4	202	0.5	0.2	0.5	112	0.5	-0.5	0.2	102	7.7	-7.5	1.6	85	3.4	-3.4	-0.3	250	2.9	2.7	1.0	233	4.1	3.3	2.5	126	4.9	-4.0	2.9
5	4	1.3	-0.1	-1.3	49	1.8	-1.4	-1.2	101	5.4	-5.3	1.0	104	0.4	-0.4	0.1	225	1.6	1.1	1.1	228	8.0	5.9	5.4	108	10.0	-9.5	3.1
6	—	—	—	—	56	2.3	-1.9	-1.3	94	5.1	-5.1	0.4	105	2.3	-2.2	0.6	274	6.4	6.4	-0.5	194	2.5	0.6	2.4	65	6.9	-6.3	-2.9
7	301	7.0	6.0	-3.6	94	1.3	-1.3	0.1	81	7.6	-7.5	-1.2	72	4.1	-3.9	-1.3	280	5.5	5.4	-1.0	262	3.0	3.0	0.4	28	4.0	-1.9	-3.5
8	299	3.3	2.9	-1.6	54	1.9	-1.5	-1.1	89	6.1	-6.1	-0.1	103	6.6	-6.4	1.5	238	1.5	1.3	0.8	281	5.8	5.7	-1.1	326	2.9	1.6	-2.4
9	—	—	—	—	31	1.7	-0.9	-1.5	90	6.8	-6.8	0.0	103	3.7	-3.6	0.8	291	0.9	0.8	-0.3	291	3.3	3.1	-1.2	91	4.3	-4.3	0.1
10	348	3.0	0.6	-2.9	29	2.5	-1.2	-2.2	76	5.6	-5.4	-1.3	77	4.8	-4.7	-1.1	308	5.6	4.4	-3.4	249	5.1	4.8	1.8	244	15.5	13.9	6.8
11	337	3.8	1.5	-3.5	29	3.7	-1.8	-3.2	85	4.9	-4.9	-0.4	51	5.4	-4.2	-3.4	121	0.6	-0.5	0.3	247	6.3	5.8	2.5	333	11.9	5.4	-10.6
12	311	5.0	3.8	-3.3	44	3.2	-2.2	-2.3	81	4.7	-4.6	-0.7	98	5.3	-5.3	0.7	227	1.9	1.4	1.3	256	7.7	7.5	1.9	—	—	—	—
13	17	7.0	-2.0	-6.7	40	3.3	-2.1	-2.5	73	3.9	-3.7	-1.1	90	3.5	-3.5	0.0	252	3.2	3.0	1.0	247	8.6	7.9	3.4	258	5.0	4.9	1.0
14	295	5.0	4.5	-2.1	30	2.2	-1.1	-1.9	82	5.0	-5.0	-0.7	122	4.5	-3.8	2.4	158	1.1	-0.4	1.0	198	5.1	1.6	4.8	307	6.0	4.8	-3.6
15	344	5.0	1.4	-4.8	13	2.3	-0.5	-2.2	92	5.6	-5.6	0.2	85	3.6	-3.6	-0.3	202	0.5	0.2	0.5	225	6.6	4.7	4.7	319	11.0	7.2	-8.3
16	325	3.5	2.0	-2.9	10	2.2	-0.4	-2.2	77	5.9	-5.8	-1.3	96	2.8	-2.8	0.3	258	4.2	4.1	0.9	244	7.8	7.0	3.4	313	9.0	6.6	-6.1
17	353	1.7	0.2	-1.7	25	3.5	-1.5	-3.2	79	6.6	-6.5	-1.3	116	3.7	-3.3	1.6	315	1.6	1.1	-1.1	228	4.6	3.4	3.1	67	10.4	-9.6	-4.1
18	331	2.6	1.3	-2.3	12	1.9	-0.4	-1.9	95	5.4	-5.4	0.5	79	3.1	-3.0	-0.6	274	3.9	3.9	-0.3	199	4.6	1.5	4.4	60	4.4	-3.8	-2.2
19	329	4.3	2.2	-3.7	60	1.6	-1.4	-0.8	80	7.9	-7.8	-1.4	67	4.3	-4.0	-1.7	252	4.8	4.6	1.5	224	11.2	7.7	8.1	112	5.0	-4.6	1.9
20	357	5.0	0.3	-5.0	29	3.5	-1.7	-3.1	66	6.0	-5.5	-2.5	78	4.2	-4.1	-0.9	255	6.9	6.7	1.8	226	9.1	6.6	6.3	208	3.0	1.4	2.6
21	10	3.6	-0.6	-3.5	60	2.4	-2.1	-1.2	80	5.4	-5.3	-0.9	72	2.3	-2.2	-0.7	262	4.3	4.3	0.6	264	3.8	3.8	0.4	17	5.0	-1.5	-4.8
22	349	3.3	0.6	-3.2	47	2.3	-1.7	-1.6	88	6.9	-6.9	-0.3	98	2.1	-2.1	0.3	295	4.4	4.0	-1.9	276	9.0	8.9	-1.0	146	3.4	-1.9	2.8
23	249	3.0	2.8	1.1	39	1.4	-0.9	-1.1	73	5.2	-5.0	-1.5	73	1.7	-1.6	-0.5	254	5.7	5.5	1.6	222	5.7	3.8	4.2	39	5.8	-3.6	-4.5
24	316	4.3	3.0	-3.1	7	0.8	-0.1	-0.8	91	5.7	-5.7	0.1	119	1.3	-1.1	0.6	292	6.4	5.9	-2.4	226	10.6	7.6	7.4	176	1.6	-0.1	1.6
25	360	2.7	0.0	-2.7	63	1.1	-1.0	-0.5	105	5.0	-4.8	1.3	360	0.8	0.0	-0.8	331	4.7	2.3	-4.1	225	5.1	3.6	3.6	333	2.0	0.9	-1.8
26	344	1.8	0.5	-1.7	34	1.4	-0.8	-1.2	90	6.4	-6.4	0.0	65	1.9	-1.7	-0.8	285	5.6	5.4	-1.4	219	5.4	3.4	4.2	283	2.6	2.5	-0.6
27	301	1.7	1.5	-0.9	39	2.1	-1.3	-1.6	84	5.1	-5.1	-0.5	72	2.5	-2.4	-0.8	275	4.6	4.6	-0.4	229	5.6	4.2	3.7	262	4.2	4.2	0.6
28	306	1.4	1.1	-0.8	43	1.6	-1.1	-1.2	79	5.8	-5.7	-1.1	28	2.4	-1.1	-2.1	303	5.5	4.6	-3.0	238	6.6	5.6	3.5	45	7.5	-5.3	-5.3
29	346	2.5	0.6	-2.4	13	2.3	-0.5	-2.2	75	6.0	-5.8	-1.5	58	2.5	-2.1	-1.3	5	2.5	-0.2	-2.5	249	4.9	4.6	1.8	92	11.5	-11.5	0.5
30	339	4.2	1.5	-3.9	9	2.4	-0.4	-2.4	77	4.5	-4.4	-1.0	63	3.6	-3.2	-1.6	300	2.0	1.7	-1.0	216	6.6	3.9	5.3	55	4.7	-3.9	-2.7

Daily Normals of Upper Air Winds (1971-2000)

AMINI **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	341	3.9	1.3	-3.7	348	2.9	0.6	-2.8	84	5.1	-5.1	-0.5	47	4.0	-2.9	-2.7	291	1.9	1.8	-0.7	197	4.5	1.3	4.3	311	0.9	0.7	-0.6
2	341	3.9	1.3	-3.7	10	3.6	-0.6	-3.5	69	4.2	-3.9	-1.5	75	1.1	-1.1	-0.3	256	3.4	3.3	0.8	164	4.1	-1.1	3.9	76	6.7	-6.5	-1.6
3	329	3.5	1.8	-3.0	7	2.5	-0.3	-2.5	85	3.5	-3.5	-0.3	76	2.5	-2.4	-0.6	227	2.1	1.5	1.4	196	4.8	1.3	4.6	65	5.9	-5.3	-2.5
4	338	3.5	1.3	-3.2	14	4.0	-1.0	-3.9	77	4.6	-4.5	-1.0	63	2.7	-2.4	-1.2	221	2.0	1.3	1.5	200	3.5	1.2	3.3	77	5.4	-5.3	-1.2
5	342	1.9	0.6	-1.8	27	2.0	-0.9	-1.8	74	4.0	-3.8	-1.1	82	3.0	-3.0	-0.4	204	1.7	0.7	1.6	195	4.7	1.2	4.5	122	4.9	-4.1	2.6
6	315	3.3	2.3	-2.3	352	2.7	0.4	-2.7	89	4.6	-4.6	-0.1	62	1.9	-1.7	-0.9	209	1.8	0.9	1.6	180	5.4	0.0	5.4	53	3.1	-2.5	-1.9
7	323	3.5	2.1	-2.8	14	3.3	-0.8	-3.2	78	4.3	-4.2	-0.9	83	3.1	-3.1	-0.4	128	1.1	-0.9	0.7	191	3.3	0.6	3.2	147	8.2	-4.5	6.8
8	319	2.1	1.4	-1.6	360	1.6	0.0	-1.6	86	6.3	-6.3	-0.4	42	1.5	-1.0	-1.1	251	2.1	2.0	0.7	210	3.0	1.5	2.6	68	6.5	-6.0	-2.4
9	295	5.4	4.9	-2.3	332	2.4	1.1	-2.1	72	4.9	-4.7	-1.5	122	1.3	-1.1	0.7	218	1.8	1.1	1.4	209	5.4	2.6	4.7	235	5.0	4.1	2.9
10	306	5.7	4.6	-3.4	350	3.5	0.6	-3.4	65	5.0	-4.5	-2.1	63	0.4	-0.4	-0.2	225	1.6	1.1	1.1	259	2.1	2.1	0.4	346	2.5	0.6	-2.4
11	303	4.5	3.8	-2.5	6	3.0	-0.3	-3.0	71	4.0	-3.8	-1.3	151	1.3	-0.6	1.1	274	2.8	2.8	-0.2	190	3.5	0.6	3.4	80	6.9	-6.8	-1.2
12	307	4.8	3.8	-2.9	340	2.3	0.8	-2.2	72	3.8	-3.6	-1.2	102	1.9	-1.9	0.4	184	1.3	0.1	1.3	207	2.2	1.0	2.0	63	6.4	-5.7	-2.9
13	315	4.0	2.8	-2.8	331	2.5	1.2	-2.2	68	3.5	-3.2	-1.3	106	1.8	-1.7	0.5	243	1.1	1.0	0.5	142	4.8	-3.0	3.8	75	9.6	-9.3	-2.5
14	300	4.2	3.6	-2.1	332	1.7	0.8	-1.5	79	2.6	-2.6	-0.5	94	1.6	-1.6	0.1	139	0.9	-0.6	0.7	132	5.1	-3.8	3.4	94	1.5	-1.5	0.1
15	277	5.8	5.8	-0.7	317	1.8	1.2	-1.3	78	3.4	-3.3	-0.7	67	1.5	-1.4	-0.6	61	1.0	-0.9	-0.5	110	3.8	-3.6	1.3	139	5.7	-3.7	4.3
16	299	5.2	4.6	-2.5	322	1.8	1.1	-1.4	90	2.4	-2.4	0.0	138	1.2	-0.8	0.9	174	2.7	-0.3	2.7	144	8.6	-5.0	7.0	92	5.1	-5.1	0.2
17	327	3.0	1.6	-2.5	338	1.6	0.6	-1.5	86	3.9	-3.9	-0.3	87	3.8	-3.8	-0.2	155	3.5	-1.5	3.2	160	5.2	-1.8	4.9	111	5.0	-4.7	1.8
18	295	4.7	4.2	-2.0	308	2.4	1.9	-1.5	80	2.7	-2.7	-0.5	92	6.6	-6.6	0.2	116	3.4	-3.1	1.5	148	4.7	-2.5	4.0	128	6.3	-5.0	3.9
19	301	4.7	4.0	-2.4	313	2.2	1.6	-1.5	50	3.8	-2.9	-2.4	74	4.0	-3.8	-1.1	138	1.3	-0.9	1.0	134	5.7	-4.1	3.9	105	9.8	-9.5	2.6
20	321	4.4	2.8	-3.4	314	2.8	2.0	-1.9	50	2.5	-1.9	-1.6	357	1.9	0.1	-1.9	75	1.6	-1.5	-0.4	119	4.6	-4.0	2.2	102	3.4	-3.3	0.7
21	326	4.6	2.6	-3.8	305	3.5	2.9	-2.0	29	3.1	-1.5	-2.7	30	3.2	-1.6	-2.8	59	1.2	-1.0	-0.6	51	0.6	-0.5	-0.4	99	4.4	-4.3	0.7
22	325	3.7	2.1	-3.0	308	3.1	2.4	-1.9	35	4.5	-2.6	-3.7	52	2.4	-1.9	-1.5	246	1.0	0.9	0.4	219	3.3	2.1	2.6	24	1.0	-0.4	-0.9
23	323	3.9	2.3	-3.1	305	2.8	2.3	-1.6	72	2.2	-2.1	-0.7	225	0.8	0.6	0.6	45	2.7	-1.9	-1.9	150	4.8	-2.4	4.1	93	11.7	-11.7	0.6
24	308	4.2	3.3	-2.6	311	2.1	1.6	-1.4	90	1.9	-1.9	0.0	220	1.6	1.0	1.2	104	2.1	-2.0	0.5	157	4.9	-1.9	4.5	83	5.0	-5.0	-0.6
25	297	5.1	4.5	-2.3	307	2.6	2.1	-1.6	84	3.0	-3.0	-0.3	96	0.9	-0.9	0.1	149	0.6	-0.3	0.5	131	4.0	-3.0	2.6	83	6.1	-6.1	-0.7
26	305	4.0	3.3	-2.3	305	1.6	1.3	-0.9	66	4.2	-3.8	-1.7	66	3.6	-3.3	-1.5	77	2.6	-2.5	-0.6	134	6.0	-4.3	4.2	90	15.0	-15.0	0.1
27	307	3.9	3.1	-2.3	306	2.9	2.3	-1.7	30	3.8	-1.9	-3.3	73	1.7	-1.6	-0.5	70	3.5	-3.3	-1.2	95	7.3	-7.3	0.6	105	10.3	-10.0	2.6
28	292	5.8	5.4	-2.2	310	4.3	3.3	-2.8	29	2.6	-1.3	-2.3	69	2.2	-2.1	-0.8	162	3.6	-1.1	3.4	118	6.2	-5.5	2.9	87	8.7	-8.7	-0.4
29	304	7.3	6.1	-4.1	304	4.7	3.9	-2.6	58	2.2	-1.9	-1.2	80	2.2	-2.2	-0.4	115	2.9	-2.6	1.2	103	7.3	-7.1	1.7	119	9.6	-8.4	4.7
30	292	3.8	3.5	-1.4	286	4.4	4.2	-1.2	333	1.8	0.8	-1.6	176	1.4	-0.1	1.4	191	2.0	0.4	2.0	103	8.0	-7.8	1.8	131	6.0	-4.5	3.9
31	280	4.0	3.9	-0.7	276	4.0	4.0	-0.4	62	1.5	-1.3	-0.7	129	1.9	-1.5	1.2	95	2.3	-2.3	0.2	97	7.7	-7.6	0.9	78	12.2	-11.9	-2.6

Daily Normals of Upper Air Winds (1971-2000)

AMINI **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	298	3.0	2.6	-1.4	284	3.4	3.3	-0.8	67	1.5	-1.4	-0.6	141	2.1	-1.3	1.6	90	4.4	-4.4	0.0	106	9.2	-8.8	2.6	99	15.3	-15.1	2.5
2	280	5.0	4.9	-0.9	282	3.4	3.3	-0.7	247	1.5	1.4	0.6	204	1.0	0.4	0.9	113	2.3	-2.1	0.9	102	10.8	-10.6	2.2	95	16.0	-15.9	1.5
3	297	2.8	2.5	-1.3	286	5.8	5.6	-1.6	265	3.5	3.5	0.3	260	2.2	2.2	0.4	87	3.9	-3.9	-0.2	100	9.4	-9.2	1.7	112	21.0	-19.5	7.7
4	262	4.3	4.3	0.6	283	6.4	6.2	-1.4	273	3.7	3.7	-0.2	246	2.4	2.2	1.0	87	5.3	-5.3	-0.3	97	13.1	-13.0	1.6	94	28.0	-27.9	2.0
5	276	7.7	7.7	-0.8	285	6.1	5.9	-1.6	269	4.3	4.3	0.1	240	2.0	1.7	1.0	65	3.8	-3.5	-1.6	74	10.2	-9.8	-2.9	131	12.3	-9.2	8.1
6	261	5.6	5.5	0.9	272	7.2	7.2	-0.2	271	5.6	5.6	-0.1	255	6.5	6.3	1.7	94	4.0	-4.0	0.3	79	12.1	-11.9	-2.4	94	23.7	-23.6	1.7
7	266	10.2	10.2	0.8	278	10.8	10.7	-1.5	264	7.5	7.5	0.8	281	3.1	3.0	-0.6	84	5.7	-5.7	-0.6	80	11.0	-10.8	-1.9	89	15.1	-15.1	-0.2
8	265	11.1	11.1	1.0	273	10.3	10.3	-0.6	263	7.0	7.0	0.8	255	3.8	3.7	1.0	74	4.8	-4.6	-1.3	91	11.8	-11.8	0.3	119	27.0	-23.6	13.1
9	252	7.4	7.0	2.3	272	10.7	10.7	-0.3	271	7.0	7.0	-0.1	243	3.4	3.0	1.5	77	7.2	-7.0	-1.6	84	12.6	-12.5	-1.4	90	17.9	-17.9	-0.1
10	266	11.1	11.1	0.7	273	10.0	10.0	-0.5	272	7.5	7.5	-0.2	250	4.8	4.5	1.6	91	6.6	-6.6	0.1	86	15.7	-15.7	-1.0	69	25.0	-23.3	-9.0
11	286	7.8	7.5	-2.2	283	9.9	9.7	-2.2	277	7.2	7.1	-0.9	255	6.1	5.9	1.6	96	4.7	-4.7	0.5	86	13.0	-13.0	-0.9	—	—	—	—
12	282	12.5	12.2	-2.7	283	10.2	9.9	-2.3	288	8.4	8.0	-2.6	268	4.9	4.9	0.2	105	4.8	-4.6	1.2	88	12.8	-12.8	-0.5	—	—	—	—
13	277	12.8	12.7	-1.5	288	11.4	10.9	-3.5	295	7.7	7.0	-3.2	264	8.0	8.0	0.8	84	6.1	-6.1	-0.6	93	16.0	-16.0	0.8	109	23.4	-22.2	7.5
14	275	12.8	12.8	-1.1	280	13.2	13.0	-2.3	281	9.6	9.4	-1.8	259	7.2	7.1	1.4	75	6.7	-6.5	-1.7	81	12.7	-12.6	-1.9	83	16.0	-15.9	-1.9
15	281	11.5	11.3	-2.2	288	11.5	11.0	-3.5	280	11.8	11.6	-2.1	261	8.4	8.3	1.3	87	7.4	-7.4	-0.4	92	16.9	-16.9	0.6	128	31.7	-25.1	19.3
16	272	16.4	16.4	-0.6	282	12.9	12.6	-2.7	277	11.6	11.5	-1.5	263	8.4	8.3	1.0	88	5.1	-5.1	-0.2	93	16.2	-16.2	0.8	—	—	—	—
17	260	12.2	12.0	2.2	274	11.1	11.1	-0.8	270	8.7	8.7	0.0	274	9.0	9.0	-0.7	60	5.3	-4.6	-2.7	75	17.0	-16.4	-4.4	78	28.0	-27.4	-5.8
18	257	10.8	10.5	2.5	275	11.1	11.1	-0.9	266	11.6	11.6	0.9	267	9.3	9.3	0.5	113	5.4	-5.0	2.1	86	16.0	-16.0	-1.2	—	—	—	—
19	259	13.4	13.2	2.5	279	14.1	13.9	-2.1	282	10.7	10.5	-2.2	262	7.8	7.7	1.1	97	8.6	-8.5	1.0	95	17.9	-17.8	1.6	87	21.0	-21.0	-1.1
20	266	12.6	12.6	0.9	277	11.5	11.4	-1.3	281	8.7	8.6	-1.6	265	7.2	7.2	0.6	77	2.8	-2.7	-0.6	93	19.3	-19.3	1.0	97	30.4	-30.2	3.6
21	270	11.6	11.6	0.0	283	12.5	12.2	-2.8	286	8.8	8.5	-2.4	263	5.2	5.2	0.6	92	7.5	-7.5	0.2	91	22.3	-22.3	0.3	73	19.0	-18.2	-5.4
22	270	11.3	11.3	0.0	280	11.0	10.8	-2.0	285	6.9	6.7	-1.8	266	5.6	5.6	0.4	82	4.3	-4.3	-0.6	96	20.8	-20.7	2.3	106	20.5	-19.7	5.5
23	282	10.7	10.4	-2.3	282	14.1	13.8	-2.9	290	8.7	8.2	-3.0	283	5.3	5.2	-1.2	104	4.0	-3.9	1.0	88	20.8	-20.8	-0.8	74	29.4	-28.2	-8.3
24	282	9.0	8.8	-1.9	282	11.9	11.6	-2.5	282	7.7	7.5	-1.6	247	4.4	4.1	1.7	91	8.5	-8.5	0.1	87	19.7	-19.7	-1.0	81	35.0	-34.6	-5.2
25	287	8.5	8.1	-2.5	283	12.4	12.1	-2.7	278	8.1	8.0	-1.1	281	4.4	4.3	-0.8	86	8.2	-8.2	-0.6	89	20.8	-20.8	-0.3	81	31.6	-31.2	-5.1
26	291	8.5	7.9	-3.0	283	10.9	10.6	-2.4	285	8.3	8.0	-2.2	265	5.0	5.0	0.4	93	7.4	-7.4	0.4	86	22.2	-22.1	-1.7	95	21.3	-21.2	1.9
27	282	10.8	10.6	-2.3	289	11.7	11.1	-3.8	278	8.5	8.4	-1.2	269	5.0	5.0	0.1	88	6.9	-6.9	-0.2	87	16.7	-16.7	-0.8	89	28.2	-28.2	-0.7
28	281	13.3	13.0	-2.6	278	12.0	11.9	-1.7	276	9.1	9.0	-1.0	271	5.6	5.6	-0.1	99	7.9	-7.8	1.2	85	19.0	-18.9	-1.6	96	25.7	-25.6	2.6
29	280	9.6	9.5	-1.6	282	11.2	10.9	-2.4	274	7.7	7.7	-0.5	273	3.5	3.5	-0.2	98	6.9	-6.8	0.9	89	20.1	-20.1	-0.5	96	34.1	-33.9	3.7
30	275	13.6	13.5	-1.2	275	12.1	12.1	-1.1	278	8.3	8.2	-1.1	264	4.0	4.0	0.4	93	8.4	-8.4	0.4	86	22.0	-21.9	-1.6	79	37.7	-37.0	-7.0

Daily Normals of Upper Air Winds (1971-2000)

AMINI **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	277	13.3	13.2	-1.7	282	13.4	13.1	-2.8	291	9.6	9.0	-3.4	270	1.4	1.4	0.0	89	8.7	-8.7	-0.2	98	20.1	-19.9	2.7	94	26.5	-26.4	1.7
2	276	13.2	13.1	-1.3	282	12.5	12.2	-2.5	278	8.0	7.9	-1.1	252	2.6	2.5	0.8	83	8.1	-8.0	-1.0	98	21.9	-21.7	3.2	90	28.8	-28.8	0.0
3	272	13.0	13.0	-0.4	283	12.9	12.6	-2.8	276	8.0	8.0	-0.8	270	2.1	2.1	0.0	83	9.4	-9.3	-1.1	91	23.6	-23.6	0.4	94	23.6	-23.6	1.5
4	279	10.9	10.8	-1.7	288	10.1	9.6	-3.1	298	5.4	4.8	-2.5	297	2.0	1.8	-0.9	94	10.5	-10.5	0.7	97	23.9	-23.7	3.1	92	33.4	-33.4	1.1
5	287	10.6	10.1	-3.1	290	11.3	10.6	-3.9	291	4.9	4.6	-1.8	288	0.6	0.6	-0.2	90	12.1	-12.1	0.1	80	18.5	-18.2	-3.1	95	16.0	-15.9	1.4
6	282	11.8	11.5	-2.5	288	11.7	11.1	-3.6	287	6.8	6.5	-2.0	250	1.2	1.1	0.4	96	8.5	-8.5	0.9	88	20.4	-20.4	-0.8	96	12.6	-12.5	1.4
7	283	11.0	10.7	-2.4	290	10.5	9.9	-3.6	285	5.8	5.6	-1.5	319	2.3	1.5	-1.7	82	11.6	-11.5	-1.7	92	17.8	-17.8	0.7	90	31.0	-31.0	0.0
8	276	13.3	13.2	-1.5	284	11.8	11.5	-2.8	285	8.9	8.6	-2.3	342	2.3	0.7	-2.2	85	11.0	-11.0	-0.9	94	18.8	-18.8	1.2	—	—	—	—
9	280	12.4	12.2	-2.1	290	11.9	11.2	-4.0	279	6.8	6.7	-1.1	336	2.2	0.9	-2.0	83	11.0	-10.9	-1.4	96	22.7	-22.6	2.4	81	13.3	-13.1	-2.1
10	275	12.7	12.7	-1.1	287	11.6	11.1	-3.4	280	7.5	7.4	-1.3	322	5.2	3.2	-4.1	83	9.3	-9.2	-1.2	88	19.7	-19.7	-0.7	79	30.4	-29.8	-5.8
11	273	15.0	15.0	-0.8	285	13.7	13.2	-3.6	278	9.0	8.9	-1.2	270	3.1	3.1	0.0	86	10.2	-10.2	-0.7	83	22.7	-22.6	-2.6	93	22.2	-22.2	1.1
12	267	14.7	14.7	0.8	283	14.1	13.7	-3.2	288	8.9	8.5	-2.8	260	3.6	3.5	0.6	89	7.8	-7.8	-0.2	87	23.8	-23.8	-1.3	113	27.0	-24.9	10.5
13	268	17.1	17.1	0.6	283	14.4	14.0	-3.2	280	9.7	9.6	-1.7	272	5.1	5.1	-0.2	84	10.8	-10.7	-1.2	81	24.3	-24.0	-3.6	93	27.0	-27.0	1.4
14	261	15.6	15.4	2.5	285	13.4	13.0	-3.4	293	10.4	9.6	-4.0	262	2.2	2.2	0.3	81	10.0	-9.9	-1.5	94	23.9	-23.8	1.6	88	22.0	-22.0	-0.8
15	273	21.5	21.5	-1.0	284	13.6	13.2	-3.2	287	10.9	10.4	-3.1	268	5.0	5.0	0.2	94	9.6	-9.6	0.7	88	16.8	-16.8	-0.7	—	—	—	—
16	268	17.6	17.6	0.7	284	14.5	14.1	-3.5	286	10.1	9.7	-2.8	262	3.7	3.7	0.5	92	8.0	-8.0	0.3	84	20.4	-20.3	-2.1	83	31.0	-30.8	-3.8
17	270	15.5	15.5	0.0	281	12.7	12.5	-2.5	268	9.9	9.9	0.4	270	2.9	2.9	0.0	86	8.5	-8.5	-0.6	96	18.3	-18.2	1.8	91	39.6	-39.6	0.6
18	269	15.1	15.1	0.2	277	15.1	15.0	-1.9	271	8.5	8.5	-0.2	252	4.6	4.4	1.4	84	12.5	-12.4	-1.4	93	22.6	-22.6	1.3	93	27.9	-27.9	1.4
19	264	16.0	15.9	1.7	284	15.7	15.2	-3.8	280	9.0	8.9	-1.5	231	2.8	2.2	1.8	85	10.5	-10.5	-0.9	91	21.3	-21.3	0.5	94	22.0	-21.9	1.5
20	272	13.8	13.8	-0.6	286	15.3	14.7	-4.2	284	7.3	7.1	-1.8	220	2.3	1.5	1.8	91	9.7	-9.7	0.2	90	20.8	-20.8	-0.1	91	39.9	-39.9	1.0
21	268	14.7	14.7	0.5	290	13.5	12.7	-4.5	282	10.0	9.8	-2.1	339	2.5	0.9	-2.3	79	9.9	-9.7	-1.8	90	22.4	-22.4	0.1	99	25.9	-25.6	4.2
22	268	11.6	11.6	0.4	288	13.1	12.5	-4.0	288	9.5	9.0	-2.9	311	3.2	2.4	-2.1	84	8.1	-8.0	-0.9	93	22.8	-22.8	1.3	84	18.3	-18.2	-1.9
23	274	14.2	14.2	-1.0	286	14.5	14.0	-3.9	284	10.1	9.8	-2.4	249	2.5	2.3	0.9	93	8.3	-8.3	0.4	94	17.7	-17.7	1.2	—	—	—	—
24	275	13.7	13.6	-1.3	292	13.8	12.8	-5.1	285	9.4	9.1	-2.4	279	4.3	4.2	-0.7	94	11.8	-11.8	0.9	91	21.6	-21.6	0.2	112	39.0	-36.2	14.6
25	279	13.2	13.0	-2.0	287	15.1	14.4	-4.4	302	7.2	6.1	-3.8	286	5.2	5.0	-1.4	100	5.3	-5.2	0.9	97	23.8	-23.6	3.1	94	34.2	-34.1	2.3
26	278	13.9	13.8	-1.9	287	12.1	11.6	-3.5	288	8.0	7.6	-2.4	236	2.9	2.4	1.6	102	4.3	-4.2	0.9	101	18.1	-17.8	3.3	93	31.0	-31.0	1.6
27	281	16.7	16.4	-3.1	290	13.6	12.8	-4.6	290	7.3	6.9	-2.5	252	3.3	3.1	1.0	90	6.1	-6.1	0.0	86	21.4	-21.3	-1.6	100	27.5	-27.0	5.0
28	286	15.0	14.4	-4.2	293	13.5	12.4	-5.3	292	6.3	5.8	-2.4	262	4.1	4.1	0.6	87	7.8	-7.8	-0.4	96	24.1	-23.9	2.7	102	38.5	-37.6	8.1
29	285	20.5	19.8	-5.3	288	10.9	10.4	-3.4	274	6.8	6.8	-0.5	282	4.0	3.9	-0.8	99	8.5	-8.4	1.3	99	20.9	-20.6	3.4	93	21.8	-21.8	1.0
30	275	19.3	19.2	-1.7	284	12.5	12.1	-3.0	273	6.8	6.8	-0.3	273	3.5	3.5	-0.2	102	9.5	-9.3	2.0	85	23.9	-23.8	-1.9	84	35.0	-34.8	-3.9
31	281	15.1	14.8	-2.9	287	11.6	11.1	-3.3	285	7.8	7.5	-2.0	242	2.4	2.1	1.1	95	10.5	-10.5	1.0	90	21.6	-21.6	-0.1	90	28.6	-28.6	0.2

Daily Normals of Upper Air Winds (1971-2000)

AMINI **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	280	17.2	16.9	-3.1	286	14.7	14.1	-4.0	287	9.7	9.3	-2.9	281	4.3	4.2	-0.8	81	9.7	-9.6	-1.6	94	22.5	-22.5	1.4	100	28.0	-27.6	4.9
2	281	13.8	13.6	-2.6	285	13.7	13.2	-3.5	288	8.9	8.5	-2.7	286	3.2	3.1	-0.9	96	7.8	-7.8	0.8	92	17.5	-17.5	0.6	84	21.9	-21.8	-2.4
3	280	13.6	13.4	-2.4	290	12.1	11.4	-4.1	293	8.2	7.6	-3.2	254	2.5	2.4	0.7	104	9.4	-9.1	2.3	88	24.1	-24.1	-1.0	82	31.2	-30.9	-4.2
4	273	15.6	15.6	-0.9	292	13.7	12.7	-5.1	278	7.7	7.6	-1.1	273	2.0	2.0	-0.1	89	8.0	-8.0	-0.1	88	26.6	-26.6	-0.9	92	25.6	-25.6	0.8
5	284	13.9	13.5	-3.4	293	12.0	11.0	-4.7	280	6.7	6.6	-1.2	273	2.0	2.0	-0.1	84	8.3	-8.3	-0.9	90	20.5	-20.5	0.1	95	34.6	-34.5	3.2
6	294	14.1	12.8	-5.8	296	11.0	9.9	-4.8	284	8.4	8.2	-2.0	351	1.3	0.2	-1.3	86	9.3	-9.3	-0.6	84	21.5	-21.4	-2.2	82	26.5	-26.2	-3.9
7	280	6.7	6.6	-1.2	293	10.2	9.4	-3.9	285	7.3	7.0	-1.9	288	2.3	2.2	-0.7	86	6.3	-6.3	-0.4	98	23.0	-22.8	3.2	98	21.0	-20.8	3.1
8	285	8.2	7.9	-2.1	294	11.3	10.3	-4.6	287	9.3	8.9	-2.8	288	3.5	3.3	-1.1	101	7.2	-7.1	1.4	86	19.2	-19.2	-1.3	95	28.4	-28.3	2.4
9	295	9.3	8.4	-3.9	294	10.2	9.3	-4.1	288	8.0	7.6	-2.5	289	3.7	3.5	-1.2	99	8.2	-8.1	1.3	86	22.5	-22.5	-1.5	85	28.4	-28.3	-2.3
10	272	10.7	10.7	-0.3	285	12.8	12.3	-3.4	289	7.5	7.1	-2.5	265	3.3	3.3	0.3	91	9.9	-9.9	0.2	91	16.2	-16.2	0.3	97	33.1	-32.9	3.8
11	269	10.1	10.1	0.1	284	12.0	11.6	-2.9	281	7.7	7.6	-1.5	286	3.6	3.5	-1.0	88	6.1	-6.1	-0.2	84	22.5	-22.4	-2.5	83	24.3	-24.1	-3.0
12	277	8.5	8.4	-1.1	290	13.8	12.9	-4.8	288	8.5	8.1	-2.7	267	4.5	4.5	0.2	87	6.8	-6.8	-0.4	91	21.0	-21.0	0.2	85	20.5	-20.4	-1.7
13	266	9.6	9.6	0.6	290	12.4	11.6	-4.3	293	8.0	7.4	-3.1	273	3.6	3.6	-0.2	83	7.7	-7.6	-1.0	96	20.0	-19.9	2.2	122	37.0	-31.4	19.6
14	272	11.5	11.5	-0.4	291	12.8	12.0	-4.5	283	7.5	7.3	-1.7	304	2.3	1.9	-1.3	97	10.5	-10.4	1.3	92	23.8	-23.8	0.8	84	18.4	-18.3	-2.0
15	275	10.2	10.2	-0.9	287	12.8	12.3	-3.7	279	7.5	7.4	-1.2	295	1.9	1.7	-0.8	107	12.4	-11.8	3.7	83	18.9	-18.8	-2.2	71	18.0	-17.0	-5.9
16	281	9.2	9.0	-1.7	289	11.0	10.4	-3.6	283	8.0	7.8	-1.8	332	2.1	1.0	-1.9	88	8.9	-8.9	-0.3	84	21.3	-21.2	-2.1	75	32.2	-31.1	-8.5
17	282	9.1	8.9	-1.9	291	11.8	11.0	-4.3	294	8.2	7.5	-3.4	235	3.2	2.6	1.8	80	8.9	-8.8	-1.6	93	21.4	-21.4	1.2	93	30.0	-30.0	1.6
18	272	9.6	9.6	-0.4	289	12.2	11.5	-4.0	291	8.9	8.3	-3.2	290	2.7	2.5	-0.9	96	8.8	-8.8	0.9	90	21.4	-21.4	0.1	76	20.5	-19.9	-5.1
19	281	10.2	10.0	-1.9	293	12.1	11.1	-4.8	288	8.4	8.0	-2.6	276	2.8	2.8	-0.3	94	9.3	-9.3	0.7	100	21.5	-21.2	3.7	73	31.6	-30.2	-9.4
20	280	10.5	10.3	-1.9	293	10.8	9.9	-4.3	277	7.9	7.8	-1.0	284	0.8	0.8	-0.2	93	9.2	-9.2	0.5	94	19.9	-19.9	1.3	88	26.4	-26.4	-0.7
21	280	11.6	11.4	-2.1	290	10.6	9.9	-3.7	289	7.2	6.8	-2.3	272	2.5	2.5	-0.1	96	7.9	-7.9	0.8	96	18.7	-18.6	1.9	94	36.0	-35.9	2.7
22	278	9.7	9.6	-1.3	296	10.5	9.4	-4.6	291	7.4	6.9	-2.7	272	2.5	2.5	-0.1	100	7.8	-7.7	1.4	99	18.5	-18.3	2.8	102	24.9	-24.4	5.1
23	286	12.6	12.1	-3.4	294	11.3	10.3	-4.6	292	7.2	6.7	-2.7	279	3.3	3.3	-0.5	108	9.6	-9.1	3.0	97	20.7	-20.5	2.6	—	—	—	—
24	292	9.5	8.8	-3.6	296	10.4	9.4	-4.5	289	6.9	6.5	-2.3	278	2.7	2.7	-0.4	92	9.8	-9.8	0.3	103	20.0	-19.5	4.5	123	17.1	-14.3	9.3
25	284	10.8	10.5	-2.7	295	9.5	8.6	-4.1	287	4.4	4.2	-1.3	278	1.5	1.5	-0.2	99	9.1	-9.0	1.4	94	23.9	-23.9	1.5	—	—	—	—
26	285	11.2	10.8	-2.9	294	8.3	7.6	-3.4	291	3.9	3.6	-1.4	270	1.2	1.2	0.0	93	10.1	-10.1	0.5	96	22.9	-22.8	2.5	101	24.3	-23.9	4.5
27	280	9.5	9.3	-1.7	292	9.7	9.0	-3.6	274	6.1	6.1	-0.4	279	3.9	3.9	-0.6	98	7.6	-7.5	1.1	88	22.1	-22.1	-0.9	89	25.4	-25.4	-0.3
28	277	10.7	10.6	-1.3	287	9.7	9.3	-2.8	281	7.5	7.4	-1.4	305	2.8	2.3	-1.6	94	8.8	-8.8	0.6	96	18.1	-18.0	1.9	113	25.0	-23.0	9.8
29	290	10.1	9.5	-3.4	298	8.5	7.5	-4.0	292	5.9	5.5	-2.2	288	2.6	2.5	-0.8	105	7.6	-7.3	2.0	97	19.6	-19.5	2.4	95	25.2	-25.1	2.1
30	283	10.9	10.6	-2.5	296	9.6	8.6	-4.2	293	6.0	5.5	-2.3	315	1.8	1.3	-1.3	87	5.8	-5.8	-0.3	105	17.6	-17.0	4.4	92	15.1	-15.1	0.5
31	300	11.3	9.8	-5.7	304	8.4	7.0	-4.7	309	5.4	4.2	-3.4	246	1.2	1.1	0.5	82	8.7	-8.6	-1.2	102	19.8	-19.4	4.0	108	23.3	-22.2	7.2

Daily Normals of Upper Air Winds (1971-2000)

AMINI **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	287	10.8	10.3	-3.1	304	7.9	6.6	-4.4	294	5.1	4.7	-2.1	297	1.1	1.0	-0.5	88	8.3	-8.3	-0.3	89	24.4	-24.4	-0.4	94	17.3	-17.3	1.1
2	272	9.4	9.4	-0.4	304	6.9	5.7	-3.8	297	3.5	3.1	-1.6	180	0.2	0.0	0.2	95	10.0	-10.0	0.8	97	23.1	-22.9	2.8	110	35.0	-32.9	12.0
3	277	9.4	9.3	-1.2	293	7.1	6.5	-2.8	288	5.7	5.4	-1.8	108	0.6	-0.6	0.2	99	9.7	-9.6	1.6	85	22.2	-22.1	-1.8	103	25.6	-24.9	5.9
4	277	13.6	13.5	-1.7	295	8.6	7.8	-3.6	287	5.6	5.4	-1.6	137	1.8	-1.2	1.3	103	10.4	-10.1	2.3	92	20.4	-20.4	0.6	99	17.0	-16.8	2.7
5	283	9.8	9.5	-2.2	300	6.7	5.8	-3.4	288	5.5	5.2	-1.7	117	2.0	-1.8	0.9	92	7.0	-7.0	0.3	95	21.0	-20.9	1.7	43	11.0	-7.5	-8.0
6	277	11.0	10.9	-1.4	293	6.5	6.0	-2.5	288	6.1	5.8	-1.9	351	0.6	0.1	-0.6	104	8.9	-8.6	2.2	95	17.4	-17.3	1.6	—	—	—	—
7	291	7.4	6.9	-2.7	299	6.0	5.2	-2.9	294	4.4	4.0	-1.8	275	2.1	2.1	-0.2	92	7.4	-7.4	0.3	97	18.3	-18.2	2.1	100	15.9	-15.7	2.8
8	284	8.1	7.9	-2.0	304	6.5	5.4	-3.6	299	5.2	4.6	-2.5	309	3.2	2.5	-2.0	90	7.1	-7.1	0.0	97	19.1	-18.9	2.4	99	26.9	-26.6	4.2
9	298	8.0	7.1	-3.7	299	6.2	5.4	-3.0	299	4.7	4.1	-2.3	313	2.1	1.5	-1.4	95	9.8	-9.8	0.9	101	16.4	-16.1	3.1	95	12.6	-12.6	1.1
10	295	7.8	7.1	-3.3	304	6.5	5.4	-3.6	290	5.5	5.2	-1.9	299	2.5	2.2	-1.2	93	7.0	-7.0	0.4	96	18.2	-18.1	1.9	—	—	—	—
11	282	7.4	7.2	-1.5	293	8.1	7.4	-3.2	293	5.6	5.1	-2.2	333	2.5	1.1	-2.2	95	7.5	-7.5	0.7	94	18.8	-18.8	1.3	99	26.0	-25.7	4.0
12	281	7.4	7.3	-1.4	295	7.5	6.8	-3.1	288	6.5	6.2	-2.0	264	2.7	2.7	0.3	94	6.8	-6.8	0.5	104	18.6	-18.0	4.6	100	24.0	-23.6	4.1
13	310	6.2	4.8	-4.0	303	6.2	5.2	-3.4	288	3.5	3.3	-1.1	322	1.8	1.1	-1.4	116	6.4	-5.8	2.8	106	13.8	-13.3	3.7	98	24.9	-24.7	3.3
14	312	3.0	2.2	-2.0	308	4.9	3.9	-3.0	304	3.4	2.8	-1.9	344	0.7	0.2	-0.7	111	6.8	-6.4	2.4	100	18.9	-18.6	3.2	102	10.3	-10.1	2.1
15	312	3.9	2.9	-2.6	309	5.1	4.0	-3.2	291	3.0	2.8	-1.1	104	1.2	-1.2	0.3	94	5.9	-5.9	0.4	105	18.7	-18.1	4.8	108	16.8	-15.9	5.3
16	314	4.6	3.3	-3.2	308	4.4	3.5	-2.7	304	2.9	2.4	-1.6	53	1.0	-0.8	-0.6	107	6.7	-6.4	1.9	102	16.2	-15.8	3.4	79	17.1	-16.8	-3.4
17	315	3.3	2.3	-2.3	321	5.5	3.5	-4.3	310	2.6	2.0	-1.7	120	1.4	-1.2	0.7	102	6.1	-6.0	1.3	99	16.2	-16.0	2.4	—	—	—	—
18	328	5.2	2.7	-4.4	314	5.7	4.1	-3.9	297	3.8	3.4	-1.7	360	0.8	0.0	-0.8	100	9.0	-8.9	1.6	118	18.9	-16.6	9.0	105	22.9	-22.1	6.1
19	316	3.2	2.2	-2.3	316	6.0	4.2	-4.3	311	3.3	2.5	-2.2	72	1.6	-1.5	-0.5	118	6.9	-6.1	3.2	114	16.9	-15.5	6.8	99	20.6	-20.4	3.2
20	326	6.6	3.7	-5.5	309	6.3	4.9	-4.0	281	2.6	2.6	-0.5	111	1.7	-1.6	0.6	106	7.4	-7.1	2.0	97	15.4	-15.3	2.0	—	—	—	—
21	340	5.0	1.7	-4.7	302	5.3	4.5	-2.8	272	3.3	3.3	-0.1	120	0.8	-0.7	0.4	127	7.6	-6.0	4.6	100	13.3	-13.1	2.2	92	11.0	-11.0	0.4
22	320	9.2	5.9	-7.0	302	6.8	5.8	-3.6	297	3.4	3.0	-1.5	79	2.1	-2.1	-0.4	87	7.0	-7.0	-0.4	98	17.5	-17.3	2.5	—	—	—	—
23	310	4.7	3.6	-3.0	305	5.9	4.8	-3.4	308	4.6	3.6	-2.8	304	2.2	1.8	-1.2	87	4.4	-4.4	-0.2	106	12.6	-12.1	3.5	—	—	—	—
24	298	6.6	5.8	-3.1	317	5.2	3.6	-3.8	307	3.1	2.5	-1.9	27	1.1	-0.5	-1.0	117	7.2	-6.4	3.2	103	19.5	-19.0	4.3	73	17.7	-17.0	-5.1
25	309	7.2	5.6	-4.5	303	5.0	4.2	-2.7	286	2.2	2.1	-0.6	73	1.0	-1.0	-0.3	106	9.5	-9.1	2.6	111	17.7	-16.5	6.4	113	13.0	-12.0	5.1
26	314	5.7	4.1	-4.0	294	5.2	4.8	-2.1	270	4.2	4.2	0.0	143	1.0	-0.6	0.8	110	9.5	-8.9	3.3	98	17.6	-17.4	2.5	90	17.0	-17.0	0.0
27	302	4.6	3.9	-2.4	294	4.2	3.8	-1.7	252	1.9	1.8	0.6	117	2.0	-1.8	0.9	106	6.1	-5.9	1.7	80	13.9	-13.7	-2.5	94	18.4	-18.3	1.4
28	279	3.1	3.1	-0.5	290	4.5	4.2	-1.5	307	2.5	2.0	-1.5	172	3.5	-0.5	3.5	111	6.8	-6.4	2.4	113	16.4	-15.1	6.5	63	7.3	-6.5	-3.3
29	311	6.9	5.2	-4.6	310	4.8	3.7	-3.1	300	3.4	3.0	-1.7	53	1.0	-0.8	-0.6	98	7.3	-7.2	1.0	103	15.1	-14.7	3.3	115	47.0	-42.6	19.9
30	284	3.4	3.3	-0.8	321	3.2	2.0	-2.5	344	0.7	0.2	-0.7	45	0.6	-0.4	-0.4	94	6.5	-6.5	0.4	94	12.4	-12.4	0.8	90	15.0	-15.0	-0.1

Daily Normals of Upper Air Winds (1971-2000)

AMINI **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	33	2.0	-1.1	-1.7	327	2.7	1.5	-2.3	324	2.4	1.4	-1.9	180	0.2	0.0	0.2	82	5.8	-5.7	-0.8	98	14.5	-14.4	2.0	93	23.3	-23.3	1.3
2	56	0.4	-0.3	-0.2	313	3.7	2.7	-2.5	360	1.3	0.0	-1.3	319	2.0	1.3	-1.5	87	8.9	-8.9	-0.4	86	14.7	-14.7	-1.1	360	1.0	0.0	-1.0
3	304	4.1	3.4	-2.3	316	3.9	2.7	-2.8	341	2.8	0.9	-2.6	74	2.2	-2.1	-0.6	99	5.5	-5.4	0.9	110	17.9	-16.8	6.1	—	—	—	—
4	285	5.0	4.8	-1.3	302	4.5	3.8	-2.4	320	2.6	1.7	-2.0	63	0.9	-0.8	-0.4	109	10.0	-9.5	3.2	95	17.4	-17.3	1.5	91	11.4	-11.4	0.2
5	266	2.8	2.8	0.2	325	4.0	2.3	-3.3	305	2.8	2.3	-1.6	232	1.6	1.3	1.0	105	4.7	-4.5	1.2	90	14.3	-14.3	0.0	116	11.0	-9.9	4.8
6	264	6.0	6.0	0.6	290	3.5	3.3	-1.2	286	2.2	2.1	-0.6	234	1.4	1.1	0.8	106	5.5	-5.3	1.5	111	10.7	-10.0	3.9	62	8.9	-7.9	-4.2
7	311	3.7	2.8	-2.4	303	3.1	2.6	-1.7	284	3.4	3.3	-0.8	263	1.6	1.6	0.2	105	2.8	-2.7	0.7	100	12.6	-12.4	2.1	89	18.3	-18.3	-0.3
8	360	2.0	0.0	-2.0	306	1.7	1.4	-1.0	315	1.6	1.1	-1.1	291	1.4	1.3	-0.5	74	4.8	-4.6	-1.3	101	12.7	-12.5	2.4	100	11.6	-11.4	2.1
9	342	7.6	2.3	-7.2	323	3.1	1.9	-2.5	332	3.0	1.4	-2.6	281	0.5	0.5	-0.1	85	6.6	-6.6	-0.6	102	14.1	-13.8	3.0	85	5.0	-5.0	-0.4
10	304	11.0	9.1	-6.2	322	2.3	1.4	-1.8	304	0.4	0.3	-0.2	156	1.7	-0.7	1.6	88	5.5	-5.5	-0.2	86	4.1	-4.1	-0.3	165	5.0	-1.3	4.8
11	283	8.0	7.8	-1.8	283	1.3	1.3	-0.3	339	0.9	0.3	-0.8	247	1.3	1.2	0.5	92	2.6	-2.6	0.1	111	8.5	-7.9	3.0	106	8.4	-8.1	2.3
12	271	4.8	4.8	-0.1	306	1.4	1.1	-0.8	277	0.8	0.8	-0.1	58	1.5	-1.3	-0.8	110	5.9	-5.5	2.0	103	7.2	-7.0	1.6	32	23.4	-12.5	-19.8
13	294	1.0	0.9	-0.4	27	0.7	-0.3	-0.6	25	1.4	-0.6	-1.3	111	3.6	-3.4	1.3	113	2.8	-2.6	1.1	107	10.8	-10.3	3.2	106	14.1	-13.5	3.9
14	243	1.8	1.6	0.8	225	0.1	0.1	0.1	76	0.8	-0.8	-0.2	98	2.1	-2.1	0.3	87	3.6	-3.6	-0.2	115	6.3	-5.7	2.7	63	15.0	-13.4	-6.8
15	249	2.2	2.1	0.8	360	0.4	0.0	-0.4	107	2.1	-2.0	0.6	61	2.5	-2.2	-1.2	61	3.3	-2.9	-1.6	101	14.3	-14.0	2.7	76	23.0	-22.3	-5.6
16	307	3.5	2.8	-2.1	360	1.1	0.0	-1.1	45	1.0	-0.7	-0.7	69	1.4	-1.3	-0.5	92	3.0	-3.0	0.1	96	7.5	-7.5	0.8	93	19.0	-19.0	1.0
17	323	2.0	1.2	-1.6	360	1.1	0.0	-1.1	76	0.8	-0.8	-0.2	225	0.4	0.3	0.3	66	4.3	-3.9	-1.7	109	9.4	-8.9	3.0	—	—	—	—
18	338	1.6	0.6	-1.5	29	1.3	-0.6	-1.1	157	0.8	-0.3	0.7	76	2.5	-2.4	-0.6	103	4.0	-3.9	0.9	118	10.2	-9.0	4.7	88	9.3	-9.3	-0.3
19	291	2.6	2.4	-0.9	33	1.7	-0.9	-1.4	80	1.7	-1.7	-0.3	96	3.6	-3.6	0.4	71	7.0	-6.6	-2.3	114	9.7	-8.9	3.9	125	12.0	-9.8	6.9
20	236	3.2	2.7	1.8	74	1.8	-1.7	-0.5	108	2.5	-2.4	0.8	96	1.9	-1.9	0.2	95	3.7	-3.7	0.3	96	9.0	-8.9	1.0	87	11.1	-11.1	-0.5
21	—	—	—	—	111	2.2	-2.1	0.8	120	1.4	-1.2	0.7	107	2.4	-2.3	0.7	99	6.2	-6.1	1.0	100	11.5	-11.3	2.0	69	3.0	-2.8	-1.1
22	331	2.3	1.1	-2.0	90	1.6	-1.6	0.0	114	2.0	-1.8	0.8	84	1.9	-1.9	-0.2	92	6.6	-6.6	0.2	100	9.4	-9.2	1.7	80	5.0	-4.9	-0.9
23	213	6.0	3.3	5.0	135	1.4	-1.0	1.0	135	1.6	-1.1	1.1	97	4.1	-4.1	0.5	119	3.8	-3.3	1.8	125	5.9	-4.8	3.4	201	3.4	1.2	3.2
24	217	2.1	1.3	1.7	84	1.8	-1.8	-0.2	102	2.5	-2.4	0.5	55	4.0	-3.3	-2.3	97	4.6	-4.6	0.6	113	11.4	-10.5	4.5	102	7.0	-6.8	1.5
25	285	2.3	2.2	-0.6	90	0.7	-0.7	0.0	131	1.1	-0.8	0.7	99	3.6	-3.6	0.6	90	2.9	-2.9	0.0	128	6.6	-5.2	4.1	145	9.0	-5.2	7.4
26	284	4.0	3.9	-1.0	5	1.2	-0.1	-1.2	72	1.6	-1.5	-0.5	99	2.4	-2.4	0.4	109	1.8	-1.7	0.6	124	6.8	-5.6	3.8	28	8.8	-4.1	-7.8
27	3	4.2	-0.2	-4.2	74	1.9	-1.8	-0.5	86	3.9	-3.9	-0.3	79	3.7	-3.6	-0.7	131	4.1	-3.1	2.7	106	9.9	-9.5	2.7	96	9.9	-9.8	1.0
28	343	1.7	0.5	-1.6	77	1.8	-1.8	-0.4	54	1.9	-1.5	-1.1	79	5.3	-5.2	-1.0	132	3.9	-2.9	2.6	118	7.2	-6.3	3.4	104	10.6	-10.3	2.6
29	69	0.9	-0.8	-0.3	107	1.7	-1.6	0.5	94	2.7	-2.7	0.2	85	2.5	-2.5	-0.2	118	5.0	-4.4	2.3	118	6.9	-6.1	3.2	70	3.3	-3.1	-1.1
30	66	3.0	-2.7	-1.2	109	2.8	-2.6	0.9	118	1.7	-1.5	0.8	71	1.8	-1.7	-0.6	99	3.2	-3.2	0.5	134	7.7	-5.5	5.4	99	9.3	-9.2	1.4
31	350	2.9	0.5	-2.9	81	1.8	-1.8	-0.3	66	1.0	-0.9	-0.4	113	2.8	-2.6	1.1	115	1.7	-1.5	0.7	127	3.1	-2.5	1.9	297	10.8	9.6	-4.9

Daily Normals of Upper Air Winds (1971-2000)

AMINI **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	36	1.7	-1.0	-1.4	76	3.3	-3.2	-0.8	87	2.1	-2.1	-0.1	89	4.2	-4.2	-0.1	128	2.9	-2.3	1.8	137	10.7	-7.3	7.8	81	6.7	-6.6	-1.0
2	122	1.3	-1.1	0.7	61	1.0	-0.9	-0.5	65	1.7	-1.5	-0.7	72	4.5	-4.3	-1.4	122	2.8	-2.4	1.5	134	8.3	-6.0	5.7	145	8.0	-4.6	6.6
3	28	3.0	-1.4	-2.6	57	4.2	-3.5	-2.3	76	3.3	-3.2	-0.8	74	6.4	-6.1	-1.8	121	2.7	-2.3	1.4	133	4.9	-3.6	3.3	116	7.7	-6.9	3.4
4	18	0.6	-0.2	-0.6	45	2.1	-1.5	-1.5	67	0.8	-0.7	-0.3	50	3.0	-2.3	-1.9	144	4.8	-2.8	3.9	144	8.6	-5.1	6.9	100	9.9	-9.8	1.7
5	356	2.7	0.2	-2.7	25	2.1	-0.9	-1.9	51	1.3	-1.0	-0.8	70	3.5	-3.3	-1.2	92	2.7	-2.7	0.1	138	6.2	-4.2	4.6	101	9.6	-9.4	1.8
6	35	1.9	-1.1	-1.6	59	0.6	-0.5	-0.3	99	2.4	-2.4	0.4	69	3.6	-3.4	-1.3	114	2.7	-2.5	1.1	129	6.6	-5.1	4.2	144	13.0	-7.7	10.5
7	67	4.6	-4.2	-1.8	79	1.6	-1.6	-0.3	45	2.1	-1.5	-1.5	88	2.9	-2.9	-0.1	82	4.9	-4.8	-0.7	135	9.1	-6.4	6.5	91	4.3	-4.3	0.1
8	11	4.2	-0.8	-4.1	30	1.6	-0.8	-1.4	47	1.8	-1.3	-1.2	68	3.2	-3.0	-1.2	91	4.9	-4.9	0.1	102	6.9	-6.8	1.4	120	6.0	-5.2	3.0
9	37	2.5	-1.5	-2.0	49	2.8	-2.1	-1.8	65	1.4	-1.3	-0.6	85	4.5	-4.5	-0.4	113	3.4	-3.1	1.3	118	6.7	-5.9	3.1	346	5.0	1.2	-4.9
10	45	4.9	-3.5	-3.5	56	2.3	-1.9	-1.3	81	2.5	-2.5	-0.4	78	3.0	-2.9	-0.6	75	5.3	-5.1	-1.4	113	9.5	-8.7	3.7	95	2.2	-2.2	0.2
11	73	7.7	-7.4	-2.2	46	3.2	-2.3	-2.2	48	2.7	-2.0	-1.8	65	5.3	-4.8	-2.2	101	5.8	-5.7	1.1	129	7.2	-5.6	4.5	71	8.4	-8.0	-2.7
12	153	2.9	-1.3	2.6	39	3.6	-2.3	-2.8	49	2.1	-1.6	-1.4	64	4.6	-4.1	-2.0	76	5.0	-4.9	-1.2	86	8.6	-8.6	-0.6	128	9.1	-7.2	5.6
13	55	2.8	-2.3	-1.6	66	2.2	-2.0	-0.9	100	1.7	-1.7	0.3	70	5.8	-5.4	-2.0	106	6.5	-6.2	1.8	127	9.2	-7.4	5.5	81	9.4	-9.3	-1.5
14	60	2.8	-2.4	-1.4	81	2.5	-2.5	-0.4	153	0.7	-0.3	0.6	79	4.1	-4.0	-0.8	95	4.8	-4.8	0.4	109	5.9	-5.6	1.9	222	7.0	4.7	5.2
15	22	4.3	-1.6	-4.0	65	3.3	-3.0	-1.4	73	1.7	-1.6	-0.5	90	2.7	-2.7	0.0	103	2.8	-2.7	0.6	116	2.5	-2.3	1.1	113	4.8	-4.4	1.9
16	288	1.3	1.2	-0.4	74	1.9	-1.8	-0.5	124	2.5	-2.1	1.4	112	3.5	-3.3	1.3	112	2.7	-2.5	1.0	113	7.5	-6.9	3.0	103	4.6	-4.5	1.0
17	270	1.6	1.6	0.0	48	1.3	-1.0	-0.9	139	2.1	-1.4	1.6	108	3.3	-3.1	1.0	101	2.6	-2.6	0.5	161	4.6	-1.5	4.4	16	5.3	-1.5	-5.1
18	7	3.4	-0.4	-3.4	72	2.6	-2.5	-0.8	108	2.0	-1.9	0.6	92	3.0	-3.0	0.1	171	1.9	-0.3	1.9	169	4.4	-0.8	4.3	153	1.8	-0.8	1.6
19	342	3.2	1.0	-3.0	69	2.2	-2.1	-0.8	99	1.8	-1.8	0.3	70	2.9	-2.7	-1.0	324	2.6	1.5	-2.1	169	4.3	-0.8	4.2	147	2.4	-1.3	2.0
20	15	3.1	-0.8	-3.0	68	2.9	-2.7	-1.1	105	1.1	-1.1	0.3	79	4.2	-4.1	-0.8	50	0.8	-0.6	-0.5	212	0.9	0.5	0.8	188	0.7	0.1	0.7
21	29	3.1	-1.5	-2.7	52	3.1	-2.4	-1.9	56	2.3	-1.9	-1.3	52	2.4	-1.9	-1.5	221	2.8	1.8	2.1	179	4.9	-0.1	4.9	52	8.0	-6.3	-4.9
22	61	3.5	-3.1	-1.7	77	3.5	-3.4	-0.8	53	3.8	-3.0	-2.3	58	3.4	-2.9	-1.8	194	0.8	0.2	0.8	263	4.0	4.0	0.5	—	—	—	—
23	90	3.4	-3.4	0.0	88	3.6	-3.6	-0.1	94	3.1	-3.1	0.2	41	3.0	-2.0	-2.3	240	0.8	0.7	0.4	215	7.4	4.2	6.1	137	5.4	-3.7	3.9
24	98	2.2	-2.2	0.3	94	3.2	-3.2	0.2	93	2.1	-2.1	0.1	65	2.9	-2.6	-1.2	174	2.0	-0.2	2.0	201	6.2	2.2	5.8	102	9.2	-9.0	1.9
25	27	2.7	-1.2	-2.4	67	2.8	-2.6	-1.1	100	1.7	-1.7	0.3	74	4.8	-4.6	-1.3	121	0.6	-0.5	0.3	156	4.9	-2.0	4.5	103	2.6	-2.5	0.6
26	21	2.6	-0.9	-2.4	85	3.2	-3.2	-0.3	86	1.6	-1.6	-0.1	80	5.0	-4.9	-0.9	40	0.8	-0.5	-0.6	212	3.8	2.0	3.2	183	4.2	0.2	4.2
27	33	3.0	-1.6	-2.5	84	4.6	-4.6	-0.5	117	2.2	-2.0	1.0	75	5.3	-5.1	-1.4	68	1.1	-1.0	-0.4	167	7.7	-1.8	7.5	99	7.1	-7.0	1.1
28	47	2.5	-1.8	-1.7	84	5.0	-5.0	-0.5	90	2.3	-2.3	0.0	75	5.1	-4.9	-1.3	97	0.8	-0.8	0.1	190	5.7	1.0	5.6	103	6.6	-6.4	1.5
29	68	2.4	-2.2	-0.9	79	4.3	-4.2	-0.8	84	2.9	-2.9	-0.3	67	5.9	-5.4	-2.3	223	3.4	2.3	2.5	193	7.3	1.7	7.1	114	9.2	-8.4	3.8
30	28	4.0	-1.9	-3.5	69	3.4	-3.2	-1.2	118	3.0	-2.6	1.4	75	6.3	-6.1	-1.6	111	2.5	-2.3	0.9	170	8.4	-1.5	8.3	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

AMINI **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	14	5.4	-1.3	-5.2	83	4.6	-4.6	-0.6	91	4.3	-4.3	0.1	83	5.2	-5.2	-0.6	50	1.7	-1.3	-1.1	232	10.5	8.3	6.4	—	—	—	—
2	46	3.5	-2.5	-2.4	83	4.7	-4.7	-0.6	98	3.7	-3.7	0.5	69	5.3	-4.9	-1.9	143	3.6	-2.2	2.9	209	7.9	3.9	6.9	222	4.0	2.7	3.0
3	54	3.4	-2.8	-2.0	93	5.0	-5.0	0.3	111	2.8	-2.6	1.0	87	5.4	-5.4	-0.3	168	4.7	-1.0	4.6	191	6.8	1.3	6.7	56	3.6	-3.0	-2.0
4	75	3.0	-2.9	-0.8	82	4.8	-4.7	-0.7	95	3.8	-3.8	0.3	85	6.4	-6.4	-0.6	138	4.7	-3.1	3.5	153	6.3	-2.8	5.6	240	3.0	2.6	1.5
5	63	2.2	-2.0	-1.0	83	3.8	-3.8	-0.5	84	2.7	-2.7	-0.3	83	6.4	-6.4	-0.8	81	2.6	-2.6	-0.4	217	3.5	2.1	2.8	104	10.1	-9.8	2.4
6	17	2.7	-0.8	-2.6	76	4.0	-3.9	-1.0	76	3.6	-3.5	-0.9	76	3.2	-3.1	-0.8	111	4.3	-4.0	1.5	125	4.5	-3.7	2.6	76	11.0	-10.7	-2.6
7	32	3.9	-2.1	-3.3	66	4.3	-3.9	-1.7	87	4.3	-4.3	-0.2	103	3.5	-3.4	0.8	164	5.0	-1.4	4.8	191	6.4	1.2	6.3	119	9.0	-7.9	4.4
8	30	3.2	-1.6	-2.8	83	3.5	-3.5	-0.4	79	2.1	-2.1	-0.4	135	1.7	-1.2	1.2	202	4.8	1.8	4.5	197	7.7	2.3	7.4	100	4.8	-4.7	0.8
9	53	3.4	-2.7	-2.0	86	4.1	-4.1	-0.3	100	2.8	-2.8	0.5	109	3.1	-2.9	1.0	142	2.9	-1.8	2.3	201	5.8	2.1	5.4	92	9.0	-9.0	0.3
10	55	3.5	-2.9	-2.0	84	3.1	-3.1	-0.3	88	2.8	-2.8	-0.1	101	1.5	-1.5	0.3	203	2.8	1.1	2.6	229	5.0	3.8	3.3	265	1.2	1.2	0.1
11	32	3.6	-1.9	-3.1	112	3.8	-3.5	1.4	115	1.7	-1.5	0.7	100	2.2	-2.2	0.4	177	3.8	-0.2	3.8	205	5.1	2.1	4.6	40	3.1	-2.0	-2.4
12	69	4.9	-4.6	-1.8	100	3.6	-3.5	0.6	128	2.4	-1.9	1.5	72	3.9	-3.7	-1.2	210	3.2	1.6	2.8	226	4.9	3.5	3.4	303	3.7	3.1	-2.0
13	79	1.5	-1.5	-0.3	99	3.1	-3.1	0.5	96	2.0	-2.0	0.2	77	4.1	-4.0	-0.9	118	1.5	-1.3	0.7	220	6.1	3.9	4.7	95	6.2	-6.2	0.5
14	128	3.4	-2.7	2.1	107	4.5	-4.3	1.3	137	3.5	-2.4	2.6	86	2.9	-2.9	-0.2	267	3.9	3.9	0.2	242	5.8	5.1	2.7	86	3.1	-3.1	-0.2
15	117	0.4	-0.4	0.2	92	2.8	-2.8	0.1	110	2.3	-2.2	0.8	69	2.2	-2.1	-0.8	271	4.6	4.6	-0.1	215	6.6	3.8	5.4	245	3.8	3.5	1.6
16	51	2.6	-2.0	-1.6	75	3.9	-3.8	-1.0	105	2.0	-1.9	0.5	87	3.4	-3.4	-0.2	235	4.2	3.4	2.4	233	6.1	4.9	3.7	—	—	—	—
17	43	2.6	-1.8	-1.9	72	4.1	-3.9	-1.3	78	3.8	-3.7	-0.8	68	6.6	-6.1	-2.5	166	0.8	-0.2	0.8	254	12.9	12.4	3.5	23	1.5	-0.6	-1.4
18	73	3.0	-2.9	-0.9	100	4.8	-4.7	0.8	91	4.1	-4.1	0.1	45	2.1	-1.5	-1.5	272	3.1	3.1	-0.1	212	8.4	4.5	7.1	353	3.3	0.4	-3.3
19	89	4.8	-4.8	-0.1	98	5.5	-5.4	0.8	116	3.4	-3.1	1.5	77	5.1	-5.0	-1.2	276	4.1	4.1	-0.4	255	9.1	8.8	2.3	297	3.0	2.7	-1.4
20	51	4.5	-3.5	-2.8	73	5.2	-5.0	-1.5	103	3.1	-3.0	0.7	42	5.8	-3.9	-4.3	291	4.9	4.6	-1.8	249	5.8	5.4	2.1	265	4.7	4.7	0.4
21	62	3.8	-3.4	-1.8	87	4.2	-4.2	-0.2	129	2.1	-1.6	1.3	89	4.9	-4.9	-0.1	259	4.3	4.2	0.8	245	8.5	7.7	3.6	95	4.9	-4.9	0.4
22	42	2.7	-1.8	-2.0	93	3.4	-3.4	0.2	82	2.7	-2.7	-0.4	69	4.3	-4.0	-1.5	219	2.7	1.7	2.1	254	7.4	7.1	2.1	327	6.7	3.6	-5.6
23	51	3.5	-2.7	-2.2	77	3.2	-3.1	-0.7	115	3.3	-3.0	1.4	63	4.0	-3.6	-1.8	252	3.5	3.3	1.1	243	13.6	12.1	6.2	22	4.1	-1.5	-3.8
24	63	4.9	-4.4	-2.2	79	4.2	-4.1	-0.8	84	2.8	-2.8	-0.3	57	4.2	-3.5	-2.3	270	6.4	6.4	0.0	254	11.7	11.2	3.3	270	18.0	18.0	0.0
25	78	3.0	-2.9	-0.6	102	4.3	-4.2	0.9	111	2.5	-2.3	0.9	77	2.8	-2.7	-0.6	247	6.4	5.9	2.5	239	9.3	8.0	4.8	187	4.7	0.6	4.7
26	52	3.4	-2.7	-2.1	93	3.6	-3.6	0.2	106	2.9	-2.8	0.8	159	2.2	-0.8	2.1	235	5.9	4.8	3.4	233	8.3	6.6	5.0	270	12.4	12.4	0.0
27	66	3.4	-3.1	-1.4	97	4.2	-4.2	0.5	92	2.4	-2.4	0.1	228	1.3	1.0	0.9	238	6.5	5.5	3.4	238	10.3	8.8	5.4	—	—	—	—
28	60	3.9	-3.4	-2.0	77	4.4	-4.3	-1.0	90	3.5	-3.5	0.0	139	2.1	-1.4	1.6	225	8.3	5.9	5.9	230	8.0	6.1	5.1	48	17.0	-12.6	-11.4
29	61	3.5	-3.1	-1.7	85	5.0	-5.0	-0.4	76	3.8	-3.7	-0.9	80	2.8	-2.8	-0.5	234	5.9	4.8	3.5	261	10.6	10.5	1.7	275	9.0	9.0	-0.8
30	47	4.1	-3.0	-2.8	100	3.6	-3.5	0.6	87	2.0	-2.0	-0.1	122	1.5	-1.3	0.8	249	4.4	4.1	1.6	268	5.4	5.4	0.2	—	—	—	—
31	68	2.7	-2.5	-1.0	99	3.7	-3.7	0.6	88	2.5	-2.5	-0.1	185	1.2	0.1	1.2	239	4.8	4.1	2.5	239	7.7	6.6	4.0	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	80	2.7	-2.7	-0.5	149	1.7	-0.9	1.5	244	4.1	3.7	1.8	271	14.2	14.2	-0.3	261	31.7	31.3	5.0	267	34.9	34.9	1.8	248	45.4	42.2	16.8
2	104	2.9	-2.8	0.7	198	2.8	0.9	2.7	249	6.5	6.1	2.3	263	20.2	20.1	2.3	259	33.0	32.4	6.1	238	30.2	25.6	16.1	—	—	—	—
3	90	2.8	-2.8	0.0	145	2.4	-1.4	2.0	277	5.4	5.4	-0.7	277	14.4	14.3	-1.7	276	29.3	29.1	-3.2	259	29.6	29.1	5.4	254	40.2	38.6	11.2
4	130	2.5	-1.9	1.6	141	3.3	-2.1	2.6	257	3.2	3.1	0.7	259	13.5	13.3	2.5	254	30.8	29.6	8.6	242	42.6	37.8	19.7	276	16.0	15.9	-1.7
5	110	1.2	-1.1	0.4	174	3.0	-0.3	3.0	248	6.4	5.9	2.4	267	17.3	17.3	1.0	256	35.1	34.1	8.5	229	36.2	27.5	23.6	232	21.1	16.5	13.1
6	73	2.7	-2.6	-0.8	147	1.7	-0.9	1.4	267	3.8	3.8	0.2	268	15.5	15.5	0.5	260	32.5	32.0	5.9	255	36.7	35.5	9.4	264	22.1	22.0	2.2
7	61	1.0	-0.9	-0.5	177	2.0	-0.1	2.0	262	5.7	5.6	0.8	276	14.3	14.2	-1.5	266	26.8	26.7	2.1	255	33.4	32.3	8.4	239	12.2	10.5	6.2
8	94	1.5	-1.5	0.1	180	2.6	0.0	2.6	253	8.4	8.0	2.5	258	19.6	19.2	4.0	265	35.3	35.2	3.2	261	36.4	36.0	5.4	282	20.4	20.0	-4.2
9	68	0.5	-0.5	-0.2	180	2.7	0.0	2.7	267	6.6	6.6	0.4	256	18.3	17.8	4.3	266	32.9	32.8	2.3	270	33.6	33.6	0.2	—	—	—	—
10	98	1.5	-1.5	0.2	163	2.8	-0.8	2.7	249	7.8	7.3	2.8	266	17.2	17.2	1.1	269	31.3	31.3	0.6	257	31.7	30.8	7.3	291	16.0	15.0	-5.7
11	107	1.4	-1.3	0.4	182	2.6	0.1	2.6	240	6.0	5.2	3.0	261	16.3	16.1	2.6	259	36.1	35.4	7.0	249	35.4	33.1	12.6	—	—	—	—
12	180	0.7	0.0	0.7	175	2.2	-0.2	2.2	245	6.0	5.4	2.5	267	18.2	18.2	0.8	261	36.9	36.5	5.5	240	39.4	34.2	19.5	—	—	—	—
13	41	0.9	-0.6	-0.7	191	2.0	0.4	2.0	263	6.4	6.4	0.8	274	18.6	18.5	-1.4	260	35.2	34.6	6.2	261	34.7	34.2	5.6	—	—	—	—
14	110	1.5	-1.4	0.5	187	2.4	0.3	2.4	264	6.2	6.2	0.6	263	16.6	16.5	2.0	261	39.3	38.8	6.4	244	32.2	28.8	14.3	247	53.0	48.8	20.7
15	146	0.7	-0.4	0.6	214	4.3	2.4	3.6	259	7.7	7.6	1.5	271	19.0	19.0	-0.3	254	42.5	40.8	11.9	268	32.5	32.5	0.9	—	—	—	—
16	14	1.2	-0.3	-1.2	194	2.5	0.6	2.4	264	8.1	8.1	0.9	257	17.4	17.0	3.9	257	34.7	33.8	7.7	243	34.3	30.6	15.4	245	13.0	11.8	5.5
17	93	2.2	-2.2	0.1	167	2.8	-0.6	2.7	261	8.1	8.0	1.3	263	15.5	15.4	1.9	266	32.4	32.3	2.4	255	39.0	37.7	10.0	247	13.5	12.4	5.3
18	119	2.3	-2.0	1.1	167	2.8	-0.6	2.7	261	6.7	6.6	1.0	257	14.2	13.9	3.1	258	38.0	37.2	7.6	257	43.4	42.3	9.8	239	10.9	9.3	5.6
19	4	1.6	-0.1	-1.6	225	2.7	1.9	1.9	272	7.6	7.6	-0.3	271	19.1	19.1	-0.2	268	36.0	36.0	1.0	245	30.2	27.3	12.9	336	8.0	3.3	-7.3
20	294	1.2	1.1	-0.5	245	2.3	2.1	1.0	268	7.6	7.6	0.2	281	20.1	19.7	-4.0	268	32.9	32.9	1.1	248	32.9	30.5	12.4	—	—	—	—
21	336	1.2	0.5	-1.1	225	2.0	1.4	1.4	272	9.0	9.0	-0.3	274	20.1	20.1	-1.4	252	33.3	31.7	10.1	243	35.6	31.7	16.1	219	27.1	17.2	20.9
22	20	2.0	-0.7	-1.9	202	1.8	0.7	1.7	263	6.9	6.9	0.8	267	20.2	20.2	0.9	261	32.7	32.3	4.9	254	27.0	26.0	7.4	202	9.5	3.5	8.8
23	45	2.8	-2.0	-2.0	172	0.7	-0.1	0.7	276	6.5	6.5	-0.7	272	17.6	17.6	-0.6	260	31.7	31.2	5.7	242	25.8	22.8	12.0	—	—	—	—
24	67	2.5	-2.3	-1.0	195	1.6	0.4	1.5	281	7.1	7.0	-1.3	270	17.9	17.9	0.1	263	29.8	29.6	3.7	254	27.8	26.7	7.9	248	18.6	17.2	7.0
25	109	2.4	-2.3	0.8	143	1.5	-0.9	1.2	277	5.9	5.9	-0.7	282	16.9	16.5	-3.5	266	34.1	34.0	2.6	252	32.4	30.8	10.0	266	17.6	17.6	1.3
26	106	2.2	-2.1	0.6	167	2.2	-0.5	2.1	269	4.6	4.6	0.1	275	16.9	16.8	-1.4	268	31.1	31.1	1.1	248	32.3	29.9	12.1	193	11.3	2.6	11.0
27	90	1.3	-1.3	0.0	163	1.4	-0.4	1.3	268	5.1	5.1	0.2	273	16.9	16.9	-0.8	264	30.6	30.4	3.2	249	35.0	32.7	12.5	239	35.0	30.1	17.8
28	21	1.7	-0.6	-1.6	228	1.5	1.1	1.0	260	4.6	4.5	0.8	281	20.8	20.5	-3.8	267	29.8	29.8	1.4	253	32.7	31.2	9.7	232	51.0	40.2	31.4
29	29	1.8	-0.9	-1.6	213	2.0	1.1	1.7	287	5.0	4.8	-1.5	283	18.2	17.7	-4.1	270	30.4	30.4	-0.2	259	37.1	36.4	7.2	181	8.0	0.1	8.0
30	47	1.6	-1.2	-1.1	119	1.0	-0.9	0.5	253	7.7	7.4	2.2	274	18.3	18.3	-1.3	264	31.0	30.8	3.3	254	40.3	38.7	11.4	293	16.6	15.2	-6.6
31	50	0.8	-0.6	-0.5	242	3.2	2.8	1.5	266	8.7	8.7	0.6	273	21.4	21.4	-1.3	265	29.8	29.7	2.7	234	41.8	33.9	24.5	120	19.0	-16.5	9.5

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	349	0.5	0.1	-0.5	258	3.0	2.9	0.6	263	11.0	10.9	1.3	271	19.6	19.6	-0.3	264	33.3	33.1	3.5	258	42.9	42.0	8.8	193	6.5	1.5	6.3
2	67	1.5	-1.4	-0.6	225	1.7	1.2	1.2	274	7.5	7.5	-0.5	273	17.1	17.1	-1.0	259	30.2	29.7	5.7	255	34.3	33.1	8.9	264	27.5	27.3	3.0
3	321	1.4	0.9	-1.1	195	2.0	0.5	1.9	274	5.7	5.7	-0.4	274	16.4	16.4	-1.2	273	25.3	25.3	-1.2	267	26.6	26.6	1.2	269	28.5	28.5	0.5
4	38	1.8	-1.1	-1.4	283	0.9	0.9	-0.2	259	7.0	6.9	1.4	258	20.5	20.0	4.3	271	31.5	31.5	-0.5	270	33.0	33.0	0.1	—	—	—	—
5	56	2.5	-2.1	-1.4	239	1.2	1.0	0.6	252	7.2	6.9	2.2	272	19.2	19.2	-0.6	264	31.8	31.6	3.6	278	39.5	39.1	-5.5	286	18.2	17.5	-5.1
6	73	3.1	-3.0	-0.9	180	2.7	0.0	2.7	250	7.0	6.6	2.4	273	17.8	17.8	-1.0	254	31.3	30.2	8.4	255	38.3	37.1	9.7	93	10.0	-10.0	0.5
7	78	2.4	-2.3	-0.5	131	2.3	-1.7	1.5	253	6.2	5.9	1.8	273	14.1	14.1	-0.8	274	25.9	25.8	-1.8	275	38.6	38.5	-3.1	269	43.6	43.6	0.8
8	63	0.7	-0.6	-0.3	240	2.0	1.7	1.0	282	5.6	5.5	-1.2	284	16.2	15.7	-3.8	279	31.7	31.3	-5.2	269	34.9	34.9	0.5	55	9.3	-7.7	-5.3
9	56	2.2	-1.8	-1.2	230	1.7	1.3	1.1	284	7.6	7.4	-1.9	277	17.4	17.3	-2.2	273	33.2	33.2	-1.7	259	38.7	38.0	7.2	—	—	—	—
10	29	2.6	-1.3	-2.3	72	1.3	-1.2	-0.4	273	5.4	5.4	-0.3	290	17.5	16.4	-6.0	273	32.2	32.2	-1.7	258	32.2	31.5	6.8	247	23.2	21.3	9.1
11	39	2.6	-1.6	-2.0	190	1.1	0.2	1.1	250	5.9	5.5	2.0	274	12.7	12.7	-0.9	273	28.6	28.6	-1.3	284	42.0	40.8	-10.1	—	—	—	—
12	73	3.0	-2.9	-0.9	159	2.2	-0.8	2.1	252	4.8	4.6	1.5	271	14.9	14.9	-0.2	268	33.2	33.2	1.2	274	32.2	32.1	-2.2	250	25.4	23.9	8.5
13	69	1.9	-1.8	-0.7	167	2.3	-0.5	2.2	245	5.6	5.1	2.4	263	14.4	14.3	1.7	274	36.2	36.1	-2.6	271	39.0	39.0	-0.8	279	36.9	36.4	-6.0
14	47	1.6	-1.2	-1.1	243	2.5	2.2	1.1	222	7.8	5.2	5.8	259	17.7	17.4	3.5	263	30.0	29.8	3.5	255	31.9	30.8	8.2	287	11.1	10.6	-3.3
15	350	1.7	0.3	-1.7	245	2.1	1.9	0.9	251	7.5	7.1	2.5	265	20.8	20.7	1.8	259	32.1	31.5	6.3	257	38.8	37.9	8.5	113	28.0	-25.8	10.9
16	323	2.5	1.5	-2.0	261	3.0	3.0	0.5	242	8.1	7.2	3.8	267	21.4	21.4	1.3	262	34.8	34.5	4.6	267	34.6	34.6	1.8	249	24.0	22.4	8.7
17	311	4.3	3.2	-2.8	273	4.2	4.2	-0.2	241	9.0	7.9	4.3	265	22.8	22.7	1.8	257	42.8	41.8	9.3	248	43.9	40.6	16.8	313	28.0	20.5	-19.1
18	347	1.7	0.4	-1.7	264	3.0	3.0	0.3	249	10.8	10.1	3.9	273	21.8	21.8	-1.1	261	24.3	24.0	3.7	263	38.3	38.0	4.8	247	31.3	28.9	12.0
19	342	2.0	0.6	-1.9	212	1.5	0.8	1.3	256	8.0	7.8	1.9	276	20.8	20.7	-2.0	267	39.8	39.7	2.2	281	19.5	19.2	-3.6	253	53.5	51.1	15.7
20	330	3.4	1.7	-3.0	276	1.8	1.8	-0.2	262	8.5	8.4	1.2	275	20.0	19.9	-1.7	267	35.2	35.1	1.9	271	48.1	48.1	-1.2	261	47.2	46.6	7.4
21	318	4.6	3.1	-3.4	255	2.3	2.2	0.6	272	7.5	7.5	-0.3	283	20.3	19.7	-4.7	268	30.3	30.3	1.0	254	33.8	32.5	9.4	164	6.2	-1.7	6.0
22	326	2.5	1.4	-2.1	264	1.8	1.8	0.2	265	7.5	7.5	0.7	276	19.6	19.5	-2.1	269	33.5	33.5	0.8	257	24.9	24.3	5.6	283	28.5	27.7	-6.5
23	39	1.9	-1.2	-1.5	256	0.8	0.8	0.2	259	6.6	6.5	1.3	275	19.8	19.7	-1.8	276	37.0	36.8	-3.7	254	34.0	32.7	9.2	—	—	—	—
24	45	2.4	-1.7	-1.7	207	1.3	0.6	1.2	251	6.5	6.2	2.1	274	16.4	16.4	-1.2	262	30.9	30.6	4.1	250	36.7	34.6	12.3	—	—	—	—
25	21	1.4	-0.5	-1.3	180	0.7	0.0	0.7	255	6.8	6.6	1.8	270	14.4	14.4	0.0	263	31.6	31.3	4.1	251	42.9	40.5	14.2	234	19.2	15.6	11.2
26	9	1.9	-0.3	-1.9	299	2.3	2.0	-1.1	256	6.6	6.4	1.6	266	16.3	16.3	1.0	272	29.3	29.3	-1.0	246	37.4	34.1	15.3	231	12.7	9.8	8.0
27	345	1.1	0.3	-1.1	259	2.1	2.1	0.4	255	7.9	7.6	2.0	273	14.9	14.9	-0.8	269	35.5	35.5	0.5	254	34.6	33.2	9.8	238	30.0	25.4	15.9
28	11	3.7	-0.7	-3.6	290	2.0	1.9	-0.7	240	7.3	6.3	3.6	272	16.8	16.8	-0.7	266	35.0	34.9	2.4	267	30.9	30.9	1.6	245	28.9	26.2	12.3
29	135	4.0	-2.8	2.8	273	2.1	2.1	-0.1	191	3.2	0.6	3.1	267	13.7	13.7	0.6	260	35.3	34.7	6.4	229	37.2	28.2	24.2	263	19.0	18.9	2.3

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	58	1.5	-1.3	-0.8	297	3.1	2.8	-1.4	224	7.4	5.2	5.3	263	18.5	18.4	2.2	258	38.0	37.2	7.7	260	45.6	44.9	8.0	263	42.6	42.3	5.2
2	67	3.6	-3.3	-1.4	307	1.5	1.2	-0.9	251	6.0	5.7	2.0	263	15.6	15.5	1.8	265	32.9	32.8	2.6	261	46.4	45.9	7.0	210	11.1	5.5	9.6
3	38	2.3	-1.4	-1.8	95	1.2	-1.2	0.1	263	5.6	5.6	0.7	281	15.8	15.5	-3.1	266	34.6	34.5	2.6	268	39.5	39.5	1.6	265	17.9	17.8	1.5
4	69	1.7	-1.6	-0.6	162	0.3	-0.1	0.3	239	5.8	5.0	3.0	270	12.6	12.6	0.1	271	32.2	32.2	-0.7	258	35.4	34.7	7.2	249	28.8	26.9	10.3
5	33	2.4	-1.3	-2.0	337	0.8	0.3	-0.7	238	7.3	6.2	3.8	262	15.9	15.8	2.1	258	32.0	31.3	6.7	251	38.0	36.0	12.3	239	21.2	18.2	10.8
6	2	3.3	-0.1	-3.3	275	1.1	1.1	-0.1	239	8.8	7.6	4.5	263	17.4	17.3	2.1	261	28.1	27.8	4.3	258	33.9	33.2	7.0	48	4.7	-3.5	-3.2
7	356	2.8	0.2	-2.8	219	1.3	0.8	1.0	232	5.6	4.4	3.4	266	16.6	16.6	1.2	262	28.8	28.5	3.8	258	35.4	34.6	7.5	284	21.5	20.8	-5.3
8	14	3.0	-0.7	-2.9	18	0.9	-0.3	-0.9	228	5.0	3.7	3.3	270	15.4	15.4	0.1	266	26.6	26.5	1.7	256	34.1	33.1	8.4	248	43.6	40.6	16.0
9	9	2.6	-0.4	-2.6	337	0.8	0.3	-0.7	238	5.1	4.3	2.7	271	14.6	14.6	-0.2	266	30.7	30.6	2.3	255	42.7	41.2	11.3	286	22.5	21.7	-6.1
10	28	2.7	-1.3	-2.4	299	1.0	0.9	-0.5	228	4.5	3.3	3.0	265	15.6	15.5	1.3	253	30.1	28.8	8.6	258	32.9	32.2	6.6	268	24.4	24.4	0.8
11	336	3.4	1.4	-3.1	328	3.6	1.9	-3.0	237	7.4	6.2	4.0	266	14.3	14.3	1.1	270	33.7	33.7	0.2	264	39.5	39.3	3.8	263	31.0	30.8	3.8
12	350	3.5	0.6	-3.4	318	2.5	1.7	-1.9	248	6.5	6.0	2.4	280	13.9	13.7	-2.4	262	32.5	32.2	4.4	267	46.3	46.2	2.8	248	34.7	32.2	13.0
13	339	5.6	2.0	-5.2	313	3.7	2.7	-2.5	241	8.5	7.5	4.1	274	17.5	17.5	-1.3	277	30.6	30.4	-3.6	273	38.5	38.5	-1.8	287	40.1	38.3	-12.0
14	342	3.9	1.2	-3.7	349	2.1	0.4	-2.1	239	5.6	4.8	2.9	280	12.9	12.7	-2.3	276	31.6	31.4	-3.5	279	36.7	36.3	-5.5	345	21.5	5.6	-20.8
15	30	4.6	-2.3	-4.0	9	1.2	-0.2	-1.2	219	5.0	3.2	3.9	280	11.9	11.7	-2.0	273	29.1	29.1	-1.4	273	38.5	38.4	-2.2	288	26.3	25.0	-8.2
16	337	2.1	0.8	-1.9	360	2.9	0.0	-2.9	235	5.6	4.6	3.2	278	11.2	11.1	-1.5	265	25.4	25.3	2.0	270	24.8	24.8	-0.2	278	11.6	11.5	-1.6
17	356	1.5	0.1	-1.5	333	1.6	0.7	-1.4	237	5.0	4.2	2.7	262	13.5	13.4	2.0	255	28.1	27.2	7.1	275	32.9	32.8	-2.6	228	11.3	8.4	7.6
18	358	3.5	0.1	-3.5	332	2.4	1.1	-2.1	235	5.5	4.5	3.2	272	15.8	15.8	-0.6	270	30.9	30.9	0.1	255	42.6	41.1	11.1	228	12.0	8.9	8.0
19	346	4.1	1.0	-4.0	300	3.9	3.4	-2.0	217	6.7	4.0	5.4	270	15.5	15.5	0.0	271	31.9	31.9	-0.7	258	28.8	28.2	5.8	236	5.2	4.3	2.9
20	1	3.9	-0.1	-3.9	294	2.7	2.5	-1.1	240	8.1	7.0	4.0	268	14.1	14.1	0.4	273	29.1	29.1	-1.7	268	40.8	40.8	1.3	291	20.7	19.4	-7.3
21	349	4.4	0.8	-4.3	326	3.6	2.0	-3.0	245	7.4	6.7	3.1	269	14.3	14.3	0.3	274	22.8	22.8	-1.5	278	26.7	26.4	-3.7	271	29.4	29.4	-0.7
22	322	4.1	2.5	-3.2	320	3.9	2.5	-3.0	243	8.3	7.4	3.8	272	14.8	14.8	-0.4	273	27.8	27.8	-1.6	264	31.2	31.0	3.3	255	33.1	31.9	8.7
23	4	4.8	-0.3	-4.8	313	5.2	3.8	-3.5	227	8.4	6.2	5.7	284	16.3	15.8	-3.9	266	33.9	33.8	2.4	275	33.6	33.4	-3.2	221	15.5	10.1	11.7
24	351	3.8	0.6	-3.8	322	3.3	2.0	-2.6	230	8.5	6.5	5.4	270	12.7	12.7	0.0	263	25.2	25.0	3.0	256	37.0	35.9	9.1	255	17.3	16.7	4.4
25	360	4.4	0.0	-4.4	320	2.3	1.5	-1.8	242	6.7	5.9	3.1	266	13.1	13.1	0.9	267	29.7	29.7	1.7	226	31.5	22.6	21.9	273	3.9	3.9	-0.2
26	358	3.1	0.1	-3.1	351	2.5	0.4	-2.5	258	5.5	5.4	1.1	281	14.4	14.1	-2.8	264	34.0	33.8	3.6	275	31.8	31.7	-2.9	292	25.0	23.2	-9.4
27	21	3.6	-1.3	-3.4	360	2.7	0.0	-2.7	247	5.4	5.0	2.1	276	11.0	10.9	-1.1	275	22.4	22.3	-1.9	281	30.2	29.7	-5.7	281	34.7	34.1	-6.4
28	24	3.0	-1.2	-2.7	329	1.7	0.9	-1.5	245	3.1	2.8	1.3	277	11.2	11.1	-1.3	275	21.7	21.6	-1.9	266	29.2	29.1	2.0	215	8.2	4.7	6.7
29	360	3.4	0.0	-3.4	6	3.7	-0.4	-3.7	241	5.0	4.4	2.4	272	12.2	12.2	-0.5	274	22.6	22.5	-1.7	256	27.8	27.0	6.5	254	17.4	16.7	4.8
30	358	2.3	0.1	-2.3	315	2.8	2.0	-2.0	256	6.5	6.3	1.6	263	12.5	12.4	1.5	258	28.3	27.7	6.0	252	39.0	37.0	12.3	237	7.0	5.9	3.8
31	352	4.1	0.6	-4.1	311	4.4	3.3	-2.9	237	6.7	5.6	3.7	261	12.0	11.9	1.8	257	29.0	28.3	6.3	247	26.4	24.2	10.5	275	24.4	24.3	-2.1

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	348	5.5	1.1	-5.4	315	3.1	2.2	-2.2	226	5.3	3.8	3.7	276	12.9	12.8	-1.4	276	25.9	25.8	-2.7	244	31.0	27.9	13.6	45	2.3	-1.6	-1.6
2	5	3.2	-0.3	-3.2	333	3.1	1.4	-2.8	221	6.1	4.0	4.6	265	12.0	11.9	1.1	248	24.9	23.1	9.2	241	29.2	25.6	14.1	222	7.3	4.9	5.4
3	333	2.7	1.2	-2.4	344	2.5	0.7	-2.4	215	5.5	3.2	4.5	273	11.7	11.7	-0.7	263	25.9	25.7	3.0	250	25.1	23.6	8.6	236	27.0	22.4	15.1
4	344	5.1	1.4	-4.9	323	4.4	2.6	-3.5	228	5.1	3.8	3.4	275	11.7	11.6	-1.1	273	28.3	28.3	-1.6	268	28.6	28.6	0.9	281	13.0	12.8	-2.4
5	351	3.1	0.5	-3.1	355	3.3	0.3	-3.3	223	4.0	2.7	2.9	278	10.4	10.3	-1.5	272	22.5	22.5	-0.7	267	26.7	26.7	1.5	250	12.8	12.1	4.3
6	4	2.7	-0.2	-2.7	2	2.5	-0.1	-2.5	236	3.4	2.8	1.9	290	9.2	8.7	-3.1	280	19.3	19.0	-3.2	272	28.9	28.9	-1.2	264	17.6	17.5	1.8
7	346	3.6	0.9	-3.5	2	2.3	-0.1	-2.3	244	3.9	3.5	1.7	281	8.1	8.0	-1.5	273	21.7	21.7	-1.3	259	25.0	24.6	4.6	223	10.7	7.3	7.8
8	332	4.3	2.0	-3.8	339	3.6	1.3	-3.4	217	4.1	2.5	3.3	267	10.3	10.3	0.5	273	23.8	23.8	-1.2	257	31.3	30.5	7.1	254	21.5	20.7	5.9
9	319	6.2	4.1	-4.7	309	5.7	4.4	-3.6	224	4.2	2.9	3.0	272	9.7	9.7	-0.3	256	24.0	23.3	5.8	254	30.3	29.1	8.5	229	19.1	14.3	12.6
10	330	5.1	2.5	-4.4	336	5.9	2.4	-5.4	229	5.7	4.3	3.8	269	10.2	10.2	0.1	271	20.5	20.5	-0.5	269	22.1	22.1	0.2	245	7.5	6.8	3.2
11	345	5.3	1.4	-5.1	339	4.4	1.6	-4.1	229	4.8	3.6	3.1	285	8.0	7.7	-2.1	279	18.0	17.8	-2.9	274	22.1	22.0	-1.7	268	11.2	11.2	0.3
12	331	3.5	1.7	-3.1	350	2.9	0.5	-2.9	224	3.5	2.4	2.5	276	9.3	9.2	-1.0	265	23.0	22.9	2.2	269	27.3	27.3	0.5	245	10.9	9.9	4.6
13	338	4.2	1.6	-3.9	335	4.7	2.0	-4.3	242	3.0	2.6	1.4	271	8.6	8.6	-0.2	254	21.9	21.1	6.0	241	29.4	25.8	14.1	264	21.7	21.6	2.4
14	322	5.5	3.4	-4.3	334	5.5	2.4	-5.0	203	3.6	1.4	3.3	266	11.7	11.7	0.8	255	24.7	23.9	6.2	243	31.3	27.8	14.4	251	16.9	15.9	5.6
15	316	3.5	2.4	-2.5	331	4.6	2.2	-4.0	217	3.0	1.8	2.4	267	9.4	9.4	0.5	257	25.3	24.6	5.7	243	30.1	26.7	13.8	239	19.3	16.5	10.0
16	337	3.9	1.5	-3.6	327	4.5	2.5	-3.8	238	3.9	3.3	2.1	275	8.4	8.4	-0.8	252	24.1	23.0	7.3	248	35.0	32.5	13.0	255	15.8	15.3	4.0
17	332	5.5	2.6	-4.8	319	5.6	3.7	-4.2	222	4.7	3.2	3.5	295	6.7	6.1	-2.8	262	19.7	19.5	2.8	248	26.8	24.9	10.0	278	23.5	23.3	-3.1
18	326	5.0	2.8	-4.2	315	4.4	3.1	-3.1	201	2.6	0.9	2.4	282	8.4	8.2	-1.7	267	18.9	18.9	0.9	259	29.7	29.1	5.7	253	14.6	14.0	4.2
19	301	5.7	4.9	-2.9	324	5.3	3.1	-4.3	201	1.9	0.7	1.8	283	7.4	7.2	-1.6	263	20.1	20.0	2.3	252	29.5	28.1	9.1	277	24.6	24.4	-2.9
20	332	8.1	3.8	-7.2	333	4.9	2.2	-4.4	250	3.7	3.5	1.3	272	7.0	7.0	-0.3	258	17.3	16.9	3.6	256	16.4	15.9	4.0	237	14.5	12.2	7.9
21	330	4.4	2.2	-3.8	341	5.3	1.7	-5.0	236	3.0	2.5	1.7	259	7.1	7.0	1.4	251	19.5	18.5	6.3	259	23.8	23.4	4.4	251	8.8	8.3	2.9
22	307	5.0	4.0	-3.0	332	6.7	3.2	-5.9	278	1.5	1.5	-0.2	279	8.3	8.2	-1.3	256	19.1	18.5	4.7	251	25.0	23.6	8.3	245	32.6	29.6	13.6
23	339	6.2	2.2	-5.8	342	4.9	1.5	-4.7	220	2.5	1.6	1.9	264	9.1	9.1	0.9	253	25.4	24.2	7.6	243	24.1	21.4	11.1	170	10.7	-1.8	10.5
24	323	4.1	2.5	-3.3	331	3.9	1.9	-3.4	243	3.5	3.1	1.6	281	7.6	7.5	-1.4	260	24.6	24.2	4.4	257	27.5	26.8	6.2	342	2.3	0.7	-2.2
25	320	5.5	3.5	-4.2	311	6.2	4.7	-4.1	228	3.0	2.2	2.0	288	7.5	7.1	-2.3	274	21.4	21.3	-1.5	263	31.0	30.8	3.8	253	10.0	9.6	2.9
26	320	5.6	3.6	-4.3	337	5.4	2.1	-5.0	202	1.6	0.6	1.5	284	6.6	6.4	-1.6	277	16.1	16.0	-1.9	266	24.3	24.2	1.9	273	5.5	5.5	-0.3
27	311	4.8	3.6	-3.1	341	5.3	1.7	-5.0	174	1.0	-0.1	1.0	294	6.2	5.7	-2.5	270	16.3	16.3	0.1	266	20.5	20.5	1.3	276	8.9	8.8	-1.0
28	333	5.5	2.5	-4.9	338	6.1	2.3	-5.6	238	1.3	1.1	0.7	291	6.6	6.2	-2.4	270	17.0	17.0	0.1	263	22.3	22.1	2.8	251	19.6	18.6	6.3
29	327	4.8	2.6	-4.0	325	6.7	3.8	-5.5	270	2.5	2.5	0.0	317	5.3	3.6	-3.9	276	15.4	15.3	-1.6	263	22.7	22.5	2.7	313	4.2	3.1	-2.9
30	310	5.7	4.4	-3.7	335	6.5	2.7	-5.9	261	1.8	1.8	0.3	295	5.9	5.3	-2.5	270	17.1	17.1	-0.1	257	22.4	21.8	5.1	141	2.6	-1.6	2.0

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	313	4.4	3.2	-3.0	305	6.1	5.0	-3.5	231	2.7	2.1	1.7	286	7.1	6.8	-1.9	272	12.2	12.2	-0.5	257	19.2	18.7	4.3	199	9.3	3.0	8.8
2	303	13.0	10.9	-7.0	310	5.6	4.3	-3.6	229	3.0	2.3	2.0	266	7.5	7.5	0.5	253	20.1	19.2	6.0	242	23.3	20.6	10.9	211	15.4	7.9	13.2
3	314	7.5	5.4	-5.2	322	6.2	3.8	-4.9	235	3.9	3.2	2.2	255	3.4	3.3	0.9	253	17.3	16.5	5.2	244	23.3	20.9	10.4	215	9.6	5.5	7.9
4	328	6.7	3.5	-5.7	346	7.2	1.8	-7.0	185	2.1	0.2	2.1	274	5.9	5.9	-0.4	260	18.9	18.6	3.3	247	25.8	23.7	10.3	211	6.0	3.1	5.1
5	321	5.9	3.7	-4.6	338	6.2	2.3	-5.8	198	2.9	0.9	2.8	311	4.6	3.5	-3.0	265	15.0	14.9	1.3	251	21.9	20.7	7.1	100	7.2	-7.1	1.2
6	338	6.4	2.4	-5.9	340	8.1	2.8	-7.6	202	1.8	0.7	1.7	279	5.6	5.5	-0.9	267	16.0	16.0	0.9	247	24.8	22.9	9.6	196	12.7	3.4	12.2
7	322	4.6	2.8	-3.6	331	6.6	3.2	-5.8	263	0.8	0.8	0.1	308	5.1	4.0	-3.1	268	11.0	11.0	0.4	256	17.5	17.0	4.3	299	4.1	3.6	-2.0
8	299	5.8	5.1	-2.8	313	6.4	4.7	-4.4	238	2.2	1.9	1.2	281	3.1	3.0	-0.6	256	17.4	16.9	4.2	247	19.8	18.3	7.6	180	1.1	0.0	1.1
9	305	5.8	4.8	-3.3	323	6.3	3.8	-5.0	266	1.5	1.5	0.1	281	4.3	4.2	-0.8	262	17.6	17.4	2.5	239	15.8	13.5	8.2	309	2.2	1.7	-1.4
10	308	7.0	5.5	-4.3	310	8.5	6.5	-5.4	252	4.7	4.5	1.5	270	5.3	5.3	0.0	260	16.9	16.7	2.8	253	13.2	12.6	3.8	92	16.2	-16.2	0.5
11	316	6.1	4.2	-4.4	335	6.4	2.7	-5.8	229	2.8	2.1	1.8	284	6.3	6.1	-1.5	256	15.7	15.2	3.9	246	10.7	9.7	4.4	272	3.5	3.5	-0.1
12	312	5.4	4.0	-3.6	329	6.4	3.3	-5.5	258	1.4	1.4	0.3	348	5.3	1.1	-5.2	278	11.3	11.2	-1.6	251	17.1	16.1	5.7	131	3.0	-2.3	2.0
13	290	6.3	5.9	-2.2	310	5.5	4.2	-3.5	189	0.6	0.1	0.6	325	5.8	3.3	-4.8	261	9.9	9.8	1.6	241	15.4	13.5	7.4	82	10.5	-10.4	-1.4
14	294	5.5	5.0	-2.2	323	6.5	3.9	-5.2	291	0.9	0.8	-0.3	325	3.8	2.2	-3.1	273	10.0	10.0	-0.6	255	12.4	12.0	3.3	153	0.4	-0.2	0.4
15	306	6.3	5.1	-3.7	311	6.9	5.2	-4.6	231	2.2	1.7	1.4	333	5.5	2.5	-4.9	265	6.1	6.1	0.5	222	8.3	5.5	6.2	77	10.3	-10.0	-2.3
16	302	7.5	6.4	-4.0	316	8.7	6.0	-6.3	202	0.5	0.2	0.5	328	3.6	1.9	-3.0	295	8.1	7.3	-3.4	234	8.3	6.7	4.9	86	8.7	-8.7	-0.6
17	307	7.1	5.7	-4.3	325	9.3	5.4	-7.6	277	0.8	0.8	-0.1	308	6.6	5.2	-4.1	291	12.8	12.0	-4.5	249	9.1	8.5	3.2	292	3.5	3.3	-1.3
18	302	8.0	6.8	-4.3	317	9.1	6.2	-6.7	279	3.8	3.8	-0.6	316	6.7	4.7	-4.8	288	10.2	9.7	-3.1	252	12.7	12.1	4.0	148	2.6	-1.4	2.2
19	302	7.8	6.6	-4.1	315	8.3	5.9	-5.8	261	3.0	3.0	0.5	317	6.9	4.7	-5.0	290	9.8	9.2	-3.3	233	14.3	11.4	8.6	258	9.4	9.2	1.9
20	298	7.9	7.0	-3.7	306	6.8	5.5	-4.0	270	2.7	2.7	0.0	316	7.5	5.2	-5.4	272	6.1	6.1	-0.2	236	14.5	12.0	8.1	88	7.6	-7.6	-0.3
21	299	7.8	6.8	-3.8	312	7.1	5.3	-4.7	227	2.3	1.7	1.6	316	5.6	3.9	-4.0	305	5.2	4.3	-3.0	240	9.1	7.9	4.5	148	1.9	-1.0	1.6
22	301	7.2	6.2	-3.7	323	7.2	4.3	-5.8	39	0.6	-0.4	-0.5	327	2.7	1.5	-2.3	272	6.0	6.0	-0.2	221	4.4	2.9	3.3	127	6.7	-5.4	4.0
23	295	6.0	5.4	-2.5	319	8.3	5.4	-6.3	340	1.5	0.5	-1.4	336	4.9	2.0	-4.5	266	6.6	6.6	0.5	219	11.2	7.1	8.7	217	8.1	4.9	6.4
24	300	6.4	5.6	-3.2	324	7.7	4.5	-6.3	349	0.5	0.1	-0.5	22	2.7	-1.0	-2.5	273	5.9	5.9	-0.3	182	6.6	0.2	6.6	112	15.1	-14.0	5.6
25	297	6.1	5.4	-2.8	322	6.6	4.1	-5.2	171	0.6	-0.1	0.6	8	5.2	-0.7	-5.2	4	3.2	-0.2	-3.2	180	7.0	0.0	7.0	126	14.8	-12.0	8.7
26	299	5.3	4.6	-2.6	328	7.1	3.8	-6.0	45	2.0	-1.4	-1.4	19	5.5	-1.8	-5.2	281	2.5	2.5	-0.5	221	6.4	4.2	4.8	86	6.5	-6.5	-0.4
27	297	6.8	6.1	-3.1	316	9.2	6.4	-6.6	4	3.1	-0.2	-3.1	25	5.2	-2.2	-4.7	268	2.3	2.3	0.1	221	7.7	5.1	5.8	110	8.1	-7.6	2.8
28	287	9.7	9.3	-2.8	309	11.4	8.8	-7.2	343	1.0	0.3	-1.0	349	3.7	0.7	-3.6	315	4.7	3.3	-3.3	207	5.4	2.4	4.8	78	5.0	-4.9	-1.0
29	281	10.5	10.3	-2.0	300	9.1	7.9	-4.5	263	0.8	0.8	0.1	348	4.2	0.9	-4.1	279	3.2	3.2	-0.5	233	6.4	5.1	3.9	77	12.6	-12.3	-2.8
30	283	8.5	8.3	-1.9	302	7.9	6.7	-4.2	266	1.3	1.3	0.1	331	5.5	2.7	-4.8	267	5.6	5.6	0.3	223	5.4	3.7	3.9	101	8.6	-8.4	1.6
31	289	9.7	9.2	-3.2	314	8.0	5.7	-5.6	300	1.6	1.4	-0.8	311	0.9	0.7	-0.6	277	3.2	3.2	-0.4	242	2.7	2.4	1.3	92	6.4	-6.4	0.2

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	283	7.6	7.4	-1.7	324	10.2	6.0	-8.3	309	0.6	0.5	-0.4	246	1.0	0.9	0.4	225	3.0	2.1	2.1	165	6.7	-1.7	6.5	120	11.2	-9.7	5.6
2	299	8.2	7.2	-4.0	314	8.6	6.2	-5.9	360	1.1	0.0	-1.1	302	1.3	1.1	-0.7	261	1.9	1.9	0.3	204	8.5	3.5	7.8	92	15.2	-15.2	0.5
3	298	9.6	8.5	-4.5	314	8.1	5.9	-5.6	24	1.2	-0.5	-1.1	38	1.6	-1.0	-1.3	230	2.3	1.8	1.5	186	6.4	0.7	6.4	67	8.8	-8.1	-3.5
4	303	8.3	7.0	-4.5	314	7.2	5.2	-5.0	338	1.1	0.4	-1.0	15	2.4	-0.6	-2.3	213	2.4	1.3	2.0	158	6.2	-2.3	5.8	113	13.6	-12.5	5.4
5	292	8.2	7.6	-3.0	319	7.2	4.7	-5.5	25	2.3	-1.0	-2.1	347	2.7	0.6	-2.6	112	1.1	-1.0	0.4	184	4.9	0.3	4.9	94	12.4	-12.4	0.8
6	279	8.6	8.5	-1.4	308	5.8	4.6	-3.6	96	2.7	-2.7	0.3	41	3.0	-2.0	-2.3	342	0.3	0.1	-0.3	142	3.7	-2.3	2.9	87	16.7	-16.7	-1.0
7	290	8.0	7.5	-2.7	313	6.4	4.7	-4.4	99	1.3	-1.3	0.2	17	1.0	-0.3	-1.0	73	2.1	-2.0	-0.6	100	3.5	-3.4	0.6	77	15.3	-14.9	-3.5
8	283	7.8	7.6	-1.8	310	5.2	4.0	-3.3	125	1.9	-1.6	1.1	21	0.9	-0.3	-0.8	89	4.7	-4.7	-0.1	115	4.2	-3.8	1.8	104	22.3	-21.7	5.3
9	286	6.2	6.0	-1.7	276	5.6	5.6	-0.6	160	1.5	-0.5	1.4	144	0.9	-0.5	0.7	82	5.9	-5.8	-0.8	61	6.3	-5.5	-3.0	80	19.5	-19.2	-3.3
10	284	7.5	7.3	-1.8	273	7.1	7.1	-0.4	265	2.2	2.2	0.2	198	2.8	0.9	2.7	87	5.9	-5.9	-0.3	73	8.4	-8.1	-2.4	80	16.7	-16.4	-2.9
11	281	9.6	9.4	-1.9	290	8.3	7.8	-2.9	37	1.0	-0.6	-0.8	130	1.6	-1.2	1.0	102	4.8	-4.7	1.0	94	9.1	-9.1	0.7	95	21.4	-21.3	2.0
12	291	6.3	5.9	-2.3	284	6.4	6.2	-1.6	71	2.1	-2.0	-0.7	188	0.7	0.1	0.7	149	2.3	-1.2	2.0	95	7.5	-7.5	0.7	76	11.9	-11.5	-2.9
13	286	7.8	7.5	-2.1	289	9.1	8.6	-2.9	166	0.4	-0.1	0.4	45	1.7	-1.2	-1.2	105	6.7	-6.5	1.7	97	7.7	-7.6	0.9	60	14.8	-12.8	-7.5
14	280	7.8	7.7	-1.3	287	9.7	9.3	-2.9	84	0.9	-0.9	-0.1	129	2.2	-1.7	1.4	70	6.2	-5.8	-2.1	88	13.0	-13.0	-0.5	97	28.0	-27.8	3.3
15	266	4.4	4.4	0.3	276	6.4	6.4	-0.7	168	1.4	-0.3	1.4	120	1.4	-1.2	0.7	72	7.4	-7.0	-2.3	80	14.3	-14.1	-2.5	74	21.0	-20.2	-5.9
16	276	6.7	6.7	-0.7	266	8.6	8.6	0.6	239	5.0	4.3	2.6	188	0.7	0.1	0.7	62	7.4	-6.5	-3.5	81	11.8	-11.7	-1.8	78	27.2	-26.6	-5.6
17	273	8.0	8.0	-0.4	273	8.6	8.6	-0.5	276	4.4	4.4	-0.5	261	5.4	5.3	0.8	52	3.9	-3.1	-2.4	68	7.9	-7.3	-2.9	67	23.2	-21.3	-9.2
18	271	7.8	7.8	-0.2	271	10.4	10.4	-0.2	295	5.3	4.8	-2.2	249	3.6	3.4	1.3	68	4.0	-3.7	-1.5	85	13.7	-13.7	-1.1	89	17.8	-17.8	-0.2
19	275	5.3	5.3	-0.5	275	7.4	7.4	-0.6	296	3.2	2.9	-1.4	315	0.6	0.4	-0.4	50	2.6	-2.0	-1.7	78	4.8	-4.7	-1.0	80	14.8	-14.6	-2.6
20	276	6.2	6.2	-0.7	286	9.2	8.8	-2.6	290	4.9	4.6	-1.7	270	2.6	2.6	0.0	54	3.7	-3.0	-2.2	102	10.9	-10.7	2.2	85	23.3	-23.2	-1.9
21	271	8.6	8.6	-0.2	279	11.7	11.5	-1.9	303	4.2	3.5	-2.3	351	2.6	0.4	-2.6	57	5.0	-4.2	-2.7	85	12.9	-12.9	-1.1	98	18.0	-17.8	2.5
22	268	7.3	7.3	0.2	283	8.9	8.7	-2.0	296	5.8	5.2	-2.5	330	1.6	0.8	-1.4	84	5.8	-5.8	-0.6	86	14.8	-14.8	-1.1	112	28.0	-26.0	10.4
23	290	6.7	6.3	-2.3	276	10.5	10.4	-1.1	328	3.2	1.7	-2.7	243	1.1	1.0	0.5	71	8.5	-8.0	-2.8	78	15.7	-15.4	-3.2	94	31.9	-31.8	2.5
24	274	6.1	6.1	-0.4	269	11.7	11.7	0.3	271	3.9	3.9	-0.1	331	2.5	1.2	-2.2	52	7.3	-5.7	-4.5	81	15.1	-14.9	-2.4	95	33.7	-33.6	2.7
25	278	8.3	8.2	-1.1	277	11.1	11.0	-1.4	288	2.3	2.2	-0.7	56	1.8	-1.5	-1.0	75	8.8	-8.5	-2.2	90	13.4	-13.4	0.1	79	25.1	-24.6	-4.9
26	270	6.8	6.8	0.0	273	12.2	12.2	-0.6	285	3.4	3.3	-0.9	37	2.6	-1.6	-2.1	67	7.6	-7.0	-2.9	87	17.1	-17.1	-0.8	89	35.0	-35.0	-0.5
27	272	7.3	7.3	-0.3	272	11.7	11.7	-0.5	275	3.2	3.2	-0.3	356	3.2	0.2	-3.2	85	9.8	-9.8	-0.8	77	20.6	-20.1	-4.6	78	29.4	-28.8	-6.0
28	279	5.4	5.3	-0.8	272	9.8	9.8	-0.3	280	6.0	5.9	-1.0	8	3.5	-0.5	-3.5	69	11.6	-10.8	-4.2	83	20.1	-19.9	-2.5	83	33.7	-33.5	-3.9
29	271	6.2	6.2	-0.1	277	10.2	10.1	-1.3	278	5.2	5.2	-0.7	43	1.8	-1.2	-1.3	99	7.6	-7.5	1.2	91	15.8	-15.8	0.3	89	35.8	-35.8	-0.6
30	284	6.2	6.0	-1.5	274	9.8	9.8	-0.7	278	4.4	4.4	-0.6	293	0.8	0.7	-0.3	68	5.4	-5.0	-2.0	90	16.2	-16.2	-0.1	91	38.8	-38.8	0.8

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	270	4.8	4.8	0.0	268	9.5	9.5	0.4	239	6.1	5.2	3.1	6	2.7	-0.3	-2.7	68	6.8	-6.3	-2.5	80	17.4	-17.1	-3.0	88	38.0	-38.0	-1.1
2	273	6.4	6.4	-0.3	269	9.9	9.9	0.2	275	6.5	6.5	-0.6	299	1.3	1.1	-0.6	96	6.9	-6.9	0.7	94	13.8	-13.8	0.9	96	35.2	-35.0	3.6
3	284	6.9	6.7	-1.7	269	14.0	14.0	0.3	266	7.0	7.0	0.5	258	2.5	2.4	0.5	89	6.5	-6.5	-0.1	95	22.1	-22.0	1.9	89	36.8	-36.8	-0.5
4	281	6.9	6.8	-1.3	266	11.2	11.2	0.7	264	5.6	5.6	0.6	251	3.6	3.4	1.2	101	5.8	-5.7	1.1	96	19.7	-19.6	2.1	84	35.3	-35.1	-3.4
5	274	7.8	7.8	-0.6	271	10.4	10.4	-0.1	270	6.4	6.4	0.0	253	3.4	3.2	1.0	80	9.4	-9.3	-1.6	90	18.9	-18.9	0.0	82	38.5	-38.1	-5.4
6	279	6.9	6.8	-1.1	278	9.6	9.5	-1.3	271	5.0	5.0	-0.1	351	3.2	0.5	-3.2	74	7.7	-7.4	-2.1	79	15.9	-15.6	-3.0	96	35.7	-35.5	3.9
7	282	5.6	5.5	-1.2	275	9.5	9.5	-0.9	271	4.9	4.9	-0.1	38	2.8	-1.7	-2.2	74	8.4	-8.1	-2.3	82	16.9	-16.7	-2.4	93	39.9	-39.8	2.3
8	269	6.8	6.8	0.1	272	10.2	10.2	-0.4	278	6.4	6.3	-0.9	267	4.4	4.4	0.2	93	11.2	-11.2	0.6	87	22.5	-22.5	-1.2	78	32.9	-32.2	-6.7
9	273	6.1	6.1	-0.3	276	10.0	9.9	-1.0	282	5.0	4.9	-1.0	308	2.3	1.8	-1.4	91	8.0	-8.0	0.1	80	18.8	-18.5	-3.3	81	42.7	-42.1	-7.0
10	270	5.6	5.6	0.0	267	6.2	6.2	0.3	288	4.8	4.6	-1.5	230	3.0	2.3	1.9	100	8.2	-8.1	1.4	94	20.3	-20.2	1.5	79	42.4	-41.7	-7.8
11	277	4.3	4.3	-0.5	279	8.1	8.0	-1.2	281	4.8	4.7	-0.9	316	3.5	2.4	-2.5	88	12.0	-12.0	-0.4	79	23.6	-23.1	-4.6	91	38.4	-38.4	0.8
12	267	5.9	5.9	0.3	273	9.9	9.9	-0.6	284	5.8	5.6	-1.4	348	2.5	0.5	-2.4	97	10.1	-10.0	1.3	78	25.0	-24.4	-5.3	88	37.2	-37.2	-1.1
13	266	5.7	5.7	0.4	267	8.6	8.6	0.4	274	6.5	6.5	-0.5	309	1.4	1.1	-0.9	95	9.5	-9.5	0.9	90	11.6	-11.6	0.1	98	46.0	-45.6	6.2
14	278	9.0	8.9	-1.3	271	10.4	10.4	-0.2	259	3.8	3.7	0.7	71	1.8	-1.7	-0.6	76	9.7	-9.4	-2.3	76	20.6	-20.0	-5.1	84	45.6	-45.3	-4.9
15	270	5.5	5.5	0.0	262	11.7	11.6	1.6	260	6.3	6.2	1.1	45	1.0	-0.7	-0.7	74	10.1	-9.7	-2.7	74	21.9	-21.1	-6.0	78	48.7	-47.6	-10.4
16	266	7.8	7.8	0.6	262	10.7	10.6	1.5	268	9.3	9.3	0.3	358	2.9	0.1	-2.9	94	10.1	-10.1	0.7	96	18.1	-18.0	1.9	79	40.6	-39.8	-7.9
17	251	6.5	6.1	2.1	265	10.8	10.8	1.0	273	6.0	6.0	-0.3	171	0.6	-0.1	0.6	84	9.9	-9.8	-1.0	83	23.1	-22.9	-3.0	78	39.6	-38.8	-8.1
18	263	5.9	5.9	0.7	259	11.2	11.0	2.2	260	5.8	5.7	1.0	190	1.7	0.3	1.7	97	12.2	-12.1	1.4	78	22.4	-21.9	-4.8	94	56.5	-56.4	3.9
19	266	6.0	6.0	0.4	260	12.5	12.3	2.2	263	5.6	5.6	0.7	126	0.9	-0.7	0.5	98	11.6	-11.5	1.7	70	31.0	-29.2	-10.4	117	58.0	-51.7	26.3
20	262	6.3	6.2	0.9	264	12.6	12.5	1.4	267	9.1	9.1	0.4	304	1.4	1.2	-0.8	97	9.5	-9.4	1.1	85	22.7	-22.6	-1.9	89	42.7	-42.7	-0.5
21	273	6.9	6.9	-0.4	268	12.5	12.5	0.5	275	8.0	8.0	-0.7	316	4.3	3.0	-3.1	73	11.8	-11.3	-3.4	88	22.4	-22.4	-0.9	85	42.9	-42.8	-3.5
22	273	6.5	6.5	-0.3	270	12.2	12.2	0.1	274	6.3	6.3	-0.4	331	1.8	0.9	-1.6	78	11.2	-11.0	-2.3	77	19.4	-18.9	-4.5	90	32.9	-32.9	-0.1
23	272	12.7	12.7	-0.5	274	12.3	12.3	-0.8	277	7.2	7.1	-0.9	50	2.3	-1.8	-1.5	82	10.3	-10.2	-1.4	75	13.5	-13.0	-3.6	74	43.7	-42.1	-11.9
24	280	8.4	8.3	-1.4	267	10.4	10.4	0.5	273	6.1	6.1	-0.3	300	5.3	4.6	-2.7	76	10.1	-9.8	-2.5	72	18.3	-17.4	-5.7	83	40.5	-40.2	-4.8
25	274	7.3	7.3	-0.5	270	13.9	13.9	0.0	274	10.3	10.3	-0.8	303	1.7	1.4	-0.9	91	7.9	-7.9	0.1	88	15.5	-15.5	-0.6	71	28.0	-26.4	-9.3
26	287	7.5	7.2	-2.2	272	9.5	9.5	-0.3	272	8.9	8.9	-0.3	354	2.8	0.3	-2.8	80	7.7	-7.6	-1.4	86	20.2	-20.1	-1.5	92	38.9	-38.9	1.4
27	283	7.9	7.7	-1.8	272	14.6	14.6	-0.6	276	11.9	11.8	-1.3	37	4.0	-2.4	-3.2	79	11.8	-11.6	-2.2	79	19.1	-18.8	-3.5	74	38.2	-36.6	-10.8
28	283	8.5	8.3	-1.9	281	11.9	11.7	-2.3	277	5.9	5.9	-0.7	48	1.3	-1.0	-0.9	102	10.0	-9.8	2.0	81	16.4	-16.2	-2.5	78	26.4	-25.8	-5.4
29	278	9.0	8.9	-1.3	274	11.3	11.3	-0.8	257	6.5	6.3	1.5	326	2.7	1.5	-2.2	95	7.6	-7.6	0.6	83	19.6	-19.5	-2.4	69	28.0	-26.1	-10.0
30	268	7.8	7.8	0.3	265	11.1	11.1	0.9	259	7.2	7.1	1.4	210	0.8	0.4	0.7	88	9.4	-9.4	-0.3	89	20.0	-20.0	-0.3	80	34.6	-34.0	-6.2
31	264	8.9	8.8	1.0	270	13.2	13.2	0.1	276	8.4	8.4	-0.9	353	2.6	0.3	-2.6	86	10.9	-10.9	-0.8	87	27.0	-27.0	-1.2	78	31.1	-30.4	-6.5

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	282	8.5	8.3	-1.7	276	13.8	13.7	-1.4	283	7.0	6.8	-1.6	16	3.2	-0.9	-3.1	71	9.2	-8.7	-3.0	87	22.4	-22.4	-1.3	84	39.5	-39.3	-4.1
2	280	10.5	10.3	-1.8	277	13.4	13.3	-1.6	281	7.6	7.4	-1.5	5	2.3	-0.2	-2.3	73	11.2	-10.7	-3.2	84	23.7	-23.6	-2.3	81	31.1	-30.7	-4.7
3	280	8.7	8.6	-1.5	279	14.4	14.2	-2.2	290	6.4	6.0	-2.2	322	3.4	2.1	-2.7	80	8.3	-8.2	-1.4	86	23.3	-23.2	-1.8	85	29.2	-29.1	-2.3
4	278	9.7	9.6	-1.4	273	13.1	13.1	-0.8	281	7.1	7.0	-1.3	313	1.6	1.2	-1.1	97	10.2	-10.1	1.3	80	18.5	-18.2	-3.1	74	38.5	-37.0	-10.7
5	278	9.3	9.2	-1.3	274	10.5	10.5	-0.8	275	9.8	9.8	-0.9	280	1.7	1.7	-0.3	80	5.1	-5.0	-0.9	75	15.6	-15.0	-4.1	79	27.0	-26.5	-5.2
6	281	6.5	6.4	-1.2	279	12.1	12.0	-1.9	286	4.7	4.5	-1.3	36	3.6	-2.1	-2.9	86	8.6	-8.6	-0.6	63	19.1	-17.0	-8.6	74	24.4	-23.4	-6.8
7	277	7.9	7.8	-1.0	278	11.7	11.6	-1.7	284	7.6	7.4	-1.8	13	2.3	-0.5	-2.2	70	9.0	-8.5	-3.1	90	23.8	-23.8	-0.2	75	38.9	-37.6	-10.0
8	275	7.9	7.9	-0.7	281	11.9	11.7	-2.2	293	7.8	7.2	-3.0	338	4.3	1.6	-4.0	73	12.1	-11.6	-3.6	85	23.6	-23.5	-2.0	79	41.3	-40.6	-7.6
9	278	8.3	8.2	-1.1	281	12.4	12.2	-2.4	303	6.9	5.8	-3.7	25	3.5	-1.5	-3.2	73	8.7	-8.3	-2.5	80	21.9	-21.6	-3.7	81	51.2	-50.5	-8.2
10	276	7.3	7.3	-0.8	274	12.0	12.0	-0.9	284	6.0	5.8	-1.4	17	2.8	-0.8	-2.7	82	10.5	-10.4	-1.5	72	19.2	-18.3	-5.8	70	44.2	-41.6	-14.8
11	277	5.9	5.9	-0.7	265	8.8	8.8	0.7	277	8.6	8.5	-1.0	135	0.1	-0.1	0.1	86	10.7	-10.7	-0.7	83	24.8	-24.6	-3.2	82	31.5	-31.2	-4.3
12	285	6.2	6.0	-1.6	265	10.8	10.8	1.0	255	11.5	11.1	2.9	311	2.0	1.5	-1.3	84	8.9	-8.9	-0.9	96	22.1	-22.0	2.3	81	36.5	-36.1	-5.6
13	270	9.1	9.1	0.0	264	12.8	12.7	1.3	258	11.8	11.6	2.4	137	1.9	-1.3	1.4	78	9.7	-9.5	-2.1	86	15.3	-15.3	-1.2	83	24.5	-24.3	-3.0
14	272	7.5	7.5	-0.2	271	9.9	9.9	-0.1	274	8.1	8.1	-0.6	302	3.4	2.9	-1.8	79	7.3	-7.2	-1.4	80	18.5	-18.2	-3.2	86	31.1	-31.0	-2.1
15	270	12.7	12.7	-0.1	278	11.8	11.7	-1.7	288	6.1	5.8	-1.9	356	3.0	0.2	-3.0	69	10.4	-9.7	-3.8	83	24.7	-24.5	-3.2	88	39.0	-39.0	-1.6
16	288	10.7	10.2	-3.3	284	10.7	10.4	-2.6	286	3.7	3.6	-1.0	20	5.4	-1.9	-5.1	75	11.5	-11.1	-2.9	77	19.3	-18.8	-4.2	86	29.0	-28.9	-2.0
17	290	8.1	7.6	-2.7	272	14.3	14.3	-0.6	308	5.4	4.3	-3.3	9	7.4	-1.2	-7.3	82	15.8	-15.7	-2.1	85	21.1	-21.0	-1.7	80	30.6	-30.1	-5.4
18	296	7.0	6.3	-3.1	288	9.2	8.8	-2.8	294	7.7	7.0	-3.1	54	3.1	-2.5	-1.8	89	7.8	-7.8	-0.2	86	24.3	-24.2	-1.9	95	40.8	-40.6	3.8
19	288	8.0	7.6	-2.5	276	10.0	10.0	-1.0	297	5.4	4.8	-2.4	332	2.7	1.3	-2.4	85	5.7	-5.7	-0.5	85	20.1	-20.0	-1.7	62	39.0	-34.4	-18.3
20	297	7.6	6.8	-3.4	280	9.0	8.9	-1.5	291	5.5	5.1	-2.0	347	1.7	0.4	-1.7	97	7.2	-7.1	0.9	90	16.2	-16.2	0.0	—	—	—	—
21	285	7.0	6.8	-1.8	273	9.9	9.9	-0.6	286	5.4	5.2	-1.5	6	1.8	-0.2	-1.8	78	13.4	-13.1	-2.9	80	22.9	-22.6	-3.8	91	27.8	-27.8	0.6
22	302	6.2	5.2	-3.3	281	9.8	9.6	-1.8	315	2.5	1.8	-1.8	29	2.9	-1.4	-2.5	82	7.7	-7.6	-1.1	88	21.0	-21.0	-0.9	75	28.6	-27.7	-7.2
23	282	7.0	6.8	-1.5	277	10.9	10.8	-1.4	275	5.5	5.5	-0.5	331	1.8	0.9	-1.6	80	8.5	-8.4	-1.5	85	18.4	-18.3	-1.5	83	40.3	-40.0	-5.0
24	289	6.2	5.9	-2.0	279	7.6	7.5	-1.2	267	5.1	5.1	0.3	286	3.3	3.2	-0.9	77	7.2	-7.0	-1.6	82	15.6	-15.4	-2.3	80	35.3	-34.8	-6.1
25	297	6.1	5.4	-2.8	271	10.2	10.2	-0.2	261	7.2	7.1	1.1	255	3.5	3.4	0.9	58	8.6	-7.3	-4.5	93	18.2	-18.2	0.8	78	30.4	-29.8	-6.2
26	284	6.1	5.9	-1.5	261	9.2	9.1	1.4	273	6.7	6.7	-0.4	337	5.1	2.0	-4.7	77	8.6	-8.4	-2.0	89	21.2	-21.2	-0.5	85	28.8	-28.7	-2.4
27	278	6.7	6.6	-0.9	276	9.7	9.6	-1.0	272	6.3	6.3	-0.2	282	2.5	2.4	-0.5	72	9.9	-9.4	-3.0	99	14.5	-14.3	2.2	73	21.3	-20.4	-6.1
28	273	7.2	7.2	-0.4	274	12.6	12.6	-0.9	291	7.9	7.4	-2.8	38	2.8	-1.7	-2.2	73	10.2	-9.7	-3.0	74	16.5	-15.8	-4.6	—	—	—	—
29	282	8.9	8.7	-1.9	276	9.9	9.8	-1.0	271	7.4	7.4	-0.1	49	3.5	-2.6	-2.3	82	7.6	-7.5	-1.1	89	18.7	-18.7	-0.2	89	30.9	-30.9	-0.6
30	284	8.2	8.0	-2.0	291	7.4	6.9	-2.6	306	3.7	3.0	-2.2	78	3.3	-3.2	-0.7	102	12.1	-11.8	2.5	99	21.8	-21.5	3.5	95	33.2	-33.1	3.1
31	281	7.1	7.0	-1.3	278	9.8	9.7	-1.4	312	3.8	2.8	-2.5	77	2.6	-2.5	-0.6	85	10.8	-10.8	-0.9	83	17.7	-17.5	-2.3	87	25.3	-25.3	-1.5

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	279	7.3	7.2	-1.2	289	8.3	7.8	-2.7	297	3.5	3.1	-1.6	63	2.8	-2.5	-1.3	78	7.3	-7.1	-1.5	93	15.3	-15.3	0.9	101	21.1	-20.7	4.0
2	280	10.9	10.7	-1.8	294	7.7	7.1	-3.1	294	3.0	2.7	-1.2	4	2.6	-0.2	-2.6	68	8.4	-7.8	-3.2	73	16.1	-15.4	-4.6	87	34.3	-34.2	-1.9
3	270	7.4	7.4	0.0	280	10.0	9.9	-1.7	277	8.0	7.9	-1.0	332	2.4	1.1	-2.1	86	9.1	-9.1	-0.6	90	17.8	-17.8	0.0	91	26.9	-26.9	0.5
4	282	12.6	12.3	-2.6	278	9.7	9.6	-1.4	279	4.6	4.5	-0.7	319	2.0	1.3	-1.5	96	6.5	-6.5	0.7	81	15.8	-15.6	-2.4	83	33.9	-33.6	-4.4
5	287	8.8	8.4	-2.6	284	9.3	9.0	-2.2	279	5.2	5.1	-0.8	309	4.1	3.2	-2.6	75	7.9	-7.6	-2.0	89	17.1	-17.1	-0.2	99	29.1	-28.7	4.7
6	276	8.2	8.2	-0.8	288	8.2	7.8	-2.5	275	4.4	4.4	-0.4	342	2.5	0.8	-2.4	78	9.9	-9.7	-2.0	78	15.0	-14.7	-3.2	94	27.2	-27.1	2.0
7	279	9.3	9.2	-1.5	294	8.0	7.3	-3.3	308	4.4	3.5	-2.7	270	1.2	1.2	0.0	79	9.0	-8.8	-1.7	87	15.3	-15.3	-0.8	80	29.7	-29.2	-5.2
8	277	8.6	8.5	-1.0	302	6.6	5.6	-3.5	304	1.8	1.5	-1.0	315	1.3	0.9	-0.9	89	9.8	-9.8	-0.1	98	11.5	-11.4	1.7	91	27.0	-27.0	0.3
9	288	6.0	5.7	-1.8	298	6.2	5.5	-2.9	301	2.3	2.0	-1.2	32	1.9	-1.0	-1.6	69	6.9	-6.4	-2.5	99	13.5	-13.3	2.1	79	20.8	-20.4	-4.0
10	285	7.1	6.9	-1.8	304	6.6	5.5	-3.7	350	2.3	0.4	-2.3	40	3.0	-1.9	-2.3	86	7.3	-7.3	-0.5	94	13.8	-13.8	1.0	86	19.0	-18.9	-1.4
11	293	6.7	6.2	-2.6	317	5.0	3.4	-3.6	315	0.7	0.5	-0.5	2	3.0	-0.1	-3.0	85	5.8	-5.8	-0.5	95	13.7	-13.6	1.2	97	22.4	-22.2	2.9
12	298	6.6	5.8	-3.1	324	4.3	2.5	-3.5	347	1.3	0.3	-1.3	48	4.8	-3.6	-3.2	92	8.4	-8.4	0.3	95	11.6	-11.5	1.1	89	23.6	-23.6	-0.5
13	288	5.7	5.4	-1.8	310	4.2	3.2	-2.7	337	0.8	0.3	-0.7	20	1.5	-0.5	-1.4	86	6.4	-6.4	-0.4	104	17.6	-17.1	4.3	82	22.2	-22.0	-2.9
14	298	7.0	6.2	-3.3	298	3.6	3.2	-1.7	326	1.4	0.8	-1.2	76	0.8	-0.8	-0.2	75	6.0	-5.8	-1.6	92	12.0	-12.0	0.4	86	18.6	-18.6	-1.3
15	300	9.0	7.8	-4.5	314	3.9	2.8	-2.7	32	1.9	-1.0	-1.6	23	3.4	-1.3	-3.1	81	4.0	-4.0	-0.6	94	12.0	-12.0	0.9	88	18.9	-18.9	-0.8
16	299	7.9	6.9	-3.9	323	3.5	2.1	-2.8	342	2.2	0.7	-2.1	315	1.8	1.3	-1.3	89	4.4	-4.4	-0.1	81	10.5	-10.4	-1.7	92	23.8	-23.8	1.0
17	293	8.2	7.5	-3.2	338	3.2	1.2	-3.0	353	1.6	0.2	-1.6	315	2.0	1.4	-1.4	72	5.2	-5.0	-1.6	93	11.5	-11.5	0.7	92	19.0	-19.0	0.5
18	290	8.1	7.6	-2.7	335	4.1	1.7	-3.7	18	1.6	-0.5	-1.5	342	0.3	0.1	-0.3	98	4.9	-4.9	0.7	92	12.0	-12.0	0.4	82	27.9	-27.7	-3.7
19	298	6.4	5.7	-3.0	333	2.8	1.3	-2.5	45	1.1	-0.8	-0.8	76	1.6	-1.6	-0.4	96	6.4	-6.4	0.7	108	10.1	-9.6	3.2	77	20.0	-19.5	-4.4
20	299	6.4	5.6	-3.1	358	3.1	0.1	-3.1	3	1.7	-0.1	-1.7	196	1.5	0.4	1.4	105	5.5	-5.3	1.4	96	8.2	-8.2	0.8	75	13.5	-13.0	-3.5
21	304	6.0	5.0	-3.4	27	2.0	-0.9	-1.8	33	1.7	-0.9	-1.4	180	1.8	0.0	1.8	105	5.2	-5.0	1.3	142	7.3	-4.5	5.7	91	12.8	-12.8	0.3
22	317	4.1	2.8	-3.0	355	3.2	0.3	-3.2	27	2.0	-0.9	-1.8	135	1.4	-1.0	1.0	107	2.7	-2.6	0.8	126	10.5	-8.5	6.1	88	21.3	-21.3	-0.8
23	336	4.4	1.8	-4.0	348	3.3	0.7	-3.2	243	0.2	0.2	0.1	128	1.1	-0.9	0.7	97	7.3	-7.2	0.9	111	10.2	-9.5	3.6	110	22.5	-21.1	7.7
24	335	2.6	1.1	-2.4	350	2.2	0.4	-2.2	47	1.6	-1.2	-1.1	66	3.0	-2.7	-1.2	107	7.0	-6.7	2.0	118	10.5	-9.3	4.9	115	17.8	-16.1	7.5
25	335	3.3	1.4	-3.0	23	2.8	-1.1	-2.6	77	2.7	-2.6	-0.6	85	1.2	-1.2	-0.1	198	0.3	0.1	0.3	112	7.7	-7.1	2.9	78	14.6	-14.3	-3.1
26	320	3.4	2.2	-2.6	41	3.2	-2.1	-2.4	55	3.8	-3.1	-2.2	225	0.3	0.2	0.2	223	1.9	1.3	1.4	123	3.5	-2.9	1.9	104	12.3	-11.9	3.0
27	354	2.0	0.2	-2.0	53	3.0	-2.4	-1.8	62	1.9	-1.7	-0.9	270	0.5	0.5	0.0	87	2.0	-2.0	-0.1	113	5.8	-5.3	2.3	104	12.1	-11.7	3.0
28	61	1.0	-0.9	-0.5	55	2.4	-2.0	-1.4	65	3.3	-3.0	-1.4	56	1.4	-1.2	-0.8	72	0.6	-0.6	-0.2	143	3.0	-1.8	2.4	86	9.2	-9.2	-0.6
29	310	3.3	2.5	-2.1	353	3.3	0.4	-3.3	31	2.7	-1.4	-2.3	73	1.0	-1.0	-0.3	92	2.3	-2.3	0.1	127	4.6	-3.7	2.8	92	12.1	-12.1	0.5
30	17	3.1	-0.9	-3.0	28	3.8	-1.8	-3.4	59	4.3	-3.7	-2.2	39	1.3	-0.8	-1.0	88	2.5	-2.5	-0.1	151	4.8	-2.3	4.2	100	13.0	-12.8	2.3

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	32	2.2	-1.2	-1.9	38	3.4	-2.1	-2.7	40	3.5	-2.3	-2.7	62	1.9	-1.7	-0.9	148	1.3	-0.7	1.1	187	4.6	0.6	4.6	108	17.2	-16.4	5.3
2	30	3.0	-1.5	-2.6	26	3.7	-1.6	-3.3	50	5.0	-3.8	-3.2	18	1.9	-0.6	-1.8	329	2.3	1.2	-2.0	208	4.1	1.9	3.6	94	8.9	-8.9	0.7
3	38	1.8	-1.1	-1.4	45	3.4	-2.4	-2.4	40	5.2	-3.3	-4.0	334	3.4	1.5	-3.1	304	0.7	0.6	-0.4	164	4.5	-1.2	4.3	114	10.6	-9.7	4.3
4	274	1.3	1.3	-0.1	20	3.0	-1.0	-2.8	21	4.0	-1.4	-3.7	31	2.1	-1.1	-1.8	180	1.3	0.0	1.3	190	5.4	0.9	5.3	99	10.3	-10.2	1.7
5	325	2.8	1.6	-2.3	15	3.9	-1.0	-3.8	22	3.2	-1.2	-3.0	32	1.9	-1.0	-1.6	146	0.7	-0.4	0.6	157	4.8	-1.9	4.4	84	9.3	-9.3	-0.9
6	354	3.6	0.4	-3.6	51	3.5	-2.7	-2.2	69	4.0	-3.7	-1.4	68	1.8	-1.7	-0.7	162	1.3	-0.4	1.2	205	6.8	2.9	6.1	104	11.7	-11.4	2.8
7	27	1.6	-0.7	-1.4	51	2.1	-1.6	-1.3	58	1.5	-1.3	-0.8	353	1.7	0.2	-1.7	194	3.0	0.7	2.9	183	6.4	0.3	6.4	130	8.3	-6.4	5.3
8	8	2.2	-0.3	-2.2	47	2.6	-1.9	-1.8	39	2.1	-1.3	-1.6	360	4.3	0.0	-4.3	241	2.1	1.8	1.0	221	5.8	3.8	4.4	129	5.4	-4.2	3.4
9	53	2.5	-2.0	-1.5	42	3.6	-2.4	-2.7	42	4.6	-3.1	-3.4	19	2.8	-0.9	-2.6	264	1.9	1.9	0.2	223	4.5	3.1	3.3	100	6.5	-6.4	1.1
10	80	2.3	-2.3	-0.4	42	3.0	-2.0	-2.2	19	3.4	-1.1	-3.2	18	0.9	-0.3	-0.9	221	3.0	2.0	2.3	167	4.7	-1.1	4.6	148	7.3	-3.9	6.2
11	17	1.7	-0.5	-1.6	32	2.8	-1.5	-2.4	58	2.6	-2.2	-1.4	135	0.7	-0.5	0.5	218	2.4	1.5	1.9	208	5.2	2.4	4.6	89	10.5	-10.5	-0.2
12	360	0.9	0.0	-0.9	35	3.3	-1.9	-2.7	23	3.8	-1.5	-3.5	8	0.7	-0.1	-0.7	193	1.7	0.4	1.7	210	5.8	2.9	5.0	156	6.8	-2.8	6.2
13	323	1.0	0.6	-0.8	55	1.9	-1.6	-1.1	52	2.3	-1.8	-1.4	65	1.9	-1.7	-0.8	225	4.2	3.0	3.0	173	6.5	-0.8	6.5	79	5.8	-5.7	-1.1
14	307	2.6	2.1	-1.6	38	3.6	-2.2	-2.8	23	2.3	-0.9	-2.1	306	1.9	1.5	-1.1	260	5.8	5.7	1.0	237	9.8	8.3	5.3	113	9.7	-8.9	3.8
15	350	1.7	0.3	-1.7	42	3.1	-2.1	-2.3	24	2.4	-1.0	-2.2	322	3.7	2.3	-2.9	251	5.4	5.1	1.8	199	5.5	1.8	5.2	108	6.0	-5.7	1.9
16	357	1.9	0.1	-1.9	47	2.3	-1.7	-1.6	30	3.9	-2.0	-3.4	7	2.3	-0.3	-2.3	206	3.2	1.4	2.9	217	8.6	5.2	6.8	118	6.9	-6.1	3.2
17	48	4.0	-3.0	-2.7	58	5.2	-4.4	-2.8	61	3.8	-3.3	-1.8	352	3.4	0.5	-3.4	263	6.0	6.0	0.7	213	9.3	5.1	7.8	111	5.1	-4.8	1.8
18	31	3.5	-1.8	-3.0	60	4.8	-4.2	-2.4	55	3.9	-3.2	-2.2	45	1.3	-0.9	-0.9	277	4.1	4.1	-0.5	231	7.7	6.0	4.8	117	6.8	-6.0	3.1
19	38	3.7	-2.3	-2.9	38	3.7	-2.3	-2.9	24	3.5	-1.4	-3.2	30	1.6	-0.8	-1.4	229	5.5	4.1	3.6	205	6.3	2.7	5.7	120	3.4	-2.9	1.7
20	353	2.5	0.3	-2.5	48	4.7	-3.5	-3.2	37	4.4	-2.6	-3.5	341	2.1	0.7	-2.0	257	6.5	6.3	1.5	241	7.9	6.9	3.9	181	5.4	0.1	5.4
21	342	1.6	0.5	-1.5	37	5.6	-3.4	-4.5	36	2.7	-1.6	-2.2	315	2.1	1.5	-1.5	247	5.8	5.3	2.3	223	6.3	4.3	4.6	123	4.9	-4.1	2.7
22	21	1.9	-0.7	-1.8	58	4.0	-3.4	-2.1	61	3.3	-2.9	-1.6	293	2.1	1.9	-0.8	246	7.3	6.7	3.0	226	8.5	6.1	5.9	118	4.5	-4.0	2.1
23	46	3.5	-2.5	-2.4	55	3.8	-3.1	-2.2	22	1.8	-0.7	-1.7	360	0.7	0.0	-0.7	256	6.5	6.3	1.6	238	8.9	7.6	4.7	219	5.5	3.5	4.3
24	48	2.4	-1.8	-1.6	65	5.0	-4.5	-2.1	47	2.3	-1.7	-1.6	301	3.3	2.8	-1.7	250	8.4	7.9	2.9	229	13.3	10.0	8.7	214	5.9	3.3	4.9
25	47	2.2	-1.6	-1.5	82	4.1	-4.1	-0.6	82	1.4	-1.4	-0.2	286	3.6	3.5	-1.0	265	10.8	10.8	1.0	244	16.4	14.7	7.3	165	6.4	-1.7	6.2
26	345	3.0	0.8	-2.9	72	2.9	-2.8	-0.9	180	0.9	0.0	0.9	303	3.3	2.8	-1.8	253	10.5	10.1	3.0	227	13.2	9.7	9.0	189	3.1	0.5	3.1
27	39	6.9	-4.3	-5.4	67	4.1	-3.8	-1.6	22	2.2	-0.8	-2.0	294	4.6	4.2	-1.9	252	9.8	9.3	3.0	230	15.7	12.1	10.0	225	3.5	2.5	2.5
28	82	3.6	-3.6	-0.5	63	4.2	-3.7	-1.9	50	2.3	-1.8	-1.5	311	3.0	2.3	-2.0	247	11.4	10.5	4.4	224	17.3	11.9	12.5	194	4.1	1.0	4.0
29	22	2.2	-0.8	-2.0	60	3.8	-3.3	-1.9	347	1.8	0.4	-1.8	312	2.4	1.8	-1.6	259	10.3	10.1	2.0	236	13.8	11.4	7.7	189	6.4	1.0	6.3
30	23	2.6	-1.0	-2.4	74	4.4	-4.2	-1.2	45	3.0	-2.1	-2.1	49	0.9	-0.7	-0.6	249	7.6	7.1	2.7	230	14.1	10.8	9.0	263	9.3	9.2	1.2
31	47	2.5	-1.8	-1.7	84	5.6	-5.6	-0.6	68	2.7	-2.5	-1.0	276	3.0	3.0	-0.3	253	13.0	12.4	3.9	243	17.1	15.3	7.7	210	7.3	3.7	6.3

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	77	3.1	-3.0	-0.7	89	4.5	-4.5	-0.1	26	3.2	-1.4	-2.9	322	4.1	2.5	-3.2	258	11.6	11.3	2.5	239	15.4	13.2	8.0	192	1.9	0.4	1.9
2	78	3.3	-3.2	-0.7	80	5.6	-5.5	-1.0	72	3.2	-3.0	-1.0	1	4.7	-0.1	-4.7	268	11.0	11.0	0.4	247	13.8	12.7	5.3	215	4.5	2.6	3.7
3	80	3.4	-3.3	-0.6	84	5.7	-5.7	-0.6	77	2.6	-2.5	-0.6	333	1.1	0.5	-1.0	257	10.5	10.2	2.4	242	11.6	10.2	5.5	295	4.7	4.3	-2.0
4	69	3.3	-3.1	-1.2	84	6.1	-6.1	-0.6	108	0.3	-0.3	0.1	322	4.7	2.9	-3.7	256	10.0	9.7	2.5	230	15.6	12.0	10.0	153	1.3	-0.6	1.2
5	64	3.7	-3.3	-1.6	85	4.5	-4.5	-0.4	8	1.4	-0.2	-1.4	289	3.9	3.7	-1.3	257	13.2	12.9	3.0	236	18.3	15.2	10.2	109	2.1	-2.0	0.7
6	93	2.0	-2.0	0.1	73	3.9	-3.7	-1.1	14	3.0	-0.7	-2.9	301	3.9	3.3	-2.0	258	13.5	13.2	2.8	246	21.5	19.7	8.7	247	11.4	10.5	4.5
7	72	3.2	-3.0	-1.0	68	4.0	-3.7	-1.5	16	1.5	-0.4	-1.4	315	3.5	2.5	-2.5	268	10.4	10.4	0.3	256	17.4	16.9	4.3	174	6.9	-0.7	6.9
8	92	3.2	-3.2	0.1	95	5.2	-5.2	0.5	30	3.2	-1.6	-2.8	342	2.5	0.8	-2.4	267	15.1	15.1	0.9	241	21.7	19.1	10.4	223	18.3	12.6	13.3
9	97	2.4	-2.4	0.3	82	3.7	-3.7	-0.5	322	1.8	1.1	-1.4	310	5.0	3.8	-3.2	266	14.4	14.4	1.0	255	18.5	17.8	4.9	299	11.3	9.9	-5.4
10	62	1.7	-1.5	-0.8	106	2.2	-2.1	0.6	189	0.6	0.1	0.6	283	5.4	5.3	-1.2	258	11.2	11.0	2.3	254	17.9	17.2	5.0	256	6.5	6.3	1.6
11	92	3.6	-3.6	0.1	89	4.3	-4.3	-0.1	328	1.3	0.7	-1.1	313	5.7	4.2	-3.9	271	13.9	13.9	-0.3	249	17.2	16.0	6.2	263	10.0	9.9	1.3
12	48	1.2	-0.9	-0.8	71	2.1	-2.0	-0.7	30	1.6	-0.8	-1.4	325	3.3	1.9	-2.7	269	12.6	12.6	0.3	255	12.1	11.7	3.2	207	4.7	2.1	4.2
13	87	1.9	-1.9	-0.1	83	5.0	-5.0	-0.6	32	3.6	-1.9	-3.0	4	4.3	-0.3	-4.3	277	7.6	7.5	-0.9	255	12.4	12.0	3.3	261	2.5	2.5	0.4
14	83	0.8	-0.8	-0.1	93	4.3	-4.3	0.2	50	3.8	-2.9	-2.4	5	3.3	-0.3	-3.3	255	12.0	11.6	3.1	247	17.1	15.8	6.6	249	14.0	13.1	4.9
15	77	2.8	-2.7	-0.6	87	5.0	-5.0	-0.3	46	3.5	-2.5	-2.4	335	2.3	1.0	-2.1	264	10.3	10.3	1.0	238	15.3	12.9	8.2	226	6.4	4.6	4.4
16	92	3.6	-3.6	0.1	93	5.6	-5.6	0.3	59	3.1	-2.7	-1.6	274	1.6	1.6	-0.1	259	12.3	12.1	2.4	250	18.2	17.1	6.2	254	7.1	6.8	1.9
17	95	1.1	-1.1	0.1	106	3.7	-3.6	1.0	126	1.4	-1.1	0.8	243	4.9	4.4	2.2	253	13.3	12.7	3.9	241	19.6	17.1	9.6	225	7.4	5.2	5.2
18	99	1.3	-1.3	0.2	84	1.9	-1.9	-0.2	76	1.2	-1.2	-0.3	255	5.3	5.1	1.4	251	13.2	12.5	4.2	251	19.8	18.7	6.5	252	4.4	4.2	1.4
19	77	1.3	-1.3	-0.3	82	4.1	-4.1	-0.6	14	0.8	-0.2	-0.8	286	5.6	5.4	-1.5	248	17.9	16.6	6.8	236	25.7	21.4	14.2	234	19.0	15.4	11.1
20	99	2.0	-2.0	0.3	107	2.4	-2.3	0.7	306	2.9	2.3	-1.7	288	8.7	8.3	-2.7	256	19.8	19.2	4.7	244	28.7	25.8	12.5	235	22.1	18.2	12.6
21	100	3.9	-3.8	0.7	98	3.6	-3.6	0.5	301	1.7	1.5	-0.9	289	6.2	5.9	-2.0	253	17.9	17.2	5.1	251	18.9	17.9	6.1	181	5.1	0.1	5.1
22	108	1.6	-1.5	0.5	90	2.2	-2.2	0.0	292	2.9	2.7	-1.1	277	7.9	7.8	-1.0	251	23.1	21.9	7.5	241	33.4	29.3	16.1	243	18.9	16.8	8.6
23	94	3.9	-3.9	0.3	86	3.2	-3.2	-0.2	310	0.8	0.6	-0.5	288	6.0	5.7	-1.9	262	17.8	17.6	2.4	242	23.8	21.0	11.1	264	13.0	12.9	1.4
24	86	3.2	-3.2	-0.2	64	2.8	-2.5	-1.2	39	0.6	-0.4	-0.5	273	8.5	8.5	-0.5	266	20.2	20.1	1.5	247	24.1	22.2	9.4	275	13.4	13.4	-1.1
25	75	3.1	-3.0	-0.8	87	3.7	-3.7	-0.2	323	1.5	0.9	-1.2	276	7.4	7.4	-0.8	263	19.3	19.1	2.4	261	26.2	25.9	3.9	271	24.7	24.7	-0.4
26	83	2.6	-2.6	-0.3	98	3.4	-3.4	0.5	15	4.3	-1.1	-4.2	269	12.3	12.3	0.3	263	19.2	19.1	2.2	251	24.8	23.4	8.2	271	15.0	15.0	-0.3
27	76	1.2	-1.2	-0.3	103	3.1	-3.0	0.7	343	1.4	0.4	-1.3	271	10.8	10.8	-0.2	261	28.5	28.1	4.7	246	30.8	28.2	12.4	236	8.5	7.0	4.8
28	87	2.2	-2.2	-0.1	88	3.4	-3.4	-0.1	310	3.3	2.5	-2.1	280	10.0	9.8	-1.8	263	29.0	28.8	3.7	248	26.1	24.1	9.9	229	7.2	5.4	4.7
29	68	2.4	-2.2	-0.9	88	5.5	-5.5	-0.2	78	4.0	-3.9	-0.8	294	6.4	5.8	-2.6	255	21.1	20.4	5.3	260	25.1	24.7	4.5	295	9.0	8.2	-3.8
30	62	1.9	-1.7	-0.9	72	3.2	-3.0	-1.0	324	2.4	1.4	-1.9	287	6.2	5.9	-1.8	264	18.6	18.5	1.9	241	27.1	23.7	13.1	258	29.9	29.2	6.4

Daily Normals of Upper Air Winds (1971-2000)

AURANGABAD **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	86	2.6	-2.6	-0.2	99	4.0	-4.0	0.6	310	1.6	1.2	-1.0	281	7.1	7.0	-1.4	259	19.5	19.1	3.8	232	34.2	27.1	20.8	241	23.5	20.6	11.3
2	88	3.3	-3.3	-0.1	105	4.3	-4.2	1.1	39	0.6	-0.4	-0.5	254	9.1	8.8	2.5	259	25.7	25.2	5.1	249	30.2	28.1	11.0	263	14.5	14.4	1.7
3	72	1.6	-1.5	-0.5	122	3.4	-2.9	1.8	249	3.3	3.1	1.2	265	8.3	8.3	0.7	258	20.6	20.2	4.2	245	22.4	20.4	9.3	201	2.8	1.0	2.6
4	90	0.5	-0.5	0.0	99	3.3	-3.3	0.5	248	2.7	2.5	1.0	300	4.8	4.1	-2.4	261	14.7	14.5	2.4	248	22.4	20.8	8.4	255	14.6	14.1	3.8
5	99	2.0	-2.0	0.3	101	2.0	-2.0	0.4	330	3.0	1.5	-2.6	295	8.1	7.3	-3.4	262	18.9	18.7	2.5	258	24.4	23.9	5.1	234	13.4	10.9	7.8
6	77	2.7	-2.6	-0.6	101	2.5	-2.5	0.5	337	2.6	1.0	-2.4	283	8.2	8.0	-1.9	254	19.2	18.5	5.3	251	28.8	27.3	9.2	—	—	—	—
7	84	1.9	-1.9	-0.2	112	1.8	-1.7	0.7	339	3.0	1.1	-2.8	276	7.3	7.3	-0.8	257	21.8	21.3	4.8	250	27.2	25.6	9.3	254	22.9	22.0	6.2
8	80	2.7	-2.7	-0.5	96	1.9	-1.9	0.2	331	1.0	0.5	-0.9	273	8.7	8.7	-0.5	257	23.3	22.7	5.3	240	31.1	26.9	15.7	276	34.0	33.8	-3.4
9	75	2.7	-2.6	-0.7	92	2.9	-2.9	0.1	261	2.4	2.4	0.4	257	8.2	8.0	1.8	260	23.6	23.3	4.0	258	31.4	30.7	6.5	271	18.4	18.4	-0.3
10	69	2.5	-2.3	-0.9	92	3.0	-3.0	0.1	317	2.2	1.5	-1.6	286	8.1	7.8	-2.2	247	21.3	19.6	8.3	249	27.0	25.2	9.7	279	31.0	30.6	-4.8
11	67	2.3	-2.1	-0.9	91	4.3	-4.3	0.1	320	1.7	1.1	-1.3	254	7.5	7.2	2.1	241	22.6	19.8	10.9	244	24.9	22.4	10.8	180	3.0	0.0	3.0
12	93	4.2	-4.2	0.2	121	3.1	-2.7	1.6	288	2.2	2.1	-0.7	264	9.0	9.0	0.9	268	21.3	21.3	0.8	252	28.1	26.7	8.8	253	16.5	15.8	4.9
13	77	4.9	-4.8	-1.1	122	3.1	-2.6	1.6	299	2.1	1.8	-1.0	271	8.6	8.6	-0.1	251	26.4	25.0	8.6	234	36.1	29.2	21.3	270	4.3	4.3	0.0
14	61	2.1	-1.8	-1.0	112	2.9	-2.7	1.1	248	1.6	1.5	0.6	269	8.7	8.7	0.1	257	24.9	24.3	5.4	248	32.3	30.0	12.0	—	—	—	—
15	91	4.3	-4.3	0.1	94	3.9	-3.9	0.3	321	2.6	1.6	-2.0	295	10.8	9.8	-4.5	269	20.1	20.1	0.5	261	24.7	24.4	3.8	248	25.0	23.2	9.4
16	98	4.1	-4.1	0.6	103	3.9	-3.8	0.9	315	1.4	1.0	-1.0	286	10.2	9.8	-2.9	274	16.2	16.2	-1.1	263	24.8	24.6	3.1	262	23.3	23.1	3.4
17	86	3.2	-3.2	-0.2	90	3.4	-3.4	0.0	216	0.9	0.5	0.7	282	8.4	8.2	-1.7	274	17.3	17.3	-1.2	255	28.1	27.1	7.5	255	19.2	18.5	5.0
18	88	3.2	-3.2	-0.1	100	3.4	-3.3	0.6	256	2.1	2.0	0.5	291	9.9	9.2	-3.6	271	23.9	23.9	-0.5	250	32.9	30.8	11.5	258	5.0	4.9	1.0
19	101	2.5	-2.5	0.5	135	2.7	-1.9	1.9	299	1.3	1.1	-0.6	276	10.0	9.9	-1.1	268	27.3	27.3	1.1	264	30.9	30.7	3.3	254	8.5	8.2	2.3
20	112	1.8	-1.7	0.7	155	2.3	-1.0	2.1	284	2.9	2.8	-0.7	276	11.7	11.6	-1.3	263	22.5	22.3	2.9	252	35.9	34.1	11.1	249	73.1	68.2	26.2
21	108	2.8	-2.7	0.9	132	3.0	-2.2	2.0	272	2.5	2.5	-0.1	286	9.0	8.6	-2.5	266	24.3	24.2	1.8	269	31.7	31.7	0.8	276	8.1	8.1	-0.8
22	63	1.3	-1.2	-0.6	139	3.2	-2.1	2.4	260	2.9	2.9	0.5	271	9.1	9.1	-0.1	268	24.1	24.1	0.8	265	31.3	31.2	2.7	251	14.9	14.1	4.9
23	77	2.3	-2.2	-0.5	126	2.2	-1.8	1.3	260	3.9	3.8	0.7	269	11.7	11.7	0.2	257	26.1	25.4	6.0	269	30.3	30.3	0.5	247	9.4	8.6	3.7
24	117	0.4	-0.4	0.2	229	0.9	0.7	0.6	269	4.2	4.2	0.1	260	16.4	16.2	2.8	267	29.3	29.3	1.6	264	23.2	23.1	2.3	285	30.8	29.7	-8.0
25	74	2.6	-2.5	-0.7	162	2.6	-0.8	2.5	255	4.8	4.6	1.2	264	15.6	15.5	1.5	257	28.5	27.8	6.2	254	40.5	39.0	10.9	256	40.0	38.8	9.7
26	92	2.3	-2.3	0.1	147	1.7	-0.9	1.4	256	5.4	5.2	1.3	274	16.0	16.0	-1.0	263	33.0	32.7	4.2	272	36.7	36.7	-1.2	247	25.1	23.0	10.0
27	105	2.8	-2.7	0.7	152	2.6	-1.2	2.3	264	3.9	3.9	0.4	272	10.8	10.8	-0.3	262	31.8	31.5	4.6	263	32.4	32.1	4.2	250	10.6	9.9	3.7
28	122	3.6	-3.0	1.9	164	3.2	-0.9	3.1	269	5.7	5.7	0.1	271	12.4	12.4	-0.2	261	25.0	24.7	3.7	271	29.9	29.9	-0.7	223	53.0	36.1	38.8
29	115	4.3	-3.9	1.8	174	1.8	-0.2	1.8	249	4.0	3.7	1.4	264	11.3	11.2	1.1	260	27.4	27.0	4.9	250	42.5	40.0	14.5	27	3.0	-1.4	-2.7
30	202	0.5	0.2	0.5	191	1.6	0.3	1.6	265	5.4	5.4	0.5	273	15.5	15.5	-0.9	271	27.3	27.3	-0.7	261	26.0	25.7	4.2	—	—	—	—
31	87	1.8	-1.8	-0.1	137	1.8	-1.2	1.3	270	5.3	5.3	0.0	273	16.4	16.4	-0.8	267	34.3	34.3	1.5	279	40.4	39.9	-6.2	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	102	5.3	-5.2	1.1	84	2.9	-2.9	-0.3	325	1.2	0.7	-1.0	255	6.4	6.2	1.7	250	9.7	9.1	3.3	100	5.9	-5.8	1.0
2	—	—	—	—	86	6.1	-6.1	-0.4	99	4.4	-4.3	0.7	120	0.8	-0.7	0.4	252	6.2	5.9	1.9	222	11.9	8.0	8.8	315	2.0	1.4	-1.4
3	—	—	—	—	78	5.8	-5.7	-1.2	89	3.9	-3.9	-0.1	42	1.2	-0.8	-0.9	225	6.8	4.8	4.8	230	10.0	7.7	6.4	107	4.1	-3.9	1.2
4	—	—	—	—	83	6.1	-6.1	-0.7	86	3.9	-3.9	-0.3	97	2.3	-2.3	0.3	255	5.7	5.5	1.5	233	11.2	8.9	6.8	199	3.9	1.3	3.7
5	—	—	—	—	85	5.7	-5.7	-0.5	66	4.3	-3.9	-1.7	124	2.5	-2.1	1.4	243	7.2	6.4	3.2	221	10.9	7.2	8.2	257	2.8	2.7	0.6
6	—	—	—	—	74	6.2	-6.0	-1.7	75	4.8	-4.6	-1.2	36	0.9	-0.5	-0.7	247	7.3	6.7	2.8	256	15.1	14.6	3.7	273	7.0	7.0	-0.4
7	—	—	—	—	94	5.8	-5.8	0.4	90	2.3	-2.3	0.0	257	2.2	2.1	0.5	234	11.5	9.3	6.8	254	11.2	10.8	3.1	295	2.1	1.9	-0.9
8	—	—	—	—	99	6.4	-6.3	1.0	107	2.4	-2.3	0.7	270	1.2	1.2	0.0	247	8.3	7.6	3.3	236	13.9	11.5	7.8	297	2.7	2.4	-1.2
9	—	—	—	—	91	4.3	-4.3	0.1	86	2.8	-2.8	-0.2	287	1.4	1.3	-0.4	240	7.8	6.8	3.9	248	10.8	10.0	4.1	11	2.1	-0.4	-2.1
10	—	—	—	—	103	5.2	-5.1	1.2	103	2.2	-2.1	0.5	247	0.8	0.7	0.3	257	7.7	7.5	1.7	232	9.0	7.1	5.5	125	2.4	-2.0	1.4
11	—	—	—	—	94	4.8	-4.8	0.3	87	2.1	-2.1	-0.1	263	3.2	3.2	0.4	244	9.0	8.1	3.9	212	10.4	5.6	8.8	270	1.6	1.6	0.0
12	—	—	—	—	94	3.9	-3.9	0.3	50	2.3	-1.8	-1.5	331	3.1	1.5	-2.7	258	8.2	8.0	1.7	218	11.4	7.0	9.0	27	3.4	-1.5	-3.0
13	—	—	—	—	83	5.6	-5.6	-0.7	60	2.8	-2.4	-1.4	317	2.3	1.6	-1.7	259	10.7	10.5	2.0	246	11.9	10.9	4.8	339	1.7	0.6	-1.6
14	—	—	—	—	82	5.7	-5.6	-0.8	83	2.5	-2.5	-0.3	299	2.3	2.0	-1.1	258	11.2	10.9	2.4	239	13.4	11.5	6.8	108	3.3	-3.1	1.0
15	—	—	—	—	94	4.9	-4.9	0.3	119	1.0	-0.9	0.5	285	3.5	3.4	-0.9	267	10.9	10.9	0.5	220	10.4	6.7	8.0	200	1.5	0.5	1.4
16	—	—	—	—	99	5.5	-5.4	0.9	27	1.3	-0.6	-1.2	270	0.1	0.1	0.0	262	7.9	7.8	1.1	219	10.5	6.6	8.2	350	2.3	0.4	-2.3
17	—	—	—	—	105	6.7	-6.5	1.7	90	4.1	-4.1	0.0	240	2.4	2.1	1.2	258	5.6	5.5	1.2	239	7.8	6.7	4.0	104	0.8	-0.8	0.2
18	—	—	—	—	93	5.6	-5.6	0.3	87	1.7	-1.7	-0.1	290	2.0	1.9	-0.7	276	6.4	6.4	-0.7	223	5.7	3.9	4.2	155	5.6	-2.4	5.1
19	—	—	—	—	88	4.9	-4.9	-0.2	36	2.4	-1.4	-1.9	16	2.2	-0.6	-2.1	256	4.0	3.9	1.0	217	8.7	5.2	7.0	56	1.4	-1.2	-0.8
20	—	—	—	—	84	6.2	-6.2	-0.6	28	1.5	-0.7	-1.3	356	1.5	0.1	-1.5	270	5.2	5.2	0.0	211	9.1	4.6	7.8	113	2.8	-2.6	1.1
21	—	—	—	—	78	4.7	-4.6	-1.0	55	2.9	-2.4	-1.7	42	1.2	-0.8	-0.9	253	5.5	5.3	1.6	231	8.0	6.2	5.1	126	2.7	-2.2	1.6
22	—	—	—	—	80	5.3	-5.2	-0.9	62	3.0	-2.6	-1.4	41	0.9	-0.6	-0.7	260	6.7	6.6	1.2	204	6.1	2.5	5.6	106	2.2	-2.1	0.6
23	—	—	—	—	91	5.2	-5.2	0.1	51	4.6	-3.6	-2.9	337	2.1	0.8	-1.9	279	5.6	5.5	-0.9	215	8.5	4.9	6.9	104	3.7	-3.6	0.9
24	—	—	—	—	84	6.9	-6.9	-0.7	70	5.3	-5.0	-1.8	99	3.3	-3.3	0.5	277	4.2	4.2	-0.5	203	7.3	2.8	6.7	82	6.4	-6.3	-0.9
25	—	—	—	—	85	7.7	-7.7	-0.7	69	4.9	-4.6	-1.8	37	1.0	-0.6	-0.8	257	4.0	3.9	0.9	209	7.7	3.7	6.8	86	2.9	-2.9	-0.2
26	—	—	—	—	81	7.3	-7.2	-1.2	48	4.3	-3.2	-2.9	65	2.1	-1.9	-0.9	295	4.5	4.1	-1.9	203	6.5	2.6	6.0	106	4.7	-4.5	1.3
27	—	—	—	—	87	6.4	-6.4	-0.3	76	3.4	-3.3	-0.8	344	1.9	0.5	-1.8	264	5.3	5.3	0.6	231	6.3	4.9	3.9	39	1.4	-0.9	-1.1
28	—	—	—	—	78	5.3	-5.2	-1.1	66	4.2	-3.8	-1.7	345	1.1	0.3	-1.1	264	5.8	5.8	0.6	216	10.5	6.2	8.5	33	1.7	-0.9	-1.4
29	—	—	—	—	79	5.7	-5.6	-1.1	70	4.9	-4.6	-1.7	10	3.5	-0.6	-3.4	260	5.8	5.7	1.0	250	10.3	9.7	3.5	45	0.6	-0.4	-0.4
30	—	—	—	—	81	5.8	-5.7	-0.9	69	4.3	-4.0	-1.5	17	2.4	-0.7	-2.3	282	6.3	6.2	-1.3	249	8.0	7.5	2.9	274	1.6	1.6	-0.1
31	—	—	—	—	86	5.8	-5.8	-0.4	67	5.0	-4.6	-2.0	32	0.9	-0.5	-0.8	264	8.1	8.1	0.9	253	11.6	11.1	3.4	251	5.3	5.0	1.7

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	88	5.4	-5.4	-0.2	84	4.4	-4.4	-0.5	349	2.0	0.4	-2.0	286	7.4	7.1	-2.0	271	11.1	11.1	-0.2	219	3.3	2.1	2.6
2	—	—	—	—	88	5.4	-5.4	-0.2	63	3.3	-2.9	-1.5	312	1.2	0.9	-0.8	264	8.1	8.0	0.9	253	9.4	9.0	2.8	256	9.4	9.1	2.3
3	—	—	—	—	87	6.9	-6.9	-0.4	67	3.8	-3.5	-1.5	257	2.6	2.5	0.6	274	11.2	11.2	-0.7	262	12.5	12.4	1.7	221	6.3	4.1	4.8
4	—	—	—	—	90	5.7	-5.7	0.0	55	3.7	-3.0	-2.1	299	3.1	2.7	-1.5	267	8.6	8.6	0.4	215	10.6	6.1	8.7	273	5.3	5.3	-0.3
5	—	—	—	—	96	4.0	-4.0	0.4	60	3.4	-2.9	-1.7	299	3.5	3.1	-1.7	279	9.1	9.0	-1.4	250	9.2	8.7	3.1	4	1.3	-0.1	-1.3
6	—	—	—	—	91	5.3	-5.3	0.1	48	2.5	-1.9	-1.7	304	2.3	1.9	-1.3	278	8.4	8.3	-1.1	252	6.4	6.1	2.0	88	2.7	-2.7	-0.1
7	—	—	—	—	84	4.4	-4.4	-0.5	42	1.5	-1.0	-1.1	322	3.3	2.0	-2.6	266	8.1	8.1	0.6	264	7.9	7.9	0.8	275	2.1	2.1	-0.2
8	—	—	—	—	114	4.3	-3.9	1.7	339	0.9	0.3	-0.8	323	3.9	2.3	-3.1	252	10.9	10.4	3.4	265	11.5	11.5	1.0	63	1.3	-1.2	-0.6
9	—	—	—	—	113	3.4	-3.1	1.3	12	1.9	-0.4	-1.9	335	3.3	1.4	-3.0	265	10.5	10.5	1.0	265	10.0	10.0	0.9	19	3.1	-1.0	-2.9
10	—	—	—	—	95	4.3	-4.3	0.4	45	2.3	-1.6	-1.6	355	3.7	0.3	-3.7	263	10.2	10.1	1.3	253	5.2	5.0	1.5	103	0.9	-0.9	0.2
11	—	—	—	—	105	5.1	-4.9	1.3	33	3.1	-1.7	-2.6	317	2.1	1.4	-1.5	283	8.7	8.5	-2.0	229	9.2	7.0	6.0	45	0.8	-0.6	-0.6
12	—	—	—	—	92	5.0	-5.0	0.2	55	3.3	-2.7	-1.9	318	2.7	1.8	-2.0	275	8.2	8.2	-0.7	226	6.9	5.0	4.8	250	3.2	3.0	1.1
13	—	—	—	—	97	4.9	-4.9	0.6	57	3.0	-2.5	-1.6	323	0.5	0.3	-0.4	261	10.5	10.4	1.6	232	10.0	7.8	6.2	270	2.4	2.4	0.0
14	—	—	—	—	104	4.6	-4.5	1.1	124	1.8	-1.5	1.0	239	2.7	2.3	1.4	268	8.4	8.4	0.3	240	9.9	8.6	4.9	275	3.8	3.8	-0.3
15	—	—	—	—	120	3.4	-3.0	1.7	14	1.6	-0.4	-1.6	265	3.6	3.6	0.3	278	9.3	9.2	-1.3	249	9.0	8.4	3.2	151	4.3	-2.1	3.8
16	—	—	—	—	128	2.4	-1.9	1.5	355	1.2	0.1	-1.2	276	4.1	4.1	-0.4	263	9.2	9.1	1.1	259	5.3	5.2	1.0	241	1.8	1.6	0.9
17	—	—	—	—	119	2.9	-2.5	1.4	29	1.3	-0.6	-1.1	291	2.6	2.4	-0.9	262	6.9	6.8	0.9	216	4.4	2.6	3.6	216	1.4	0.8	1.1
18	—	—	—	—	107	2.4	-2.3	0.7	67	1.3	-1.2	-0.5	285	3.5	3.4	-0.9	241	5.5	4.8	2.7	217	9.2	5.6	7.3	339	0.9	0.3	-0.8
19	—	—	—	—	116	3.0	-2.7	1.3	39	2.2	-1.4	-1.7	304	3.0	2.5	-1.7	260	5.4	5.3	0.9	254	6.3	6.1	1.7	126	1.7	-1.4	1.0
20	—	—	—	—	118	3.0	-2.6	1.4	20	2.0	-0.7	-1.9	309	2.6	2.0	-1.6	274	4.8	4.8	-0.3	229	5.7	4.3	3.8	83	2.5	-2.5	-0.3
21	—	—	—	—	114	4.5	-4.1	1.8	14	1.6	-0.4	-1.6	336	1.7	0.7	-1.6	272	5.6	5.6	-0.2	223	7.2	4.9	5.3	90	2.2	-2.2	0.0
22	—	—	—	—	106	2.9	-2.8	0.8	16	2.5	-0.7	-2.4	355	1.1	0.1	-1.1	260	6.5	6.4	1.1	254	7.9	7.6	2.2	301	2.3	2.0	-1.2
23	—	—	—	—	107	3.4	-3.2	1.0	45	2.3	-1.6	-1.6	341	1.8	0.6	-1.7	284	5.0	4.9	-1.2	251	6.4	6.0	2.1	284	0.8	0.8	-0.2
24	—	—	—	—	114	4.9	-4.5	2.0	53	4.0	-3.2	-2.4	63	0.7	-0.6	-0.3	281	4.6	4.5	-0.9	242	4.1	3.6	1.9	356	1.4	0.1	-1.4
25	—	—	—	—	110	4.0	-3.8	1.4	55	4.7	-3.8	-2.7	33	2.0	-1.1	-1.7	249	6.0	5.6	2.2	260	5.6	5.5	1.0	342	0.6	0.2	-0.6
26	—	—	—	—	86	4.6	-4.6	-0.3	61	3.8	-3.3	-1.8	8	1.4	-0.2	-1.4	270	6.5	6.5	0.0	251	4.6	4.3	1.5	70	8.2	-7.7	-2.8
27	—	—	—	—	92	3.0	-3.0	0.1	55	4.2	-3.4	-2.4	262	1.5	1.5	0.2	263	8.3	8.2	1.0	258	7.2	7.0	1.5	48	1.2	-0.9	-0.8
28	—	—	—	—	118	3.0	-2.6	1.4	55	4.5	-3.7	-2.6	246	2.0	1.8	0.8	272	7.4	7.4	-0.2	249	8.6	8.0	3.1	117	4.0	-3.6	1.8
29	—	—	—	—	82	6.9	-6.8	-0.9	83	6.7	-6.7	-0.8	65	1.9	-1.7	-0.8	232	6.2	4.9	3.8	232	7.4	5.8	4.6	83	6.9	-6.9	-0.8

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	116	3.0	-2.7	1.3	62	4.3	-3.8	-2.0	352	0.7	0.1	-0.7	270	5.4	5.4	0.0	237	5.7	4.8	3.1	83	3.9	-3.9	-0.5
2	—	—	—	—	113	3.6	-3.3	1.4	56	4.3	-3.6	-2.4	293	1.3	1.2	-0.5	251	8.4	8.0	2.7	237	9.0	7.6	4.9	140	1.7	-1.1	1.3
3	—	—	—	—	106	5.7	-5.5	1.6	47	4.8	-3.5	-3.3	312	2.7	2.0	-1.8	280	7.3	7.2	-1.3	262	10.5	10.4	1.4	110	1.5	-1.4	0.5
4	—	—	—	—	103	6.3	-6.1	1.4	51	4.6	-3.6	-2.9	14	2.1	-0.5	-2.0	265	8.2	8.2	0.7	238	9.2	7.8	4.9	54	0.9	-0.7	-0.5
5	—	—	—	—	117	4.6	-4.1	2.1	44	4.7	-3.3	-3.4	356	2.9	0.2	-2.9	258	8.6	8.4	1.8	227	10.4	7.6	7.1	107	3.8	-3.6	1.1
6	—	—	—	—	102	4.7	-4.6	1.0	45	4.1	-2.9	-2.9	352	1.4	0.2	-1.4	266	6.5	6.5	0.5	244	10.8	9.7	4.7	268	3.1	3.1	0.1
7	—	—	—	—	109	4.3	-4.1	1.4	51	4.5	-3.5	-2.8	85	1.1	-1.1	-0.1	263	7.6	7.5	0.9	254	7.5	7.2	2.1	341	1.8	0.6	-1.7
8	—	—	—	—	108	5.1	-4.8	1.6	55	6.0	-4.9	-3.4	21	1.7	-0.6	-1.6	269	8.2	8.2	0.1	257	10.7	10.4	2.4	111	1.7	-1.6	0.6
9	—	—	—	—	112	4.1	-3.8	1.5	62	5.5	-4.9	-2.6	151	1.0	-0.5	0.9	266	11.0	11.0	0.8	247	10.0	9.2	3.9	284	2.5	2.4	-0.6
10	—	—	—	—	116	5.5	-4.9	2.4	59	6.3	-5.4	-3.3	96	1.9	-1.9	0.2	255	9.3	9.0	2.4	243	9.8	8.8	4.4	101	1.0	-1.0	0.2
11	—	—	—	—	113	5.0	-4.6	2.0	71	5.2	-4.9	-1.7	148	1.3	-0.7	1.1	271	7.3	7.3	-0.1	236	8.7	7.2	4.8	95	1.2	-1.2	0.1
12	—	—	—	—	114	3.4	-3.1	1.4	56	4.8	-4.0	-2.7	283	2.6	2.5	-0.6	271	8.9	8.9	-0.1	260	9.4	9.2	1.7	288	2.3	2.2	-0.7
13	—	—	—	—	139	3.7	-2.4	2.8	48	4.6	-3.4	-3.1	350	1.1	0.2	-1.1	263	5.9	5.9	0.7	230	8.2	6.3	5.3	85	3.3	-3.3	-0.3
14	—	—	—	—	128	3.7	-2.9	2.3	63	5.7	-5.1	-2.6	13	1.3	-0.3	-1.3	262	6.9	6.8	1.0	247	6.7	6.2	2.6	45	0.7	-0.5	-0.5
15	—	—	—	—	121	4.1	-3.5	2.1	52	7.0	-5.5	-4.3	58	2.2	-1.9	-1.2	255	6.0	5.8	1.6	254	9.0	8.6	2.5	360	0.5	0.0	-0.5
16	—	—	—	—	122	4.0	-3.4	2.1	63	6.4	-5.7	-2.9	72	2.9	-2.8	-0.9	253	6.5	6.2	1.9	229	10.0	7.5	6.6	95	5.8	-5.8	0.5
17	—	—	—	—	122	3.8	-3.2	2.0	60	6.9	-6.0	-3.5	60	0.8	-0.7	-0.4	250	8.6	8.1	3.0	242	12.0	10.6	5.7	36	2.7	-1.6	-2.2
18	—	—	—	—	136	3.5	-2.4	2.5	58	6.5	-5.5	-3.5	45	0.8	-0.6	-0.6	257	7.3	7.1	1.6	242	11.8	10.4	5.5	236	0.7	0.6	0.4
19	—	—	—	—	147	2.7	-1.5	2.3	52	5.8	-4.6	-3.6	22	2.9	-1.1	-2.7	255	6.1	5.9	1.6	247	9.1	8.4	3.5	213	3.5	1.9	2.9
20	—	—	—	—	159	2.2	-0.8	2.1	43	5.7	-3.9	-4.2	25	2.6	-1.1	-2.4	260	7.2	7.1	1.2	249	7.9	7.4	2.8	243	0.2	0.2	0.1
21	—	—	—	—	156	3.0	-1.2	2.7	55	6.2	-5.1	-3.6	48	1.2	-0.9	-0.8	266	9.8	9.8	0.7	252	10.4	9.9	3.2	324	5.2	3.1	-4.2
22	—	—	—	—	150	3.4	-1.7	3.0	53	7.4	-5.9	-4.4	63	0.2	-0.2	-0.1	278	9.4	9.3	-1.3	251	9.9	9.4	3.2	193	1.7	0.4	1.7
23	—	—	—	—	142	3.3	-2.0	2.6	48	7.4	-5.5	-4.9	349	1.0	0.2	-1.0	284	9.4	9.1	-2.2	254	10.9	10.5	3.1	267	1.8	1.8	0.1
24	—	—	—	—	138	2.4	-1.6	1.8	57	6.8	-5.7	-3.7	357	2.2	0.1	-2.2	269	11.0	11.0	0.2	251	13.8	13.0	4.6	246	5.5	5.0	2.2
25	—	—	—	—	129	2.1	-1.6	1.3	50	5.5	-4.2	-3.5	36	2.2	-1.3	-1.8	265	10.5	10.5	1.0	249	10.0	9.3	3.6	209	1.0	0.5	0.9
26	—	—	—	—	134	2.9	-2.1	2.0	44	5.2	-3.6	-3.7	11	2.1	-0.4	-2.1	267	11.7	11.7	0.7	248	14.5	13.4	5.5	270	2.0	2.0	0.0
27	—	—	—	—	163	1.0	-0.3	1.0	50	6.1	-4.7	-3.9	50	3.5	-2.7	-2.3	257	9.9	9.7	2.2	247	9.7	8.9	3.8	100	4.2	-4.1	0.7
28	—	—	—	—	128	1.8	-1.4	1.1	55	6.4	-5.2	-3.7	67	3.8	-3.5	-1.5	265	6.0	6.0	0.5	249	8.4	7.8	3.0	214	0.4	0.2	0.3
29	—	—	—	—	147	3.7	-2.0	3.1	52	7.1	-5.6	-4.3	64	4.9	-4.4	-2.1	270	4.6	4.6	0.0	226	7.4	5.3	5.2	129	1.9	-1.5	1.2
30	—	—	—	—	161	2.8	-0.9	2.6	60	7.5	-6.5	-3.8	70	4.1	-3.9	-1.4	252	4.7	4.5	1.5	240	7.0	6.1	3.5	174	1.9	-0.2	1.9
31	—	—	—	—	183	3.3	0.2	3.3	48	7.0	-5.2	-4.7	48	1.5	-1.1	-1.0	254	5.9	5.7	1.6	245	10.3	9.3	4.4	299	1.0	0.9	-0.5

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	178	3.4	-0.1	3.4	44	7.2	-5.0	-5.2	88	2.6	-2.6	-0.1	252	7.4	7.0	2.3	250	9.6	9.0	3.2	163	1.7	-0.5	1.6
2	—	—	—	—	165	2.7	-0.7	2.6	58	7.0	-5.9	-3.7	119	2.6	-2.3	1.3	256	5.8	5.6	1.4	241	8.5	7.5	4.1	288	4.1	3.9	-1.3
3	—	—	—	—	188	3.6	0.5	3.6	62	7.2	-6.3	-3.4	122	1.5	-1.3	0.8	261	7.3	7.2	1.1	238	6.1	5.2	3.2	11	2.6	-0.5	-2.6
4	—	—	—	—	152	1.9	-0.9	1.7	58	8.0	-6.8	-4.3	270	0.3	0.3	0.0	266	7.1	7.1	0.5	237	6.8	5.7	3.7	87	3.6	-3.6	-0.2
5	—	—	—	—	173	2.5	-0.3	2.5	57	7.7	-6.4	-4.2	180	0.8	0.0	0.8	253	6.6	6.3	1.9	237	8.0	6.7	4.3	123	5.3	-4.4	2.9
6	—	—	—	—	177	1.9	-0.1	1.9	62	6.6	-5.8	-3.1	137	2.2	-1.5	1.6	266	5.6	5.6	0.4	248	5.3	4.9	2.0	125	5.1	-4.2	2.9
7	—	—	—	—	162	3.6	-1.1	3.4	62	7.0	-6.2	-3.3	72	2.0	-1.9	-0.6	260	2.9	2.9	0.5	243	6.7	6.0	3.0	124	5.4	-4.5	3.0
8	—	—	—	—	200	2.7	0.9	2.5	56	7.7	-6.4	-4.3	117	1.6	-1.4	0.7	266	5.8	5.8	0.4	240	8.7	7.5	4.4	144	1.9	-1.1	1.5
9	—	—	—	—	202	2.9	1.1	2.7	51	6.0	-4.7	-3.8	111	2.6	-2.4	0.9	261	3.2	3.2	0.5	267	5.6	5.6	0.3	129	3.3	-2.6	2.1
10	—	—	—	—	206	3.4	1.5	3.1	52	8.0	-6.3	-4.9	129	0.6	-0.5	0.4	254	7.2	6.9	2.0	247	10.6	9.7	4.2	239	4.7	4.0	2.4
11	—	—	—	—	203	2.6	1.0	2.4	53	7.0	-5.6	-4.2	59	2.6	-2.2	-1.3	291	4.3	4.0	-1.5	257	9.5	9.3	2.1	117	0.7	-0.6	0.3
12	—	—	—	—	180	0.9	0.0	0.9	62	6.1	-5.4	-2.9	81	3.6	-3.6	-0.6	281	1.0	1.0	-0.2	248	5.5	5.1	2.1	105	4.9	-4.7	1.3
13	—	—	—	—	148	1.3	-0.7	1.1	56	6.6	-5.5	-3.7	72	2.3	-2.2	-0.7	270	4.4	4.4	0.0	247	4.3	4.0	1.7	283	1.7	1.7	-0.4
14	—	—	—	—	223	2.3	1.6	1.7	48	7.6	-5.7	-5.1	68	1.6	-1.5	-0.6	282	2.9	2.8	-0.6	233	5.0	4.0	3.0	72	0.9	-0.9	-0.3
15	—	—	—	—	229	2.3	1.7	1.5	50	6.8	-5.2	-4.4	43	1.8	-1.2	-1.3	255	5.1	4.9	1.3	231	6.5	5.1	4.1	147	2.4	-1.3	2.0
16	—	—	—	—	225	2.7	1.9	1.9	56	6.8	-5.6	-3.8	102	3.0	-2.9	0.6	269	6.5	6.5	0.1	235	7.9	6.5	4.5	92	6.6	-6.6	0.2
17	—	—	—	—	216	2.6	1.5	2.1	60	7.8	-6.7	-3.9	118	1.5	-1.3	0.7	252	6.5	6.2	2.0	237	8.5	7.1	4.6	101	6.7	-6.6	1.3
18	—	—	—	—	195	1.6	0.4	1.5	55	7.1	-5.8	-4.1	66	3.0	-2.7	-1.2	250	6.8	6.4	2.3	215	10.4	6.0	8.5	102	3.8	-3.7	0.8
19	—	—	—	—	222	3.1	2.1	2.3	55	8.9	-7.3	-5.1	80	1.7	-1.7	-0.3	257	6.3	6.1	1.4	214	9.4	5.2	7.8	323	0.5	0.3	-0.4
20	—	—	—	—	216	1.9	1.1	1.5	56	7.6	-6.3	-4.2	111	3.9	-3.6	1.4	256	10.6	10.3	2.5	235	14.9	12.2	8.6	225	1.6	1.1	1.1
21	—	—	—	—	208	1.9	0.9	1.7	59	7.7	-6.6	-4.0	105	2.3	-2.2	0.6	258	6.4	6.3	1.3	221	12.7	8.4	9.5	108	3.6	-3.4	1.1
22	—	—	—	—	227	1.6	1.2	1.1	63	8.4	-7.5	-3.8	81	1.2	-1.2	-0.2	268	5.5	5.5	0.2	247	11.5	10.6	4.4	71	2.8	-2.6	-0.9
23	—	—	—	—	221	2.1	1.4	1.6	55	7.4	-6.1	-4.2	152	1.5	-0.7	1.3	247	6.6	6.1	2.6	226	10.8	7.8	7.5	105	2.0	-1.9	0.5
24	—	—	—	—	260	1.7	1.7	0.3	66	6.2	-5.7	-2.5	250	1.2	1.1	0.4	261	7.8	7.7	1.2	233	12.1	9.7	7.2	60	1.6	-1.4	-0.8
25	—	—	—	—	266	1.6	1.6	0.1	56	7.6	-6.3	-4.3	266	1.3	1.3	0.1	271	8.1	8.1	-0.2	253	11.9	11.4	3.5	54	1.9	-1.5	-1.1
26	—	—	—	—	233	2.5	2.0	1.5	62	6.7	-5.9	-3.2	8	1.5	-0.2	-1.5	275	7.4	7.4	-0.7	252	9.9	9.4	3.0	121	0.6	-0.5	0.3
27	—	—	—	—	240	2.2	1.9	1.1	56	7.5	-6.2	-4.2	51	1.9	-1.5	-1.2	287	7.2	6.9	-2.1	256	8.1	7.8	2.0	93	4.5	-4.5	0.2
28	—	—	—	—	246	2.7	2.5	1.1	55	7.4	-6.1	-4.2	45	3.5	-2.5	-2.5	295	4.7	4.3	-2.0	235	5.5	4.5	3.1	90	7.2	-7.2	0.0
29	—	—	—	—	272	3.3	3.3	-0.1	52	7.4	-5.8	-4.6	24	3.6	-1.5	-3.3	282	4.0	3.9	-0.8	217	7.4	4.5	5.9	104	6.4	-6.2	1.6
30	—	—	—	—	279	4.0	4.0	-0.6	51	6.3	-4.9	-4.0	45	3.4	-2.4	-2.4	295	2.9	2.6	-1.2	219	4.1	2.6	3.2	91	9.9	-9.9	0.2

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	277	2.3	2.3	-0.3	59	5.2	-4.5	-2.7	50	1.6	-1.2	-1.0	265	4.4	4.4	0.4	242	5.1	4.5	2.4	115	6.4	-5.8	2.7
2	—	—	—	—	283	2.8	2.7	-0.6	62	6.6	-5.8	-3.1	36	3.2	-1.9	-2.6	256	3.3	3.2	0.8	218	6.1	3.7	4.8	107	7.8	-7.5	2.3
3	—	—	—	—	283	3.2	3.1	-0.7	53	6.2	-5.0	-3.7	64	2.5	-2.3	-1.1	272	2.5	2.5	-0.1	227	3.4	2.5	2.3	109	9.7	-9.2	3.1
4	—	—	—	—	245	2.3	2.1	1.0	52	6.6	-5.2	-4.1	82	3.0	-3.0	-0.4	273	2.1	2.1	-0.1	222	3.8	2.5	2.8	115	3.1	-2.8	1.3
5	—	—	—	—	262	3.5	3.5	0.5	54	7.7	-6.2	-4.5	87	2.1	-2.1	-0.1	106	0.7	-0.7	0.2	167	2.8	-0.6	2.7	108	7.6	-7.2	2.4
6	—	—	—	—	305	1.9	1.6	-1.1	54	7.5	-6.1	-4.4	80	1.7	-1.7	-0.3	305	1.2	1.0	-0.7	240	2.8	2.4	1.4	89	12.1	-12.1	-0.2
7	—	—	—	—	270	2.2	2.2	0.0	61	6.5	-5.7	-3.2	65	3.8	-3.4	-1.6	322	1.1	0.7	-0.9	135	4.7	-3.3	3.3	87	6.6	-6.6	-0.3
8	—	—	—	—	274	2.8	2.8	-0.2	57	7.7	-6.4	-4.2	77	4.0	-3.9	-0.9	90	0.6	-0.6	0.0	184	1.5	0.1	1.5	101	6.4	-6.3	1.2
9	—	—	—	—	285	3.8	3.7	-1.0	50	7.0	-5.4	-4.5	63	4.7	-4.2	-2.1	311	0.9	0.7	-0.6	162	2.5	-0.8	2.4	94	9.4	-9.4	0.7
10	—	—	—	—	271	4.7	4.7	-0.1	53	6.4	-5.1	-3.9	79	3.6	-3.5	-0.7	281	0.5	0.5	-0.1	205	2.6	1.1	2.4	99	8.4	-8.3	1.3
11	—	—	—	—	273	3.9	3.9	-0.2	45	6.1	-4.3	-4.3	63	3.1	-2.8	-1.4	232	2.4	1.9	1.5	156	3.2	-1.3	2.9	96	9.8	-9.7	1.1
12	—	—	—	—	255	3.4	3.3	0.9	53	5.4	-4.3	-3.2	90	2.5	-2.5	0.0	160	2.0	-0.7	1.9	183	3.3	0.2	3.3	95	9.5	-9.5	0.9
13	—	—	—	—	276	3.6	3.6	-0.4	54	5.9	-4.8	-3.5	74	2.9	-2.8	-0.8	225	1.3	0.9	0.9	189	3.8	0.6	3.8	95	10.3	-10.3	0.9
14	—	—	—	—	287	3.7	3.5	-1.1	54	5.3	-4.3	-3.1	83	3.5	-3.5	-0.4	209	1.8	0.9	1.6	150	2.2	-1.1	1.9	88	9.7	-9.7	-0.4
15	—	—	—	—	267	3.5	3.5	0.2	61	4.7	-4.1	-2.3	82	4.1	-4.1	-0.6	112	0.5	-0.5	0.2	156	1.2	-0.5	1.1	89	7.8	-7.8	-0.2
16	—	—	—	—	277	4.0	4.0	-0.5	54	4.1	-3.3	-2.4	107	3.9	-3.7	1.1	85	1.1	-1.1	-0.1	132	2.8	-2.1	1.9	100	14.3	-14.1	2.5
17	—	—	—	—	278	5.2	5.2	-0.7	68	5.3	-4.9	-2.0	93	3.7	-3.7	0.2	78	1.4	-1.4	-0.3	120	4.3	-3.7	2.1	100	15.8	-15.6	2.8
18	—	—	—	—	281	6.5	6.4	-1.3	45	4.7	-3.3	-3.3	61	2.1	-1.8	-1.0	82	0.7	-0.7	-0.1	126	3.9	-3.2	2.3	107	9.6	-9.2	2.9
19	—	—	—	—	284	5.9	5.7	-1.4	37	4.3	-2.6	-3.4	48	2.7	-2.0	-1.8	202	1.1	0.4	1.0	193	3.2	0.7	3.1	100	10.2	-10.1	1.7
20	—	—	—	—	284	6.3	6.1	-1.5	27	4.5	-2.0	-4.0	45	2.8	-2.0	-2.0	75	3.1	-3.0	-0.8	144	3.6	-2.1	2.9	98	20.3	-20.1	3.0
21	—	—	—	—	287	5.7	5.4	-1.7	54	5.7	-4.6	-3.3	69	3.3	-3.1	-1.2	176	1.3	-0.1	1.3	121	5.6	-4.8	2.9	97	15.7	-15.6	1.9
22	—	—	—	—	276	5.6	5.6	-0.6	43	4.2	-2.9	-3.1	86	1.6	-1.6	-0.1	105	1.1	-1.1	0.3	127	5.5	-4.4	3.3	97	11.6	-11.5	1.5
23	—	—	—	—	293	6.4	5.9	-2.5	45	4.5	-3.2	-3.2	111	0.9	-0.8	0.3	81	2.0	-2.0	-0.3	105	4.9	-4.7	1.3	92	9.9	-9.9	0.4
24	—	—	—	—	271	7.6	7.6	-0.1	47	5.3	-3.9	-3.6	47	3.8	-2.8	-2.6	49	1.8	-1.4	-1.2	109	6.4	-6.0	2.1	95	17.4	-17.3	1.5
25	—	—	—	—	278	6.5	6.4	-0.9	37	4.4	-2.6	-3.5	68	4.3	-4.0	-1.6	81	3.1	-3.1	-0.5	95	7.4	-7.4	0.7	94	14.2	-14.2	0.9
26	—	—	—	—	286	7.3	7.0	-2.0	38	5.5	-3.4	-4.3	54	2.7	-2.2	-1.6	62	3.0	-2.6	-1.4	102	5.0	-4.9	1.0	95	15.3	-15.2	1.4
27	—	—	—	—	288	6.6	6.3	-2.0	39	4.1	-2.6	-3.2	69	3.6	-3.4	-1.3	77	3.1	-3.0	-0.7	86	7.6	-7.6	-0.5	102	15.9	-15.5	3.4
28	—	—	—	—	281	6.9	6.8	-1.3	67	4.0	-3.7	-1.6	81	2.5	-2.5	-0.4	104	2.9	-2.8	0.7	105	7.8	-7.5	2.0	97	15.9	-15.8	1.9
29	—	—	—	—	280	7.8	7.7	-1.3	22	2.9	-1.1	-2.7	72	2.3	-2.2	-0.7	105	3.0	-2.9	0.8	103	6.8	-6.6	1.5	101	14.3	-14.0	2.7
30	—	—	—	—	283	7.4	7.2	-1.6	66	2.4	-2.2	-1.0	84	3.1	-3.1	-0.3	163	1.0	-0.3	1.0	117	5.3	-4.7	2.4	103	17.3	-16.9	3.8
31	—	—	—	—	281	6.4	6.3	-1.2	16	2.5	-0.7	-2.4	95	3.5	-3.5	0.3	106	1.9	-1.8	0.5	98	6.6	-6.5	0.9	102	17.1	-16.7	3.6

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	283	7.4	7.2	-1.7	60	3.4	-2.9	-1.7	111	1.7	-1.6	0.6	98	3.4	-3.4	0.5	99	7.3	-7.2	1.2	99	19.8	-19.6	3.1
2	—	—	—	—	277	7.8	7.7	-0.9	29	2.3	-1.1	-2.0	159	0.9	-0.3	0.8	114	3.7	-3.4	1.5	97	7.6	-7.5	0.9	101	21.7	-21.3	4.1
3	—	—	—	—	269	8.4	8.4	0.2	23	1.5	-0.6	-1.4	56	0.4	-0.3	-0.2	75	3.4	-3.3	-0.9	89	8.3	-8.3	-0.2	99	22.4	-22.1	3.6
4	—	—	—	—	281	8.7	8.6	-1.6	315	0.6	0.4	-0.4	198	1.3	0.4	1.2	87	3.4	-3.4	-0.2	98	8.9	-8.8	1.2	95	22.6	-22.5	2.0
5	—	—	—	—	271	8.4	8.4	-0.2	180	0.1	0.0	0.1	225	2.0	1.4	1.4	90	2.3	-2.3	0.0	88	10.1	-10.1	-0.4	96	28.6	-28.4	3.2
6	—	—	—	—	268	9.9	9.9	0.3	266	3.1	3.1	0.2	186	1.9	0.2	1.9	79	4.3	-4.2	-0.8	91	9.9	-9.9	0.2	93	26.3	-26.3	1.3
7	—	—	—	—	267	9.9	9.9	0.6	294	2.4	2.2	-1.0	225	1.8	1.3	1.3	64	4.6	-4.1	-2.0	94	12.8	-12.8	0.9	92	32.6	-32.6	1.3
8	—	—	—	—	259	11.4	11.2	2.1	277	2.3	2.3	-0.3	104	1.2	-1.2	0.3	75	4.7	-4.5	-1.2	87	10.9	-10.9	-0.6	93	23.6	-23.6	1.3
9	—	—	—	—	275	11.9	11.9	-1.0	296	3.2	2.9	-1.4	276	2.0	2.0	-0.2	72	7.1	-6.8	-2.2	91	12.8	-12.8	0.3	95	27.2	-27.1	2.3
10	—	—	—	—	269	11.0	11.0	0.2	285	7.3	7.1	-1.9	285	2.7	2.6	-0.7	83	6.5	-6.5	-0.8	79	15.8	-15.5	-3.0	94	15.4	-15.4	1.2
11	—	—	—	—	268	10.5	10.5	0.3	282	7.8	7.6	-1.6	266	2.6	2.6	0.2	77	4.8	-4.7	-1.1	93	15.8	-15.8	0.8	93	31.2	-31.1	1.8
12	—	—	—	—	274	11.4	11.4	-0.7	288	7.9	7.5	-2.4	253	1.4	1.3	0.4	90	5.2	-5.2	0.0	95	15.1	-15.0	1.3	94	25.2	-25.1	1.8
13	—	—	—	—	272	12.0	12.0	-0.5	291	8.4	7.8	-3.0	275	3.6	3.6	-0.3	69	5.3	-5.0	-1.9	86	13.2	-13.2	-1.0	98	23.6	-23.4	3.2
14	—	—	—	—	269	12.4	12.4	0.3	288	7.3	6.9	-2.3	270	3.8	3.8	0.0	88	6.7	-6.7	-0.2	88	15.9	-15.9	-0.6	94	27.0	-26.9	1.7
15	—	—	—	—	271	13.4	13.4	-0.2	281	10.6	10.4	-2.1	260	5.3	5.2	0.9	90	4.5	-4.5	0.0	84	19.5	-19.4	-1.9	98	31.2	-30.9	4.3
16	—	—	—	—	266	12.1	12.1	0.9	275	10.9	10.9	-0.9	247	6.0	5.5	2.3	98	3.5	-3.5	0.5	84	19.1	-19.0	-2.1	94	33.3	-33.2	2.4
17	—	—	—	—	266	11.6	11.6	0.8	279	12.1	11.9	-1.9	277	6.0	6.0	-0.7	83	3.5	-3.5	-0.4	85	20.1	-20.0	-1.9	98	28.3	-28.0	3.9
18	—	—	—	—	263	14.9	14.8	1.8	277	10.8	10.7	-1.4	259	6.0	5.9	1.1	70	4.9	-4.6	-1.7	78	16.8	-16.5	-3.4	91	28.8	-28.8	0.6
19	—	—	—	—	265	13.5	13.5	1.1	277	11.2	11.1	-1.3	263	7.2	7.1	0.9	88	5.6	-5.6	-0.2	81	21.4	-21.1	-3.3	86	29.4	-29.3	-2.3
20	—	—	—	—	271	15.6	15.6	-0.3	281	12.1	11.9	-2.3	275	8.0	8.0	-0.7	101	4.9	-4.8	0.9	87	19.1	-19.1	-0.9	88	34.8	-34.8	-1.4
21	—	—	—	—	279	13.9	13.7	-2.1	289	9.2	8.7	-3.0	260	5.5	5.4	1.0	78	7.0	-6.8	-1.5	84	19.1	-19.0	-2.0	85	29.6	-29.5	-2.6
22	—	—	—	—	273	11.7	11.7	-0.6	283	11.3	11.0	-2.6	271	6.8	6.8	-0.1	90	5.9	-5.9	0.0	86	20.2	-20.2	-1.4	89	37.8	-37.8	-0.7
23	—	—	—	—	266	12.5	12.5	0.8	281	9.2	9.0	-1.7	265	4.5	4.5	0.4	75	4.8	-4.6	-1.2	87	19.7	-19.7	-1.2	81	33.3	-32.9	-5.1
24	—	—	—	—	267	13.3	13.3	0.6	276	10.2	10.1	-1.1	269	4.2	4.2	0.1	90	5.3	-5.3	0.0	86	21.0	-20.9	-1.6	87	31.7	-31.7	-1.7
25	—	—	—	—	265	13.2	13.1	1.2	281	9.3	9.1	-1.7	260	4.1	4.0	0.7	82	6.9	-6.8	-0.9	87	20.5	-20.5	-1.1	91	31.0	-31.0	0.6
26	—	—	—	—	271	12.7	12.7	-0.3	285	10.2	9.9	-2.6	256	3.3	3.2	0.8	79	7.8	-7.7	-1.5	85	23.9	-23.8	-2.2	89	28.7	-28.7	-0.3
27	—	—	—	—	270	13.3	13.3	-0.1	282	9.3	9.1	-1.9	264	3.1	3.1	0.3	81	5.7	-5.6	-0.9	82	21.4	-21.2	-3.1	89	36.3	-36.3	-0.5
28	—	—	—	—	265	12.6	12.5	1.2	285	10.3	10.0	-2.6	254	4.4	4.2	1.2	93	6.7	-6.7	0.3	86	21.7	-21.6	-1.6	84	32.1	-31.9	-3.2
29	—	—	—	—	263	12.8	12.7	1.6	276	9.9	9.8	-1.1	259	3.1	3.0	0.6	85	6.0	-6.0	-0.5	86	21.2	-21.2	-1.3	83	37.1	-36.8	-4.7
30	—	—	—	—	266	13.2	13.2	0.9	276	7.6	7.6	-0.8	254	3.7	3.6	1.0	79	6.3	-6.2	-1.2	84	22.1	-22.0	-2.2	86	30.2	-30.1	-1.9

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	266	12.7	12.7	0.9	273	8.9	8.9	-0.5	246	2.7	2.5	1.1	88	7.1	-7.1	-0.2	85	23.6	-23.5	-2.2	88	32.5	-32.5	-0.9
2	—	—	—	—	266	13.1	13.1	0.9	273	8.8	8.8	-0.4	248	3.5	3.3	1.3	90	7.3	-7.3	0.0	86	23.0	-23.0	-1.5	91	35.0	-35.0	0.4
3	—	—	—	—	271	12.0	12.0	-0.2	283	8.5	8.3	-1.9	248	4.8	4.4	1.8	86	8.3	-8.3	-0.6	89	25.1	-25.1	-0.5	93	34.3	-34.3	1.5
4	—	—	—	—	272	12.3	12.3	-0.4	275	6.8	6.8	-0.6	252	2.3	2.2	0.7	101	6.9	-6.8	1.3	90	25.4	-25.4	0.1	92	37.1	-37.1	1.4
5	—	—	—	—	275	10.8	10.8	-1.0	283	6.9	6.7	-1.5	262	3.0	3.0	0.4	79	7.6	-7.4	-1.5	88	22.6	-22.6	-0.9	93	33.7	-33.7	1.8
6	—	—	—	—	268	11.2	11.2	0.4	280	7.3	7.2	-1.3	258	4.5	4.4	0.9	92	7.7	-7.7	0.3	87	20.7	-20.7	-1.2	99	32.0	-31.6	4.8
7	—	—	—	—	271	10.2	10.2	-0.1	273	8.8	8.8	-0.4	257	3.6	3.5	0.8	87	6.7	-6.7	-0.4	81	19.2	-19.0	-2.9	91	30.3	-30.3	0.5
8	—	—	—	—	269	11.3	11.3	0.1	287	7.7	7.3	-2.3	238	4.1	3.5	2.2	92	8.2	-8.2	0.3	82	18.9	-18.7	-2.6	87	30.8	-30.8	-1.6
9	—	—	—	—	265	12.2	12.2	1.0	279	9.2	9.1	-1.4	245	3.5	3.2	1.5	86	8.8	-8.8	-0.6	81	20.3	-20.0	-3.3	90	32.2	-32.2	-0.2
10	—	—	—	—	271	11.4	11.4	-0.1	290	8.3	7.8	-2.9	257	3.1	3.0	0.7	82	8.9	-8.8	-1.2	89	24.1	-24.1	-0.3	87	43.5	-43.4	-2.6
11	—	—	—	—	272	13.8	13.8	-0.5	281	8.1	7.9	-1.6	247	3.0	2.8	1.2	73	7.9	-7.6	-2.3	83	22.9	-22.7	-2.8	87	41.9	-41.8	-2.5
12	—	—	—	—	270	12.3	12.3	0.0	279	8.9	8.8	-1.4	257	4.3	4.2	1.0	75	6.0	-5.8	-1.5	88	20.3	-20.3	-0.7	89	37.8	-37.8	-0.5
13	—	—	—	—	267	14.9	14.9	0.9	278	12.6	12.5	-1.8	262	5.9	5.8	0.8	83	6.0	-6.0	-0.7	83	20.0	-19.8	-2.6	94	35.2	-35.1	2.2
14	—	—	—	—	270	13.0	13.0	0.0	281	10.7	10.5	-2.0	269	6.5	6.5	0.1	106	6.4	-6.1	1.8	87	21.8	-21.8	-1.0	88	31.0	-31.0	-1.1
15	—	—	—	—	271	13.7	13.7	-0.3	285	12.0	11.6	-3.1	269	4.9	4.9	0.1	80	6.6	-6.5	-1.1	85	21.6	-21.5	-1.7	93	37.9	-37.9	1.8
16	—	—	—	—	272	13.8	13.8	-0.6	289	12.0	11.4	-3.9	273	4.4	4.4	-0.2	91	6.7	-6.7	0.1	86	21.7	-21.7	-1.4	92	34.3	-34.3	1.4
17	—	—	—	—	270	14.5	14.5	0.0	288	11.7	11.1	-3.7	281	4.7	4.6	-0.9	93	8.5	-8.5	0.4	86	23.5	-23.4	-1.6	87	42.2	-42.1	-2.2
18	—	—	—	—	271	13.1	13.1	-0.2	279	11.0	10.9	-1.7	254	4.3	4.1	1.2	85	7.9	-7.9	-0.7	81	24.9	-24.6	-3.7	90	31.9	-31.9	0.2
19	—	—	—	—	266	13.2	13.2	0.9	275	10.4	10.4	-1.0	259	3.8	3.7	0.7	94	7.7	-7.7	0.6	85	24.1	-24.0	-2.1	90	36.7	-36.7	-0.3
20	—	—	—	—	268	12.5	12.5	0.4	280	11.2	11.0	-1.9	262	3.0	3.0	0.4	94	9.9	-9.9	0.7	88	23.8	-23.8	-0.9	91	35.0	-35.0	0.4
21	—	—	—	—	271	11.9	11.9	-0.2	279	10.4	10.3	-1.6	261	4.0	4.0	0.6	82	9.9	-9.8	-1.4	84	22.6	-22.5	-2.4	89	31.8	-31.8	-0.4
22	—	—	—	—	272	12.1	12.1	-0.5	278	8.6	8.5	-1.2	269	4.9	4.9	0.1	87	9.0	-9.0	-0.4	86	22.7	-22.6	-1.6	94	32.5	-32.4	2.0
23	—	—	—	—	271	11.0	11.0	-0.1	282	10.0	9.8	-2.1	269	5.6	5.6	0.1	101	6.5	-6.4	1.2	90	18.1	-18.1	0.0	81	29.1	-28.8	-4.5
24	—	—	—	—	271	11.6	11.6	-0.3	282	8.7	8.5	-1.8	268	2.7	2.7	0.1	97	8.5	-8.4	1.1	93	22.6	-22.6	1.3	90	36.6	-36.6	-0.1
25	—	—	—	—	274	12.6	12.6	-0.8	281	12.3	12.1	-2.3	257	3.6	3.5	0.8	91	9.2	-9.2	0.2	87	22.8	-22.8	-1.3	90	35.7	-35.7	-0.2
26	—	—	—	—	275	11.9	11.8	-1.1	285	9.1	8.8	-2.4	257	3.7	3.6	0.8	82	7.5	-7.4	-1.1	90	24.8	-24.8	0.0	91	36.2	-36.2	0.8
27	—	—	—	—	274	10.9	10.9	-0.8	287	9.5	9.1	-2.8	271	4.3	4.3	-0.1	99	7.9	-7.8	1.2	90	26.2	-26.2	0.1	85	34.9	-34.8	-2.8
28	—	—	—	—	274	11.0	11.0	-0.7	283	9.5	9.3	-2.1	265	4.2	4.2	0.4	91	8.4	-8.4	0.1	89	23.1	-23.1	-0.3	89	29.0	-29.0	-0.3
29	—	—	—	—	275	11.0	11.0	-0.9	287	10.1	9.7	-2.9	270	4.6	4.6	0.0	76	9.4	-9.1	-2.2	88	23.9	-23.9	-0.9	85	38.1	-38.0	-3.2
30	—	—	—	—	276	11.7	11.6	-1.2	290	9.1	8.6	-3.1	271	4.3	4.3	-0.1	78	8.1	-7.9	-1.7	86	23.7	-23.6	-1.6	91	32.4	-32.4	0.4
31	—	—	—	—	272	12.1	12.1	-0.5	291	10.1	9.4	-3.6	280	3.5	3.4	-0.6	96	7.9	-7.9	0.8	85	21.3	-21.2	-1.8	93	28.0	-28.0	1.3

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	272	12.1	12.1	-0.5	291	10.0	9.3	-3.6	285	5.2	5.0	-1.3	88	7.4	-7.4	-0.3	90	23.6	-23.6	-0.2	86	33.2	-33.1	-2.3
2	—	—	—	—	276	11.0	10.9	-1.2	290	8.9	8.4	-3.0	270	1.6	1.6	0.0	96	5.3	-5.3	0.6	89	20.0	-20.0	-0.5	83	26.0	-25.8	-3.0
3	—	—	—	—	280	11.5	11.3	-1.9	290	9.3	8.7	-3.2	257	3.6	3.5	0.8	100	9.0	-8.9	1.5	85	21.7	-21.6	-1.7	94	34.6	-34.5	2.4
4	—	—	—	—	284	10.1	9.8	-2.5	289	7.6	7.2	-2.5	247	2.8	2.6	1.1	92	9.2	-9.2	0.3	85	21.0	-20.9	-2.0	87	33.2	-33.1	-1.9
5	—	—	—	—	277	9.8	9.7	-1.2	286	6.2	6.0	-1.7	240	0.8	0.7	0.4	92	8.1	-8.1	0.3	85	25.1	-25.0	-2.2	106	26.0	-25.0	7.0
6	—	—	—	—	278	10.2	10.1	-1.4	284	7.3	7.1	-1.8	254	3.6	3.5	1.0	78	8.9	-8.7	-1.8	90	24.0	-24.0	0.0	81	31.1	-30.7	-4.9
7	—	—	—	—	273	10.3	10.3	-0.5	283	9.0	8.8	-2.0	260	4.2	4.1	0.7	84	5.3	-5.3	-0.6	86	21.2	-21.2	-1.4	97	27.0	-26.8	3.1
8	—	—	—	—	272	11.6	11.6	-0.5	288	9.3	8.8	-2.9	270	5.1	5.1	0.0	100	6.6	-6.5	1.1	82	21.8	-21.6	-3.1	96	33.2	-33.0	3.3
9	—	—	—	—	277	11.0	10.9	-1.4	294	9.9	9.1	-4.0	264	5.3	5.3	0.6	94	7.6	-7.6	0.5	82	22.3	-22.1	-3.1	86	36.5	-36.4	-2.6
10	—	—	—	—	275	11.8	11.7	-1.1	292	10.6	9.8	-4.0	253	4.8	4.6	1.4	89	7.4	-7.4	-0.1	89	23.5	-23.5	-0.5	87	29.9	-29.9	-1.6
11	—	—	—	—	274	11.0	11.0	-0.7	287	8.7	8.3	-2.6	251	2.8	2.6	0.9	99	9.3	-9.2	1.5	88	22.3	-22.3	-0.6	84	28.0	-27.8	-2.9
12	—	—	—	—	276	11.4	11.3	-1.2	287	8.4	8.1	-2.4	286	2.5	2.4	-0.7	87	8.5	-8.5	-0.4	89	22.1	-22.1	-0.3	85	27.6	-27.5	-2.5
13	—	—	—	—	271	9.8	9.8	-0.1	292	9.5	8.8	-3.6	246	3.7	3.4	1.5	98	7.4	-7.3	1.0	86	21.3	-21.2	-1.5	89	33.3	-33.3	-0.7
14	—	—	—	—	271	11.4	11.4	-0.2	290	8.8	8.3	-3.0	278	4.4	4.4	-0.6	99	9.9	-9.8	1.6	89	23.4	-23.4	-0.4	90	32.9	-32.9	-0.1
15	—	—	—	—	274	10.2	10.2	-0.7	287	9.3	8.9	-2.7	273	3.9	3.9	-0.2	94	6.2	-6.2	0.4	84	24.1	-23.9	-2.7	84	34.0	-33.8	-3.3
16	—	—	—	—	274	11.5	11.5	-0.8	286	9.8	9.4	-2.7	258	3.3	3.2	0.7	97	7.8	-7.7	1.0	85	22.7	-22.6	-1.8	90	30.9	-30.9	0.1
17	—	—	—	—	275	9.9	9.9	-0.9	285	8.7	8.4	-2.3	265	3.4	3.4	0.3	98	7.4	-7.3	1.0	88	19.2	-19.2	-0.7	89	31.9	-31.9	-0.5
18	—	—	—	—	277	10.9	10.8	-1.3	282	8.8	8.6	-1.8	250	3.3	3.1	1.1	96	6.7	-6.7	0.7	90	20.8	-20.8	0.1	85	34.1	-34.0	-2.7
19	—	—	—	—	278	11.2	11.1	-1.5	291	10.3	9.6	-3.7	265	5.4	5.4	0.5	95	8.8	-8.8	0.7	91	23.8	-23.8	0.6	88	34.5	-34.5	-1.5
20	—	—	—	—	272	12.2	12.2	-0.4	295	9.0	8.2	-3.8	229	2.3	1.7	1.5	87	8.8	-8.8	-0.4	87	20.5	-20.5	-0.9	89	31.4	-31.4	-0.5
21	—	—	—	—	278	10.5	10.4	-1.5	284	8.9	8.6	-2.2	270	4.1	4.1	0.0	95	8.5	-8.5	0.7	88	23.4	-23.4	-0.7	91	30.0	-30.0	0.7
22	—	—	—	—	275	9.8	9.8	-0.8	287	7.7	7.3	-2.3	231	0.6	0.5	0.4	95	8.9	-8.9	0.8	87	20.2	-20.2	-1.1	88	36.4	-36.4	-1.1
23	—	—	—	—	281	10.0	9.8	-1.9	288	7.3	6.9	-2.3	255	3.4	3.3	0.9	94	8.1	-8.1	0.6	84	20.6	-20.5	-2.1	94	26.5	-26.4	1.7
24	—	—	—	—	278	10.3	10.2	-1.5	286	8.5	8.2	-2.3	250	3.3	3.1	1.1	117	9.1	-8.1	4.2	90	22.9	-22.9	-0.1	86	30.1	-30.0	-2.1
25	—	—	—	—	271	10.1	10.1	-0.1	281	9.2	9.0	-1.8	272	3.8	3.8	-0.1	93	9.1	-9.1	0.5	88	22.5	-22.5	-0.7	94	19.9	-19.9	1.4
26	—	—	—	—	274	10.5	10.5	-0.8	286	9.1	8.8	-2.5	297	2.8	2.5	-1.3	79	7.4	-7.3	-1.4	89	21.7	-21.7	-0.5	92	28.9	-28.9	0.8
27	—	—	—	—	278	11.4	11.3	-1.6	288	8.9	8.4	-2.8	270	2.9	2.9	0.0	84	6.6	-6.6	-0.7	86	22.8	-22.8	-1.5	94	29.2	-29.1	2.0
28	—	—	—	—	277	11.0	10.9	-1.3	293	8.5	7.8	-3.3	268	5.2	5.2	0.2	105	4.9	-4.7	1.3	84	21.7	-21.6	-2.3	92	20.6	-20.6	0.7
29	—	—	—	—	280	11.4	11.2	-1.9	288	8.0	7.6	-2.5	254	4.8	4.6	1.3	98	7.3	-7.2	1.0	85	22.4	-22.3	-2.1	85	25.0	-24.9	-2.2
30	—	—	—	—	278	10.5	10.4	-1.5	293	6.9	6.3	-2.7	255	3.5	3.4	0.9	100	7.8	-7.7	1.4	88	22.0	-22.0	-0.9	91	27.0	-27.0	0.6
31	—	—	—	—	284	9.0	8.7	-2.2	284	5.8	5.6	-1.4	265	4.5	4.5	0.4	84	7.2	-7.2	-0.8	92	24.3	-24.3	1.0	92	28.8	-28.8	0.8

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	279	9.6	9.5	-1.5	278	6.9	6.8	-0.9	263	2.5	2.5	0.3	91	10.8	-10.8	0.1	89	24.2	-24.2	-0.4	79	18.3	-18.0	-3.5
2	—	—	—	—	281	9.0	8.8	-1.7	266	5.6	5.6	0.4	264	1.0	1.0	0.1	89	10.0	-10.0	-0.2	83	21.3	-21.1	-2.6	91	24.3	-24.3	0.5
3	—	—	—	—	277	8.1	8.0	-1.0	280	6.3	6.2	-1.1	230	1.6	1.2	1.0	97	8.1	-8.0	1.0	89	23.3	-23.3	-0.5	86	25.6	-25.5	-1.7
4	—	—	—	—	271	8.9	8.9	-0.1	285	5.6	5.4	-1.4	278	0.7	0.7	-0.1	85	7.3	-7.3	-0.6	91	22.9	-22.9	0.2	93	24.3	-24.3	1.3
5	—	—	—	—	278	8.4	8.3	-1.1	283	5.2	5.1	-1.2	252	2.3	2.2	0.7	87	8.3	-8.3	-0.4	87	18.7	-18.7	-0.9	91	20.2	-20.2	0.3
6	—	—	—	—	279	8.1	8.0	-1.3	283	5.3	5.2	-1.2	247	2.3	2.1	0.9	102	9.7	-9.5	2.0	87	20.3	-20.3	-1.1	83	23.7	-23.5	-2.8
7	—	—	—	—	282	8.1	7.9	-1.7	288	5.5	5.2	-1.7	270	0.6	0.6	0.0	91	9.5	-9.5	0.2	88	19.9	-19.9	-0.6	89	25.9	-25.9	-0.5
8	—	—	—	—	290	8.0	7.5	-2.8	288	5.2	4.9	-1.6	220	0.8	0.5	0.6	85	9.7	-9.7	-0.8	92	19.6	-19.6	0.7	92	23.8	-23.8	0.8
9	—	—	—	—	293	7.3	6.7	-2.9	302	4.9	4.2	-2.6	276	1.0	1.0	-0.1	91	8.5	-8.5	0.1	96	18.8	-18.7	2.1	88	20.8	-20.8	-0.9
10	—	—	—	—	290	8.2	7.7	-2.8	290	3.3	3.1	-1.1	294	1.0	0.9	-0.4	91	7.6	-7.6	0.1	86	18.3	-18.2	-1.4	97	22.6	-22.4	2.7
11	—	—	—	—	294	7.7	7.0	-3.1	296	4.1	3.7	-1.8	265	2.1	2.1	0.2	85	7.2	-7.2	-0.6	85	17.0	-16.9	-1.5	92	24.6	-24.6	0.7
12	—	—	—	—	286	7.7	7.4	-2.1	299	4.8	4.2	-2.3	289	2.1	2.0	-0.7	101	6.5	-6.4	1.3	93	15.9	-15.9	0.8	98	18.7	-18.5	2.6
13	—	—	—	—	297	5.9	5.2	-2.7	297	3.5	3.1	-1.6	228	1.3	1.0	0.9	93	8.3	-8.3	0.4	94	17.8	-17.8	1.2	96	22.1	-22.0	2.4
14	—	—	—	—	290	4.8	4.5	-1.6	298	1.9	1.7	-0.9	163	1.0	-0.3	1.0	92	9.3	-9.3	0.3	91	15.8	-15.8	0.4	90	24.0	-24.0	0.2
15	—	—	—	—	292	5.1	4.7	-1.9	317	2.5	1.7	-1.8	79	1.5	-1.5	-0.3	93	8.4	-8.4	0.5	101	13.4	-13.2	2.5	97	19.7	-19.6	2.3
16	—	—	—	—	287	4.2	4.0	-1.2	351	1.9	0.3	-1.9	88	3.3	-3.3	-0.1	92	8.8	-8.8	0.3	99	15.3	-15.1	2.3	101	27.1	-26.6	5.1
17	—	—	—	—	294	4.6	4.2	-1.9	360	1.6	0.0	-1.6	113	3.0	-2.8	1.2	93	8.2	-8.2	0.4	94	13.1	-13.1	1.0	100	24.4	-24.0	4.2
18	—	—	—	—	286	5.0	4.8	-1.4	336	2.0	0.8	-1.8	98	2.1	-2.1	0.3	107	8.1	-7.7	2.4	80	13.8	-13.6	-2.3	91	23.3	-23.3	0.3
19	—	—	—	—	282	4.8	4.7	-1.0	297	3.9	3.5	-1.8	90	0.3	-0.3	0.0	89	6.5	-6.5	-0.1	93	13.0	-13.0	0.7	100	22.3	-22.0	3.9
20	—	—	—	—	283	4.8	4.7	-1.1	313	1.6	1.2	-1.1	315	1.0	0.7	-0.7	97	4.9	-4.9	0.6	88	14.9	-14.9	-0.5	98	22.1	-21.9	2.9
21	—	—	—	—	279	6.8	6.7	-1.1	306	3.6	2.9	-2.1	303	2.0	1.7	-1.1	92	5.9	-5.9	0.2	95	15.6	-15.5	1.3	98	20.8	-20.6	2.9
22	—	—	—	—	273	6.4	6.4	-0.3	317	3.8	2.6	-2.8	214	1.1	0.6	0.9	85	7.2	-7.2	-0.6	93	13.8	-13.8	0.8	98	23.7	-23.5	3.4
23	—	—	—	—	277	5.2	5.2	-0.6	300	4.4	3.8	-2.2	293	0.8	0.7	-0.3	93	7.2	-7.2	0.4	90	14.2	-14.2	0.1	99	30.3	-29.9	4.6
24	—	—	—	—	286	6.3	6.1	-1.7	319	3.0	2.0	-2.3	14	0.8	-0.2	-0.8	100	8.1	-8.0	1.4	100	11.8	-11.6	2.0	118	13.5	-11.9	6.4
25	—	—	—	—	291	4.9	4.6	-1.8	311	1.1	0.8	-0.7	130	0.8	-0.6	0.5	102	8.1	-7.9	1.7	94	16.0	-16.0	1.2	99	19.6	-19.4	2.9
26	—	—	—	—	274	5.3	5.3	-0.4	281	1.5	1.5	-0.3	107	2.8	-2.7	0.8	98	7.8	-7.7	1.1	88	12.2	-12.2	-0.5	97	21.1	-21.0	2.5
27	—	—	—	—	275	5.2	5.2	-0.5	312	1.5	1.1	-1.0	113	1.3	-1.2	0.5	99	6.7	-6.6	1.0	96	13.6	-13.5	1.5	87	12.1	-12.1	-0.6
28	—	—	—	—	272	4.9	4.9	-0.2	340	1.5	0.5	-1.4	120	2.2	-1.9	1.1	99	7.3	-7.2	1.1	83	11.4	-11.3	-1.3	107	16.7	-15.9	5.0
29	—	—	—	—	285	3.4	3.3	-0.9	346	1.6	0.4	-1.6	72	1.6	-1.5	-0.5	96	7.1	-7.1	0.8	104	12.3	-11.9	3.0	101	16.5	-16.2	3.2
30	—	—	—	—	295	3.8	3.5	-1.6	11	1.6	-0.3	-1.6	108	1.3	-1.2	0.4	84	6.4	-6.4	-0.7	88	15.0	-15.0	-0.6	88	18.1	-18.1	-0.7

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	297	2.8	2.5	-1.3	351	2.5	0.4	-2.5	144	0.9	-0.5	0.7	85	5.2	-5.2	-0.5	95	10.1	-10.1	0.8	100	22.3	-22.0	3.8
2	—	—	—	—	292	4.1	3.8	-1.5	331	1.3	0.6	-1.1	153	1.1	-0.5	1.0	102	4.8	-4.7	1.0	87	11.9	-11.9	-0.7	96	17.6	-17.5	1.8
3	—	—	—	—	291	4.0	3.7	-1.4	304	2.9	2.4	-1.6	248	0.5	0.5	0.2	98	9.2	-9.1	1.2	89	15.5	-15.5	-0.4	92	14.6	-14.6	0.4
4	—	—	—	—	290	5.1	4.8	-1.7	327	3.1	1.7	-2.6	257	0.9	0.9	0.2	103	5.5	-5.4	1.2	96	12.4	-12.3	1.4	99	14.2	-14.0	2.3
5	—	—	—	—	292	4.5	4.2	-1.7	313	2.3	1.7	-1.6	221	1.1	0.7	0.8	80	3.9	-3.8	-0.7	99	11.4	-11.3	1.7	94	12.7	-12.7	0.9
6	—	—	—	—	286	5.8	5.6	-1.6	315	2.5	1.8	-1.8	180	0.5	0.0	0.5	93	5.8	-5.8	0.3	94	12.2	-12.2	0.9	90	13.2	-13.2	0.1
7	—	—	—	—	295	3.3	3.0	-1.4	360	1.6	0.0	-1.6	245	1.9	1.7	0.8	104	4.0	-3.9	1.0	99	13.1	-12.9	2.0	97	9.8	-9.7	1.2
8	—	—	—	—	285	4.2	4.1	-1.1	15	2.7	-0.7	-2.6	346	2.1	0.5	-2.0	114	6.8	-6.2	2.8	103	12.8	-12.5	2.9	92	12.3	-12.3	0.5
9	—	—	—	—	287	2.8	2.7	-0.8	13	1.8	-0.4	-1.8	79	1.0	-1.0	-0.2	95	4.7	-4.7	0.4	103	10.1	-9.9	2.2	98	18.3	-18.1	2.6
10	—	—	—	—	286	2.6	2.5	-0.7	21	1.9	-0.7	-1.8	122	1.3	-1.1	0.7	88	5.4	-5.4	-0.2	100	12.6	-12.4	2.2	101	14.6	-14.3	2.9
11	—	—	—	—	315	1.1	0.8	-0.8	24	2.0	-0.8	-1.8	97	2.5	-2.5	0.3	104	4.2	-4.1	1.0	98	7.3	-7.2	1.0	111	11.6	-10.9	4.1
12	—	—	—	—	243	0.9	0.8	0.4	317	1.6	1.1	-1.2	90	2.6	-2.6	0.0	91	4.7	-4.7	0.1	87	8.1	-8.1	-0.4	98	10.5	-10.4	1.5
13	—	—	—	—	117	0.2	-0.2	0.1	23	0.8	-0.3	-0.7	86	1.3	-1.3	-0.1	102	4.4	-4.3	0.9	110	9.7	-9.1	3.3	103	14.7	-14.3	3.3
14	—	—	—	—	345	2.3	0.6	-2.2	351	1.8	0.3	-1.8	6	1.0	-0.1	-1.0	80	2.7	-2.7	-0.5	120	7.4	-6.4	3.7	101	5.4	-5.3	1.0
15	—	—	—	—	7	1.6	-0.2	-1.6	355	2.4	0.2	-2.4	27	1.8	-0.8	-1.6	87	3.8	-3.8	-0.2	104	10.2	-9.9	2.5	94	15.1	-15.1	1.1
16	—	—	—	—	342	1.9	0.6	-1.8	354	3.0	0.3	-3.0	37	0.5	-0.3	-0.4	112	3.8	-3.5	1.4	107	7.2	-6.9	2.1	102	10.6	-10.4	2.2
17	—	—	—	—	354	1.9	0.2	-1.9	9	3.0	-0.5	-3.0	93	1.8	-1.8	0.1	107	4.5	-4.3	1.3	104	10.0	-9.7	2.4	91	13.9	-13.9	0.2
18	—	—	—	—	31	2.3	-1.2	-2.0	52	2.4	-1.9	-1.5	72	2.6	-2.5	-0.8	106	4.8	-4.6	1.3	111	10.0	-9.3	3.6	100	13.7	-13.5	2.5
19	—	—	—	—	55	3.3	-2.7	-1.9	67	3.0	-2.8	-1.2	112	2.7	-2.5	1.0	99	5.8	-5.7	0.9	106	10.0	-9.6	2.7	96	15.2	-15.1	1.5
20	—	—	—	—	81	2.5	-2.5	-0.4	55	2.1	-1.7	-1.2	103	2.7	-2.6	0.6	99	5.7	-5.6	0.9	106	7.5	-7.2	2.0	98	16.3	-16.1	2.4
21	—	—	—	—	85	3.8	-3.8	-0.3	63	2.7	-2.4	-1.2	94	4.2	-4.2	0.3	93	5.9	-5.9	0.3	108	7.4	-7.0	2.3	93	10.4	-10.4	0.6
22	—	—	—	—	77	2.8	-2.7	-0.6	57	2.7	-2.3	-1.5	110	3.0	-2.8	1.0	111	3.4	-3.2	1.2	117	6.5	-5.8	3.0	88	14.5	-14.5	-0.4
23	—	—	—	—	67	2.8	-2.6	-1.1	63	2.9	-2.6	-1.3	97	2.3	-2.3	0.3	99	3.7	-3.7	0.6	99	7.6	-7.5	1.2	104	8.2	-8.0	2.0
24	—	—	—	—	96	4.7	-4.7	0.5	52	1.6	-1.3	-1.0	93	1.7	-1.7	0.1	79	3.3	-3.2	-0.6	106	6.6	-6.3	1.8	102	9.3	-9.1	2.0
25	—	—	—	—	87	4.0	-4.0	-0.2	116	3.0	-2.7	1.3	112	4.2	-3.9	1.6	90	2.9	-2.9	0.0	137	5.2	-3.6	3.8	102	10.9	-10.7	2.3
26	—	—	—	—	80	4.0	-3.9	-0.7	93	3.5	-3.5	0.2	109	3.6	-3.4	1.2	78	4.0	-3.9	-0.8	124	4.3	-3.6	2.4	121	6.9	-5.9	3.5
27	—	—	—	—	75	4.7	-4.5	-1.2	70	3.8	-3.6	-1.3	80	4.1	-4.0	-0.7	104	2.5	-2.4	0.6	129	6.3	-4.9	3.9	73	8.6	-8.2	-2.5
28	—	—	—	—	72	4.2	-4.0	-1.3	62	1.5	-1.3	-0.7	94	3.1	-3.1	0.2	111	3.9	-3.6	1.4	115	6.8	-6.2	2.9	96	8.0	-7.9	0.9
29	—	—	—	—	50	3.9	-3.0	-2.5	11	1.6	-0.3	-1.6	63	2.5	-2.2	-1.1	103	2.3	-2.2	0.5	133	5.1	-3.7	3.5	102	9.1	-8.9	1.9
30	—	—	—	—	49	4.1	-3.1	-2.7	342	0.6	0.2	-0.6	45	1.4	-1.0	-1.0	342	0.3	0.1	-0.3	161	5.4	-1.8	5.1	114	8.1	-7.4	3.3
31	—	—	—	—	70	4.5	-4.2	-1.5	29	1.8	-0.9	-1.6	96	2.0	-2.0	0.2	140	1.7	-1.1	1.3	127	4.0	-3.2	2.4	107	5.9	-5.7	1.7

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	55	4.0	-3.3	-2.3	77	2.6	-2.5	-0.6	75	3.9	-3.8	-1.0	180	0.3	0.0	0.3	153	5.9	-2.7	5.3	100	3.6	-3.5	0.6
2	—	—	—	—	48	4.2	-3.1	-2.8	55	3.2	-2.6	-1.8	49	3.5	-2.6	-2.3	61	2.3	-2.0	-1.1	131	6.5	-4.9	4.2	69	3.4	-3.2	-1.2
3	—	—	—	—	63	4.6	-4.1	-2.1	67	2.5	-2.3	-1.0	55	4.2	-3.4	-2.4	107	1.7	-1.6	0.5	145	9.5	-5.5	7.8	138	3.0	-2.0	2.2
4	—	—	—	—	58	4.6	-3.9	-2.4	76	3.6	-3.5	-0.9	74	4.7	-4.5	-1.3	124	3.6	-3.0	2.0	147	9.8	-5.3	8.2	116	5.9	-5.3	2.6
5	—	—	—	—	52	4.3	-3.4	-2.7	66	3.2	-2.9	-1.3	81	4.9	-4.8	-0.8	113	1.3	-1.2	0.5	145	6.8	-3.9	5.6	95	8.2	-8.2	0.7
6	—	—	—	—	67	5.6	-5.1	-2.2	75	4.1	-4.0	-1.1	60	4.4	-3.8	-2.2	117	2.8	-2.5	1.3	141	7.5	-4.7	5.9	110	7.2	-6.7	2.5
7	—	—	—	—	64	5.8	-5.2	-2.5	64	3.4	-3.1	-1.5	66	5.6	-5.1	-2.3	117	3.5	-3.1	1.6	149	8.7	-4.5	7.4	109	4.3	-4.1	1.4
8	—	—	—	—	72	5.2	-5.0	-1.6	72	2.6	-2.5	-0.8	56	4.1	-3.4	-2.3	100	2.7	-2.7	0.5	150	8.2	-4.1	7.1	85	5.0	-5.0	-0.4
9	—	—	—	—	64	5.5	-5.0	-2.4	86	2.7	-2.7	-0.2	74	4.1	-3.9	-1.1	61	1.3	-1.1	-0.6	147	3.3	-1.8	2.8	93	6.7	-6.7	0.3
10	—	—	—	—	59	4.2	-3.6	-2.2	75	2.7	-2.6	-0.7	93	3.4	-3.4	0.2	76	3.0	-2.9	-0.7	138	5.4	-3.6	4.0	97	5.0	-5.0	0.6
11	—	—	—	—	67	6.1	-5.6	-2.4	74	4.3	-4.1	-1.2	64	5.5	-4.9	-2.4	97	1.7	-1.7	0.2	156	4.4	-1.8	4.0	78	4.9	-4.8	-1.0
12	—	—	—	—	73	6.3	-6.0	-1.8	64	4.3	-3.9	-1.9	51	5.3	-4.1	-3.3	66	2.2	-2.0	-0.9	152	8.5	-4.0	7.5	99	7.3	-7.2	1.1
13	—	—	—	—	54	4.7	-3.8	-2.8	58	4.6	-3.9	-2.4	53	3.5	-2.8	-2.1	90	0.8	-0.8	0.0	148	4.9	-2.6	4.2	130	4.2	-3.2	2.7
14	—	—	—	—	55	5.7	-4.7	-3.3	53	2.1	-1.7	-1.3	72	2.8	-2.7	-0.9	72	0.3	-0.3	-0.1	162	7.1	-2.2	6.8	132	4.5	-3.3	3.0
15	—	—	—	—	60	5.6	-4.8	-2.8	66	2.2	-2.0	-0.9	65	4.1	-3.7	-1.7	144	1.4	-0.8	1.1	143	5.0	-3.0	4.0	93	6.8	-6.8	0.3
16	—	—	—	—	68	5.1	-4.7	-1.9	82	2.8	-2.8	-0.4	98	4.2	-4.2	0.6	115	2.1	-1.9	0.9	147	6.6	-3.6	5.5	95	4.7	-4.7	0.4
17	—	—	—	—	78	4.4	-4.3	-0.9	97	1.7	-1.7	0.2	92	2.8	-2.8	0.1	140	2.3	-1.5	1.8	164	5.3	-1.5	5.1	94	5.9	-5.9	0.4
18	—	—	—	—	78	4.0	-3.9	-0.8	92	2.5	-2.5	0.1	90	2.2	-2.2	0.0	185	2.3	0.2	2.3	178	6.7	-0.2	6.7	87	6.7	-6.7	-0.4
19	—	—	—	—	69	5.0	-4.7	-1.8	61	2.1	-1.8	-1.0	62	2.1	-1.9	-1.0	229	2.9	2.2	1.9	187	7.9	1.0	7.8	136	3.5	-2.4	2.5
20	—	—	—	—	61	4.8	-4.2	-2.3	60	3.2	-2.8	-1.6	84	1.8	-1.8	-0.2	212	3.8	2.0	3.2	177	8.3	-0.4	8.3	151	2.9	-1.4	2.5
21	—	—	—	—	69	6.3	-5.9	-2.3	60	4.0	-3.5	-2.0	58	3.6	-3.1	-1.9	191	3.3	0.6	3.2	183	8.2	0.5	8.2	311	1.1	0.8	-0.7
22	—	—	—	—	69	6.7	-6.3	-2.4	72	2.6	-2.5	-0.8	81	3.0	-3.0	-0.5	241	3.7	3.2	1.8	179	8.7	-0.1	8.7	121	4.4	-3.8	2.3
23	—	—	—	—	73	7.4	-7.1	-2.2	93	3.6	-3.6	0.2	68	0.5	-0.5	-0.2	239	2.9	2.5	1.5	209	9.7	4.7	8.5	114	2.0	-1.8	0.8
24	—	—	—	—	75	6.2	-6.0	-1.6	101	3.2	-3.1	0.6	72	2.6	-2.5	-0.8	207	2.9	1.3	2.6	216	8.1	4.8	6.5	117	3.5	-3.1	1.6
25	—	—	—	—	68	6.1	-5.6	-2.3	81	3.0	-3.0	-0.5	69	4.3	-4.0	-1.5	243	2.2	2.0	1.0	197	5.0	1.5	4.8	193	1.8	0.4	1.8
26	—	—	—	—	66	5.2	-4.8	-2.1	83	1.6	-1.6	-0.2	49	3.7	-2.8	-2.4	279	1.8	1.8	-0.3	196	6.3	1.7	6.1	60	3.2	-2.8	-1.6
27	—	—	—	—	64	6.4	-5.8	-2.8	76	3.3	-3.2	-0.8	59	4.9	-4.2	-2.5	278	1.4	1.4	-0.2	190	6.4	1.1	6.3	135	0.6	-0.4	0.4
28	—	—	—	—	62	6.0	-5.3	-2.8	80	2.3	-2.3	-0.4	60	4.3	-3.7	-2.1	267	2.0	2.0	0.1	190	6.5	1.1	6.4	122	1.5	-1.3	0.8
29	—	—	—	—	80	6.0	-5.9	-1.0	72	3.2	-3.0	-1.0	56	4.5	-3.7	-2.5	252	2.2	2.1	0.7	196	8.7	2.4	8.4	68	3.5	-3.3	-1.3
30	—	—	—	—	70	6.9	-6.5	-2.4	80	4.2	-4.1	-0.7	63	6.3	-5.6	-2.8	270	1.6	1.6	0.0	194	8.5	2.0	8.3	154	3.4	-1.5	3.1

Daily Normals of Upper Air Winds (1971-2000)

BANGLORE **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	72	6.7	-6.4	-2.1	79	3.6	-3.5	-0.7	67	4.9	-4.5	-1.9	249	1.9	1.8	0.7	197	6.2	1.8	5.9	100	2.7	-2.7	0.5
2	—	—	—	—	82	6.9	-6.8	-0.9	99	4.4	-4.3	0.7	93	5.0	-5.0	0.3	230	3.0	2.3	1.9	209	9.0	4.4	7.8	117	0.7	-0.6	0.3
3	—	—	—	—	84	6.3	-6.3	-0.7	103	6.4	-6.2	1.4	76	5.9	-5.7	-1.4	248	3.1	2.9	1.2	195	8.8	2.2	8.5	52	3.7	-2.9	-2.3
4	—	—	—	—	81	8.1	-8.0	-1.3	84	4.4	-4.4	-0.5	65	4.1	-3.7	-1.7	243	3.3	2.9	1.5	202	7.9	2.9	7.3	105	2.7	-2.6	0.7
5	—	—	—	—	63	6.8	-6.1	-3.1	61	4.1	-3.6	-2.0	66	4.5	-4.1	-1.8	239	2.3	2.0	1.2	218	5.5	3.4	4.3	93	5.2	-5.2	0.3
6	—	—	—	—	69	6.3	-5.9	-2.3	76	5.4	-5.2	-1.3	56	3.7	-3.1	-2.1	281	0.5	0.5	-0.1	202	7.5	2.8	7.0	97	2.6	-2.6	0.3
7	—	—	—	—	81	8.1	-8.0	-1.3	67	4.7	-4.3	-1.8	59	4.4	-3.8	-2.3	273	1.9	1.9	-0.1	219	5.7	3.6	4.4	100	5.4	-5.3	0.9
8	—	—	—	—	78	5.8	-5.7	-1.2	76	4.2	-4.1	-1.0	88	2.3	-2.3	-0.1	267	5.2	5.2	0.3	205	7.5	3.2	6.8	90	2.6	-2.6	0.0
9	—	—	—	—	78	6.7	-6.6	-1.4	97	4.9	-4.9	0.6	65	2.9	-2.6	-1.2	272	2.6	2.6	-0.1	186	7.1	0.8	7.1	90	0.8	-0.8	0.0
10	—	—	—	—	84	6.3	-6.3	-0.7	102	3.9	-3.8	0.8	99	1.2	-1.2	0.2	234	3.1	2.5	1.8	209	7.9	3.9	6.9	119	2.9	-2.5	1.4
11	—	—	—	—	80	7.4	-7.3	-1.3	98	4.9	-4.9	0.7	79	4.4	-4.3	-0.8	205	2.3	1.0	2.1	185	8.2	0.7	8.2	113	4.9	-4.5	1.9
12	—	—	—	—	82	7.5	-7.4	-1.0	90	5.8	-5.8	0.0	88	3.2	-3.2	-0.1	207	5.9	2.7	5.2	203	8.6	3.3	7.9	111	7.0	-6.5	2.5
13	—	—	—	—	84	8.2	-8.2	-0.8	99	4.6	-4.5	0.7	112	3.5	-3.3	1.3	209	4.6	2.2	4.0	198	8.9	2.8	8.4	171	1.8	-0.3	1.8
14	—	—	—	—	85	7.7	-7.7	-0.7	91	4.1	-4.1	0.1	101	2.0	-2.0	0.4	272	5.0	5.0	-0.2	214	12.1	6.8	10.0	245	3.8	3.4	1.6
15	—	—	—	—	82	8.1	-8.0	-1.1	82	3.5	-3.5	-0.5	85	2.5	-2.5	-0.2	238	5.4	4.6	2.9	233	7.2	5.8	4.3	97	4.8	-4.8	0.6
16	—	—	—	—	86	8.0	-8.0	-0.6	104	3.8	-3.7	0.9	95	3.3	-3.3	0.3	224	4.2	2.9	3.0	214	8.9	4.9	7.4	351	0.6	0.1	-0.6
17	—	—	—	—	89	8.0	-8.0	-0.1	86	3.9	-3.9	-0.3	100	2.3	-2.3	0.4	248	6.1	5.7	2.3	215	9.7	5.5	8.0	174	2.0	-0.2	2.0
18	—	—	—	—	93	6.7	-6.7	0.3	96	3.1	-3.1	0.3	61	2.9	-2.5	-1.4	264	7.0	7.0	0.7	224	11.1	7.7	8.0	297	5.3	4.7	-2.4
19	—	—	—	—	83	6.4	-6.3	-0.8	79	4.1	-4.0	-0.8	81	3.8	-3.8	-0.6	279	5.4	5.3	-0.8	222	9.8	6.5	7.3	265	3.7	3.7	0.3
20	—	—	—	—	83	7.7	-7.6	-1.0	86	4.9	-4.9	-0.3	75	2.7	-2.6	-0.7	280	5.4	5.3	-0.9	252	10.3	9.8	3.2	269	4.0	4.0	0.1
21	—	—	—	—	86	6.9	-6.9	-0.5	92	3.7	-3.7	0.1	55	4.4	-3.6	-2.5	293	3.6	3.3	-1.4	241	6.8	5.9	3.3	256	4.2	4.1	1.0
22	—	—	—	—	84	7.1	-7.1	-0.8	88	4.9	-4.9	-0.2	75	4.7	-4.5	-1.2	279	3.2	3.2	-0.5	246	8.9	8.1	3.6	241	1.0	0.9	0.5
23	—	—	—	—	84	7.2	-7.2	-0.7	85	4.9	-4.9	-0.4	63	3.0	-2.7	-1.4	264	6.2	6.2	0.6	239	9.6	8.3	4.9	206	4.1	1.8	3.7
24	—	—	—	—	91	7.1	-7.1	0.1	82	4.9	-4.8	-0.7	76	1.6	-1.6	-0.4	253	6.9	6.6	2.0	233	10.1	8.0	6.1	239	6.2	5.3	3.2
25	—	—	—	—	89	5.9	-5.9	-0.1	80	2.9	-2.9	-0.5	360	1.4	0.0	-1.4	263	6.2	6.1	0.8	236	10.1	8.3	5.7	213	2.7	1.5	2.3
26	—	—	—	—	86	5.5	-5.5	-0.4	65	2.9	-2.6	-1.2	53	0.5	-0.4	-0.3	269	9.1	9.1	0.1	250	11.3	10.6	3.8	280	3.5	3.4	-0.6
27	—	—	—	—	91	6.8	-6.8	0.1	80	3.9	-3.8	-0.7	104	1.6	-1.6	0.4	246	4.8	4.4	2.0	245	8.4	7.6	3.5	250	3.0	2.8	1.0
28	—	—	—	—	86	6.6	-6.6	-0.5	105	4.2	-4.1	1.1	75	2.4	-2.3	-0.6	296	2.5	2.3	-1.1	232	8.1	6.4	5.0	210	1.4	0.7	1.2
29	—	—	—	—	93	6.1	-6.1	0.3	107	3.0	-2.9	0.9	53	1.5	-1.2	-0.9	254	9.7	9.3	2.7	241	13.9	12.1	6.8	210	2.0	1.0	1.7
30	—	—	—	—	86	6.4	-6.4	-0.5	98	3.7	-3.7	0.5	81	1.9	-1.9	-0.3	262	7.8	7.7	1.1	238	13.4	11.4	7.0	138	2.8	-1.9	2.1
31	—	—	—	—	95	5.5	-5.5	0.5	104	3.0	-2.9	0.7	106	0.7	-0.7	0.2	278	7.1	7.0	-1.0	248	10.8	10.0	4.1	261	0.6	0.6	0.1

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	81	3.1	-3.1	-0.5	292	2.2	2.0	-0.8	283	8.8	8.6	-2.0	272	17.3	17.3	-0.7	280	29.0	28.6	-5.0	253	35.0	33.5	10.0	256	27.2	26.4	6.7
2	90	1.6	-1.6	0.0	282	3.0	2.9	-0.6	279	8.2	8.1	-1.3	271	17.9	17.9	-0.3	249	30.5	28.5	10.9	261	44.6	44.0	7.1	—	—	—	—
3	12	1.4	-0.3	-1.4	283	2.8	2.7	-0.6	270	7.5	7.5	0.0	285	17.7	17.1	-4.6	277	38.2	37.9	-4.7	274	42.5	42.4	-2.6	270	24.3	24.3	-0.2
4	78	1.4	-1.4	-0.3	280	2.8	2.8	-0.5	291	8.2	7.7	-2.9	276	17.3	17.2	-1.9	276	41.9	41.7	-4.5	281	46.9	46.1	-8.8	283	25.7	25.0	-5.8
5	92	2.6	-2.6	0.1	260	2.2	2.2	0.4	279	8.6	8.5	-1.4	276	16.3	16.2	-1.8	277	36.3	36.0	-4.4	290	42.3	39.8	-14.4	284	36.0	34.9	-8.7
6	126	2.2	-1.8	1.3	281	3.6	3.5	-0.7	278	7.9	7.8	-1.1	270	16.9	16.9	0.0	271	37.9	37.9	-0.9	274	40.5	40.4	-2.6	244	19.0	17.1	8.3
7	68	1.1	-1.0	-0.4	264	3.1	3.1	0.3	271	9.6	9.6	-0.1	269	17.2	17.2	0.4	262	38.0	37.7	5.1	275	42.4	42.2	-3.9	276	37.0	36.8	-3.9
8	90	1.8	-1.8	0.0	275	2.1	2.1	-0.2	262	9.9	9.8	1.3	266	22.8	22.7	1.7	266	37.1	37.0	2.5	268	42.9	42.9	1.6	248	22.9	21.3	8.5
9	148	1.3	-0.7	1.1	268	2.4	2.4	0.1	272	9.4	9.4	-0.3	272	20.3	20.3	-0.6	263	32.6	32.3	4.2	262	40.0	39.6	5.7	238	17.0	14.4	9.0
10	112	3.1	-2.9	1.2	258	2.5	2.4	0.5	272	8.4	8.4	-0.3	275	20.7	20.6	-1.9	271	32.6	32.6	-0.8	278	40.0	39.6	-5.5	265	25.0	24.9	2.2
11	97	2.3	-2.3	0.3	262	3.0	3.0	0.4	271	8.3	8.3	-0.1	270	21.0	21.0	-0.1	273	33.4	33.4	-1.8	278	41.3	40.9	-5.9	274	38.0	37.9	-2.7
12	129	2.7	-2.1	1.7	244	3.7	3.3	1.6	275	12.0	11.9	-1.1	276	22.3	22.2	-2.2	271	40.7	40.7	-0.7	269	39.4	39.4	0.4	261	37.0	36.5	5.8
13	36	1.4	-0.8	-1.1	276	2.8	2.8	-0.3	278	10.9	10.8	-1.6	275	19.5	19.4	-1.8	271	38.1	38.1	-0.9	269	39.0	39.0	0.4	279	39.0	38.5	-6.1
14	129	1.4	-1.1	0.9	254	4.1	3.9	1.1	274	10.4	10.4	-0.8	276	20.8	20.7	-2.2	269	35.8	35.8	0.5	268	41.6	41.6	1.3	281	27.0	26.5	-5.2
15	194	2.9	0.7	2.8	249	5.0	4.7	1.8	254	11.7	11.2	3.3	265	23.3	23.2	2.1	274	36.3	36.2	-2.6	264	51.0	50.8	5.0	246	38.0	34.7	15.5
16	13	1.7	-0.4	-1.7	293	3.3	3.0	-1.3	270	12.5	12.5	0.1	277	24.3	24.1	-2.9	273	39.5	39.4	-2.3	263	42.9	42.6	5.3	—	—	—	—
17	46	4.9	-3.5	-3.4	285	2.8	2.7	-0.7	276	10.7	10.6	-1.2	280	21.7	21.3	-3.9	273	40.9	40.9	-2.0	286	40.6	39.1	-11.0	290	35.9	33.7	-12.4
18	65	3.8	-3.5	-1.6	266	4.6	4.6	0.3	270	9.7	9.7	0.0	269	19.7	19.7	0.4	276	40.2	40.0	-4.3	271	35.9	35.9	-0.6	279	26.5	26.2	-4.0
19	141	0.6	-0.4	0.5	259	4.8	4.7	0.9	272	11.4	11.4	-0.3	274	23.9	23.8	-1.7	279	40.4	39.9	-6.4	259	49.1	48.3	9.0	264	30.2	30.0	3.2
20	32	1.3	-0.7	-1.1	293	5.0	4.6	-2.0	273	11.1	11.1	-0.6	276	25.3	25.2	-2.7	270	41.6	41.6	-0.1	267	41.3	41.2	2.4	242	17.0	15.0	8.0
21	47	2.1	-1.5	-1.4	295	3.1	2.8	-1.3	281	10.6	10.4	-2.1	280	23.4	23.1	-3.9	270	38.6	38.6	0.1	262	39.9	39.5	5.4	236	15.0	12.4	8.4
22	88	3.5	-3.5	-0.1	254	3.5	3.4	1.0	276	11.5	11.4	-1.1	277	20.9	20.7	-2.7	261	36.3	35.8	5.7	250	45.4	42.6	15.7	—	—	—	—
23	94	1.5	-1.5	0.1	304	2.7	2.2	-1.5	277	10.6	10.5	-1.3	276	23.3	23.2	-2.6	257	35.4	34.4	8.2	248	36.4	33.8	13.6	259	9.8	9.6	1.9
24	43	4.1	-2.8	-3.0	309	2.7	2.1	-1.7	280	10.7	10.5	-1.9	282	21.2	20.8	-4.3	263	29.2	29.0	3.8	253	29.5	28.3	8.4	258	16.5	16.2	3.3
25	92	2.7	-2.7	0.1	282	3.5	3.4	-0.7	281	8.9	8.7	-1.7	276	21.4	21.3	-2.3	272	22.7	22.7	-0.6	264	23.8	23.7	2.3	281	23.9	23.5	-4.5
26	120	3.0	-2.6	1.5	285	3.4	3.3	-0.9	272	9.0	9.0	-0.3	276	18.1	18.0	-1.8	273	34.3	34.3	-1.8	270	30.0	30.0	0.1	263	15.0	14.9	1.9
27	70	2.3	-2.2	-0.8	285	3.1	3.0	-0.8	280	8.9	8.8	-1.6	282	17.8	17.4	-3.8	270	29.8	29.8	-0.2	262	41.1	40.7	5.4	267	27.0	27.0	1.4
28	82	1.5	-1.5	-0.2	293	3.9	3.6	-1.5	262	10.2	10.1	1.5	271	17.2	17.2	-0.3	255	32.4	31.3	8.4	259	36.9	36.3	6.8	249	26.0	24.3	9.3
29	76	2.1	-2.0	-0.5	277	4.1	4.1	-0.5	270	10.8	10.8	0.0	274	22.9	22.8	-1.7	273	36.9	36.8	-2.0	263	40.7	40.4	4.7	273	29.0	29.0	-1.5
30	57	2.0	-1.7	-1.1	270	4.4	4.4	0.0	285	9.7	9.4	-2.5	287	21.3	20.4	-6.2	281	40.1	39.3	-7.8	276	46.2	46.0	-4.5	262	27.0	26.7	3.8
31	162	0.3	-0.1	0.3	277	4.0	4.0	-0.5	275	10.1	10.1	-0.9	279	22.7	22.4	-3.6	280	35.5	35.0	-6.0	273	39.7	39.6	-2.4	283	5.9	5.8	-1.3

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	57	2.7	-2.3	-1.5	283	4.7	4.6	-1.1	266	12.4	12.4	0.8	284	23.6	22.9	-5.9	276	38.6	38.4	-4.0	269	37.6	37.6	0.5	—	—	—	—
2	82	3.7	-3.7	-0.5	299	3.1	2.7	-1.5	280	10.2	10.0	-1.8	276	23.4	23.3	-2.4	276	31.1	30.9	-3.3	281	37.9	37.1	-7.5	278	17.2	17.0	-2.3
3	63	2.2	-2.0	-1.0	287	3.1	3.0	-0.9	280	8.8	8.7	-1.5	280	21.0	20.7	-3.7	283	30.1	29.4	-6.6	274	30.5	30.4	-2.0	272	22.6	22.6	-0.9
4	93	3.4	-3.4	0.2	270	2.8	2.8	0.0	290	9.6	9.0	-3.2	284	20.4	19.8	-4.8	286	32.7	31.5	-8.9	284	36.9	35.8	-8.9	281	19.9	19.6	-3.7
5	35	1.6	-0.9	-1.3	295	4.4	4.0	-1.9	274	10.5	10.5	-0.8	286	20.0	19.2	-5.5	273	32.8	32.8	-1.8	281	38.6	37.9	-7.2	290	15.5	14.5	-5.4
6	82	3.0	-3.0	-0.4	324	3.1	1.8	-2.5	282	8.0	7.8	-1.7	278	18.4	18.2	-2.4	263	26.2	26.0	3.4	274	33.6	33.5	-2.1	285	20.7	20.0	-5.5
7	59	2.6	-2.2	-1.3	254	1.8	1.7	0.5	274	9.3	9.3	-0.6	281	17.6	17.3	-3.3	267	30.4	30.4	1.4	271	30.0	30.0	-0.5	300	12.2	10.6	-6.1
8	140	1.6	-1.0	1.2	272	3.2	3.2	-0.1	280	8.1	8.0	-1.4	275	18.8	18.7	-1.6	274	28.8	28.7	-2.2	284	32.9	32.0	-7.8	272	13.0	13.0	-0.5
9	36	2.7	-1.6	-2.2	303	2.7	2.3	-1.5	266	9.2	9.2	0.6	278	20.6	20.4	-2.8	278	39.0	38.6	-5.5	275	43.6	43.4	-4.1	282	42.0	41.1	-8.7
10	43	2.1	-1.4	-1.5	286	2.9	2.8	-0.8	275	9.7	9.7	-0.8	281	19.9	19.5	-3.9	273	32.4	32.4	-1.8	262	31.6	31.3	4.5	268	12.8	12.8	0.5
11	69	2.2	-2.1	-0.8	293	2.8	2.6	-1.1	272	9.5	9.5	-0.4	280	19.7	19.4	-3.3	277	33.1	32.8	-4.1	269	32.2	32.2	0.3	272	21.7	21.7	-0.7
12	37	3.1	-1.9	-2.5	291	3.6	3.4	-1.3	266	7.9	7.9	0.5	276	18.3	18.2	-1.8	280	29.7	29.3	-5.1	283	37.8	36.9	-8.4	265	21.6	21.5	1.7
13	61	2.1	-1.8	-1.0	270	1.8	1.8	0.0	260	10.0	9.9	1.7	272	20.1	20.1	-0.6	275	34.2	34.1	-2.9	291	32.5	30.3	-11.7	248	14.0	13.0	5.2
14	70	1.5	-1.4	-0.5	287	3.4	3.3	-1.0	251	11.1	10.5	3.6	266	22.3	22.3	1.4	269	39.6	39.6	0.6	252	41.2	39.2	12.7	273	18.4	18.4	-1.1
15	349	1.5	0.3	-1.5	289	3.6	3.4	-1.2	258	11.0	10.8	2.2	270	22.4	22.4	0.0	272	40.7	40.7	-1.5	264	50.9	50.6	5.6	259	29.9	29.4	5.7
16	330	0.8	0.4	-0.7	269	5.6	5.6	0.1	264	12.7	12.6	1.4	275	24.6	24.5	-2.0	279	41.0	40.5	-6.3	265	37.5	37.4	3.1	261	25.4	25.1	4.2
17	321	2.2	1.4	-1.7	259	4.8	4.7	0.9	262	12.3	12.2	1.7	268	24.4	24.4	0.9	271	44.8	44.8	-0.5	252	45.5	43.4	13.7	253	25.0	23.9	7.3
18	324	1.4	0.8	-1.1	275	5.0	5.0	-0.4	260	11.6	11.4	2.1	267	26.2	26.2	1.4	272	41.7	41.7	-1.7	260	39.2	38.6	6.8	249	29.0	27.0	10.5
19	342	0.9	0.3	-0.9	268	3.0	3.0	0.1	271	12.4	12.4	-0.3	275	25.2	25.1	-2.0	275	41.0	40.9	-3.4	264	40.1	39.9	4.4	268	38.3	38.3	1.5
20	45	2.0	-1.4	-1.4	244	3.7	3.3	1.6	262	10.5	10.4	1.4	269	24.1	24.1	0.3	276	41.1	40.9	-4.0	273	49.8	49.7	-2.7	254	48.0	46.1	13.2
21	83	1.6	-1.6	-0.2	261	3.8	3.8	0.6	270	10.3	10.3	0.0	280	22.6	22.3	-3.9	284	44.7	43.4	-10.7	263	41.8	41.5	5.1	262	19.0	18.8	2.6
22	30	2.4	-1.2	-2.1	302	4.1	3.5	-2.2	276	10.8	10.7	-1.1	279	23.9	23.6	-3.8	283	41.5	40.5	-9.0	284	44.8	43.6	-10.5	—	—	—	—
23	64	4.3	-3.9	-1.9	325	1.6	0.9	-1.3	269	10.4	10.4	0.2	275	21.4	21.3	-1.9	278	38.1	37.7	-5.2	285	35.6	34.4	-9.2	291	28.5	26.7	-10.0
24	117	1.1	-1.0	0.5	263	3.2	3.2	0.4	260	10.5	10.3	1.9	272	21.1	21.1	-0.8	277	34.4	34.2	-3.9	282	34.8	34.0	-7.4	282	25.8	25.3	-5.3
25	312	3.0	2.2	-2.0	275	3.8	3.8	-0.3	276	8.7	8.7	-0.9	272	21.2	21.2	-0.6	271	30.4	30.4	-0.5	270	39.0	39.0	0.1	276	24.9	24.8	-2.7
26	37	2.5	-1.5	-2.0	285	3.5	3.4	-0.9	274	9.9	9.9	-0.7	277	19.6	19.5	-2.3	273	33.6	33.6	-1.8	266	40.0	39.9	2.5	256	17.1	16.6	4.1
27	140	1.7	-1.1	1.3	286	4.4	4.2	-1.2	275	10.1	10.1	-0.9	278	20.2	20.0	-2.7	270	35.7	35.7	0.2	263	45.4	45.0	5.7	275	9.0	9.0	-0.8
28	45	1.1	-0.8	-0.8	265	3.8	3.8	0.3	274	10.5	10.5	-0.8	282	18.9	18.5	-3.9	276	33.8	33.6	-3.8	277	47.5	47.1	-5.9	—	—	—	—
29	273	2.2	2.2	-0.1	260	3.6	3.5	0.6	269	9.2	9.2	0.1	279	21.1	20.8	-3.4	269	32.5	32.5	0.6	242	35.0	30.9	16.5	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	15	2.4	-0.6	-2.3	294	4.5	4.1	-1.8	272	11.1	11.1	-0.3	275	20.6	20.5	-1.9	261	37.2	36.7	5.9	270	38.0	38.0	0.0	273	33.1	33.1	-1.8
2	27	1.8	-0.8	-1.6	298	2.4	2.1	-1.1	274	10.2	10.2	-0.7	275	18.4	18.3	-1.5	264	35.0	34.8	3.5	265	38.1	37.9	3.4	265	19.9	19.8	1.7
3	68	3.2	-3.0	-1.2	319	3.7	2.4	-2.8	279	9.1	9.0	-1.5	277	17.6	17.5	-2.1	266	33.0	32.9	2.2	262	40.4	40.1	5.3	234	24.5	19.7	14.5
4	106	2.2	-2.1	0.6	295	2.9	2.6	-1.2	278	9.1	9.0	-1.2	276	17.7	17.6	-1.8	265	36.5	36.3	3.4	263	42.0	41.7	4.8	234	21.9	17.7	12.9
5	350	1.1	0.2	-1.1	282	3.3	3.2	-0.7	266	9.2	9.2	0.6	275	18.6	18.5	-1.5	272	31.3	31.3	-1.1	266	30.9	30.8	2.2	—	—	—	—
6	19	2.1	-0.7	-2.0	302	2.2	1.9	-1.2	263	9.7	9.6	1.1	276	18.0	17.9	-1.9	271	34.2	34.2	-0.3	274	36.7	36.6	-2.4	264	24.3	24.2	2.5
7	356	1.3	0.1	-1.3	272	2.7	2.7	-0.1	258	9.7	9.5	2.1	278	15.6	15.5	-2.1	275	31.0	30.9	-2.6	268	38.2	38.2	1.1	286	29.8	28.6	-8.3
8	18	3.8	-1.2	-3.6	301	2.9	2.5	-1.5	266	8.1	8.1	0.5	276	17.5	17.4	-1.8	273	27.3	27.3	-1.2	266	31.4	31.3	2.4	284	15.1	14.7	-3.6
9	72	3.9	-3.7	-1.2	283	2.3	2.2	-0.5	276	9.9	9.8	-1.1	275	17.0	16.9	-1.6	269	29.2	29.2	0.3	259	39.8	39.0	7.7	259	29.5	28.9	5.8
10	63	1.1	-1.0	-0.5	260	3.6	3.5	0.6	263	9.1	9.0	1.1	278	15.4	15.3	-2.1	269	25.7	25.7	0.6	263	36.6	36.3	4.4	276	19.2	19.1	-2.0
11	81	0.6	-0.6	-0.1	276	3.6	3.6	-0.4	268	9.6	9.6	0.4	269	17.2	17.2	0.2	268	31.1	31.1	1.3	274	30.0	29.9	-2.0	274	24.3	24.2	-1.9
12	284	1.6	1.6	-0.4	294	6.1	5.6	-2.5	269	10.9	10.9	0.1	281	17.7	17.4	-3.4	279	24.7	24.4	-4.0	287	43.0	41.2	-12.3	261	38.0	37.5	5.9
13	313	3.7	2.7	-2.5	285	5.8	5.6	-1.5	267	12.5	12.5	0.6	275	17.2	17.1	-1.6	273	30.1	30.1	-1.7	272	35.4	35.4	-1.2	—	—	—	—
14	343	2.8	0.8	-2.7	304	5.0	4.2	-2.8	277	9.7	9.6	-1.2	279	18.3	18.1	-3.0	279	23.6	23.3	-3.5	279	35.0	34.6	-5.3	271	35.1	35.1	-0.5
15	342	4.6	1.4	-4.4	306	5.2	4.2	-3.0	272	10.8	10.8	-0.4	278	17.3	17.1	-2.3	273	29.1	29.1	-1.5	278	32.6	32.3	-4.4	269	17.7	17.7	0.3
16	61	3.8	-3.3	-1.8	321	1.4	0.9	-1.1	263	9.2	9.1	1.1	281	16.4	16.1	-3.2	276	27.6	27.5	-2.7	265	31.0	30.9	2.9	257	29.3	28.5	6.8
17	4	1.5	-0.1	-1.5	288	4.6	4.4	-1.4	266	10.3	10.3	0.7	278	17.9	17.7	-2.6	282	23.0	22.5	-4.6	279	30.4	30.0	-4.7	268	23.3	23.3	0.8
18	292	2.9	2.7	-1.1	290	5.8	5.4	-2.0	259	12.6	12.4	2.3	274	17.9	17.9	-1.1	281	22.7	22.2	-4.5	274	31.7	31.6	-2.2	263	23.9	23.7	3.1
19	328	2.6	1.4	-2.2	306	5.7	4.6	-3.3	266	10.8	10.8	0.7	276	17.5	17.4	-1.8	268	28.3	28.3	1.0	270	34.2	34.2	0.0	276	28.8	28.7	-2.9
20	337	3.3	1.3	-3.0	300	6.6	5.7	-3.3	266	11.7	11.7	0.8	273	18.9	18.9	-0.9	282	30.4	29.7	-6.5	285	33.7	32.5	-8.8	288	39.2	37.3	-12.0
21	7	0.8	-0.1	-0.8	291	6.7	6.3	-2.4	271	10.4	10.4	-0.1	276	17.1	17.0	-1.7	284	22.6	21.9	-5.4	295	31.9	28.9	-13.6	297	23.8	21.2	-10.8
22	319	4.0	2.6	-3.0	296	7.2	6.5	-3.2	263	11.1	11.0	1.3	271	18.8	18.8	-0.3	276	29.2	29.0	-3.2	293	33.0	30.4	-12.9	302	12.8	10.9	-6.7
23	37	4.8	-2.9	-3.8	314	5.9	4.2	-4.1	264	11.6	11.5	1.2	274	19.6	19.5	-1.5	282	27.6	27.0	-5.8	280	27.9	27.5	-4.7	293	12.0	11.1	-4.6
24	30	4.2	-2.1	-3.6	308	4.1	3.2	-2.5	269	10.6	10.6	0.2	276	19.9	19.8	-2.2	278	29.3	29.0	-4.2	270	35.0	35.0	0.1	262	15.9	15.7	2.3
25	342	2.3	0.7	-2.2	309	3.6	2.8	-2.3	257	8.2	8.0	1.9	276	13.9	13.8	-1.4	275	28.8	28.7	-2.4	271	36.2	36.2	-0.5	276	31.3	31.1	-3.1
26	292	2.4	2.2	-0.9	314	3.9	2.8	-2.7	267	8.9	8.9	0.4	271	18.3	18.3	-0.3	272	28.4	28.4	-1.1	280	38.5	37.9	-6.9	268	40.0	40.0	1.4
27	21	2.6	-0.9	-2.4	302	4.9	4.1	-2.6	275	10.1	10.1	-0.9	287	16.9	16.1	-5.0	281	25.2	24.7	-4.8	289	37.4	35.4	-12.2	288	40.0	38.0	-12.4
28	67	2.3	-2.1	-0.9	315	3.1	2.2	-2.2	286	7.6	7.3	-2.1	284	14.4	14.0	-3.5	273	22.3	22.3	-1.3	271	38.6	38.6	-0.6	266	22.5	22.4	1.5
29	302	0.9	0.8	-0.5	296	4.1	3.7	-1.8	269	6.5	6.5	0.1	274	14.6	14.6	-0.9	279	28.8	28.5	-4.3	267	35.5	35.4	2.0	260	9.0	8.9	1.6
30	60	3.0	-2.6	-1.5	311	3.8	2.9	-2.5	269	8.5	8.5	0.1	272	14.2	14.2	-0.5	272	24.6	24.6	-0.9	288	30.0	28.5	-9.3	278	28.9	28.6	-4.0
31	6	3.0	-0.3	-3.0	308	3.1	2.4	-1.9	261	8.1	8.0	1.2	266	15.3	15.3	1.0	269	28.3	28.3	0.5	277	30.5	30.3	-3.6	301	15.9	13.7	-8.1

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	52	4.8	-3.8	-3.0	355	2.3	0.2	-2.3	269	7.6	7.6	0.1	272	16.6	16.6	-0.7	272	27.0	27.0	-0.9	266	34.8	34.7	2.3	260	18.4	18.1	3.1
2	42	3.8	-2.5	-2.8	337	2.5	1.0	-2.3	265	7.3	7.3	0.7	266	17.5	17.5	1.3	268	29.8	29.8	0.9	262	37.6	37.2	5.5	303	30.0	25.2	-16.3
3	57	4.3	-3.6	-2.3	312	2.4	1.8	-1.6	262	10.3	10.2	1.4	277	17.3	17.2	-2.2	266	27.8	27.7	1.8	274	32.6	32.5	-2.4	275	27.9	27.8	-2.6
4	71	5.3	-5.0	-1.7	308	4.1	3.2	-2.5	254	11.9	11.5	3.2	267	17.5	17.5	0.8	266	31.1	31.0	2.1	265	44.4	44.2	3.7	—	—	—	—
5	47	1.8	-1.3	-1.2	313	4.4	3.2	-3.0	265	10.4	10.4	0.9	283	15.1	14.7	-3.5	280	26.2	25.8	-4.6	285	36.3	35.1	-9.2	287	13.4	12.8	-4.0
6	249	0.9	0.8	0.3	290	4.1	3.9	-1.4	258	10.9	10.7	2.3	279	14.1	13.9	-2.1	282	26.5	25.9	-5.6	282	33.8	33.1	-6.9	259	26.3	25.8	5.1
7	315	1.7	1.2	-1.2	312	4.7	3.5	-3.2	275	9.4	9.4	-0.8	276	14.4	14.3	-1.4	280	27.7	27.2	-5.0	267	35.7	35.7	1.8	292	17.0	15.8	-6.4
8	311	5.3	4.0	-3.5	302	7.0	5.9	-3.7	260	9.1	9.0	1.6	275	14.8	14.7	-1.3	272	28.9	28.9	-0.8	266	33.1	33.0	2.3	—	—	—	—
9	290	7.0	6.6	-2.4	296	6.0	5.4	-2.6	259	10.8	10.6	2.1	267	16.3	16.3	0.8	269	26.0	26.0	0.5	261	30.8	30.5	4.6	247	37.1	34.1	14.5
10	306	2.7	2.2	-1.6	313	5.2	3.8	-3.6	262	8.6	8.5	1.2	276	15.5	15.4	-1.7	278	25.0	24.8	-3.4	264	38.2	38.0	3.7	259	19.0	18.7	3.6
11	150	1.4	-0.7	1.2	306	2.7	2.2	-1.6	252	7.7	7.3	2.4	272	12.9	12.9	-0.5	270	23.8	23.8	-0.2	271	29.4	29.4	-0.5	—	—	—	—
12	341	1.8	0.6	-1.7	301	4.9	4.2	-2.5	257	6.9	6.7	1.6	274	14.4	14.4	-1.1	279	26.0	25.7	-3.9	267	27.8	27.8	1.6	288	9.0	8.6	-2.8
13	300	2.8	2.4	-1.4	310	5.2	4.0	-3.3	255	6.0	5.8	1.6	274	13.3	13.3	-1.0	265	24.8	24.7	2.3	256	30.0	29.1	7.3	284	25.4	24.7	-6.0
14	301	5.6	4.8	-2.9	303	4.9	4.1	-2.7	264	9.1	9.1	0.9	266	15.8	15.8	1.2	266	28.9	28.8	2.2	264	31.9	31.7	3.4	263	20.2	20.1	2.4
15	335	2.9	1.2	-2.6	308	4.4	3.5	-2.7	251	9.0	8.5	3.0	262	13.3	13.2	1.9	271	22.7	22.7	-0.4	252	32.3	30.6	10.2	254	17.8	17.1	5.0
16	300	4.0	3.5	-2.0	301	4.1	3.5	-2.1	265	9.2	9.2	0.8	280	11.5	11.3	-1.9	267	21.4	21.4	1.0	255	30.5	29.5	7.7	241	13.0	11.4	6.2
17	342	3.6	1.1	-3.4	325	5.8	3.3	-4.8	258	8.3	8.1	1.7	279	12.8	12.7	-1.9	265	23.0	22.9	2.1	266	34.4	34.3	2.5	259	19.2	18.8	3.7
18	339	4.2	1.5	-3.9	318	5.1	3.4	-3.8	246	7.3	6.7	3.0	279	12.7	12.5	-2.0	268	20.8	20.8	0.6	257	22.7	22.1	5.0	312	4.7	3.5	-3.1
19	321	5.3	3.3	-4.1	330	4.6	2.3	-4.0	256	5.9	5.7	1.4	273	12.9	12.9	-0.7	260	25.6	25.2	4.3	242	29.1	25.8	13.5	236	11.8	9.8	6.5
20	300	7.4	6.4	-3.7	318	5.0	3.3	-3.7	262	6.0	5.9	0.8	279	12.0	11.8	-1.9	269	22.6	22.6	0.3	252	27.5	26.2	8.3	238	13.6	11.5	7.3
21	319	5.5	3.6	-4.1	325	5.8	3.3	-4.8	253	6.3	6.0	1.8	281	10.6	10.4	-2.1	273	21.3	21.3	-1.0	252	25.6	24.3	8.0	245	10.9	9.9	4.6
22	310	4.8	3.7	-3.1	318	6.4	4.3	-4.8	252	5.4	5.1	1.7	271	10.8	10.8	-0.2	262	19.1	18.9	2.8	260	20.2	19.9	3.5	256	8.0	7.8	1.9
23	317	6.9	4.7	-5.1	314	5.9	4.3	-4.1	260	7.2	7.1	1.2	279	11.2	11.1	-1.8	270	21.4	21.4	-0.1	270	31.8	31.8	-0.2	271	10.6	10.6	-0.1
24	316	6.2	4.3	-4.4	316	6.4	4.5	-4.6	261	6.6	6.5	1.0	282	11.2	10.9	-2.4	276	20.4	20.3	-2.1	274	26.1	26.0	-1.9	261	10.8	10.7	1.7
25	300	7.0	6.1	-3.5	316	7.2	5.0	-5.2	266	5.8	5.8	0.4	284	9.2	8.9	-2.2	281	15.5	15.2	-3.0	275	21.2	21.1	-1.8	278	12.2	12.1	-1.6
26	291	8.8	8.2	-3.1	309	6.7	5.2	-4.2	260	5.1	5.0	0.9	289	8.7	8.2	-2.9	287	17.7	16.9	-5.3	274	20.3	20.3	-1.3	267	12.3	12.3	0.6
27	311	7.3	5.5	-4.8	311	7.5	5.7	-4.9	270	4.2	4.2	0.0	296	8.7	7.8	-3.8	288	16.9	16.1	-5.1	258	20.9	20.4	4.4	259	12.4	12.2	2.3
28	287	6.8	6.5	-2.0	310	5.9	4.5	-3.8	291	4.2	3.9	-1.5	301	7.4	6.4	-3.8	281	16.2	15.9	-3.1	273	21.0	21.0	-1.1	266	10.4	10.4	0.8
29	294	6.8	6.2	-2.7	326	7.6	4.3	-6.3	299	4.7	4.1	-2.3	299	8.9	7.8	-4.3	297	17.8	15.9	-8.1	294	21.3	19.4	-8.8	332	4.0	1.9	-3.5
30	301	5.5	4.7	-2.8	322	6.1	3.7	-4.8	305	3.2	2.6	-1.8	293	10.0	9.2	-3.9	281	15.9	15.6	-3.1	275	22.0	21.9	-2.1	232	8.0	6.3	4.9

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	304	6.9	5.7	-3.8	298	7.5	6.6	-3.5	282	3.5	3.4	-0.7	284	9.4	9.1	-2.3	276	19.5	19.4	-2.0	269	24.8	24.8	0.5	251	5.2	4.9	1.7
2	298	7.5	6.6	-3.5	308	7.5	5.9	-4.6	264	4.5	4.5	0.5	282	10.5	10.3	-2.2	271	20.2	20.2	-0.2	251	23.9	22.7	7.6	233	11.8	9.4	7.1
3	301	9.4	8.0	-4.9	313	7.4	5.4	-5.0	266	2.8	2.8	0.2	276	8.3	8.3	-0.8	264	19.7	19.6	2.0	257	25.8	25.2	5.7	252	21.9	20.8	6.7
4	306	6.7	5.4	-3.9	305	5.4	4.4	-3.1	281	4.3	4.2	-0.8	268	10.8	10.8	0.3	253	20.6	19.7	6.0	252	22.8	21.7	7.1	279	31.0	30.6	-4.8
5	295	6.7	6.1	-2.8	301	6.1	5.2	-3.1	287	4.5	4.3	-1.3	290	8.1	7.6	-2.7	269	20.5	20.5	0.3	259	22.7	22.3	4.3	256	10.8	10.5	2.7
6	292	3.5	3.3	-1.3	319	5.3	3.5	-4.0	290	4.9	4.6	-1.7	296	8.5	7.7	-3.7	277	18.5	18.3	-2.4	265	23.1	23.0	2.0	264	21.0	20.9	2.2
7	293	3.4	3.1	-1.3	316	6.1	4.2	-4.4	290	5.9	5.6	-2.0	309	7.7	6.0	-4.8	276	16.7	16.6	-1.7	260	24.7	24.3	4.4	287	7.8	7.5	-2.3
8	277	7.5	7.4	-0.9	308	6.6	5.2	-4.0	284	5.7	5.5	-1.4	278	8.5	8.4	-1.2	262	18.2	18.0	2.6	261	21.5	21.3	3.2	279	7.7	7.6	-1.2
9	278	6.3	6.2	-0.9	308	7.1	5.6	-4.3	288	5.5	5.2	-1.7	284	9.2	8.9	-2.3	282	18.5	18.1	-3.8	267	20.1	20.1	0.9	252	5.7	5.4	1.8
10	266	4.7	4.7	0.3	299	7.0	6.1	-3.4	271	5.0	5.0	-0.1	281	10.1	9.9	-2.0	274	22.6	22.6	-1.4	262	22.0	21.8	3.2	240	2.8	2.4	1.4
11	276	3.9	3.9	-0.4	309	4.6	3.6	-2.9	292	3.5	3.2	-1.3	290	9.0	8.5	-3.1	272	17.9	17.9	-0.7	260	24.6	24.2	4.4	241	13.2	11.6	6.3
12	290	6.4	6.0	-2.2	335	4.4	1.9	-4.0	274	1.6	1.6	-0.1	300	8.3	7.2	-4.2	280	19.0	18.7	-3.2	264	27.0	26.8	2.9	269	12.0	12.0	0.2
13	286	5.6	5.4	-1.5	307	6.0	4.8	-3.6	324	2.9	1.7	-2.3	297	7.3	6.5	-3.3	279	13.6	13.4	-2.2	263	19.0	18.9	2.2	343	3.8	1.1	-3.6
14	280	7.7	7.6	-1.3	309	7.9	6.1	-5.0	300	3.2	2.8	-1.6	302	9.3	7.9	-4.9	275	15.1	15.0	-1.4	279	14.0	13.8	-2.1	279	2.6	2.6	-0.4
15	307	4.9	3.9	-2.9	307	6.9	5.5	-4.2	295	4.7	4.2	-2.0	308	7.3	5.8	-4.5	280	11.8	11.6	-2.0	262	13.3	13.2	1.9	239	3.7	3.2	1.9
16	305	6.8	5.6	-3.9	313	7.6	5.5	-5.2	303	4.3	3.6	-2.3	300	6.7	5.8	-3.4	275	10.1	10.1	-0.9	253	12.0	11.5	3.5	265	1.2	1.2	0.1
17	287	6.7	6.4	-2.0	313	6.5	4.8	-4.4	274	4.2	4.2	-0.3	285	6.7	6.5	-1.7	273	17.0	17.0	-0.8	259	13.4	13.2	2.5	175	4.7	-0.4	4.7
18	283	7.1	6.9	-1.6	322	7.6	4.7	-6.0	295	4.7	4.3	-2.0	300	8.3	7.2	-4.2	280	16.8	16.5	-2.9	253	18.8	18.0	5.4	269	12.5	12.5	0.2
19	276	9.2	9.1	-1.0	304	7.6	6.3	-4.3	290	3.3	3.1	-1.1	290	8.1	7.6	-2.7	280	12.1	11.9	-2.1	252	16.8	15.9	5.3	262	7.7	7.6	1.1
20	277	7.3	7.2	-0.9	308	7.1	5.6	-4.3	294	3.7	3.4	-1.5	303	8.0	6.7	-4.4	283	12.1	11.8	-2.7	254	15.9	15.3	4.5	231	4.1	3.2	2.6
21	293	8.8	8.1	-3.4	322	9.2	5.7	-7.2	281	3.1	3.0	-0.6	303	6.7	5.6	-3.7	291	9.1	8.5	-3.3	265	7.5	7.5	0.6	216	3.9	2.3	3.2
22	287	6.2	5.9	-1.8	320	5.2	3.4	-4.0	305	4.7	3.9	-2.7	298	9.5	8.4	-4.5	279	11.8	11.7	-1.8	241	10.5	9.2	5.1	270	4.3	4.3	0.0
23	298	9.3	8.2	-4.3	317	9.1	6.2	-6.7	297	3.3	2.9	-1.5	303	5.5	4.6	-3.0	287	7.9	7.6	-2.3	257	11.2	10.9	2.6	184	4.5	0.3	4.5
24	296	7.6	6.9	-3.3	317	9.0	6.1	-6.6	290	5.0	4.7	-1.7	320	6.7	4.3	-5.1	287	9.5	9.1	-2.8	248	8.2	7.6	3.1	180	6.2	0.0	6.2
25	303	11.2	9.4	-6.1	312	8.6	6.4	-5.7	310	2.6	2.0	-1.7	318	6.1	4.1	-4.5	283	8.1	7.9	-1.8	248	11.1	10.3	4.1	161	3.7	-1.2	3.5
26	291	6.2	5.8	-2.2	309	8.0	6.2	-5.0	314	2.9	2.1	-2.0	323	6.6	4.0	-5.3	280	7.5	7.4	-1.3	251	6.5	6.2	2.1	145	2.9	-1.7	2.4
27	296	8.1	7.3	-3.6	313	7.2	5.3	-4.9	326	3.0	1.7	-2.5	350	4.1	0.7	-4.0	288	7.6	7.2	-2.3	259	10.1	9.9	2.0	152	4.3	-2.0	3.8
28	289	8.1	7.7	-2.6	317	8.5	5.8	-6.2	318	2.5	1.7	-1.9	304	6.5	5.4	-3.7	280	8.9	8.8	-1.5	239	12.0	10.3	6.1	189	6.7	1.1	6.6
29	282	7.6	7.4	-1.6	304	8.8	7.3	-4.9	291	2.2	2.1	-0.8	293	6.5	6.0	-2.6	260	9.4	9.2	1.7	247	10.8	9.9	4.2	129	2.6	-2.0	1.6
30	293	7.2	6.6	-2.8	311	7.3	5.5	-4.8	267	2.1	2.1	0.1	278	6.6	6.5	-0.9	261	10.8	10.7	1.7	245	13.0	11.8	5.5	131	2.0	-1.5	1.3
31	294	8.0	7.3	-3.2	308	7.3	5.7	-4.5	270	1.2	1.2	0.0	282	5.1	5.0	-1.1	272	11.4	11.4	-0.3	248	10.5	9.7	3.9	197	9.3	2.7	8.9

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	310	8.2	6.3	-5.2	322	6.2	3.8	-4.9	261	2.5	2.5	0.4	290	5.6	5.3	-1.9	257	9.2	9.0	2.1	232	11.8	9.3	7.2	138	2.4	-1.6	1.8
2	297	8.9	8.0	-4.0	319	7.6	5.0	-5.7	299	2.9	2.5	-1.4	311	4.9	3.7	-3.2	269	8.0	8.0	0.2	243	8.9	7.9	4.1	132	4.6	-3.4	3.1
3	286	8.9	8.5	-2.5	311	7.9	6.0	-5.2	303	2.0	1.7	-1.1	302	3.4	2.9	-1.8	255	6.8	6.6	1.8	228	8.4	6.3	5.6	147	6.4	-3.5	5.3
4	301	7.8	6.7	-4.0	325	7.7	4.4	-6.3	3	1.8	-0.1	-1.8	310	5.0	3.8	-3.2	258	5.9	5.8	1.2	227	9.1	6.7	6.2	108	6.6	-6.3	2.1
5	294	6.4	5.9	-2.6	312	7.9	5.9	-5.3	360	2.2	0.0	-2.2	298	4.0	3.5	-1.9	258	8.7	8.5	1.8	246	8.7	8.0	3.5	143	4.1	-2.5	3.3
6	299	6.2	5.4	-3.0	312	6.1	4.5	-4.1	334	3.2	1.4	-2.9	320	5.1	3.3	-3.9	271	7.9	7.9	-0.1	226	7.4	5.3	5.2	119	8.3	-7.3	4.0
7	289	7.4	7.0	-2.4	309	6.3	4.9	-3.9	317	2.2	1.5	-1.6	295	3.5	3.2	-1.5	247	5.0	4.6	2.0	235	7.1	5.8	4.1	97	6.1	-6.1	0.7
8	272	8.0	8.0	-0.3	298	5.4	4.8	-2.5	324	2.4	1.4	-1.9	280	1.7	1.7	-0.3	267	5.5	5.5	0.3	224	4.5	3.1	3.2	92	7.2	-7.2	0.3
9	264	8.0	8.0	0.8	290	5.9	5.5	-2.0	301	1.2	1.0	-0.6	338	1.8	0.7	-1.7	299	3.8	3.3	-1.8	277	1.6	1.6	-0.2	103	9.2	-9.0	2.1
10	249	9.0	8.4	3.2	285	5.6	5.4	-1.4	6	1.9	-0.2	-1.9	330	2.4	1.2	-2.1	275	1.2	1.2	-0.1	45	0.1	-0.1	-0.1	92	10.8	-10.8	0.3
11	260	7.5	7.4	1.3	302	8.0	6.8	-4.3	354	3.0	0.3	-3.0	336	3.2	1.3	-2.9	278	0.7	0.7	-0.1	151	2.5	-1.2	2.2	95	10.3	-10.3	0.9
12	275	8.9	8.9	-0.8	296	5.8	5.2	-2.5	360	2.6	0.0	-2.6	292	3.2	3.0	-1.2	270	2.4	2.4	0.0	157	1.5	-0.6	1.4	87	11.1	-11.1	-0.5
13	276	5.3	5.3	-0.6	309	7.0	5.4	-4.4	357	1.8	0.1	-1.8	5	1.1	-0.1	-1.1	247	0.8	0.7	0.3	151	2.1	-1.0	1.8	110	6.5	-6.1	2.2
14	264	5.5	5.5	0.6	289	6.5	6.2	-2.1	59	2.7	-2.3	-1.4	101	1.0	-1.0	0.2	106	0.7	-0.7	0.2	88	4.6	-4.6	-0.2	87	12.0	-12.0	-0.6
15	238	5.1	4.3	2.7	299	5.8	5.1	-2.8	52	3.4	-2.7	-2.1	71	1.8	-1.7	-0.6	66	3.6	-3.3	-1.5	92	5.4	-5.4	0.2	93	10.4	-10.4	0.6
16	243	6.1	5.4	2.8	278	4.5	4.5	-0.6	27	2.9	-1.3	-2.6	23	0.8	-0.3	-0.7	123	1.7	-1.4	0.9	87	2.0	-2.0	-0.1	70	9.5	-8.9	-3.2
17	272	7.5	7.5	-0.3	288	7.9	7.5	-2.4	347	1.7	0.4	-1.7	3	1.9	-0.1	-1.9	79	3.1	-3.0	-0.6	88	2.4	-2.4	-0.1	94	12.7	-12.7	0.9
18	275	7.4	7.4	-0.7	284	9.3	9.0	-2.3	1	4.7	-0.1	-4.7	360	1.4	0.0	-1.4	55	3.5	-2.9	-2.0	86	3.1	-3.1	-0.2	81	11.7	-11.5	-1.9
19	278	6.8	6.7	-0.9	284	7.8	7.6	-1.9	18	2.6	-0.8	-2.5	189	1.3	0.2	1.3	90	1.7	-1.7	0.0	84	3.8	-3.8	-0.4	99	17.3	-17.1	2.8
20	257	6.7	6.5	1.5	276	8.9	8.8	-1.0	358	2.6	0.1	-2.6	360	2.0	0.0	-2.0	101	0.5	-0.5	0.1	98	4.3	-4.3	0.6	110	15.8	-14.8	5.5
21	257	9.6	9.3	2.2	284	11.4	11.1	-2.7	343	4.2	1.2	-4.0	53	1.5	-1.2	-0.9	106	3.6	-3.5	1.0	108	7.1	-6.7	2.2	73	18.3	-17.5	-5.4
22	264	9.6	9.5	1.0	303	7.5	6.3	-4.1	18	0.9	-0.3	-0.9	351	1.2	0.2	-1.2	88	3.6	-3.6	-0.1	115	6.3	-5.7	2.7	82	16.5	-16.4	-2.2
23	269	8.5	8.5	0.2	293	10.3	9.5	-4.1	338	2.9	1.1	-2.7	356	1.6	0.1	-1.6	87	3.5	-3.5	-0.2	106	7.2	-6.9	2.0	89	15.2	-15.2	-0.3
24	257	9.8	9.6	2.2	283	10.7	10.4	-2.4	353	3.3	0.4	-3.3	302	1.5	1.3	-0.8	76	3.0	-2.9	-0.7	95	5.4	-5.4	0.5	79	13.6	-13.3	-2.7
25	258	10.5	10.3	2.1	286	12.4	11.9	-3.4	324	1.4	0.8	-1.1	20	2.3	-0.8	-2.2	35	2.1	-1.2	-1.7	93	8.3	-8.3	0.4	85	15.4	-15.3	-1.4
26	255	10.2	9.8	2.7	283	9.2	9.0	-2.0	357	3.6	0.2	-3.6	54	4.2	-3.4	-2.5	65	6.5	-5.9	-2.7	85	9.8	-9.8	-0.9	97	17.0	-16.9	2.2
27	268	10.2	10.2	0.4	294	9.4	8.6	-3.8	356	3.9	0.3	-3.9	56	4.1	-3.4	-2.3	78	4.9	-4.8	-1.0	96	9.0	-8.9	1.0	99	18.8	-18.6	2.9
28	266	9.1	9.1	0.7	297	9.8	8.7	-4.5	1	5.2	-0.1	-5.2	52	2.8	-2.2	-1.7	83	3.9	-3.9	-0.5	101	9.9	-9.7	1.8	92	18.5	-18.5	0.7
29	270	9.2	9.2	0.0	286	7.0	6.7	-1.9	15	3.1	-0.8	-3.0	74	2.9	-2.8	-0.8	103	4.6	-4.5	1.0	100	9.0	-8.9	1.5	80	19.6	-19.3	-3.4
30	267	7.3	7.3	0.4	274	8.1	8.1	-0.6	329	2.3	1.2	-2.0	160	1.5	-0.5	1.4	104	3.2	-3.1	0.8	82	6.9	-6.8	-0.9	92	18.9	-18.9	0.5

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	250	8.6	8.1	2.9	272	9.3	9.3	-0.3	270	1.2	1.2	0.0	315	0.1	0.1	-0.1	100	4.0	-3.9	0.7	97	10.6	-10.5	1.2	61	22.0	-19.3	-10.5
2	265	7.0	7.0	0.6	282	8.0	7.8	-1.6	342	0.6	0.2	-0.6	82	2.2	-2.2	-0.3	89	8.5	-8.5	-0.1	100	13.3	-13.1	2.4	80	23.6	-23.3	-4.0
3	270	8.4	8.4	0.0	283	7.2	7.0	-1.6	294	1.7	1.6	-0.7	48	1.3	-1.0	-0.9	93	7.0	-7.0	0.4	106	11.7	-11.3	3.2	86	20.9	-20.8	-1.6
4	269	6.7	6.7	0.1	279	8.4	8.3	-1.3	297	0.9	0.8	-0.4	93	2.2	-2.2	0.1	108	5.2	-5.0	1.6	85	10.4	-10.4	-1.0	82	23.3	-23.1	-3.3
5	269	8.3	8.3	0.2	278	8.9	8.8	-1.2	261	1.9	1.9	0.3	101	2.1	-2.1	0.4	88	6.9	-6.9	-0.3	96	14.1	-14.0	1.5	82	22.8	-22.6	-3.0
6	272	9.3	9.3	-0.4	281	9.3	9.1	-1.8	294	2.2	2.0	-0.9	51	0.6	-0.5	-0.4	87	5.8	-5.8	-0.3	99	11.7	-11.6	1.8	92	19.3	-19.3	0.6
7	272	8.6	8.6	-0.3	280	7.9	7.8	-1.4	288	1.6	1.5	-0.5	79	0.5	-0.5	-0.1	96	5.1	-5.1	0.5	93	10.2	-10.2	0.5	91	21.7	-21.7	0.4
8	265	7.2	7.2	0.6	283	7.5	7.3	-1.7	346	0.8	0.2	-0.8	281	0.5	0.5	-0.1	93	5.3	-5.3	0.3	91	12.7	-12.7	0.3	85	25.4	-25.3	-2.4
9	251	8.2	7.7	2.7	276	10.1	10.1	-1.0	360	0.8	0.0	-0.8	47	2.3	-1.7	-1.6	80	6.2	-6.1	-1.1	94	14.3	-14.3	0.9	85	20.7	-20.6	-1.9
10	252	8.2	7.8	2.6	276	9.9	9.8	-1.1	352	2.2	0.3	-2.2	18	2.2	-0.7	-2.1	87	6.6	-6.6	-0.4	100	13.3	-13.1	2.3	83	18.4	-18.3	-2.3
11	265	7.5	7.5	0.6	292	8.6	8.0	-3.2	339	1.9	0.7	-1.8	3	1.9	-0.1	-1.9	79	6.1	-6.0	-1.2	86	10.4	-10.4	-0.7	83	20.8	-20.6	-2.7
12	260	7.7	7.6	1.4	290	7.7	7.3	-2.6	319	2.3	1.5	-1.7	216	0.9	0.5	0.7	75	7.2	-6.9	-1.9	85	11.8	-11.7	-1.1	88	16.4	-16.4	-0.6
13	260	7.2	7.1	1.3	283	8.2	8.0	-1.8	313	2.2	1.6	-1.5	75	3.0	-2.9	-0.8	88	4.6	-4.6	-0.2	91	10.7	-10.7	0.2	79	19.8	-19.5	-3.7
14	263	8.4	8.3	1.0	283	8.9	8.7	-2.0	325	1.6	0.9	-1.3	323	0.5	0.3	-0.4	94	5.8	-5.8	0.4	85	13.3	-13.3	-1.1	85	27.1	-27.0	-2.2
15	234	6.0	4.9	3.5	260	8.1	8.0	1.4	253	2.8	2.7	0.8	145	1.2	-0.7	1.0	86	4.7	-4.7	-0.3	83	13.8	-13.7	-1.6	92	22.4	-22.4	0.7
16	262	6.3	6.2	0.9	284	8.0	7.8	-1.9	279	0.6	0.6	-0.1	162	1.6	-0.5	1.5	92	5.9	-5.9	0.2	73	16.3	-15.6	-4.7	97	23.0	-22.8	2.9
17	272	6.9	6.9	-0.3	287	4.8	4.6	-1.4	33	1.7	-0.9	-1.4	90	4.7	-4.7	0.0	90	10.2	-10.2	0.0	83	15.4	-15.3	-2.0	94	20.5	-20.5	1.4
18	253	6.7	6.4	1.9	283	4.8	4.7	-1.1	60	1.4	-1.2	-0.7	80	3.4	-3.3	-0.6	86	9.3	-9.3	-0.7	87	14.8	-14.8	-0.9	79	24.2	-23.7	-4.7
19	249	5.5	5.1	2.0	267	7.0	7.0	0.4	239	2.1	1.8	1.1	106	0.7	-0.7	0.2	81	6.0	-5.9	-0.9	85	16.8	-16.7	-1.6	96	20.2	-20.1	2.2
20	250	8.1	7.6	2.7	271	9.8	9.8	-0.2	286	4.1	3.9	-1.1	352	0.7	0.1	-0.7	89	6.2	-6.2	-0.1	81	14.6	-14.4	-2.3	85	23.4	-23.3	-2.2
21	256	8.6	8.3	2.1	285	9.0	8.7	-2.4	282	2.5	2.4	-0.5	5	2.2	-0.2	-2.2	83	7.6	-7.5	-0.9	92	13.6	-13.6	0.5	93	18.8	-18.8	1.0
22	262	8.2	8.1	1.2	284	9.1	8.8	-2.2	304	2.9	2.4	-1.6	60	0.8	-0.7	-0.4	84	10.9	-10.8	-1.1	70	15.0	-14.1	-5.0	97	23.8	-23.6	3.0
23	268	8.7	8.7	0.3	285	9.4	9.1	-2.5	296	4.3	3.9	-1.9	72	1.9	-1.8	-0.6	94	9.8	-9.8	0.7	92	19.3	-19.3	0.6	82	22.2	-22.0	-2.9
24	286	8.7	8.4	-2.4	308	5.8	4.6	-3.6	25	1.7	-0.7	-1.5	73	4.7	-4.5	-1.4	74	7.8	-7.5	-2.1	87	14.9	-14.9	-0.9	83	23.9	-23.7	-3.0
25	257	9.4	9.2	2.1	280	11.2	11.0	-2.0	285	5.1	4.9	-1.3	235	4.7	3.8	2.7	104	5.3	-5.1	1.3	72	16.9	-16.1	-5.3	76	26.0	-25.2	-6.4
26	268	7.3	7.3	0.2	275	9.6	9.6	-0.8	292	3.2	3.0	-1.2	45	1.1	-0.8	-0.8	77	7.4	-7.2	-1.6	82	10.6	-10.5	-1.5	84	20.0	-19.9	-2.1
27	262	8.2	8.1	1.2	280	9.0	8.9	-1.6	284	3.8	3.7	-0.9	81	0.6	-0.6	-0.1	83	6.9	-6.9	-0.8	90	13.7	-13.7	0.0	78	27.3	-26.7	-5.6
28	273	7.5	7.5	-0.4	280	9.5	9.3	-1.7	290	3.2	3.0	-1.1	49	1.8	-1.4	-1.2	79	9.8	-9.6	-1.8	86	14.4	-14.4	-1.1	79	27.1	-26.6	-5.1
29	274	7.8	7.8	-0.6	288	9.5	9.0	-3.0	318	3.0	2.0	-2.2	45	5.1	-3.6	-3.6	89	10.2	-10.2	-0.1	86	15.0	-15.0	-1.0	66	21.9	-20.1	-8.8
30	250	6.8	6.4	2.3	290	8.4	7.9	-2.8	325	3.2	1.8	-2.6	73	4.1	-3.9	-1.2	93	8.6	-8.6	0.5	95	14.3	-14.2	1.2	68	21.4	-19.8	-8.2
31	242	6.9	6.1	3.2	278	8.5	8.4	-1.2	279	1.8	1.8	-0.3	110	2.3	-2.2	0.8	85	8.6	-8.6	-0.7	90	13.1	-13.1	0.0	89	23.7	-23.7	-0.5

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	258	7.9	7.7	1.6	276	9.0	8.9	-1.0	300	3.2	2.8	-1.6	36	2.4	-1.4	-1.9	79	8.7	-8.5	-1.7	85	13.2	-13.2	-1.1	83	24.4	-24.2	-2.8
2	267	9.1	9.1	0.4	287	9.9	9.5	-2.9	312	4.3	3.2	-2.9	25	1.4	-0.6	-1.3	103	6.3	-6.1	1.4	86	16.5	-16.5	-1.2	80	23.1	-22.7	-4.2
3	276	7.9	7.9	-0.8	296	8.8	7.9	-3.9	329	2.6	1.3	-2.2	32	2.2	-1.2	-1.9	71	5.7	-5.4	-1.9	84	12.6	-12.5	-1.4	83	24.2	-24.0	-2.8
4	268	7.8	7.8	0.3	283	8.2	8.0	-1.9	315	2.3	1.6	-1.6	47	2.1	-1.5	-1.4	107	6.7	-6.4	2.0	74	11.4	-10.9	-3.2	85	22.2	-22.1	-2.1
5	267	10.3	10.3	0.5	280	7.9	7.8	-1.4	273	3.4	3.4	-0.2	135	0.3	-0.2	0.2	88	7.2	-7.2	-0.2	88	12.9	-12.9	-0.4	89	22.2	-22.2	-0.3
6	266	9.3	9.3	0.7	281	8.1	7.9	-1.6	332	2.1	1.0	-1.9	64	3.4	-3.1	-1.5	92	7.0	-7.0	0.2	83	15.4	-15.3	-1.9	80	19.4	-19.1	-3.3
7	267	8.2	8.2	0.5	281	8.2	8.0	-1.6	311	3.2	2.4	-2.1	16	2.6	-0.7	-2.5	83	7.6	-7.5	-0.9	87	13.5	-13.5	-0.7	84	23.0	-22.9	-2.4
8	261	9.9	9.8	1.5	294	6.8	6.2	-2.7	360	3.2	0.0	-3.2	81	6.0	-5.9	-0.9	86	9.2	-9.2	-0.6	84	15.1	-15.0	-1.6	87	22.6	-22.6	-1.0
9	281	9.8	9.6	-1.8	293	7.3	6.7	-2.9	353	2.5	0.3	-2.5	84	5.4	-5.4	-0.6	97	9.4	-9.3	1.2	90	17.5	-17.5	-0.1	90	23.2	-23.2	0.1
10	281	7.6	7.4	-1.5	299	6.0	5.3	-2.9	31	1.2	-0.6	-1.0	82	4.9	-4.9	-0.7	84	10.0	-9.9	-1.0	89	14.6	-14.6	-0.2	95	23.6	-23.5	2.2
11	270	5.3	5.3	0.0	282	5.0	4.9	-1.0	351	1.2	0.2	-1.2	76	4.1	-4.0	-1.0	99	7.6	-7.5	1.2	87	15.7	-15.7	-0.8	85	19.7	-19.6	-1.7
12	270	7.0	7.0	0.0	283	7.8	7.6	-1.7	297	1.8	1.6	-0.8	69	1.7	-1.6	-0.6	95	5.8	-5.8	0.5	95	11.3	-11.3	1.0	77	23.6	-23.0	-5.5
13	255	6.8	6.6	1.8	289	7.3	6.9	-2.4	341	2.1	0.7	-2.0	90	0.7	-0.7	0.0	72	5.5	-5.2	-1.7	78	11.0	-10.8	-2.3	83	22.6	-22.4	-2.7
14	262	12.1	12.0	1.7	297	7.2	6.4	-3.2	338	2.4	0.9	-2.2	357	3.7	0.2	-3.7	88	6.7	-6.7	-0.2	88	11.5	-11.5	-0.4	94	18.9	-18.9	1.3
15	275	9.5	9.5	-0.9	304	6.6	5.5	-3.7	12	2.5	-0.5	-2.4	38	2.9	-1.8	-2.3	89	7.4	-7.4	-0.1	94	12.1	-12.1	0.8	78	24.1	-23.6	-4.9
16	275	8.6	8.6	-0.8	309	6.6	5.1	-4.2	360	3.3	0.0	-3.3	73	4.1	-3.9	-1.2	96	9.0	-8.9	1.0	103	13.9	-13.5	3.2	90	25.3	-25.3	0.2
17	276	8.1	8.1	-0.9	304	6.4	5.3	-3.6	47	3.3	-2.4	-2.2	86	4.7	-4.7	-0.3	73	9.4	-9.0	-2.7	83	12.6	-12.5	-1.6	74	23.0	-22.1	-6.3
18	281	9.0	8.8	-1.7	304	6.9	5.7	-3.9	40	1.7	-1.1	-1.3	47	2.1	-1.5	-1.4	92	6.7	-6.7	0.2	91	14.4	-14.4	0.2	95	21.5	-21.4	1.7
19	278	9.0	8.9	-1.3	307	6.9	5.5	-4.1	349	1.5	0.3	-1.5	78	3.0	-2.9	-0.6	87	7.6	-7.6	-0.4	85	12.9	-12.9	-1.1	83	25.1	-24.9	-2.9
20	274	8.3	8.3	-0.6	293	8.0	7.4	-3.1	351	1.9	0.3	-1.9	79	3.2	-3.1	-0.6	91	8.7	-8.7	0.2	84	13.3	-13.2	-1.5	88	20.4	-20.4	-0.8
21	284	7.6	7.4	-1.8	288	8.3	7.9	-2.6	335	2.1	0.9	-1.9	66	2.0	-1.8	-0.8	98	8.4	-8.3	1.1	98	15.0	-14.8	2.2	94	26.0	-25.9	1.9
22	278	6.9	6.8	-1.0	299	8.4	7.3	-4.1	329	3.9	2.0	-3.3	43	2.5	-1.7	-1.8	94	8.4	-8.4	0.6	91	12.5	-12.5	0.2	88	21.9	-21.9	-0.8
23	279	4.0	4.0	-0.6	319	4.4	2.9	-3.3	354	1.9	0.2	-1.9	63	2.5	-2.2	-1.1	85	4.9	-4.9	-0.4	89	9.7	-9.7	-0.1	89	15.2	-15.2	-0.3
24	278	5.1	5.1	-0.7	283	5.8	5.7	-1.3	301	2.1	1.8	-1.1	323	1.0	0.6	-0.8	109	5.4	-5.1	1.8	103	10.3	-10.0	2.3	68	12.2	-11.3	-4.5
25	245	4.7	4.2	2.0	262	5.7	5.6	0.8	261	1.2	1.2	0.2	127	1.0	-0.8	0.6	103	5.8	-5.7	1.3	96	12.1	-12.0	1.2	80	17.1	-16.8	-3.0
26	255	5.8	5.6	1.5	265	5.8	5.8	0.5	299	2.9	2.5	-1.4	72	1.6	-1.5	-0.5	103	4.3	-4.2	1.0	97	9.0	-8.9	1.1	86	17.8	-17.8	-1.3
27	259	6.0	5.9	1.2	282	7.0	6.8	-1.5	294	1.7	1.6	-0.7	86	1.5	-1.5	-0.1	82	7.0	-6.9	-1.0	106	8.0	-7.7	2.2	80	21.3	-21.0	-3.7
28	272	6.8	6.8	-0.2	302	7.0	5.9	-3.7	338	1.1	0.4	-1.0	97	2.4	-2.4	0.3	71	5.6	-5.3	-1.8	94	9.8	-9.8	0.7	70	19.2	-18.0	-6.6
29	281	8.1	7.9	-1.6	305	7.0	5.7	-4.0	48	2.8	-2.1	-1.9	74	4.8	-4.6	-1.3	81	8.1	-8.0	-1.3	93	11.1	-11.1	0.5	84	21.0	-20.9	-2.2
30	283	6.3	6.1	-1.4	300	7.4	6.4	-3.7	27	2.2	-1.0	-2.0	97	3.4	-3.4	0.4	91	7.7	-7.7	0.1	84	11.4	-11.3	-1.1	87	20.8	-20.8	-1.1
31	291	6.0	5.6	-2.2	337	5.3	2.1	-4.9	55	4.7	-3.9	-2.7	95	3.8	-3.8	0.3	115	8.6	-7.8	3.6	91	8.5	-8.5	0.1	95	19.6	-19.5	1.8

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	301	5.6	4.8	-2.9	315	4.2	3.0	-3.0	26	3.0	-1.3	-2.7	71	3.7	-3.5	-1.2	88	6.7	-6.7	-0.2	103	10.9	-10.6	2.5	90	18.5	-18.5	0.1
2	298	4.1	3.6	-1.9	316	4.5	3.1	-3.2	27	2.9	-1.3	-2.6	93	3.8	-3.8	0.2	90	7.3	-7.3	0.0	107	7.3	-7.0	2.1	101	25.0	-24.5	4.8
3	278	7.2	7.1	-1.0	305	6.3	5.2	-3.6	333	2.2	1.0	-2.0	212	0.9	0.5	0.8	80	4.8	-4.7	-0.8	97	9.3	-9.2	1.2	78	20.0	-19.6	-4.2
4	282	10.2	10.0	-2.2	291	8.2	7.7	-2.9	324	2.4	1.4	-1.9	202	0.5	0.2	0.5	90	7.0	-7.0	0.0	77	9.8	-9.5	-2.2	74	13.4	-12.9	-3.6
5	280	7.1	7.0	-1.2	293	7.2	6.6	-2.8	282	1.9	1.9	-0.4	344	0.7	0.2	-0.7	84	5.4	-5.4	-0.6	80	10.9	-10.7	-1.8	83	14.7	-14.6	-1.8
6	284	6.8	6.6	-1.6	297	7.6	6.8	-3.5	360	1.8	0.0	-1.8	275	2.1	2.1	-0.2	77	5.0	-4.9	-1.1	100	10.2	-10.0	1.8	98	17.1	-16.9	2.4
7	283	7.4	7.2	-1.7	306	6.6	5.3	-3.9	329	2.1	1.1	-1.8	72	2.2	-2.1	-0.7	71	5.0	-4.7	-1.6	71	9.0	-8.5	-2.9	99	17.5	-17.3	2.8
8	280	5.5	5.4	-1.0	317	6.9	4.7	-5.0	352	4.2	0.6	-4.2	76	2.9	-2.8	-0.7	93	5.6	-5.6	0.3	98	10.8	-10.7	1.5	105	11.8	-11.4	3.0
9	277	6.3	6.2	-0.8	301	6.9	5.9	-3.5	5	2.3	-0.2	-2.3	229	0.9	0.7	0.6	99	2.6	-2.6	0.4	116	8.6	-7.7	3.8	95	15.0	-14.9	1.3
10	279	4.7	4.6	-0.7	300	4.4	3.8	-2.2	3	1.9	-0.1	-1.9	63	2.5	-2.2	-1.1	86	5.5	-5.5	-0.4	109	8.4	-8.0	2.7	95	16.0	-15.9	1.4
11	283	6.5	6.3	-1.5	323	4.5	2.7	-3.6	2	2.9	-0.1	-2.9	27	1.8	-0.8	-1.6	115	4.4	-4.0	1.9	109	5.4	-5.1	1.8	111	8.6	-8.0	3.1
12	273	6.0	6.0	-0.3	318	6.1	4.1	-4.5	2	3.8	-0.1	-3.8	24	3.6	-1.5	-3.3	76	7.2	-7.0	-1.8	80	9.6	-9.5	-1.6	83	13.5	-13.4	-1.6
13	286	6.5	6.2	-1.8	297	4.9	4.4	-2.2	358	2.9	0.1	-2.9	34	0.4	-0.2	-0.3	107	2.8	-2.7	0.8	139	6.5	-4.3	4.9	70	10.4	-9.8	-3.5
14	299	5.7	5.0	-2.8	335	5.2	2.2	-4.7	14	5.0	-1.2	-4.9	143	1.0	-0.6	0.8	108	3.6	-3.4	1.1	93	5.2	-5.2	0.3	75	11.3	-10.9	-3.0
15	308	5.7	4.5	-3.5	328	4.7	2.5	-4.0	360	2.4	0.0	-2.4	277	0.8	0.8	-0.1	333	0.4	0.2	-0.4	230	5.1	3.9	3.3	94	8.1	-8.1	0.6
16	300	8.9	7.7	-4.4	328	7.7	4.1	-6.5	336	4.4	1.8	-4.0	284	0.4	0.4	-0.1	135	0.7	-0.5	0.5	121	2.3	-2.0	1.2	95	9.9	-9.9	0.8
17	300	6.4	5.5	-3.2	321	7.9	5.0	-6.1	339	4.7	1.7	-4.4	225	2.0	1.4	1.4	215	1.2	0.7	1.0	167	3.1	-0.7	3.0	86	13.2	-13.2	-1.0
18	292	10.1	9.4	-3.8	318	5.9	3.9	-4.4	328	3.1	1.6	-2.6	254	3.5	3.4	1.0	203	1.5	0.6	1.4	140	4.2	-2.7	3.2	109	5.8	-5.5	1.9
19	293	7.6	7.0	-2.9	321	6.5	4.1	-5.1	358	3.6	0.1	-3.6	250	4.0	3.8	1.4	176	1.3	-0.1	1.3	155	4.0	-1.7	3.6	96	12.0	-11.9	1.3
20	307	5.6	4.5	-3.4	320	4.3	2.8	-3.3	353	2.4	0.3	-2.4	222	1.5	1.0	1.1	145	2.4	-1.4	2.0	170	5.5	-1.0	5.4	109	6.2	-5.9	2.0
21	310	5.0	3.8	-3.2	360	2.7	0.0	-2.7	34	2.7	-1.5	-2.2	180	1.4	0.0	1.4	185	3.5	0.3	3.5	199	5.4	1.8	5.1	137	6.9	-4.7	5.0
22	338	4.6	1.7	-4.3	24	1.7	-0.7	-1.6	50	2.3	-1.8	-1.5	144	1.4	-0.8	1.1	227	2.6	1.9	1.8	200	3.5	1.2	3.3	142	4.6	-2.8	3.6
23	333	2.2	1.0	-2.0	355	2.4	0.2	-2.4	59	2.6	-2.2	-1.3	193	1.8	0.4	1.8	201	2.2	0.8	2.1	178	3.1	-0.1	3.1	115	6.1	-5.5	2.6
24	310	3.8	2.9	-2.4	337	1.5	0.6	-1.4	37	3.4	-2.0	-2.7	220	1.6	1.0	1.2	231	3.8	3.0	2.4	181	4.6	0.1	4.6	98	6.0	-5.9	0.8
25	333	3.6	1.6	-3.2	340	2.3	0.8	-2.2	23	4.1	-1.6	-3.8	302	0.9	0.8	-0.5	185	2.1	0.2	2.1	178	3.5	-0.1	3.5	73	7.4	-7.1	-2.2
26	319	2.1	1.4	-1.6	5	1.1	-0.1	-1.1	30	2.8	-1.4	-2.4	304	0.4	0.3	-0.2	269	4.6	4.6	0.1	256	4.1	4.0	1.0	61	2.5	-2.2	-1.2
27	325	2.8	1.6	-2.3	9	1.9	-0.3	-1.9	13	2.6	-0.6	-2.5	293	1.5	1.4	-0.6	278	4.3	4.3	-0.6	241	3.7	3.2	1.8	130	4.3	-3.3	2.8
28	18	0.3	-0.1	-0.3	323	1.5	0.9	-1.2	354	2.8	0.3	-2.8	308	1.8	1.4	-1.1	257	3.6	3.5	0.8	238	6.0	5.1	3.2	92	5.4	-5.4	0.2
29	275	1.2	1.2	-0.1	319	2.3	1.5	-1.7	311	2.3	1.7	-1.5	312	3.9	2.9	-2.6	265	7.9	7.9	0.7	267	5.1	5.1	0.3	46	2.8	-2.0	-1.9
30	90	0.3	-0.3	0.0	9	1.8	-0.3	-1.8	19	3.7	-1.2	-3.5	329	3.5	1.8	-3.0	268	7.5	7.5	0.3	237	6.8	5.7	3.7	43	5.2	-3.5	-3.8

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	186	1.0	0.1	1.0	9	1.8	-0.3	-1.8	5	3.3	-0.3	-3.3	330	2.0	1.0	-1.7	241	6.0	5.2	2.9	221	3.8	2.5	2.9	70	5.0	-4.7	-1.7
2	124	0.7	-0.6	0.4	28	2.4	-1.1	-2.1	16	4.4	-1.2	-4.2	322	1.6	1.0	-1.3	256	7.9	7.7	1.9	243	9.8	8.7	4.5	94	1.6	-1.6	0.1
3	321	0.6	0.4	-0.5	35	2.9	-1.7	-2.4	30	3.6	-1.8	-3.1	318	1.2	0.8	-0.9	259	8.7	8.5	1.7	239	11.0	9.4	5.7	38	1.6	-1.0	-1.3
4	270	0.7	0.7	0.0	51	0.6	-0.5	-0.4	28	2.6	-1.2	-2.3	227	1.9	1.4	1.3	259	8.4	8.2	1.6	245	7.1	6.4	3.0	248	2.2	2.0	0.8
5	301	1.7	1.5	-0.9	336	2.4	1.0	-2.2	345	3.5	0.9	-3.4	306	2.2	1.8	-1.3	258	5.5	5.4	1.1	241	7.6	6.6	3.7	155	4.1	-1.7	3.7
6	19	1.8	-0.6	-1.7	36	1.7	-1.0	-1.4	357	3.3	0.2	-3.3	294	3.7	3.4	-1.5	246	7.1	6.5	2.9	247	8.6	7.9	3.4	118	1.7	-1.5	0.8
7	74	1.8	-1.7	-0.5	38	2.3	-1.4	-1.8	360	3.0	0.0	-3.0	293	2.1	1.9	-0.8	245	9.5	8.6	4.0	233	13.7	10.9	8.3	220	5.9	3.8	4.5
8	112	1.8	-1.7	0.7	43	1.9	-1.3	-1.4	14	2.1	-0.5	-2.0	277	4.8	4.8	-0.6	258	9.2	9.0	1.9	242	12.1	10.7	5.6	222	11.5	7.7	8.5
9	67	4.6	-4.2	-1.8	28	2.6	-1.2	-2.3	1	4.4	-0.1	-4.4	301	4.1	3.5	-2.1	264	10.0	9.9	1.1	255	14.3	13.8	3.6	225	9.0	6.4	6.3
10	68	3.2	-3.0	-1.2	23	3.4	-1.3	-3.1	12	4.8	-1.0	-4.7	309	3.6	2.8	-2.3	268	9.3	9.3	0.4	254	12.0	11.5	3.3	272	2.7	2.7	-0.1
11	77	2.3	-2.2	-0.5	21	3.9	-1.4	-3.6	355	2.2	0.2	-2.2	284	5.0	4.9	-1.2	261	11.7	11.6	1.8	247	15.2	14.0	5.9	238	6.2	5.3	3.3
12	117	1.8	-1.6	0.8	4	1.4	-0.1	-1.4	337	2.3	0.9	-2.1	261	5.9	5.8	0.9	264	9.8	9.7	1.0	259	11.2	11.0	2.1	252	6.2	5.9	1.9
13	297	0.4	0.4	-0.2	326	2.2	1.2	-1.8	300	1.6	1.4	-0.8	278	4.5	4.5	-0.6	256	10.9	10.6	2.6	260	11.5	11.3	1.9	262	5.5	5.4	0.8
14	168	2.4	-0.5	2.3	350	1.7	0.3	-1.7	340	2.3	0.8	-2.2	265	4.3	4.3	0.4	267	13.1	13.1	0.8	251	14.6	13.8	4.7	217	10.5	6.3	8.4
15	53	0.5	-0.4	-0.3	353	2.6	0.3	-2.6	333	3.3	1.5	-2.9	286	3.5	3.4	-1.0	257	11.3	11.0	2.6	238	14.7	12.5	7.8	247	5.6	5.2	2.2
16	93	2.1	-2.1	0.1	2	3.2	-0.1	-3.2	344	0.7	0.2	-0.7	300	4.8	4.2	-2.4	259	10.4	10.2	2.0	240	17.2	14.9	8.5	250	4.7	4.4	1.6
17	94	3.1	-3.1	0.2	355	3.3	0.3	-3.3	298	3.0	2.6	-1.4	289	6.2	5.9	-2.0	266	12.9	12.9	1.0	237	13.0	10.9	7.1	194	4.0	1.0	3.9
18	107	3.1	-3.0	0.9	339	0.9	0.3	-0.8	313	2.1	1.5	-1.4	288	4.8	4.6	-1.5	258	11.7	11.5	2.4	257	14.8	14.4	3.3	240	5.6	4.9	2.8
19	86	3.2	-3.2	-0.2	14	3.4	-0.8	-3.3	306	2.4	1.9	-1.4	274	5.4	5.4	-0.4	260	13.2	13.0	2.2	247	16.9	15.6	6.6	251	8.3	7.8	2.7
20	108	0.9	-0.9	0.3	9	2.0	-0.3	-2.0	333	3.3	1.5	-2.9	286	5.5	5.3	-1.5	261	15.5	15.3	2.4	248	16.9	15.7	6.3	258	9.4	9.2	1.9
21	90	0.4	-0.4	0.0	358	2.9	0.1	-2.9	329	2.3	1.2	-2.0	306	6.9	5.6	-4.0	270	14.2	14.2	-0.1	264	16.2	16.1	1.8	246	4.5	4.1	1.8
22	72	2.3	-2.2	-0.7	17	3.4	-1.0	-3.3	331	3.1	1.5	-2.7	295	6.5	5.9	-2.8	263	14.0	13.9	1.6	260	18.1	17.8	3.2	248	4.5	4.2	1.7
23	37	2.1	-1.3	-1.7	41	2.8	-1.8	-2.1	340	3.0	1.0	-2.8	282	6.0	5.9	-1.3	267	13.6	13.6	0.8	263	18.8	18.7	2.2	261	9.8	9.7	1.6
24	54	0.9	-0.7	-0.5	8	2.2	-0.3	-2.2	319	1.1	0.7	-0.8	285	8.8	8.5	-2.3	269	16.7	16.7	0.2	273	20.1	20.1	-0.9	255	7.9	7.6	2.1
25	85	1.2	-1.2	-0.1	6	2.0	-0.2	-2.0	315	3.0	2.1	-2.1	276	8.1	8.1	-0.9	266	18.1	18.1	1.2	254	18.8	18.0	5.3	284	8.9	8.6	-2.2
26	94	1.5	-1.5	0.1	47	2.1	-1.5	-1.4	315	3.1	2.2	-2.2	278	8.0	7.9	-1.1	273	16.5	16.5	-0.9	274	18.6	18.5	-1.4	294	9.4	8.6	-3.9
27	83	2.6	-2.6	-0.3	25	2.6	-1.1	-2.4	331	3.7	1.8	-3.2	275	7.3	7.3	-0.6	259	17.8	17.5	3.4	260	19.2	18.9	3.3	282	8.3	8.1	-1.7
28	100	3.9	-3.8	0.7	21	3.1	-1.1	-2.9	326	4.2	2.4	-3.5	282	7.2	7.0	-1.5	263	20.8	20.6	2.7	258	25.6	25.0	5.3	273	17.7	17.7	-0.9
29	97	2.6	-2.6	0.3	22	2.7	-1.0	-2.5	337	3.6	1.4	-3.3	289	7.7	7.3	-2.5	263	18.3	18.2	2.3	265	22.3	22.2	2.1	265	12.0	12.0	1.0
30	104	3.3	-3.2	0.8	59	2.3	-2.0	-1.2	351	3.7	0.6	-3.7	284	8.0	7.8	-1.9	258	17.5	17.1	3.6	252	23.7	22.5	7.3	28	4.7	-2.2	-4.2
31	81	3.8	-3.8	-0.6	45	3.7	-2.6	-2.6	10	2.8	-0.5	-2.8	278	6.9	6.8	-0.9	265	19.8	19.7	1.8	251	25.2	23.8	8.2	276	9.2	9.2	-0.9

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	77	2.3	-2.2	-0.5	50	3.4	-2.6	-2.2	16	2.9	-0.8	-2.8	305	6.3	5.2	-3.6	282	15.9	15.5	-3.4	258	22.5	22.0	4.6	263	17.4	17.3	2.1
2	58	2.6	-2.2	-1.4	62	2.1	-1.9	-1.0	340	2.9	1.0	-2.7	299	7.3	6.4	-3.5	277	16.4	16.3	-2.1	256	19.6	19.1	4.6	271	18.0	18.0	-0.4
3	67	4.3	-4.0	-1.7	38	3.4	-2.1	-2.7	349	3.6	0.7	-3.5	284	7.8	7.6	-1.9	268	17.7	17.7	0.5	261	21.9	21.6	3.5	280	11.7	11.5	-2.0
4	85	4.2	-4.2	-0.4	46	2.9	-2.1	-2.0	329	3.3	1.7	-2.8	279	7.7	7.6	-1.2	267	18.0	18.0	0.9	259	21.8	21.4	4.1	288	11.9	11.3	-3.6
5	80	2.3	-2.3	-0.4	24	2.4	-1.0	-2.2	323	3.8	2.3	-3.0	278	8.8	8.7	-1.3	271	19.8	19.8	-0.2	258	24.9	24.3	5.3	272	9.8	9.8	-0.4
6	88	3.5	-3.5	-0.1	28	1.7	-0.8	-1.5	310	3.9	3.0	-2.5	282	9.1	8.9	-1.9	266	20.7	20.6	1.6	259	25.2	24.8	4.7	264	14.6	14.5	1.4
7	109	3.6	-3.4	1.2	48	2.4	-1.8	-1.6	319	2.8	1.8	-2.1	289	8.8	8.3	-2.8	264	20.7	20.6	2.0	244	24.6	22.2	10.6	281	6.4	6.3	-1.2
8	120	4.2	-3.6	2.1	32	1.5	-0.8	-1.3	326	3.7	2.1	-3.1	278	10.5	10.4	-1.5	265	20.2	20.1	1.8	258	27.6	27.0	5.8	354	3.0	0.3	-3.0
9	104	4.0	-3.9	1.0	16	1.5	-0.4	-1.4	288	2.5	2.4	-0.8	280	10.8	10.6	-1.8	266	23.4	23.3	1.7	260	23.9	23.5	4.1	279	24.7	24.4	-4.0
10	90	2.4	-2.4	0.0	12	1.4	-0.3	-1.4	298	4.7	4.1	-2.2	278	9.7	9.6	-1.3	269	23.0	23.0	0.3	266	29.0	28.9	1.8	245	15.0	13.6	6.3
11	120	3.0	-2.6	1.5	342	0.6	0.2	-0.6	313	4.0	2.9	-2.7	304	8.7	7.2	-4.9	274	20.9	20.8	-1.5	276	25.4	25.3	-2.5	269	7.3	7.3	0.1
12	58	2.5	-2.1	-1.3	36	2.4	-1.4	-1.9	318	2.5	1.7	-1.9	292	7.1	6.6	-2.6	276	21.7	21.6	-2.3	261	28.3	27.9	4.5	68	16.0	-14.8	-6.0
13	72	2.9	-2.8	-0.9	58	0.9	-0.8	-0.5	330	4.2	2.1	-3.6	289	10.1	9.5	-3.3	273	22.1	22.1	-1.1	255	21.9	21.1	5.7	260	13.2	13.0	2.3
14	102	4.3	-4.2	0.9	65	2.3	-2.1	-1.0	352	3.4	0.5	-3.4	298	5.7	5.0	-2.7	265	15.2	15.1	1.3	265	22.7	22.6	1.8	294	7.0	6.4	-2.9
15	84	4.5	-4.5	-0.5	71	2.4	-2.3	-0.8	338	3.7	1.4	-3.4	290	10.1	9.5	-3.5	271	23.9	23.9	-0.4	265	27.4	27.3	2.4	244	10.0	9.0	4.4
16	77	4.7	-4.6	-1.1	67	2.1	-1.9	-0.8	360	2.3	0.0	-2.3	289	7.4	7.0	-2.4	265	19.4	19.3	1.7	251	24.9	23.5	8.3	249	17.0	15.9	6.1
17	93	4.1	-4.1	0.2	21	1.4	-0.5	-1.3	297	3.6	3.2	-1.6	276	9.8	9.7	-1.0	263	22.0	21.8	2.7	252	25.5	24.2	8.0	263	11.0	10.9	1.3
18	121	2.6	-2.2	1.3	333	1.1	0.5	-1.0	293	5.6	5.1	-2.2	269	10.1	10.1	0.1	258	24.5	24.0	5.0	260	32.0	31.5	5.6	252	15.7	14.9	4.8
19	81	1.8	-1.8	-0.3	357	1.8	0.1	-1.8	296	5.3	4.8	-2.3	277	13.3	13.2	-1.7	262	25.4	25.2	3.4	259	31.0	30.5	5.7	275	19.3	19.2	-1.7
20	79	3.1	-3.0	-0.6	17	1.4	-0.4	-1.3	291	4.2	3.9	-1.5	279	12.1	12.0	-1.8	271	27.6	27.6	-0.4	266	29.2	29.1	1.9	266	31.0	30.9	2.2
21	95	3.5	-3.5	0.3	27	0.7	-0.3	-0.6	301	4.4	3.8	-2.3	275	11.1	11.1	-0.9	257	25.9	25.3	5.7	250	37.0	34.8	12.6	258	21.3	20.8	4.6
22	118	4.1	-3.6	1.9	343	1.4	0.4	-1.3	276	4.4	4.4	-0.5	270	11.9	11.9	0.0	252	27.6	26.3	8.4	250	36.8	34.6	12.6	249	17.3	16.2	6.1
23	89	4.2	-4.2	-0.1	339	1.7	0.6	-1.6	295	4.4	4.0	-1.9	274	10.1	10.1	-0.7	264	27.0	26.8	3.0	249	36.9	34.3	13.5	266	31.0	30.9	2.2
24	74	3.3	-3.2	-0.9	36	1.7	-1.0	-1.4	305	3.2	2.6	-1.8	280	12.7	12.5	-2.3	265	26.4	26.3	2.1	250	34.2	32.2	11.5	267	21.0	21.0	1.2
25	54	2.4	-1.9	-1.4	21	0.9	-0.3	-0.8	287	4.4	4.2	-1.3	278	11.8	11.7	-1.7	272	28.6	28.6	-0.9	262	30.6	30.3	4.3	264	14.3	14.2	1.4
26	86	1.5	-1.5	-0.1	299	1.0	0.9	-0.5	288	5.1	4.8	-1.6	277	13.7	13.6	-1.7	269	26.3	26.3	0.5	258	37.1	36.3	7.9	267	17.0	17.0	0.9
27	112	2.4	-2.2	0.9	338	0.5	0.2	-0.5	288	6.5	6.2	-2.0	275	14.3	14.2	-1.2	271	26.7	26.7	-0.4	272	36.1	36.1	-1.0	264	20.1	20.0	2.1
28	92	2.7	-2.7	0.1	333	0.9	0.4	-0.8	292	7.4	6.8	-2.8	279	15.0	14.8	-2.4	266	28.3	28.2	1.8	257	39.7	38.7	8.9	259	27.9	27.4	5.5
29	88	3.2	-3.2	-0.1	20	1.5	-0.5	-1.4	297	6.3	5.6	-2.9	279	14.1	13.9	-2.1	265	26.3	26.2	2.1	257	34.6	33.7	7.9	264	23.9	23.8	2.3
30	93	1.8	-1.8	0.1	347	2.6	0.6	-2.5	309	5.3	4.1	-3.3	278	14.7	14.6	-2.0	265	28.1	28.0	2.6	263	34.6	34.3	4.3	230	17.0	13.0	10.9

Daily Normals of Upper Air Winds (1971-2000)

BHOPAL **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	71	2.8	-2.6	-0.9	6	1.9	-0.2	-1.9	280	5.3	5.2	-0.9	281	17.2	16.9	-3.2	266	27.4	27.3	1.7	243	32.3	28.7	14.9	252	29.5	28.0	9.3
2	81	3.9	-3.9	-0.6	304	0.4	0.3	-0.2	294	4.7	4.3	-1.9	276	14.3	14.2	-1.4	266	30.6	30.5	2.2	250	36.0	33.8	12.4	268	33.8	33.8	1.2
3	118	3.8	-3.4	1.8	274	1.5	1.5	-0.1	279	6.1	6.0	-1.0	275	13.9	13.9	-1.1	263	27.5	27.3	3.4	247	34.6	31.8	13.7	268	24.2	24.2	0.8
4	109	3.1	-2.9	1.0	342	0.6	0.2	-0.6	300	5.6	4.8	-2.8	277	12.8	12.7	-1.5	256	25.1	24.3	6.1	248	29.8	27.6	11.3	265	15.5	15.4	1.3
5	96	3.0	-3.0	0.3	13	2.2	-0.5	-2.1	309	4.8	3.7	-3.0	285	10.9	10.5	-2.8	258	21.4	20.9	4.5	250	34.3	32.2	11.9	241	19.0	16.6	9.2
6	115	2.1	-1.9	0.9	338	1.8	0.7	-1.7	305	5.9	4.8	-3.4	290	11.9	11.2	-4.0	274	24.8	24.7	-1.8	264	37.6	37.4	4.1	280	25.0	24.6	-4.3
7	65	2.6	-2.4	-1.1	319	0.9	0.6	-0.7	300	4.3	3.7	-2.1	280	11.5	11.3	-1.9	261	22.9	22.6	3.5	251	41.4	39.1	13.6	241	20.0	17.5	9.7
8	73	2.1	-2.0	-0.6	27	0.9	-0.4	-0.8	281	3.6	3.5	-0.7	267	12.3	12.3	0.6	257	27.0	26.3	5.9	255	40.1	38.8	10.2	255	27.9	27.0	7.2
9	67	1.3	-1.2	-0.5	305	1.6	1.3	-0.9	268	5.5	5.5	0.2	258	13.9	13.6	2.8	260	29.7	29.3	5.1	266	32.2	32.1	2.2	—	—	—	—
10	45	3.1	-2.2	-2.2	328	1.5	0.8	-1.3	289	5.6	5.3	-1.8	281	12.5	12.3	-2.3	268	25.9	25.9	1.0	246	26.4	24.1	10.8	320	6.0	3.9	-4.6
11	67	3.3	-3.0	-1.3	336	1.0	0.4	-0.9	285	5.3	5.1	-1.4	271	16.5	16.5	-0.3	260	27.7	27.3	4.6	262	30.0	29.7	4.1	282	17.3	16.9	-3.5
12	73	3.0	-2.9	-0.9	315	1.0	0.7	-0.7	281	5.2	5.1	-1.0	268	16.6	16.6	0.6	257	28.8	28.1	6.4	248	28.6	26.5	10.8	258	23.0	22.5	4.8
13	88	3.1	-3.1	-0.1	286	1.8	1.7	-0.5	280	3.9	3.8	-0.7	268	14.9	14.9	0.4	262	28.9	28.6	4.1	249	30.9	28.9	11.0	214	4.0	2.2	3.3
14	44	3.0	-2.1	-2.2	317	2.2	1.5	-1.6	287	5.9	5.7	-1.7	278	17.6	17.4	-2.3	274	26.3	26.2	-1.7	259	23.2	22.7	4.6	247	14.9	13.7	5.8
15	53	2.6	-2.1	-1.6	338	2.2	0.8	-2.0	301	5.7	4.9	-3.0	287	14.3	13.7	-4.2	262	24.0	23.8	3.3	247	33.7	31.0	13.2	272	20.0	20.0	-0.7
16	99	3.0	-3.0	0.5	172	0.7	-0.1	0.7	288	5.5	5.2	-1.7	269	16.6	16.6	0.2	271	30.9	30.9	-0.7	266	40.7	40.6	2.6	—	—	—	—
17	76	3.8	-3.7	-0.9	28	2.6	-1.2	-2.3	288	5.5	5.2	-1.7	270	15.6	15.6	-0.1	265	28.3	28.2	2.7	253	31.9	30.6	9.1	269	18.0	18.0	0.3
18	83	2.5	-2.5	-0.3	13	2.6	-0.6	-2.5	314	6.0	4.3	-4.2	283	13.3	13.0	-2.9	274	26.0	25.9	-1.8	258	33.6	32.8	7.2	265	28.0	27.9	2.4
19	88	2.4	-2.4	-0.1	315	1.3	0.9	-0.9	283	6.7	6.5	-1.5	267	15.7	15.7	0.8	271	27.7	27.7	-0.5	272	34.5	34.5	-1.2	282	15.5	15.2	-3.1
20	85	1.2	-1.2	-0.1	304	2.3	1.9	-1.3	297	5.5	4.9	-2.5	288	14.6	13.9	-4.5	280	22.0	21.7	-3.8	255	33.4	32.3	8.4	265	16.0	15.9	1.4
21	15	2.0	-0.5	-1.9	318	3.0	2.0	-2.2	313	7.1	5.2	-4.8	285	14.7	14.2	-3.8	271	25.5	25.5	-0.4	277	29.1	28.9	-3.7	256	21.0	20.4	5.1
22	68	1.6	-1.5	-0.6	292	2.9	2.7	-1.1	298	5.9	5.2	-2.8	288	13.8	13.1	-4.3	279	24.4	24.1	-3.9	272	35.6	35.6	-1.2	290	17.0	16.0	-5.8
23	73	3.0	-2.9	-0.9	284	1.6	1.6	-0.4	280	7.6	7.5	-1.3	280	15.7	15.5	-2.6	266	29.8	29.7	2.1	266	29.9	29.8	2.3	256	14.0	13.6	3.4
24	94	2.6	-2.6	0.2	263	1.6	1.6	0.2	270	7.6	7.6	0.0	272	16.7	16.7	-0.5	281	25.1	24.6	-4.9	275	29.1	29.0	-2.3	257	18.0	17.5	4.0
25	83	2.4	-2.4	-0.3	305	1.6	1.3	-0.9	277	8.2	8.1	-1.0	271	18.6	18.6	-0.4	267	30.7	30.7	1.7	264	35.0	34.8	3.7	231	8.0	6.2	5.0
26	111	3.3	-3.1	1.2	305	1.2	1.0	-0.7	268	7.2	7.2	0.2	267	15.0	15.0	0.9	262	28.6	28.3	3.9	264	35.0	34.8	3.7	235	29.0	23.8	16.6
27	141	2.8	-1.8	2.2	227	1.8	1.3	1.2	270	7.5	7.5	0.0	269	18.5	18.5	0.2	262	30.9	30.6	4.4	252	30.3	28.8	9.5	243	32.0	28.5	14.5
28	76	1.2	-1.2	-0.3	277	1.7	1.7	-0.2	285	7.3	7.0	-1.9	286	15.7	15.1	-4.3	279	27.8	27.5	-4.3	257	39.6	38.7	8.6	—	—	—	—
29	133	1.6	-1.2	1.1	264	3.1	3.1	0.3	271	7.7	7.7	-0.1	266	16.5	16.5	1.2	267	27.3	27.3	1.2	260	28.1	27.7	4.8	267	10.9	10.9	0.5
30	87	1.9	-1.9	-0.1	273	2.1	2.1	-0.1	274	8.0	8.0	-0.6	270	18.9	18.9	0.0	264	35.2	35.0	3.5	260	34.3	33.8	5.7	249	22.0	20.5	7.9
31	77	4.0	-3.9	-0.9	278	0.7	0.7	-0.1	286	7.5	7.2	-2.1	269	19.2	19.2	0.5	263	33.7	33.4	4.3	247	43.2	39.8	16.7	265	18.0	17.9	1.6

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	58	0.9	-0.8	-0.5	322	3.1	1.9	-2.4	292	6.4	5.9	-2.4	276	15.8	15.7	-1.6	273	27.3	27.3	-1.6	269	27.3	27.3	0.3	277	16.1	16.0	-2.0
2	9	2.4	-0.4	-2.4	330	3.2	1.6	-2.8	295	8.9	8.1	-3.8	280	17.4	17.2	-2.9	273	29.9	29.9	-1.5	268	31.3	31.3	1.1	267	22.2	22.2	1.2
3	22	2.9	-1.1	-2.7	339	4.5	1.6	-4.2	300	7.0	6.1	-3.5	276	17.1	17.0	-1.8	274	28.8	28.7	-2.2	264	31.0	30.8	3.3	266	19.9	19.9	1.4
4	3	1.9	-0.1	-1.9	344	2.9	0.8	-2.8	308	7.3	5.7	-4.5	280	14.4	14.2	-2.5	267	26.7	26.7	1.2	261	29.4	29.0	4.8	267	22.6	22.6	1.2
5	63	1.6	-1.4	-0.7	348	4.2	0.9	-4.1	304	6.8	5.6	-3.8	278	13.2	13.1	-1.9	272	28.8	28.8	-1.1	266	32.4	32.3	2.5	276	14.6	14.5	-1.4
6	36	1.7	-1.0	-1.4	346	2.9	0.7	-2.8	300	7.3	6.3	-3.7	278	15.6	15.4	-2.3	268	27.9	27.9	1.0	260	30.5	30.0	5.3	261	17.2	17.0	2.7
7	47	1.6	-1.2	-1.1	349	2.5	0.5	-2.5	294	7.1	6.5	-2.9	270	16.2	16.2	0.1	264	25.6	25.5	2.5	255	29.9	28.9	7.6	258	17.8	17.4	3.8
8	90	2.0	-2.0	0.0	340	3.0	1.0	-2.8	291	7.4	6.9	-2.6	278	15.1	14.9	-2.2	267	27.1	27.1	1.5	257	28.0	27.3	6.3	266	16.2	16.2	1.1
9	79	1.6	-1.6	-0.3	314	2.8	2.0	-1.9	287	8.1	7.7	-2.4	270	17.3	17.3	-0.1	267	28.9	28.9	1.3	261	32.2	31.8	5.0	256	26.2	25.4	6.3
10	90	0.7	-0.7	0.0	326	3.4	1.9	-2.8	292	7.6	7.1	-2.8	273	15.9	15.9	-0.7	265	25.6	25.5	2.3	262	28.5	28.2	3.9	251	22.1	20.9	7.3
11	108	0.6	-0.6	0.2	329	3.3	1.7	-2.8	293	7.3	6.7	-2.8	272	16.6	16.6	-0.6	266	27.2	27.1	1.7	260	28.2	27.8	5.0	259	20.7	20.3	4.0
12	342	1.3	0.4	-1.2	333	3.6	1.6	-3.2	293	7.4	6.8	-2.9	275	18.5	18.4	-1.5	266	28.1	28.0	2.0	257	32.2	31.4	7.3	257	25.7	25.0	5.9
13	5	1.2	-0.1	-1.2	316	2.9	2.0	-2.1	285	8.0	7.7	-2.1	273	15.8	15.8	-0.9	269	28.4	28.4	0.5	257	27.2	26.5	6.0	262	14.5	14.4	2.0
14	297	0.4	0.4	-0.2	319	3.0	2.0	-2.3	296	6.9	6.2	-3.0	276	16.0	15.9	-1.8	269	26.3	26.3	0.4	259	28.4	27.9	5.2	265	18.6	18.5	1.7
15	209	1.0	0.5	0.9	304	3.0	2.5	-1.7	283	8.0	7.8	-1.8	272	17.7	17.7	-0.5	268	30.9	30.9	1.1	261	29.8	29.4	4.8	259	20.8	20.5	3.8
16	230	3.3	2.5	2.1	290	3.3	3.1	-1.1	287	8.9	8.5	-2.6	270	18.4	18.4	-0.1	270	29.2	29.2	0.0	260	32.9	32.4	5.6	272	17.6	17.6	-0.6
17	301	3.5	3.0	-1.8	330	3.9	2.0	-3.4	296	9.0	8.1	-3.9	274	16.9	16.9	-1.3	267	29.6	29.6	1.6	260	30.7	30.2	5.3	256	15.4	14.9	3.7
18	319	3.2	2.1	-2.4	304	4.1	3.4	-2.3	295	8.5	7.7	-3.6	282	16.3	15.9	-3.4	272	29.4	29.4	-1.2	263	29.6	29.4	3.7	271	16.0	16.0	-0.3
19	31	1.2	-0.6	-1.0	316	3.6	2.5	-2.6	299	7.1	6.2	-3.5	280	15.1	14.9	-2.6	269	27.6	27.6	0.4	260	30.0	29.5	5.4	252	17.0	16.2	5.2
20	180	0.3	0.0	0.3	323	4.0	2.4	-3.2	301	8.7	7.4	-4.5	278	17.9	17.7	-2.4	269	25.7	25.7	0.3	256	28.4	27.5	7.1	257	15.1	14.7	3.5
21	326	3.4	1.9	-2.8	298	4.1	3.6	-1.9	295	8.4	7.6	-3.5	282	15.2	14.9	-3.2	267	26.2	26.2	1.4	255	29.0	28.0	7.7	256	15.5	15.1	3.7
22	335	1.7	0.7	-1.5	328	2.8	1.5	-2.4	292	8.7	8.1	-3.3	281	15.5	15.2	-3.0	268	26.2	26.2	1.1	258	29.4	28.7	6.2	260	18.2	17.9	3.3
23	324	2.7	1.6	-2.2	328	4.0	2.1	-3.4	294	8.8	8.0	-3.6	276	14.6	14.5	-1.5	265	26.2	26.1	2.1	259	30.1	29.5	5.9	255	20.2	19.5	5.1
24	335	1.7	0.7	-1.5	322	3.7	2.3	-2.9	307	7.9	6.3	-4.8	278	16.0	15.8	-2.3	273	25.6	25.6	-1.2	265	25.5	25.4	2.4	263	17.2	17.1	2.1
25	352	2.1	0.3	-2.1	319	3.2	2.1	-2.4	312	7.7	5.7	-5.2	282	12.6	12.3	-2.6	271	27.0	27.0	-0.7	256	24.0	23.3	5.6	267	15.6	15.6	0.9
26	2	3.8	-0.1	-3.8	346	4.0	1.0	-3.9	315	7.5	5.3	-5.3	277	12.7	12.6	-1.6	271	22.7	22.7	-0.2	260	28.0	27.6	4.7	255	12.5	12.1	3.3
27	360	3.1	0.0	-3.1	341	3.7	1.2	-3.5	312	7.0	5.2	-4.7	279	14.1	13.9	-2.2	275	24.7	24.6	-2.0	271	27.6	27.6	-0.4	260	17.0	16.8	2.9
28	39	1.9	-1.2	-1.5	327	2.4	1.3	-2.0	304	5.8	4.8	-3.2	276	15.4	15.3	-1.7	268	26.2	26.2	0.9	263	29.3	29.1	3.5	257	14.7	14.3	3.4
29	246	1.0	0.9	0.4	334	3.2	1.4	-2.9	303	7.1	5.9	-3.9	275	16.1	16.0	-1.5	272	27.4	27.4	-1.1	256	30.2	29.3	7.4	264	20.3	20.2	2.1
30	284	1.2	1.2	-0.3	316	3.0	2.1	-2.2	299	7.2	6.3	-3.5	276	15.4	15.3	-1.6	273	30.1	30.0	-1.8	263	31.1	30.9	3.9	264	21.8	21.7	2.3
31	217	2.1	1.3	1.7	301	2.1	1.8	-1.1	292	8.1	7.5	-3.1	281	16.7	16.4	-3.3	268	30.5	30.5	1.3	258	31.4	30.7	6.8	259	20.1	19.7	3.9

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	233	3.0	2.4	1.8	294	2.4	2.2	-1.0	288	7.3	6.9	-2.3	271	17.2	17.2	-0.2	269	29.5	29.5	0.5	262	31.8	31.5	4.5	265	22.1	22.0	2.0
2	233	3.4	2.7	2.0	319	3.2	2.1	-2.4	282	8.7	8.5	-1.8	275	17.9	17.8	-1.7	271	29.3	29.3	-0.5	265	29.8	29.7	2.8	258	22.2	21.7	4.7
3	273	1.9	1.9	-0.1	304	3.0	2.5	-1.7	290	8.4	7.9	-2.8	274	17.3	17.3	-1.3	269	30.9	30.9	0.4	261	32.0	31.6	4.9	266	21.3	21.3	1.4
4	225	0.8	0.6	0.6	301	2.7	2.3	-1.4	290	7.5	7.0	-2.6	279	17.7	17.5	-2.8	271	28.8	28.8	-0.6	268	33.6	33.6	0.9	264	24.4	24.3	2.7
5	240	1.4	1.2	0.7	273	3.3	3.3	-0.2	289	8.9	8.4	-2.9	274	18.5	18.4	-1.4	273	30.6	30.6	-1.7	267	31.8	31.8	1.4	267	18.3	18.3	0.8
6	216	2.2	1.3	1.8	293	3.0	2.8	-1.2	289	8.3	7.8	-2.7	279	16.3	16.1	-2.5	264	31.4	31.2	3.4	261	33.8	33.4	5.0	262	23.8	23.6	3.2
7	264	0.9	0.9	0.1	300	2.8	2.4	-1.4	295	7.1	6.4	-3.0	282	15.3	15.0	-3.1	269	27.8	27.8	0.4	262	31.3	31.0	4.1	264	21.1	21.0	2.3
8	312	1.3	1.0	-0.9	294	2.4	2.2	-1.0	287	7.5	7.2	-2.2	276	16.0	15.9	-1.8	268	30.1	30.1	1.0	262	31.7	31.4	4.4	267	20.4	20.4	1.1
9	192	3.0	0.6	2.9	288	2.3	2.2	-0.7	293	7.9	7.3	-3.1	280	15.9	15.7	-2.8	272	27.8	27.8	-0.9	269	31.6	31.6	0.4	262	15.3	15.1	2.2
10	229	1.1	0.8	0.7	270	1.9	1.9	0.0	286	7.8	7.5	-2.1	284	16.3	15.8	-4.0	274	29.4	29.3	-1.9	271	29.1	29.1	-0.5	277	18.8	18.7	-2.2
11	284	0.8	0.8	-0.2	285	2.4	2.3	-0.6	301	7.8	6.7	-4.0	279	15.2	15.0	-2.4	274	25.3	25.2	-1.7	262	32.1	31.8	4.6	260	16.2	15.9	2.9
12	279	1.2	1.2	-0.2	292	3.5	3.2	-1.3	304	8.5	7.0	-4.8	284	15.2	14.7	-3.8	277	26.0	25.8	-3.1	263	27.6	27.4	3.3	277	20.0	19.8	-2.5
13	318	2.7	1.8	-2.0	314	3.0	2.2	-2.1	298	7.3	6.5	-3.4	283	14.6	14.2	-3.2	267	26.0	26.0	1.2	256	30.3	29.4	7.5	261	20.9	20.7	3.2
14	280	2.8	2.8	-0.5	289	3.4	3.2	-1.1	298	7.0	6.2	-3.3	273	15.6	15.6	-0.8	269	28.1	28.1	0.7	261	28.1	27.7	4.5	260	16.2	16.0	2.8
15	269	3.9	3.9	0.1	272	3.5	3.5	-0.1	286	7.4	7.1	-2.0	273	15.3	15.3	-0.9	267	28.0	27.9	1.7	265	30.7	30.6	2.8	267	15.5	15.5	0.7
16	289	2.1	2.0	-0.7	286	1.8	1.7	-0.5	280	6.5	6.4	-1.1	273	18.3	18.3	-1.1	272	28.8	28.8	-1.1	264	33.6	33.4	3.4	259	21.0	20.6	4.0
17	254	4.3	4.1	1.2	277	3.4	3.4	-0.4	285	7.3	7.0	-1.9	270	17.4	17.4	0.0	267	29.4	29.4	1.7	257	31.4	30.6	6.9	257	18.1	17.6	4.1
18	251	5.5	5.2	1.8	267	3.7	3.7	0.2	281	8.8	8.6	-1.7	275	19.6	19.5	-1.8	268	26.5	26.5	1.0	253	29.5	28.2	8.5	266	21.0	20.9	1.6
19	230	2.5	1.9	1.6	289	4.0	3.8	-1.3	291	7.9	7.4	-2.8	270	15.3	15.3	0.1	264	24.7	24.6	2.4	254	27.2	26.1	7.5	258	17.8	17.4	3.8
20	264	3.1	3.1	0.3	318	3.6	2.4	-2.7	299	7.8	6.8	-3.8	273	15.9	15.9	-0.7	270	26.1	26.1	0.1	260	28.7	28.3	4.9	266	22.2	22.1	1.6
21	248	3.7	3.4	1.4	310	3.4	2.6	-2.2	293	7.4	6.8	-2.9	268	16.7	16.7	0.5	267	25.8	25.8	1.5	251	29.0	27.5	9.3	258	17.8	17.4	3.8
22	226	2.9	2.1	2.0	284	3.4	3.3	-0.8	296	8.3	7.5	-3.6	276	18.0	17.9	-1.9	266	31.1	31.0	2.4	253	31.8	30.3	9.5	269	16.7	16.7	0.3
23	293	2.1	1.9	-0.8	306	3.9	3.2	-2.3	288	8.9	8.4	-2.8	278	17.0	16.8	-2.4	261	28.4	28.1	4.4	260	29.5	29.1	4.9	264	17.1	17.0	1.7
24	135	0.4	-0.3	0.3	322	4.1	2.5	-3.2	294	8.8	8.0	-3.6	282	15.6	15.2	-3.3	269	27.3	27.3	0.6	265	28.5	28.4	2.6	269	19.0	19.0	0.3
25	214	2.2	1.2	1.8	304	3.7	3.1	-2.1	303	8.0	6.7	-4.3	281	15.3	15.0	-2.9	269	26.4	26.4	0.5	264	27.0	26.9	2.8	262	18.2	18.0	2.6
26	225	3.7	2.6	2.6	290	4.4	4.1	-1.5	304	8.7	7.2	-4.9	278	16.5	16.3	-2.3	272	28.0	28.0	-0.8	263	29.0	28.8	3.7	265	17.4	17.3	1.5
27	233	6.4	5.1	3.9	289	4.3	4.1	-1.4	296	8.7	7.8	-3.8	275	15.3	15.2	-1.4	266	25.7	25.6	1.8	262	28.7	28.4	3.8	270	19.2	19.2	-0.1
28	230	3.4	2.6	2.2	289	2.8	2.6	-0.9	290	8.2	7.7	-2.8	272	14.9	14.9	-0.5	261	27.0	26.7	4.2	260	30.5	30.0	5.5	264	20.2	20.1	2.1
29	262	5.2	5.2	0.7	287	5.4	5.2	-1.6	308	8.4	6.6	-5.2	291	15.2	14.2	-5.5	270	25.1	25.1	0.1	258	28.8	28.1	6.2	272	22.4	22.4	-0.6

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	216	3.6	2.1	2.9	257	4.9	4.8	1.1	292	8.1	7.5	-3.1	277	16.3	16.2	-1.9	271	29.0	29.0	-0.3	262	29.8	29.5	4.3	267	16.9	16.9	0.8
2	314	2.8	2.0	-1.9	292	4.1	3.8	-1.5	294	8.1	7.4	-3.3	278	15.5	15.3	-2.2	272	25.8	25.8	-0.9	260	27.1	26.7	4.6	271	19.2	19.2	-0.5
3	312	2.8	2.1	-1.9	327	4.2	2.3	-3.5	305	7.3	6.0	-4.2	285	12.9	12.5	-3.3	269	26.1	26.1	0.3	259	26.3	25.8	4.9	261	17.8	17.6	2.9
4	271	4.3	4.3	-0.1	303	3.8	3.2	-2.1	307	7.6	6.0	-4.6	286	13.0	12.5	-3.6	273	24.2	24.2	-1.2	260	28.2	27.8	4.7	265	18.4	18.3	1.7
5	288	2.2	2.1	-0.7	303	3.0	2.5	-1.6	313	7.5	5.5	-5.1	283	13.9	13.6	-3.1	272	23.9	23.9	-0.8	256	26.8	26.0	6.6	267	18.0	18.0	1.0
6	234	3.6	2.9	2.1	273	3.4	3.4	-0.2	305	8.0	6.5	-4.6	279	14.9	14.7	-2.3	268	25.9	25.9	0.7	255	31.4	30.3	8.1	268	17.2	17.2	0.7
7	240	3.9	3.4	2.0	272	4.7	4.7	-0.2	297	7.1	6.3	-3.2	283	12.8	12.5	-2.8	271	25.0	25.0	-0.5	265	29.6	29.5	2.8	260	19.4	19.1	3.3
8	273	1.7	1.7	-0.1	274	4.1	4.1	-0.3	312	8.2	6.1	-5.5	280	12.6	12.4	-2.1	272	26.4	26.4	-1.0	263	30.0	29.8	3.8	271	16.7	16.7	-0.2
9	252	2.5	2.4	0.8	290	4.0	3.8	-1.4	307	6.7	5.4	-4.0	284	12.9	12.5	-3.1	270	25.6	25.6	-0.2	259	31.6	31.0	6.1	262	20.2	20.0	2.8
10	254	2.9	2.8	0.8	282	3.3	3.2	-0.7	311	7.4	5.6	-4.8	280	13.8	13.6	-2.3	269	25.1	25.1	0.3	266	28.6	28.5	2.1	262	17.8	17.6	2.5
11	236	3.2	2.7	1.8	223	1.6	1.1	1.2	310	7.5	5.8	-4.8	275	12.1	12.0	-1.1	266	25.6	25.6	1.6	254	28.0	27.0	7.5	264	19.5	19.4	1.9
12	234	5.8	4.7	3.4	278	4.3	4.3	-0.6	302	8.3	7.0	-4.4	276	13.9	13.8	-1.5	267	24.9	24.9	1.4	262	28.7	28.4	4.0	258	18.6	18.2	3.8
13	253	5.0	4.8	1.5	286	4.4	4.2	-1.2	298	7.3	6.5	-3.4	282	13.6	13.3	-2.8	268	23.7	23.7	0.7	259	27.5	27.0	5.1	259	19.2	18.9	3.6
14	267	5.7	5.7	0.3	298	4.2	3.7	-2.0	302	8.0	6.8	-4.3	287	13.7	13.1	-3.9	268	22.7	22.7	0.8	258	29.0	28.4	6.0	265	18.7	18.6	1.5
15	254	5.5	5.3	1.5	288	3.8	3.6	-1.2	304	8.5	7.0	-4.8	292	14.2	13.1	-5.4	281	21.4	21.0	-4.2	272	26.4	26.4	-1.0	261	18.0	17.8	2.8
16	244	3.7	3.3	1.6	290	4.6	4.3	-1.6	313	8.5	6.2	-5.8	292	12.4	11.5	-4.7	279	22.0	21.7	-3.6	277	25.2	25.0	-3.1	272	15.2	15.2	-0.6
17	271	4.1	4.1	-0.1	284	3.8	3.7	-0.9	312	8.1	6.0	-5.4	282	11.5	11.2	-2.4	273	21.6	21.6	-1.0	268	26.7	26.7	0.9	273	14.7	14.7	-0.8
18	278	2.9	2.9	-0.4	270	3.0	3.0	0.0	302	7.8	6.6	-4.2	278	13.1	13.0	-1.9	269	24.6	24.6	0.5	258	29.2	28.5	6.3	266	14.7	14.7	1.0
19	260	4.8	4.7	0.8	275	4.3	4.3	-0.4	304	8.5	7.1	-4.7	285	12.3	11.9	-3.1	263	22.0	21.8	2.7	263	23.9	23.7	3.0	260	15.9	15.7	2.8
20	246	3.4	3.1	1.4	286	5.4	5.2	-1.5	297	7.2	6.4	-3.3	281	12.5	12.3	-2.3	270	23.2	23.2	-0.2	259	26.6	26.1	5.1	260	15.8	15.5	2.8
21	235	4.5	3.7	2.6	255	4.2	4.1	1.1	289	7.2	6.8	-2.4	286	13.0	12.5	-3.5	272	24.8	24.8	-0.7	258	27.9	27.3	5.8	262	16.4	16.2	2.4
22	236	5.2	4.3	2.9	271	4.7	4.7	-0.1	299	8.0	7.0	-3.9	289	10.0	9.5	-3.2	271	23.6	23.6	-0.6	262	25.3	25.0	3.7	264	14.3	14.2	1.6
23	217	5.8	3.5	4.6	260	4.0	3.9	0.7	302	7.1	6.0	-3.8	293	10.8	9.9	-4.2	272	21.2	21.2	-0.6	261	25.1	24.8	3.8	270	16.0	16.0	0.1
24	225	5.4	3.8	3.8	264	4.4	4.4	0.5	292	7.2	6.7	-2.7	285	10.5	10.1	-2.7	264	21.0	20.9	2.1	262	26.7	26.5	3.6	268	12.4	12.4	0.4
25	235	3.2	2.6	1.8	272	3.8	3.8	-0.1	298	5.1	4.5	-2.4	271	12.3	12.3	-0.3	266	19.3	19.3	1.2	262	28.7	28.4	4.1	270	15.9	15.9	0.1
26	218	6.1	3.7	4.8	250	4.8	4.5	1.6	293	6.1	5.6	-2.4	271	11.4	11.4	-0.2	273	21.2	21.2	-1.1	263	30.8	30.6	3.8	263	19.0	18.9	2.2
27	258	4.0	3.9	0.8	260	5.3	5.2	0.9	293	6.5	6.0	-2.5	281	10.8	10.6	-2.0	272	21.7	21.7	-0.7	260	26.2	25.8	4.6	264	17.4	17.3	1.8
28	244	2.5	2.3	1.1	267	3.6	3.6	0.2	307	7.4	5.9	-4.5	291	9.9	9.2	-3.6	278	20.7	20.5	-2.9	266	26.4	26.3	1.7	270	15.1	15.1	-0.1
29	225	5.5	3.9	3.9	272	3.6	3.6	-0.1	312	7.0	5.2	-4.7	290	10.0	9.4	-3.4	277	21.5	21.3	-2.6	269	27.2	27.2	0.5	272	16.8	16.8	-0.5
30	213	5.3	2.9	4.4	277	3.1	3.1	-0.4	310	6.9	5.3	-4.4	290	10.0	9.4	-3.5	275	20.1	20.0	-1.8	267	26.0	26.0	1.4	263	13.4	13.3	1.6
31	227	3.5	2.6	2.4	280	2.8	2.8	-0.5	300	6.7	5.8	-3.3	286	11.1	10.7	-3.1	266	23.4	23.4	1.5	261	25.1	24.8	3.8	257	14.6	14.2	3.4

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	239	3.5	3.0	1.8	271	4.6	4.6	-0.1	303	6.3	5.3	-3.4	280	11.6	11.4	-2.1	270	21.8	21.8	0.0	262	24.4	24.1	3.5	257	18.5	18.0	4.1
2	230	5.5	4.2	3.5	258	5.7	5.6	1.2	297	6.0	5.4	-2.7	285	9.9	9.6	-2.6	271	20.3	20.3	-0.4	260	25.8	25.4	4.4	256	17.9	17.4	4.3
3	226	4.3	3.1	3.0	254	4.8	4.6	1.3	303	5.5	4.6	-3.0	282	9.9	9.7	-2.0	258	19.2	18.8	3.9	258	23.4	22.9	4.7	260	11.2	11.0	1.9
4	222	4.7	3.2	3.5	262	4.4	4.4	0.6	296	4.1	3.7	-1.8	275	11.4	11.4	-0.9	262	22.6	22.4	3.3	256	25.1	24.3	6.2	258	16.3	15.9	3.5
5	239	4.8	4.1	2.5	256	4.0	3.9	1.0	296	6.0	5.4	-2.6	282	10.1	9.9	-2.1	267	21.4	21.4	1.2	260	25.3	24.9	4.2	261	14.8	14.6	2.4
6	238	6.0	5.1	3.2	282	4.8	4.7	-1.0	293	6.5	6.0	-2.6	282	10.9	10.7	-2.3	267	21.5	21.5	1.2	264	26.0	25.9	2.7	256	13.5	13.1	3.3
7	245	6.5	5.9	2.8	279	5.5	5.4	-0.9	295	6.4	5.8	-2.7	287	9.3	8.9	-2.8	280	19.4	19.1	-3.3	273	22.4	22.4	-1.1	284	9.9	9.6	-2.4
8	252	6.0	5.7	1.9	272	5.1	5.1	-0.2	308	7.2	5.7	-4.4	285	11.4	11.0	-2.9	282	21.2	20.8	-4.3	273	26.3	26.3	-1.4	264	12.9	12.8	1.3
9	228	5.0	3.7	3.3	267	5.5	5.5	0.3	301	5.7	4.9	-2.9	286	10.6	10.2	-3.0	285	21.0	20.3	-5.4	264	25.1	25.0	2.7	262	12.8	12.7	1.7
10	240	5.2	4.5	2.6	269	5.0	5.0	0.1	291	6.3	5.9	-2.3	290	11.6	10.9	-3.9	269	22.3	22.3	0.4	259	25.7	25.3	4.7	253	17.7	16.9	5.2
11	219	5.5	3.5	4.3	261	5.0	4.9	0.8	303	6.0	5.0	-3.3	288	9.4	8.9	-2.9	273	21.1	21.1	-1.1	260	23.3	23.0	3.9	261	16.5	16.3	2.7
12	243	4.6	4.1	2.1	262	4.3	4.3	0.6	304	6.3	5.2	-3.5	297	10.4	9.3	-4.7	277	19.2	19.1	-2.3	272	22.5	22.5	-0.8	270	13.8	13.8	0.1
13	236	4.1	3.4	2.3	272	5.8	5.8	-0.2	299	6.5	5.7	-3.1	292	10.5	9.7	-4.0	275	18.8	18.7	-1.7	269	22.4	22.4	0.2	271	17.0	17.0	-0.3
14	224	6.4	4.4	4.6	260	5.0	4.9	0.9	314	6.2	4.4	-4.3	298	10.0	8.8	-4.7	281	17.2	16.9	-3.3	272	21.1	21.1	-0.6	267	14.0	14.0	0.7
15	210	5.1	2.5	4.4	250	4.6	4.3	1.6	316	5.6	3.9	-4.0	303	8.3	7.0	-4.5	270	18.8	18.8	0.1	263	23.0	22.8	3.0	270	12.5	12.5	-0.1
16	263	2.4	2.4	0.3	256	5.0	4.9	1.2	298	5.4	4.8	-2.5	285	8.9	8.6	-2.3	267	18.4	18.4	0.9	256	21.5	20.9	5.1	261	10.3	10.2	1.7
17	235	6.2	5.1	3.6	261	5.6	5.5	0.9	308	6.0	4.7	-3.7	281	7.3	7.2	-1.4	266	20.0	20.0	1.3	261	22.6	22.3	3.6	248	17.9	16.6	6.6
18	227	7.1	5.2	4.8	270	4.7	4.7	0.0	306	5.3	4.3	-3.1	297	8.9	8.0	-4.0	267	19.4	19.4	1.0	256	24.4	23.6	6.0	254	8.3	8.0	2.3
19	246	5.7	5.2	2.3	266	5.3	5.3	0.4	303	5.4	4.5	-2.9	300	8.5	7.4	-4.2	266	17.6	17.6	1.3	255	22.6	21.8	5.8	252	10.6	10.1	3.3
20	229	8.2	6.2	5.3	261	5.2	5.1	0.8	319	6.4	4.2	-4.8	295	9.5	8.6	-4.1	267	17.5	17.5	1.0	253	23.6	22.5	7.0	255	11.1	10.7	2.9
21	230	7.1	5.4	4.6	255	6.0	5.8	1.6	316	6.5	4.5	-4.7	302	7.5	6.3	-4.0	267	18.2	18.2	0.8	251	24.5	23.1	8.1	249	13.2	12.3	4.8
22	229	7.3	5.5	4.8	282	4.2	4.1	-0.9	320	5.7	3.7	-4.4	297	6.3	5.6	-2.9	266	16.3	16.3	1.0	253	22.5	21.6	6.4	263	8.8	8.7	1.1
23	262	6.0	5.9	0.8	287	4.4	4.2	-1.3	301	4.5	3.9	-2.3	280	6.9	6.8	-1.2	265	16.9	16.8	1.6	262	20.9	20.7	3.0	273	9.0	9.0	-0.5
24	237	6.4	5.3	3.5	251	5.0	4.7	1.6	316	4.6	3.2	-3.3	290	7.5	7.0	-2.6	262	15.7	15.6	2.1	254	22.0	21.2	6.0	264	7.2	7.2	0.7
25	231	5.1	4.0	3.2	261	5.0	4.9	0.8	308	4.3	3.4	-2.7	286	7.7	7.4	-2.1	263	17.4	17.3	2.1	259	20.7	20.3	4.0	251	8.5	8.0	2.8
26	219	7.1	4.5	5.5	262	5.3	5.3	0.7	310	5.1	3.9	-3.3	293	7.6	7.0	-3.0	257	17.0	16.6	3.7	245	20.6	18.7	8.6	260	6.5	6.4	1.1
27	235	7.3	6.0	4.2	256	4.9	4.7	1.2	317	4.9	3.3	-3.6	295	6.5	5.9	-2.7	263	13.7	13.6	1.7	248	17.1	15.9	6.4	279	4.9	4.8	-0.8
28	220	7.4	4.7	5.7	252	5.4	5.1	1.7	327	4.9	2.7	-4.1	308	6.7	5.3	-4.1	274	12.6	12.6	-0.8	263	17.3	17.2	2.2	294	4.7	4.3	-1.9
29	220	3.5	2.3	2.7	254	5.8	5.6	1.6	318	6.1	4.1	-4.5	307	7.9	6.3	-4.8	276	13.9	13.8	-1.4	260	15.1	14.9	2.6	270	5.4	5.4	0.0
30	233	4.8	3.8	2.9	272	5.3	5.3	-0.2	326	5.8	3.2	-4.8	308	7.4	5.8	-4.6	279	16.4	16.2	-2.5	256	16.7	16.2	3.9	241	3.5	3.1	1.7

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	233	6.5	5.2	3.9	264	4.9	4.9	0.5	313	6.6	4.8	-4.5	311	7.7	5.8	-5.1	281	14.2	14.0	-2.6	272	14.8	14.8	-0.4	213	4.5	2.5	3.8
2	242	6.7	5.9	3.2	257	4.5	4.4	1.0	326	5.3	3.0	-4.4	300	6.9	6.0	-3.4	273	14.4	14.4	-0.7	255	16.0	15.4	4.2	250	6.3	5.9	2.1
3	228	7.6	5.7	5.1	253	5.5	5.3	1.6	314	6.4	4.6	-4.4	303	6.0	5.0	-3.3	275	12.6	12.5	-1.2	259	15.0	14.7	2.8	231	2.8	2.2	1.8
4	223	7.9	5.4	5.8	258	5.8	5.7	1.2	314	6.4	4.6	-4.5	313	7.8	5.7	-5.3	274	12.9	12.9	-0.9	270	14.3	14.3	0.0	262	6.4	6.3	0.9
5	231	6.4	5.0	4.0	262	5.3	5.3	0.7	307	6.1	4.9	-3.7	309	7.7	6.0	-4.9	279	12.1	12.0	-1.8	265	16.5	16.4	1.5	240	4.6	4.0	2.3
6	230	6.1	4.7	3.9	265	4.3	4.3	0.4	327	6.0	3.3	-5.0	312	5.5	4.1	-3.7	272	12.6	12.6	-0.5	255	14.8	14.3	3.9	262	4.5	4.5	0.6
7	238	8.3	7.0	4.4	269	5.0	5.0	0.1	327	5.6	3.1	-4.7	307	6.8	5.4	-4.1	274	11.3	11.3	-0.8	250	16.0	15.0	5.5	275	3.2	3.2	-0.3
8	235	5.0	4.1	2.9	251	4.6	4.3	1.5	320	5.2	3.4	-4.0	300	6.0	5.2	-3.0	267	13.0	13.0	0.7	257	15.9	15.5	3.7	240	4.0	3.5	2.0
9	221	4.6	3.0	3.5	244	3.9	3.5	1.7	306	4.9	4.0	-2.9	314	5.7	4.1	-4.0	263	13.2	13.1	1.6	250	14.4	13.5	5.0	253	3.8	3.6	1.1
10	254	5.8	5.6	1.6	257	3.6	3.5	0.8	328	4.9	2.6	-4.2	300	5.0	4.3	-2.5	266	12.3	12.3	0.9	247	13.8	12.7	5.4	218	3.3	2.0	2.6
11	173	4.0	-0.5	4.0	220	4.3	2.8	3.3	304	3.7	3.1	-2.1	293	4.8	4.4	-1.9	261	11.5	11.4	1.8	254	13.4	12.9	3.7	272	3.0	3.0	-0.1
12	203	5.4	2.1	5.0	223	4.2	2.9	3.1	324	4.1	2.4	-3.3	307	6.3	5.0	-3.8	253	10.9	10.4	3.2	243	13.3	11.8	6.1	158	2.4	-0.9	2.2
13	233	4.6	3.7	2.8	236	4.2	3.5	2.4	324	4.3	2.5	-3.5	318	4.8	3.2	-3.6	264	10.0	9.9	1.1	247	12.3	11.3	4.8	186	2.0	0.2	2.0
14	235	4.2	3.4	2.4	233	3.5	2.8	2.1	330	4.3	2.1	-3.7	316	5.2	3.6	-3.7	268	6.6	6.6	0.2	249	7.7	7.2	2.7	132	3.1	-2.3	2.1
15	226	8.1	5.8	5.6	256	4.5	4.4	1.1	329	4.8	2.5	-4.1	321	5.6	3.5	-4.4	255	8.0	7.7	2.1	255	8.2	7.9	2.1	164	1.9	-0.5	1.8
16	233	7.9	6.3	4.7	256	5.3	5.1	1.3	322	5.3	3.3	-4.2	322	5.3	3.3	-4.2	277	6.4	6.4	-0.8	246	7.9	7.2	3.2	135	5.1	-3.6	3.6
17	198	6.0	1.9	5.7	261	3.3	3.3	0.5	325	6.3	3.6	-5.2	319	5.3	3.5	-4.0	256	7.6	7.4	1.8	245	8.9	8.1	3.7	127	5.5	-4.4	3.3
18	232	5.0	3.9	3.1	260	4.7	4.6	0.8	321	6.7	4.2	-5.2	312	7.4	5.5	-5.0	268	7.4	7.4	0.3	251	6.7	6.3	2.2	168	3.0	-0.6	2.9
19	207	3.0	1.4	2.7	269	4.1	4.1	0.1	318	6.7	4.5	-5.0	327	6.7	3.7	-5.6	264	7.3	7.3	0.8	236	10.3	8.6	5.7	135	3.4	-2.4	2.4
20	243	7.1	6.3	3.2	268	5.1	5.1	0.2	326	6.0	3.4	-5.0	310	5.4	4.1	-3.5	268	6.6	6.6	0.2	233	8.2	6.6	4.9	133	4.9	-3.6	3.3
21	249	6.2	5.8	2.2	267	4.3	4.3	0.2	334	7.4	3.2	-6.7	329	4.8	2.5	-4.1	259	6.0	5.9	1.2	228	7.5	5.6	5.0	142	5.2	-3.2	4.1
22	226	7.1	5.1	5.0	251	4.9	4.6	1.6	326	5.9	3.3	-4.9	307	4.1	3.3	-2.5	248	6.7	6.2	2.5	223	8.4	5.7	6.2	147	4.0	-2.2	3.4
23	224	5.7	4.0	4.1	254	3.5	3.4	1.0	340	6.2	2.1	-5.8	320	7.1	4.6	-5.4	249	6.0	5.6	2.1	204	8.0	3.3	7.3	99	4.3	-4.2	0.7
24	221	7.0	4.6	5.3	267	3.3	3.3	0.2	327	6.9	3.7	-5.8	330	6.0	3.0	-5.2	243	7.4	6.6	3.4	209	8.0	3.9	7.0	138	4.3	-2.9	3.2
25	220	6.4	4.1	4.9	277	3.2	3.2	-0.4	331	6.8	3.3	-6.0	335	5.2	2.2	-4.7	234	3.6	2.9	2.1	217	6.0	3.6	4.8	124	7.6	-6.3	4.2
26	226	7.4	5.3	5.1	269	4.8	4.8	0.1	349	6.1	1.2	-6.0	334	4.6	2.0	-4.1	244	4.8	4.3	2.1	212	9.7	5.1	8.3	135	7.6	-5.4	5.4
27	235	6.3	5.2	3.6	256	5.0	4.9	1.2	319	5.8	3.8	-4.4	319	5.2	3.4	-3.9	256	4.2	4.1	1.0	184	4.8	0.3	4.8	123	7.7	-6.5	4.2
28	242	6.4	5.6	3.0	252	5.1	4.8	1.6	328	4.9	2.6	-4.2	316	6.4	4.4	-4.6	233	3.0	2.4	1.8	200	2.9	1.0	2.7	117	8.1	-7.2	3.7
29	236	5.3	4.4	3.0	255	4.9	4.7	1.3	330	5.1	2.5	-4.4	323	4.0	2.4	-3.2	228	2.4	1.8	1.6	202	5.2	1.9	4.8	116	10.1	-9.1	4.4
30	233	5.4	4.3	3.2	257	4.6	4.5	1.0	331	4.8	2.3	-4.2	331	4.7	2.3	-4.1	233	4.0	3.2	2.4	201	5.6	2.0	5.2	111	9.5	-8.9	3.4
31	230	6.7	5.1	4.3	270	6.0	6.0	0.0	313	4.7	3.4	-3.2	315	3.5	2.5	-2.5	217	3.1	1.9	2.5	156	4.4	-1.8	4.0	113	10.3	-9.5	4.0

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	241	5.0	4.4	2.4	282	4.4	4.3	-0.9	332	5.7	2.7	-5.0	336	3.9	1.6	-3.6	225	1.7	1.2	1.2	151	5.3	-2.6	4.6	100	8.8	-8.7	1.5
2	225	7.1	5.0	5.0	281	4.3	4.2	-0.8	325	4.7	2.7	-3.8	351	3.7	0.6	-3.7	159	1.4	-0.5	1.3	151	3.8	-1.8	3.3	94	13.8	-13.8	1.0
3	240	5.3	4.6	2.7	280	3.5	3.4	-0.6	347	5.7	1.3	-5.6	347	3.7	0.8	-3.6	221	1.1	0.7	0.8	148	3.6	-1.9	3.0	119	11.3	-9.9	5.5
4	220	7.5	4.8	5.7	263	6.0	6.0	0.7	322	5.3	3.3	-4.2	324	3.6	2.1	-2.9	190	1.7	0.3	1.7	142	4.2	-2.6	3.3	98	13.5	-13.4	1.9
5	207	6.6	3.0	5.9	268	4.6	4.6	0.2	326	4.8	2.7	-4.0	306	3.4	2.8	-2.0	163	1.7	-0.5	1.6	131	5.7	-4.3	3.7	99	14.8	-14.6	2.3
6	222	9.8	6.6	7.3	251	7.5	7.1	2.5	324	4.3	2.5	-3.5	329	4.2	2.2	-3.6	163	1.4	-0.4	1.3	138	7.0	-4.7	5.2	98	13.5	-13.4	1.9
7	222	7.4	4.9	5.5	269	8.8	8.8	0.1	304	4.8	4.0	-2.7	316	4.3	3.0	-3.1	103	1.8	-1.8	0.4	92	6.5	-6.5	0.2	90	14.1	-14.1	0.1
8	213	8.2	4.5	6.8	261	4.4	4.3	0.7	297	3.5	3.1	-1.6	311	2.9	2.2	-1.9	81	1.9	-1.9	-0.3	106	5.4	-5.2	1.5	89	13.3	-13.3	-0.3
9	238	5.9	5.0	3.1	254	6.3	6.1	1.7	303	3.7	3.1	-2.0	310	2.3	1.8	-1.5	81	1.2	-1.2	-0.2	101	6.5	-6.4	1.3	84	14.7	-14.6	-1.5
10	236	6.6	5.5	3.7	258	5.3	5.2	1.1	325	4.9	2.8	-4.0	338	2.9	1.1	-2.7	127	2.1	-1.7	1.3	100	5.0	-4.9	0.9	87	16.7	-16.7	-0.8
11	231	6.5	5.1	4.1	264	4.9	4.9	0.5	312	4.5	3.3	-3.0	312	2.4	1.8	-1.6	108	3.2	-3.0	1.0	98	6.6	-6.5	0.9	83	16.5	-16.4	-1.9
12	215	7.5	4.3	6.2	252	3.5	3.3	1.1	344	3.7	1.0	-3.6	45	2.0	-1.4	-1.4	106	3.5	-3.4	1.0	100	7.6	-7.5	1.3	87	16.4	-16.4	-0.9
13	240	5.6	4.9	2.8	280	2.8	2.8	-0.5	339	3.6	1.3	-3.4	36	2.7	-1.6	-2.2	106	5.3	-5.1	1.5	105	10.2	-9.8	2.7	95	15.2	-15.1	1.3
14	185	2.3	0.2	2.3	267	3.8	3.8	0.2	333	3.0	1.4	-2.7	3	1.7	-0.1	-1.7	108	4.9	-4.7	1.5	103	9.6	-9.4	2.1	87	18.0	-18.0	-0.8
15	238	3.2	2.7	1.7	276	3.9	3.9	-0.4	335	1.9	0.8	-1.7	63	0.4	-0.4	-0.2	102	6.2	-6.1	1.3	102	10.7	-10.5	2.2	87	18.1	-18.1	-0.9
16	297	2.9	2.6	-1.3	275	3.3	3.3	-0.3	347	2.6	0.6	-2.5	76	1.6	-1.6	-0.4	112	6.2	-5.8	2.3	93	11.8	-11.8	0.7	88	18.9	-18.9	-0.5
17	260	3.4	3.3	0.6	286	5.3	5.1	-1.5	300	2.8	2.4	-1.4	360	0.2	0.0	-0.2	118	4.7	-4.1	2.2	91	9.7	-9.7	0.2	84	18.4	-18.3	-1.8
18	239	9.3	8.0	4.8	276	7.7	7.7	-0.8	286	5.8	5.6	-1.6	286	3.2	3.1	-0.9	91	4.0	-4.0	0.1	97	9.4	-9.3	1.1	87	19.5	-19.5	-1.1
19	227	9.5	6.9	6.5	272	7.4	7.4	-0.3	271	5.2	5.2	-0.1	270	2.8	2.8	0.0	88	3.8	-3.8	-0.1	88	12.9	-12.9	-0.4	89	19.8	-19.8	-0.4
20	237	7.8	6.5	4.3	288	6.3	6.0	-2.0	300	3.6	3.1	-1.8	315	0.8	0.6	-0.6	98	5.9	-5.8	0.8	99	13.2	-13.0	2.0	86	22.0	-21.9	-1.5
21	261	8.9	8.8	1.4	286	8.0	7.7	-2.2	305	4.7	3.9	-2.7	315	0.1	0.1	-0.1	98	7.3	-7.2	1.0	84	12.5	-12.4	-1.2	84	19.8	-19.7	-2.2
22	288	8.9	8.4	-2.8	281	7.6	7.5	-1.5	292	5.5	5.1	-2.1	150	2.2	-1.1	1.9	115	8.0	-7.2	3.4	93	13.7	-13.7	0.6	88	23.8	-23.8	-0.7
23	273	8.9	8.9	-0.5	275	8.4	8.4	-0.7	289	5.9	5.6	-1.9	256	0.8	0.8	0.2	101	6.9	-6.8	1.3	88	13.9	-13.9	-0.5	86	22.9	-22.9	-1.5
24	271	8.2	8.2	-0.1	280	7.1	7.0	-1.2	298	4.9	4.3	-2.3	280	1.7	1.7	-0.3	108	6.6	-6.3	2.0	81	14.4	-14.2	-2.2	84	23.3	-23.2	-2.4
25	279	9.5	9.4	-1.5	286	7.0	6.7	-1.9	282	4.5	4.4	-0.9	270	1.6	1.6	0.0	102	6.7	-6.6	1.4	85	12.8	-12.7	-1.2	90	21.5	-21.5	-0.1
26	268	6.7	6.7	0.2	275	7.6	7.6	-0.6	274	5.3	5.3	-0.4	261	1.3	1.3	0.2	95	7.3	-7.3	0.7	88	16.7	-16.7	-0.7	83	24.9	-24.7	-3.2
27	260	7.9	7.8	1.4	274	7.8	7.8	-0.6	265	4.9	4.9	0.4	214	1.1	0.6	0.9	102	8.8	-8.6	1.8	85	17.6	-17.5	-1.6	84	25.0	-24.9	-2.5
28	252	5.7	5.4	1.8	269	9.2	9.2	0.2	269	5.6	5.6	0.1	189	2.0	0.3	2.0	99	8.7	-8.6	1.3	92	15.0	-15.0	0.6	88	23.9	-23.9	-0.8
29	229	5.0	3.8	3.3	272	7.4	7.4	-0.3	269	5.5	5.5	0.1	304	1.4	1.2	-0.8	98	9.4	-9.3	1.3	85	16.6	-16.5	-1.4	80	26.9	-26.5	-4.7
30	241	5.7	5.0	2.8	278	6.7	6.6	-0.9	289	4.2	4.0	-1.4	270	0.6	0.6	0.0	88	7.6	-7.6	-0.2	89	17.0	-17.0	-0.3	85	25.2	-25.1	-2.1

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	255	6.0	5.8	1.6	279	7.0	6.9	-1.1	286	5.1	4.9	-1.4	338	1.1	0.4	-1.0	100	7.7	-7.6	1.3	84	14.2	-14.1	-1.5	87	26.0	-26.0	-1.3
2	277	5.2	5.2	-0.6	281	7.1	7.0	-1.3	273	5.0	5.0	-0.3	180	0.7	0.0	0.7	89	9.9	-9.9	-0.2	91	18.2	-18.2	0.2	87	28.2	-28.2	-1.5
3	270	3.3	3.3	0.0	286	8.0	7.7	-2.2	283	5.4	5.3	-1.2	300	0.8	0.7	-0.4	104	9.7	-9.4	2.3	83	16.3	-16.2	-2.0	86	26.0	-25.9	-1.9
4	236	6.8	5.6	3.8	281	7.7	7.6	-1.5	272	4.8	4.8	-0.2	297	2.2	2.0	-1.0	80	6.3	-6.2	-1.1	83	15.3	-15.2	-1.9	84	27.2	-27.1	-2.7
5	249	6.8	6.4	2.4	278	7.4	7.3	-1.0	275	3.7	3.7	-0.3	325	1.2	0.7	-1.0	96	8.0	-7.9	0.9	84	16.3	-16.2	-1.8	82	30.3	-30.0	-4.1
6	261	6.2	6.1	1.0	275	7.1	7.1	-0.6	282	5.0	4.9	-1.0	292	1.1	1.0	-0.4	98	9.0	-8.9	1.3	78	18.4	-18.0	-3.7	83	26.5	-26.3	-3.3
7	258	5.1	5.0	1.1	281	7.4	7.3	-1.4	280	5.8	5.7	-1.0	360	0.5	0.0	-0.5	98	6.8	-6.7	1.0	87	17.1	-17.1	-0.8	85	28.8	-28.7	-2.3
8	244	7.0	6.3	3.1	280	6.3	6.2	-1.1	268	5.0	5.0	0.2	172	1.4	-0.2	1.4	106	8.5	-8.2	2.3	88	17.3	-17.3	-0.5	91	25.1	-25.1	0.4
9	254	9.4	9.0	2.6	270	8.1	8.1	0.0	274	6.1	6.1	-0.4	216	0.9	0.5	0.7	102	8.7	-8.5	1.8	92	17.8	-17.8	0.6	89	29.0	-29.0	-0.6
10	243	6.2	5.5	2.8	273	6.6	6.6	-0.4	275	4.8	4.8	-0.4	225	0.4	0.3	0.3	99	8.8	-8.7	1.4	90	16.8	-16.8	0.1	83	28.1	-27.9	-3.4
11	250	6.2	5.8	2.1	270	5.9	5.9	0.0	271	4.3	4.3	-0.1	94	2.9	-2.9	0.2	97	10.0	-9.9	1.2	85	20.1	-20.0	-1.9	87	28.7	-28.7	-1.5
12	254	6.4	6.1	1.8	278	6.9	6.8	-1.0	272	4.6	4.6	-0.2	171	0.6	-0.1	0.6	108	10.0	-9.5	3.1	87	17.3	-17.3	-0.9	84	26.0	-25.8	-2.9
13	260	7.2	7.1	1.3	274	7.1	7.1	-0.5	269	5.1	5.1	0.1	137	2.3	-1.6	1.7	101	10.5	-10.3	2.0	93	18.6	-18.6	0.9	89	30.0	-30.0	-0.3
14	273	7.9	7.9	-0.4	274	7.1	7.1	-0.5	266	6.4	6.4	0.4	165	2.0	-0.5	1.9	92	8.4	-8.4	0.3	88	17.7	-17.7	-0.7	89	25.0	-25.0	-0.3
15	242	7.1	6.3	3.3	271	6.4	6.4	-0.1	276	4.5	4.5	-0.5	114	2.2	-2.0	0.9	92	10.0	-10.0	0.3	87	17.3	-17.3	-0.9	80	23.9	-23.6	-4.0
16	261	8.1	8.0	1.3	279	5.9	5.8	-0.9	258	3.9	3.8	0.8	129	2.2	-1.7	1.4	89	10.4	-10.4	-0.2	85	19.8	-19.7	-1.8	78	29.3	-28.6	-6.3
17	246	7.7	7.1	3.1	282	5.5	5.4	-1.1	282	3.3	3.2	-0.7	98	2.1	-2.1	0.3	91	8.6	-8.6	0.1	87	17.5	-17.5	-0.8	78	26.4	-25.8	-5.5
18	241	5.4	4.7	2.6	261	4.9	4.8	0.8	250	4.1	3.9	1.4	171	1.2	-0.2	1.2	98	9.2	-9.1	1.3	78	19.1	-18.7	-3.9	83	28.7	-28.5	-3.6
19	248	7.4	6.8	2.8	274	6.4	6.4	-0.5	276	4.6	4.6	-0.5	175	1.1	-0.1	1.1	102	8.4	-8.2	1.7	84	17.3	-17.2	-1.8	83	26.9	-26.7	-3.1
20	252	8.8	8.4	2.7	286	6.9	6.6	-1.9	276	4.8	4.8	-0.5	292	1.1	1.0	-0.4	91	8.7	-8.7	0.1	82	16.3	-16.1	-2.4	88	28.6	-28.6	-1.2
21	263	8.4	8.3	1.0	275	5.3	5.3	-0.5	275	3.8	3.8	-0.3	245	1.4	1.3	0.6	105	6.7	-6.5	1.8	88	17.6	-17.6	-0.7	82	26.8	-26.5	-3.8
22	249	6.8	6.4	2.4	260	4.7	4.6	0.8	265	5.0	5.0	0.4	139	2.3	-1.5	1.7	87	8.8	-8.8	-0.4	80	17.0	-16.8	-2.9	86	25.7	-25.6	-1.8
23	265	7.6	7.6	0.7	265	6.5	6.5	0.6	261	5.1	5.0	0.8	191	1.5	0.3	1.5	95	7.9	-7.9	0.7	81	18.6	-18.4	-2.9	83	27.2	-27.0	-3.2
24	264	7.3	7.3	0.8	264	5.7	5.7	0.6	263	4.7	4.7	0.6	139	1.1	-0.7	0.8	97	10.0	-9.9	1.2	82	18.6	-18.4	-2.7	86	25.6	-25.5	-1.8
25	287	7.3	7.0	-2.2	281	6.4	6.3	-1.2	272	4.7	4.7	-0.2	284	0.8	0.8	-0.2	94	8.3	-8.3	0.6	86	17.0	-17.0	-1.3	78	28.7	-28.1	-5.9
26	291	6.3	5.9	-2.3	286	7.2	6.9	-2.0	275	5.2	5.2	-0.5	322	1.1	0.7	-0.9	91	8.2	-8.2	0.2	85	17.7	-17.6	-1.6	82	29.3	-29.0	-4.3
27	264	7.3	7.3	0.8	282	7.7	7.5	-1.6	274	6.5	6.5	-0.5	275	2.5	2.5	-0.2	92	8.4	-8.4	0.3	92	17.3	-17.3	0.6	80	27.1	-26.7	-4.8
28	262	5.2	5.2	0.7	281	5.7	5.6	-1.1	281	4.4	4.3	-0.8	258	1.9	1.9	0.4	103	6.9	-6.7	1.6	90	15.2	-15.2	0.1	84	25.0	-24.8	-2.8
29	262	4.5	4.5	0.6	281	6.6	6.5	-1.3	264	4.9	4.9	0.5	242	2.1	1.9	1.0	109	6.1	-5.8	2.0	92	17.9	-17.9	0.5	81	30.7	-30.4	-4.6
30	267	3.8	3.8	0.2	283	3.7	3.6	-0.8	290	3.0	2.8	-1.0	112	1.6	-1.5	0.6	95	9.8	-9.8	0.8	97	17.7	-17.6	2.1	91	26.9	-26.9	0.5
31	267	5.3	5.3	0.3	294	5.1	4.7	-2.1	282	2.9	2.8	-0.6	93	1.7	-1.7	0.1	89	12.3	-12.3	-0.2	84	19.6	-19.5	-2.1	83	29.9	-29.7	-3.6

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	285	4.2	4.1	-1.1	294	3.4	3.1	-1.4	298	1.9	1.7	-0.9	109	3.7	-3.5	1.2	93	10.6	-10.6	0.6	83	20.2	-20.1	-2.4	81	27.7	-27.3	-4.4
2	253	4.9	4.7	1.4	288	5.9	5.6	-1.8	291	3.0	2.8	-1.1	80	2.2	-2.2	-0.4	105	8.9	-8.6	2.3	86	18.9	-18.8	-1.4	78	25.0	-24.5	-5.0
3	247	5.6	5.2	2.2	271	6.1	6.1	-0.1	270	4.5	4.5	0.0	245	1.9	1.7	0.8	94	7.7	-7.7	0.5	80	17.1	-16.9	-2.9	86	22.9	-22.9	-1.5
4	242	6.8	6.0	3.2	269	6.5	6.5	0.1	263	5.4	5.4	0.7	256	2.9	2.8	0.7	114	6.4	-5.9	2.6	84	14.2	-14.1	-1.5	80	24.2	-23.9	-4.1
5	267	6.8	6.8	0.4	281	6.5	6.4	-1.2	278	5.0	5.0	-0.7	281	1.0	1.0	-0.2	94	6.4	-6.4	0.5	84	15.0	-14.9	-1.6	86	22.9	-22.8	-1.6
6	261	8.7	8.6	1.3	289	8.3	7.8	-2.7	289	6.1	5.8	-2.0	307	2.1	1.7	-1.3	85	6.9	-6.9	-0.6	84	14.0	-13.9	-1.5	79	25.6	-25.1	-5.1
7	276	7.3	7.3	-0.8	288	6.6	6.3	-2.1	276	4.7	4.7	-0.5	132	1.3	-1.0	0.9	101	9.3	-9.1	1.7	85	15.0	-15.0	-1.2	88	25.1	-25.1	-1.0
8	270	7.1	7.1	0.0	286	5.4	5.2	-1.5	285	5.4	5.2	-1.4	131	3.5	-2.6	2.3	102	10.0	-9.8	2.0	97	16.6	-16.5	1.9	85	25.4	-25.3	-2.0
9	278	5.6	5.5	-0.8	270	5.6	5.6	0.0	254	3.5	3.4	1.0	133	3.3	-2.4	2.2	106	8.2	-7.9	2.3	88	18.1	-18.1	-0.5	79	26.9	-26.4	-5.1
10	286	2.9	2.8	-0.8	270	4.2	4.2	0.0	255	2.8	2.7	0.7	133	1.8	-1.3	1.2	101	9.3	-9.1	1.8	84	16.3	-16.2	-1.8	84	22.1	-22.0	-2.2
11	259	5.6	5.5	1.1	285	5.1	4.9	-1.3	276	3.0	3.0	-0.3	108	2.0	-1.9	0.6	99	9.9	-9.8	1.5	86	18.7	-18.6	-1.4	85	26.5	-26.4	-2.5
12	258	5.3	5.2	1.1	288	5.1	4.8	-1.6	310	3.3	2.5	-2.1	48	1.3	-1.0	-0.9	87	8.4	-8.4	-0.5	83	16.6	-16.5	-1.9	79	24.0	-23.6	-4.5
13	257	5.9	5.8	1.3	294	4.7	4.3	-1.9	274	3.9	3.9	-0.3	135	0.6	-0.4	0.4	105	7.9	-7.6	2.1	81	14.9	-14.7	-2.2	84	26.1	-25.9	-2.9
14	274	5.4	5.4	-0.4	299	4.9	4.3	-2.4	289	2.8	2.6	-0.9	204	1.2	0.5	1.1	102	9.1	-8.9	1.9	89	16.0	-16.0	-0.3	83	24.3	-24.1	-2.8
15	273	5.5	5.5	-0.3	280	5.3	5.2	-0.9	279	3.6	3.6	-0.6	180	1.1	0.0	1.1	96	7.9	-7.9	0.8	83	15.2	-15.1	-1.8	82	25.5	-25.2	-3.6
16	266	5.2	5.2	0.4	265	5.6	5.6	0.5	257	4.7	4.6	1.1	160	1.5	-0.5	1.4	99	8.3	-8.2	1.3	88	17.3	-17.3	-0.7	81	23.7	-23.4	-3.8
17	272	5.9	5.9	-0.2	268	5.6	5.6	0.2	276	2.8	2.8	-0.3	99	1.9	-1.9	0.3	101	10.0	-9.8	1.9	98	16.1	-15.9	2.3	88	21.4	-21.4	-0.6
18	264	6.7	6.7	0.7	279	5.9	5.8	-0.9	258	3.8	3.7	0.8	177	2.0	-0.1	2.0	93	7.7	-7.7	0.4	80	16.2	-16.0	-2.7	84	24.4	-24.3	-2.6
19	255	5.1	4.9	1.3	280	5.1	5.0	-0.9	254	4.0	3.8	1.1	145	1.9	-1.1	1.6	96	8.2	-8.2	0.8	87	14.7	-14.7	-0.8	85	25.5	-25.4	-2.1
20	244	5.9	5.3	2.6	287	5.1	4.9	-1.5	264	2.8	2.8	0.3	97	2.5	-2.5	0.3	100	9.4	-9.3	1.6	86	16.7	-16.7	-1.1	84	26.6	-26.4	-3.0
21	248	3.7	3.4	1.4	290	4.9	4.6	-1.7	305	2.8	2.3	-1.6	90	1.7	-1.7	0.0	106	9.1	-8.7	2.5	86	16.4	-16.4	-1.1	88	23.5	-23.5	-0.9
22	274	3.1	3.1	-0.2	291	3.4	3.2	-1.2	245	1.7	1.5	0.7	143	2.5	-1.5	2.0	101	10.1	-9.9	1.9	86	14.0	-14.0	-1.1	80	21.8	-21.5	-3.8
23	315	1.1	0.8	-0.8	255	4.2	4.1	1.1	235	3.5	2.9	2.0	175	3.3	-0.3	3.3	102	10.3	-10.1	2.1	89	16.7	-16.7	-0.4	80	27.0	-26.6	-4.8
24	257	3.5	3.4	0.8	270	5.3	5.3	0.0	247	4.9	4.5	1.9	193	1.8	0.4	1.8	93	9.0	-9.0	0.5	86	18.7	-18.7	-1.2	87	27.1	-27.1	-1.5
25	259	2.5	2.5	0.5	286	5.2	5.0	-1.4	256	3.6	3.5	0.9	90	1.9	-1.9	0.0	96	9.8	-9.7	1.0	89	17.0	-17.0	-0.2	87	27.5	-27.5	-1.4
26	300	2.8	2.4	-1.4	304	5.2	4.3	-2.9	297	2.8	2.5	-1.3	38	1.1	-0.7	-0.9	106	10.0	-9.6	2.8	93	18.0	-18.0	1.0	85	23.4	-23.3	-1.9
27	297	1.3	1.2	-0.6	298	5.5	4.9	-2.6	288	3.6	3.4	-1.1	120	0.8	-0.7	0.4	101	7.4	-7.3	1.4	87	15.0	-15.0	-0.7	89	27.4	-27.4	-0.6
28	316	2.8	1.9	-2.0	284	4.1	4.0	-1.0	265	2.4	2.4	0.2	180	0.5	0.0	0.5	104	8.9	-8.6	2.2	88	14.8	-14.8	-0.5	84	25.8	-25.7	-2.5
29	250	4.0	3.8	1.4	280	4.1	4.0	-0.7	246	2.7	2.5	1.1	157	2.1	-0.8	1.9	98	7.8	-7.7	1.1	87	13.8	-13.8	-0.8	74	20.3	-19.5	-5.5
30	252	2.6	2.5	0.8	276	4.4	4.4	-0.5	266	2.9	2.9	0.2	125	2.4	-2.0	1.4	110	8.6	-8.1	3.0	90	16.2	-16.2	-0.1	86	21.1	-21.0	-1.6
31	247	1.5	1.4	0.6	285	4.2	4.1	-1.1	262	2.8	2.8	0.4	130	1.7	-1.3	1.1	95	9.2	-9.2	0.8	89	16.8	-16.8	-0.2	90	25.6	-25.6	-0.1

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	235	5.5	4.5	3.2	278	4.1	4.1	-0.6	285	2.8	2.7	-0.7	172	1.5	-0.2	1.5	96	7.4	-7.4	0.8	86	13.3	-13.3	-1.0	88	23.2	-23.2	-0.9
2	240	6.4	5.6	3.2	285	5.0	4.8	-1.3	258	3.4	3.3	0.7	127	2.1	-1.7	1.3	98	8.3	-8.2	1.1	84	14.6	-14.5	-1.5	82	21.9	-21.7	-3.1
3	230	5.6	4.3	3.6	278	5.3	5.3	-0.7	264	4.4	4.4	0.5	207	1.3	0.6	1.2	92	7.0	-7.0	0.3	92	14.5	-14.5	0.5	84	20.1	-20.0	-2.0
4	270	4.3	4.3	0.0	289	5.4	5.1	-1.8	277	4.3	4.3	-0.5	253	2.1	2.0	0.6	89	6.1	-6.1	-0.1	85	14.9	-14.9	-1.2	95	20.9	-20.8	1.7
5	283	4.1	4.0	-0.9	284	6.2	6.0	-1.5	280	3.9	3.8	-0.7	207	1.3	0.6	1.2	97	6.0	-6.0	0.7	85	15.1	-15.1	-1.2	88	19.3	-19.3	-0.6
6	283	3.7	3.6	-0.8	290	6.2	5.8	-2.1	271	4.2	4.2	-0.1	174	0.9	-0.1	0.9	108	6.2	-5.9	1.9	91	11.5	-11.5	0.2	87	19.3	-19.3	-1.0
7	288	1.9	1.8	-0.6	302	3.9	3.3	-2.1	302	3.1	2.6	-1.6	101	0.5	-0.5	0.1	99	6.4	-6.3	1.0	87	13.9	-13.9	-0.8	85	18.8	-18.7	-1.7
8	253	3.0	2.9	0.9	318	3.0	2.0	-2.2	308	1.8	1.4	-1.1	125	2.4	-2.0	1.4	105	7.1	-6.9	1.8	96	11.3	-11.2	1.1	90	19.6	-19.6	-0.1
9	288	2.8	2.7	-0.9	342	3.3	1.0	-3.1	13	1.3	-0.3	-1.3	105	3.0	-2.9	0.8	104	7.6	-7.4	1.9	92	14.5	-14.5	0.6	89	18.2	-18.2	-0.2
10	282	1.9	1.9	-0.4	315	0.7	0.5	-0.5	45	0.1	-0.1	-0.1	123	3.1	-2.6	1.7	105	8.3	-8.0	2.2	87	15.0	-15.0	-0.9	96	19.7	-19.6	1.9
11	281	2.1	2.1	-0.4	311	0.9	0.7	-0.6	82	0.7	-0.7	-0.1	132	2.4	-1.8	1.6	122	8.0	-6.8	4.2	98	14.5	-14.4	2.0	96	17.3	-17.2	1.7
12	278	4.2	4.2	-0.6	241	3.5	3.1	1.7	219	3.5	2.2	2.7	178	3.1	-0.1	3.1	99	6.7	-6.6	1.1	84	12.5	-12.4	-1.3	89	17.5	-17.5	-0.3
13	293	4.0	3.7	-1.6	264	2.9	2.9	0.3	257	2.8	2.7	0.6	177	1.9	-0.1	1.9	93	6.6	-6.6	0.4	96	11.5	-11.4	1.2	91	18.0	-18.0	0.3
14	278	4.2	4.2	-0.6	292	3.2	3.0	-1.2	267	1.9	1.9	0.1	171	1.3	-0.2	1.3	106	5.1	-4.9	1.4	93	12.3	-12.3	0.7	92	17.1	-17.1	0.6
15	234	5.4	4.4	3.2	257	2.6	2.5	0.6	247	1.3	1.2	0.5	138	1.3	-0.9	1.0	116	5.5	-5.0	2.4	95	9.1	-9.1	0.8	86	15.6	-15.6	-1.2
16	266	4.3	4.3	0.3	279	2.0	2.0	-0.3	225	1.0	0.7	0.7	151	1.0	-0.5	0.9	109	4.9	-4.6	1.6	93	10.1	-10.1	0.5	92	16.7	-16.7	0.5
17	238	4.6	3.9	2.4	239	2.1	1.8	1.1	249	1.7	1.6	0.6	174	2.0	-0.2	2.0	105	4.3	-4.2	1.1	93	9.5	-9.5	0.5	90	14.6	-14.6	0.1
18	243	4.0	3.6	1.8	227	2.1	1.5	1.4	230	2.3	1.8	1.5	190	1.7	0.3	1.7	95	3.8	-3.8	0.3	93	8.2	-8.2	0.5	96	13.5	-13.4	1.5
19	254	2.6	2.5	0.7	254	0.7	0.7	0.2	205	1.7	0.7	1.5	162	2.2	-0.7	2.1	122	4.9	-4.2	2.6	110	7.0	-6.6	2.4	99	13.1	-12.9	2.0
20	262	2.9	2.9	0.4	225	0.4	0.3	0.3	99	0.6	-0.6	0.1	126	2.6	-2.1	1.5	117	6.3	-5.6	2.8	107	9.4	-9.0	2.7	99	12.3	-12.1	2.0
21	173	0.8	-0.1	0.8	45	0.4	-0.3	-0.3	72	1.3	-1.2	-0.4	122	3.2	-2.7	1.7	109	7.0	-6.6	2.3	107	7.9	-7.6	2.3	101	13.3	-13.1	2.5
22	195	1.6	0.4	1.5	113	0.8	-0.7	0.3	108	1.9	-1.8	0.6	122	3.2	-2.7	1.7	79	6.1	-6.0	-1.2	86	8.8	-8.8	-0.6	95	13.4	-13.4	1.1
23	231	1.9	1.5	1.2	165	1.6	-0.4	1.5	117	1.3	-1.2	0.6	134	2.9	-2.1	2.0	96	4.9	-4.9	0.5	99	7.7	-7.6	1.2	91	12.6	-12.6	0.2
24	220	3.1	2.0	2.4	183	1.7	0.1	1.7	127	1.0	-0.8	0.6	141	2.2	-1.4	1.7	108	3.8	-3.6	1.2	77	6.9	-6.7	-1.6	95	12.4	-12.4	1.1
25	225	1.7	1.2	1.2	203	1.3	0.5	1.2	76	0.4	-0.4	-0.1	69	0.9	-0.8	-0.3	116	3.2	-2.9	1.4	97	4.3	-4.3	0.5	99	12.1	-12.0	1.8
26	256	4.5	4.4	1.1	279	0.6	0.6	-0.1	180	0.7	0.0	0.7	180	1.2	0.0	1.2	139	4.5	-3.0	3.4	119	7.6	-6.6	3.7	97	10.1	-10.0	1.3
27	248	3.1	2.9	1.2	286	1.8	1.7	-0.5	284	1.2	1.2	-0.3	193	0.9	0.2	0.9	115	2.9	-2.6	1.2	100	6.4	-6.3	1.1	88	11.7	-11.7	-0.5
28	231	2.6	2.0	1.6	338	1.8	0.7	-1.7	357	1.8	0.1	-1.8	94	1.3	-1.3	0.1	92	5.7	-5.7	0.2	97	8.7	-8.6	1.1	90	11.5	-11.5	0.1
29	222	1.3	0.9	1.0	322	1.6	1.0	-1.3	321	0.6	0.4	-0.5	197	1.4	0.4	1.3	131	4.3	-3.2	2.8	126	6.2	-5.0	3.6	100	11.2	-11.0	1.9
30	189	1.9	0.3	1.9	30	0.8	-0.4	-0.7	24	1.0	-0.4	-0.9	141	1.3	-0.8	1.0	135	4.9	-3.5	3.5	129	4.5	-3.5	2.8	92	12.5	-12.5	0.5

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	360	0.6	0.0	-0.6	45	1.8	-1.3	-1.3	135	0.3	-0.2	0.2	135	1.3	-0.9	0.9	121	2.9	-2.5	1.5	131	3.7	-2.8	2.4	108	10.6	-10.1	3.2
2	264	1.0	1.0	0.1	86	1.4	-1.4	-0.1	103	1.3	-1.3	0.3	174	2.0	-0.2	2.0	151	2.5	-1.2	2.2	126	4.8	-3.9	2.8	103	8.2	-8.0	1.8
3	180	1.3	0.0	1.3	81	1.9	-1.9	-0.3	82	2.2	-2.2	-0.3	135	1.8	-1.3	1.3	143	3.4	-2.0	2.7	139	4.9	-3.2	3.7	105	9.5	-9.2	2.4
4	209	2.1	1.0	1.8	111	1.7	-1.6	0.6	111	1.4	-1.3	0.5	173	2.6	-0.3	2.6	157	4.0	-1.6	3.7	145	3.5	-2.0	2.9	104	9.4	-9.1	2.3
5	180	1.5	0.0	1.5	135	1.7	-1.2	1.2	138	1.5	-1.0	1.1	180	2.8	0.0	2.8	162	4.3	-1.3	4.1	153	3.8	-1.7	3.4	98	8.8	-8.7	1.2
6	111	1.4	-1.3	0.5	98	0.7	-0.7	0.1	108	1.3	-1.2	0.4	165	1.6	-0.4	1.5	153	2.8	-1.3	2.5	123	4.6	-3.9	2.5	95	5.9	-5.9	0.5
7	77	1.8	-1.8	-0.4	24	1.0	-0.4	-0.9	79	1.5	-1.5	-0.3	200	1.5	0.5	1.4	197	3.4	1.0	3.3	152	4.1	-1.9	3.6	100	5.8	-5.7	1.0
8	112	1.6	-1.5	0.6	83	1.6	-1.6	-0.2	42	1.3	-0.9	-1.0	174	0.9	-0.1	0.9	173	2.4	-0.3	2.4	132	3.1	-2.3	2.1	115	5.9	-5.3	2.5
9	215	1.2	0.7	1.0	76	0.4	-0.4	-0.1	56	0.4	-0.3	-0.2	219	2.6	1.6	2.0	189	1.8	0.3	1.8	173	2.5	-0.3	2.5	96	8.2	-8.2	0.9
10	96	1.0	-1.0	0.1	35	1.6	-0.9	-1.3	63	0.9	-0.8	-0.4	225	1.4	1.0	1.0	236	2.2	1.8	1.2	239	1.7	1.5	0.9	110	4.7	-4.4	1.6
11	157	0.8	-0.3	0.7	140	0.8	-0.5	0.6	34	0.7	-0.4	-0.6	—	—	—	—	162	2.3	-0.7	2.2	145	3.7	-2.1	3.0	99	6.1	-6.0	0.9
12	18	1.3	-0.4	-1.2	21	1.7	-0.6	-1.6	24	1.2	-0.5	-1.1	66	1.0	-0.9	-0.4	204	1.0	0.4	0.9	195	2.7	0.7	2.6	112	6.3	-5.8	2.4
13	65	1.4	-1.3	-0.6	35	3.3	-1.9	-2.7	21	2.5	-0.9	-2.3	40	0.8	-0.5	-0.6	222	1.2	0.8	0.9	173	3.9	-0.5	3.9	112	6.7	-6.2	2.5
14	74	1.5	-1.4	-0.4	51	4.5	-3.5	-2.8	52	1.8	-1.4	-1.1	270	0.6	0.6	0.0	243	3.0	2.7	1.4	193	7.4	1.7	7.2	140	6.2	-4.0	4.7
15	97	1.6	-1.6	0.2	47	3.3	-2.4	-2.2	63	1.1	-1.0	-0.5	210	0.8	0.4	0.7	203	4.3	1.7	4.0	199	7.0	2.3	6.6	134	4.0	-2.9	2.8
16	71	4.0	-3.8	-1.3	81	3.1	-3.1	-0.5	120	2.2	-1.9	1.1	180	1.1	0.0	1.1	215	3.3	1.9	2.7	209	6.3	3.1	5.5	122	5.8	-4.9	3.1
17	84	4.4	-4.4	-0.5	87	3.7	-3.7	-0.2	108	2.0	-1.9	0.6	208	1.7	0.8	1.5	237	3.5	2.9	1.9	212	6.2	3.3	5.2	109	3.7	-3.5	1.2
18	88	3.8	-3.8	-0.1	83	2.6	-2.6	-0.3	115	1.7	-1.5	0.7	192	1.4	0.3	1.4	226	5.2	3.7	3.6	211	6.6	3.4	5.6	149	5.1	-2.6	4.4
19	42	1.3	-0.9	-1.0	43	1.9	-1.3	-1.4	84	0.9	-0.9	-0.1	238	0.9	0.8	0.5	226	4.0	2.9	2.8	213	4.0	2.2	3.4	143	3.8	-2.3	3.0
20	36	1.7	-1.0	-1.4	34	1.8	-1.0	-1.5	90	0.5	-0.5	0.0	254	1.8	1.7	0.5	245	5.5	5.0	2.3	237	7.0	5.9	3.8	152	2.7	-1.3	2.4
21	5	3.3	-0.3	-3.3	42	2.4	-1.6	-1.8	249	0.9	0.8	0.3	250	2.9	2.7	1.0	247	7.0	6.5	2.7	246	10.0	9.1	4.1	197	3.4	1.0	3.2
22	30	0.8	-0.4	-0.7	29	2.5	-1.2	-2.2	295	1.9	1.7	-0.8	276	4.0	4.0	-0.4	255	7.3	7.1	1.9	252	9.9	9.4	3.0	198	1.6	0.5	1.5
23	32	2.2	-1.2	-1.9	29	3.1	-1.5	-2.7	360	1.3	0.0	-1.3	246	3.6	3.3	1.5	260	7.7	7.6	1.4	255	7.8	7.5	2.0	188	4.3	0.6	4.3
24	30	3.6	-1.8	-3.1	33	2.4	-1.3	-2.0	342	0.3	0.1	-0.3	262	3.0	3.0	0.4	254	6.6	6.4	1.8	252	7.7	7.3	2.4	201	5.7	2.0	5.3
25	41	3.2	-2.1	-2.4	29	2.6	-1.3	-2.3	325	1.6	0.9	-1.3	262	3.4	3.4	0.5	255	6.7	6.5	1.7	255	9.5	9.2	2.4	211	2.9	1.5	2.5
26	28	3.0	-1.4	-2.6	45	2.7	-1.9	-1.9	309	0.6	0.5	-0.4	259	5.1	5.0	1.0	255	10.3	9.9	2.7	244	12.3	11.0	5.4	229	5.2	3.9	3.4
27	37	3.8	-2.3	-3.0	33	4.0	-2.2	-3.4	360	2.6	0.0	-2.6	282	4.8	4.7	-1.0	266	10.2	10.2	0.7	256	12.0	11.6	2.9	254	6.0	5.8	1.7
28	37	5.9	-3.5	-4.7	52	3.7	-2.9	-2.3	351	1.8	0.3	-1.8	244	3.7	3.3	1.6	259	9.6	9.4	1.8	241	11.4	10.0	5.5	223	5.3	3.6	3.9
29	35	5.5	-3.1	-4.5	36	4.1	-2.4	-3.3	16	0.7	-0.2	-0.7	247	4.4	4.1	1.7	244	10.8	9.7	4.7	235	13.7	11.2	7.9	241	6.3	5.5	3.1
30	44	4.3	-3.0	-3.1	50	3.8	-2.9	-2.4	166	0.4	-0.1	0.4	245	3.5	3.2	1.5	247	10.8	9.9	4.2	243	14.8	13.2	6.8	241	4.3	3.8	2.1
31	61	4.5	-3.9	-2.2	52	4.2	-3.3	-2.6	180	0.3	0.0	0.3	273	3.5	3.5	-0.2	250	10.9	10.3	3.7	252	13.7	13.0	4.3	212	2.6	1.4	2.2

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	46	4.2	-3.0	-2.9	60	4.4	-3.8	-2.2	214	0.7	0.4	0.6	252	3.3	3.1	1.0	255	11.1	10.7	2.9	241	13.8	12.1	6.6	233	4.8	3.8	2.9
2	43	4.9	-3.3	-3.6	68	4.3	-4.0	-1.6	175	1.1	-0.1	1.1	254	3.6	3.5	1.0	252	12.3	11.7	3.8	242	15.5	13.7	7.2	250	6.2	5.8	2.1
3	40	5.6	-3.6	-4.3	63	3.5	-3.1	-1.6	243	0.7	0.6	0.3	279	4.0	4.0	-0.6	255	13.2	12.7	3.5	250	14.3	13.4	5.0	256	3.8	3.7	0.9
4	58	4.5	-3.8	-2.4	74	3.5	-3.4	-1.0	232	1.8	1.4	1.1	272	3.6	3.6	-0.1	261	12.0	11.9	1.8	254	12.7	12.2	3.6	249	8.7	8.1	3.1
5	53	4.4	-3.5	-2.6	51	2.7	-2.1	-1.7	307	1.0	0.8	-0.6	272	4.8	4.8	-0.2	261	14.2	14.0	2.1	259	17.5	17.2	3.4	238	7.5	6.3	4.0
6	54	4.7	-3.8	-2.8	56	3.7	-3.1	-2.1	273	2.0	2.0	-0.1	274	5.3	5.3	-0.4	265	13.8	13.8	1.1	261	16.9	16.7	2.5	269	8.1	8.1	0.1
7	73	4.2	-4.0	-1.2	52	4.2	-3.3	-2.6	4	1.5	-0.1	-1.5	298	4.7	4.1	-2.2	265	12.2	12.2	1.1	253	16.2	15.5	4.8	250	7.3	6.9	2.5
8	73	2.1	-2.0	-0.6	39	4.8	-3.0	-3.7	341	1.8	0.6	-1.7	282	5.5	5.4	-1.1	270	13.2	13.2	-0.1	252	16.5	15.7	5.1	260	6.8	6.7	1.2
9	57	2.0	-1.7	-1.1	37	3.8	-2.3	-3.0	346	2.9	0.7	-2.8	284	7.1	6.9	-1.7	264	13.5	13.4	1.3	258	16.6	16.2	3.4	269	4.9	4.9	0.1
10	351	1.9	0.3	-1.9	40	3.4	-2.2	-2.6	318	2.8	1.9	-2.1	285	7.3	7.1	-1.9	272	14.1	14.1	-0.5	263	14.9	14.8	1.8	238	4.9	4.2	2.6
11	52	2.4	-1.9	-1.5	48	3.1	-2.3	-2.1	317	2.6	1.8	-1.9	283	6.3	6.1	-1.4	273	13.2	13.2	-0.6	256	16.2	15.7	3.8	279	7.4	7.3	-1.1
12	24	4.8	-2.0	-4.4	52	4.4	-3.5	-2.7	295	1.4	1.3	-0.6	292	5.0	4.6	-1.9	268	14.4	14.4	0.5	262	18.0	17.8	2.5	269	7.7	7.7	0.1
13	43	3.3	-2.2	-2.4	50	3.5	-2.7	-2.3	323	1.5	0.9	-1.2	266	6.3	6.3	0.4	266	16.1	16.1	1.2	259	18.9	18.6	3.5	254	7.3	7.0	2.0
14	62	3.8	-3.4	-1.8	44	3.7	-2.6	-2.7	294	2.2	2.0	-0.9	301	5.8	5.0	-3.0	263	17.2	17.1	2.1	261	18.5	18.3	2.8	259	10.4	10.2	1.9
15	86	2.8	-2.8	-0.2	29	3.9	-1.9	-3.4	325	2.9	1.7	-2.4	289	6.7	6.3	-2.2	267	15.8	15.8	0.8	252	18.5	17.6	5.7	274	6.4	6.4	-0.4
16	86	4.2	-4.2	-0.3	39	3.5	-2.2	-2.7	339	1.4	0.5	-1.3	281	4.1	4.0	-0.8	276	13.1	13.0	-1.4	255	17.3	16.7	4.6	252	4.9	4.7	1.5
17	75	3.5	-3.4	-0.9	43	4.0	-2.7	-2.9	312	1.5	1.1	-1.0	282	5.5	5.4	-1.1	269	15.4	15.4	0.3	245	16.8	15.2	7.2	248	8.1	7.5	3.1
18	56	2.9	-2.4	-1.6	49	4.9	-3.7	-3.2	300	1.4	1.2	-0.7	266	6.3	6.3	0.4	259	15.1	14.8	3.0	242	17.8	15.8	8.3	252	8.5	8.1	2.6
19	39	3.6	-2.3	-2.8	32	3.6	-1.9	-3.1	327	2.7	1.5	-2.3	270	7.5	7.5	0.0	253	16.3	15.6	4.8	237	19.6	16.4	10.7	259	9.1	8.9	1.8
20	59	3.3	-2.8	-1.7	30	3.4	-1.7	-2.9	346	3.3	0.8	-3.2	280	8.2	8.1	-1.5	251	16.0	15.1	5.2	241	18.9	16.5	9.2	235	10.6	8.7	6.1
21	54	4.7	-3.8	-2.8	39	3.5	-2.2	-2.7	312	3.0	2.2	-2.0	280	5.9	5.8	-1.0	250	17.0	16.0	5.7	239	21.1	18.0	11.0	258	12.6	12.3	2.6
22	44	3.2	-2.2	-2.3	33	3.1	-1.7	-2.6	321	2.1	1.3	-1.6	256	6.7	6.5	1.6	252	19.4	18.4	6.1	241	19.3	16.9	9.4	246	12.0	11.0	4.9
23	40	4.5	-2.9	-3.5	39	4.6	-2.9	-3.6	313	1.8	1.3	-1.2	258	8.1	7.9	1.7	252	17.5	16.6	5.4	239	20.5	17.6	10.5	247	8.3	7.7	3.2
24	55	3.2	-2.6	-1.8	44	4.2	-2.9	-3.0	320	1.7	1.1	-1.3	263	7.9	7.8	1.0	264	16.7	16.6	1.6	251	21.5	20.3	7.1	268	11.0	11.0	0.4
25	5	5.8	-0.5	-5.8	28	4.0	-1.9	-3.5	300	3.6	3.1	-1.8	278	8.7	8.6	-1.2	259	17.8	17.5	3.3	246	19.6	17.8	8.1	252	6.3	6.0	2.0
26	360	2.2	0.0	-2.2	31	3.7	-1.9	-3.2	301	3.3	2.8	-1.7	292	8.4	7.8	-3.2	264	17.2	17.1	1.7	253	21.0	20.0	6.3	265	10.6	10.6	1.0
27	10	3.4	-0.6	-3.3	28	4.2	-2.0	-3.7	303	2.7	2.3	-1.5	292	6.9	6.4	-2.6	265	14.9	14.8	1.3	251	20.8	19.7	6.7	255	11.0	10.6	2.8
28	41	4.6	-3.0	-3.5	24	3.5	-1.4	-3.2	318	2.5	1.7	-1.9	275	8.8	8.8	-0.8	264	16.4	16.3	1.8	246	18.1	16.5	7.5	266	9.4	9.4	0.6
29	36	4.3	-2.5	-3.5	17	4.1	-1.2	-3.9	301	3.3	2.8	-1.7	279	9.1	9.0	-1.4	267	18.2	18.2	1.1	249	22.7	21.2	8.2	252	10.8	10.2	3.4
30	39	4.0	-2.5	-3.1	22	2.9	-1.1	-2.7	294	3.5	3.2	-1.4	275	10.4	10.4	-0.9	266	18.6	18.5	1.4	242	21.9	19.3	10.4	259	9.1	8.9	1.8

Daily Normals of Upper Air Winds (1971-2000)

BHUBANESHWAR **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	41	4.8	-3.1	-3.6	22	2.4	-0.9	-2.2	303	4.2	3.5	-2.3	279	10.7	10.6	-1.7	272	20.9	20.9	-0.8	254	22.8	21.9	6.3	258	8.6	8.4	1.8
2	23	4.0	-1.6	-3.7	43	2.5	-1.7	-1.8	306	4.7	3.8	-2.8	288	10.7	10.2	-3.3	264	18.4	18.3	2.0	242	21.4	18.9	10.1	259	11.2	11.0	2.1
3	52	3.3	-2.6	-2.0	17	2.7	-0.8	-2.6	298	3.8	3.4	-1.8	282	7.9	7.7	-1.6	259	17.9	17.6	3.4	248	24.7	23.0	9.1	248	13.6	12.6	5.0
4	33	3.1	-1.7	-2.6	360	4.2	0.0	-4.2	303	4.0	3.4	-2.2	277	8.5	8.4	-1.0	258	18.4	18.0	3.7	248	24.0	22.3	8.9	258	12.5	12.2	2.5
5	19	3.1	-1.0	-2.9	18	3.3	-1.0	-3.1	318	3.6	2.4	-2.7	281	8.1	7.9	-1.6	265	16.0	15.9	1.3	248	19.2	17.8	7.1	262	10.9	10.8	1.5
6	40	4.3	-2.8	-3.3	10	3.6	-0.6	-3.5	317	3.7	2.5	-2.7	278	9.2	9.1	-1.2	262	16.6	16.4	2.3	250	22.9	21.6	7.7	266	11.3	11.3	0.8
7	38	4.6	-2.8	-3.6	10	3.4	-0.6	-3.3	318	3.9	2.6	-2.9	288	8.2	7.8	-2.5	268	17.8	17.8	0.7	254	20.6	19.8	5.6	260	10.1	9.9	1.8
8	34	4.0	-2.2	-3.3	12	3.3	-0.7	-3.2	320	3.9	2.5	-3.0	275	8.2	8.2	-0.7	271	20.3	20.3	-0.2	253	22.8	21.9	6.5	261	12.4	12.2	2.0
9	33	3.1	-1.7	-2.6	29	3.7	-1.8	-3.2	309	3.5	2.7	-2.2	281	9.1	8.9	-1.7	271	20.2	20.2	-0.2	260	21.7	21.4	3.8	264	15.2	15.1	1.7
10	24	3.2	-1.3	-2.9	8	3.5	-0.5	-3.5	309	5.1	4.0	-3.2	283	11.6	11.3	-2.6	270	20.5	20.5	0.1	261	22.7	22.4	3.4	270	15.3	15.3	0.1
11	18	4.1	-1.3	-3.9	357	3.5	0.2	-3.5	299	5.5	4.8	-2.7	277	10.0	9.9	-1.3	269	21.9	21.9	0.4	258	23.4	22.9	4.7	266	9.5	9.5	0.6
12	13	2.3	-0.5	-2.2	22	2.7	-1.0	-2.5	295	5.4	4.9	-2.3	280	10.2	10.0	-1.8	267	20.3	20.3	1.0	256	25.1	24.4	5.9	255	9.0	8.7	2.3
13	34	2.7	-1.5	-2.2	348	4.8	1.0	-4.7	292	5.4	5.0	-2.0	282	10.2	10.0	-2.2	266	21.2	21.2	1.4	260	27.8	27.3	5.0	256	16.1	15.6	3.9
14	15	2.7	-0.7	-2.6	358	3.2	0.1	-3.2	318	5.2	3.5	-3.9	275	11.6	11.5	-1.1	264	21.8	21.7	2.2	255	26.0	25.1	6.9	256	13.6	13.2	3.2
15	28	3.4	-1.6	-3.0	10	2.7	-0.5	-2.7	308	4.6	3.6	-2.8	271	11.7	11.7	-0.2	264	23.4	23.3	2.3	255	29.1	28.1	7.4	258	15.0	14.7	3.1
16	37	4.0	-2.4	-3.2	360	4.1	0.0	-4.1	298	4.4	3.9	-2.1	279	11.8	11.7	-1.8	271	23.9	23.9	-0.3	263	29.6	29.4	3.6	276	12.2	12.1	-1.2
17	16	2.5	-0.7	-2.4	10	3.5	-0.6	-3.4	322	3.6	2.2	-2.8	281	10.4	10.2	-1.9	270	21.5	21.5	0.1	256	27.2	26.4	6.7	264	18.4	18.3	1.9
18	53	2.5	-2.0	-1.5	353	3.3	0.4	-3.3	310	6.2	4.7	-4.0	281	12.0	11.8	-2.3	265	23.0	22.9	1.9	260	29.6	29.2	5.1	268	21.0	21.0	0.9
19	10	3.4	-0.6	-3.3	357	3.5	0.2	-3.5	298	5.7	5.0	-2.7	282	13.2	12.9	-2.7	271	23.1	23.1	-0.3	259	31.3	30.7	6.2	271	15.1	15.1	-0.2
20	34	2.5	-1.4	-2.1	10	2.9	-0.5	-2.9	304	4.7	3.9	-2.6	275	10.7	10.7	-1.0	265	22.3	22.2	2.1	257	30.0	29.2	6.9	264	16.0	15.9	1.8
21	11	2.1	-0.4	-2.1	2	2.7	-0.1	-2.7	307	4.9	3.9	-2.9	274	12.4	12.4	-0.8	263	22.4	22.2	2.9	255	28.7	27.7	7.4	254	13.6	13.1	3.7
22	10	2.7	-0.5	-2.7	360	3.7	0.0	-3.7	303	5.4	4.5	-2.9	278	11.8	11.7	-1.6	262	23.8	23.6	3.4	257	26.9	26.2	6.2	276	15.1	15.0	-1.7
23	11	1.0	-0.2	-1.0	360	3.3	0.0	-3.3	295	5.6	5.1	-2.4	278	13.1	13.0	-1.9	268	25.5	25.5	0.8	255	30.9	29.8	8.1	261	15.1	14.9	2.3
24	46	2.9	-2.1	-2.0	19	3.1	-1.0	-2.9	301	5.1	4.4	-2.6	276	13.3	13.2	-1.4	269	25.8	25.8	0.5	251	28.9	27.3	9.4	266	14.9	14.9	1.0
25	104	0.8	-0.8	0.2	354	2.8	0.3	-2.8	291	5.3	4.9	-1.9	277	13.8	13.7	-1.6	266	26.8	26.7	1.9	261	31.5	31.1	4.8	255	18.4	17.8	4.7
26	43	2.5	-1.7	-1.8	7	2.4	-0.3	-2.4	288	4.4	4.2	-1.4	278	12.8	12.7	-1.7	269	23.4	23.4	0.4	262	27.8	27.5	4.0	258	18.9	18.5	4.1
27	43	3.4	-2.3	-2.5	352	2.9	0.4	-2.9	299	4.8	4.2	-2.3	266	13.6	13.6	1.0	272	24.5	24.5	-1.0	258	28.4	27.8	5.9	271	17.7	17.7	-0.3
28	360	2.9	0.0	-2.9	350	1.1	0.2	-1.1	282	5.4	5.3	-1.1	269	12.5	12.5	0.2	271	21.7	21.7	-0.5	272	27.2	27.2	-0.9	254	14.8	14.2	4.2
29	63	0.4	-0.4	-0.2	335	2.6	1.1	-2.4	295	5.9	5.3	-2.5	273	14.2	14.2	-0.7	267	26.4	26.4	1.5	258	30.1	29.4	6.4	258	15.8	15.4	3.4
30	37	2.0	-1.2	-1.6	333	3.4	1.5	-3.0	292	7.3	6.8	-2.7	276	15.6	15.5	-1.5	272	26.1	26.1	-0.8	262	28.6	28.3	4.0	270	15.2	15.2	0.0
31	50	1.7	-1.3	-1.1	330	2.8	1.4	-2.4	304	7.8	6.5	-4.4	276	16.4	16.3	-1.6	274	26.1	26.0	-1.8	263	27.2	27.0	3.5	260	21.4	21.1	3.8

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	47	5.7	-4.2	-3.9	66	4.6	-4.2	-1.9	70	2.9	-2.7	-1.0	100	1.1	-1.1	0.2	250	5.6	5.3	1.9	227	9.3	6.8	6.4	240	2.0	1.7	1.0
2	42	6.2	-4.2	-4.6	57	5.3	-4.4	-2.9	71	2.4	-2.3	-0.8	53	0.5	-0.4	-0.3	254	5.5	5.3	1.5	240	8.9	7.7	4.4	197	2.7	0.8	2.6
3	52	6.5	-5.1	-4.0	52	4.8	-3.8	-3.0	54	2.4	-1.9	-1.4	20	2.3	-0.8	-2.2	236	4.8	4.0	2.7	226	8.1	5.9	5.6	287	1.7	1.6	-0.5
4	50	6.5	-5.0	-4.2	63	6.0	-5.4	-2.7	67	2.8	-2.6	-1.1	45	1.0	-0.7	-0.7	262	6.0	5.9	0.8	224	9.7	6.7	7.0	249	1.9	1.8	0.7
5	47	6.9	-5.0	-4.7	58	6.5	-5.5	-3.4	78	3.0	-2.9	-0.6	45	1.4	-1.0	-1.0	252	4.9	4.7	1.5	219	8.8	5.5	6.9	197	3.0	0.9	2.9
6	44	6.2	-4.3	-4.5	59	5.8	-5.0	-3.0	73	3.8	-3.6	-1.1	101	0.5	-0.5	0.1	245	5.7	5.2	2.4	229	10.8	8.2	7.1	245	4.3	3.9	1.8
7	56	5.5	-4.6	-3.1	67	6.4	-5.9	-2.5	87	3.3	-3.3	-0.2	346	0.4	0.1	-0.4	243	8.1	7.2	3.7	242	10.6	9.3	5.0	255	4.9	4.7	1.3
8	57	6.6	-5.5	-3.6	73	5.9	-5.7	-1.7	85	2.2	-2.2	-0.2	331	2.1	1.0	-1.8	249	7.7	7.2	2.7	238	12.7	10.8	6.7	267	7.2	7.2	0.4
9	66	4.7	-4.3	-1.9	71	5.2	-4.9	-1.7	90	1.8	-1.8	0.0	308	1.6	1.3	-1.0	263	7.6	7.5	0.9	236	12.1	10.0	6.8	251	5.2	4.9	1.7
10	61	5.5	-4.8	-2.7	64	4.3	-3.9	-1.9	75	2.3	-2.2	-0.6	286	1.9	1.8	-0.5	243	8.1	7.2	3.7	240	10.3	8.9	5.2	260	3.9	3.8	0.7
11	64	5.2	-4.7	-2.3	77	4.9	-4.8	-1.1	79	2.1	-2.1	-0.4	245	2.3	2.1	1.0	249	8.5	7.9	3.1	235	11.3	9.3	6.4	311	2.3	1.7	-1.5
12	74	3.6	-3.5	-1.0	73	4.9	-4.7	-1.4	71	2.4	-2.3	-0.8	322	1.8	1.1	-1.4	254	8.5	8.2	2.4	215	9.6	5.5	7.9	213	2.4	1.3	2.0
13	51	4.6	-3.6	-2.9	67	5.4	-5.0	-2.1	69	2.8	-2.6	-1.0	14	0.4	-0.1	-0.4	264	8.8	8.8	0.9	221	10.3	6.7	7.8	158	1.8	-0.7	1.7
14	75	3.9	-3.8	-1.0	67	5.6	-5.1	-2.2	86	2.6	-2.6	-0.2	45	0.1	-0.1	-0.1	258	8.5	8.3	1.7	236	12.2	10.1	6.8	194	2.1	0.5	2.0
15	75	5.0	-4.8	-1.3	74	5.2	-5.0	-1.4	104	2.5	-2.4	0.6	315	1.6	1.1	-1.1	262	9.3	9.2	1.3	230	10.3	7.9	6.6	234	0.9	0.7	0.5
16	82	4.2	-4.2	-0.6	67	4.9	-4.5	-1.9	65	1.4	-1.3	-0.6	225	0.6	0.4	0.4	264	8.1	8.1	0.9	233	9.2	7.4	5.5	195	2.4	0.6	2.3
17	82	4.1	-4.1	-0.6	77	5.5	-5.4	-1.2	73	2.8	-2.7	-0.8	188	0.7	0.1	0.7	248	7.3	6.8	2.7	232	10.3	8.2	6.3	212	3.6	1.9	3.1
18	58	5.4	-4.6	-2.9	66	6.0	-5.5	-2.5	67	1.5	-1.4	-0.6	309	1.3	1.0	-0.8	260	6.1	6.0	1.1	236	8.1	6.7	4.5	196	2.6	0.7	2.5
19	67	5.0	-4.6	-2.0	63	5.3	-4.7	-2.4	17	1.7	-0.5	-1.6	303	2.0	1.7	-1.1	262	7.5	7.4	1.1	235	9.3	7.7	5.3	111	2.5	-2.3	0.9
20	68	3.5	-3.3	-1.3	53	5.3	-4.2	-3.2	17	1.7	-0.5	-1.6	302	2.2	1.9	-1.2	272	6.2	6.2	-0.2	233	9.6	7.7	5.8	180	1.0	0.0	1.0
21	69	1.9	-1.8	-0.7	58	5.5	-4.7	-2.9	29	2.6	-1.3	-2.3	357	2.1	0.1	-2.1	252	7.6	7.2	2.4	245	11.4	10.3	4.8	200	5.1	1.7	4.8
22	67	4.0	-3.7	-1.6	67	5.9	-5.4	-2.3	45	3.0	-2.1	-2.1	331	2.6	1.3	-2.3	248	6.6	6.1	2.5	238	9.7	8.2	5.1	243	2.0	1.8	0.9
23	66	4.7	-4.3	-1.9	65	5.7	-5.2	-2.4	49	3.5	-2.6	-2.3	349	2.0	0.4	-2.0	268	6.5	6.5	0.2	241	8.9	7.8	4.3	215	1.9	1.1	1.6
24	57	6.0	-5.0	-3.3	58	7.0	-5.9	-3.7	69	3.6	-3.4	-1.3	45	1.1	-0.8	-0.8	251	7.3	6.9	2.4	245	8.6	7.8	3.7	209	2.3	1.1	2.0
25	59	5.6	-4.8	-2.9	62	6.8	-6.0	-3.2	59	4.5	-3.9	-2.3	333	0.9	0.4	-0.8	284	7.1	6.9	-1.7	240	7.6	6.6	3.8	119	2.6	-2.3	1.3
26	62	5.4	-4.8	-2.5	56	6.5	-5.4	-3.6	51	4.1	-3.2	-2.6	325	1.2	0.7	-1.0	287	5.3	5.1	-1.6	254	7.4	7.1	2.1	217	2.1	1.3	1.7
27	65	5.2	-4.7	-2.2	57	6.7	-5.6	-3.6	56	3.2	-2.7	-1.8	27	1.1	-0.5	-1.0	272	5.3	5.3	-0.2	236	8.1	6.7	4.6	275	4.5	4.5	-0.4
28	58	5.3	-4.5	-2.8	58	5.2	-4.4	-2.8	61	3.7	-3.2	-1.8	338	1.1	0.4	-1.0	253	6.9	6.6	2.0	238	10.6	9.0	5.6	203	2.6	1.0	2.4
29	56	5.0	-4.2	-2.8	51	5.8	-4.5	-3.6	66	3.7	-3.4	-1.5	358	2.6	0.1	-2.6	270	7.2	7.2	0.0	235	7.0	5.7	4.0	257	1.3	1.3	0.3
30	57	4.4	-3.7	-2.4	68	4.6	-4.3	-1.7	70	3.3	-3.1	-1.1	354	1.0	0.1	-1.0	272	7.5	7.5	-0.2	239	9.3	8.0	4.8	272	3.2	3.2	-0.1
31	70	5.1	-4.8	-1.7	72	5.2	-4.9	-1.6	59	3.3	-2.8	-1.7	331	2.1	1.0	-1.8	245	7.6	6.9	3.2	243	12.6	11.2	5.8	238	5.1	4.3	2.7

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	72	4.0	-3.8	-1.2	69	4.8	-4.5	-1.7	62	3.6	-3.2	-1.7	319	3.0	2.0	-2.3	270	9.0	9.0	0.0	250	11.2	10.5	3.8	291	5.0	4.7	-1.8
2	61	4.1	-3.6	-2.0	62	4.5	-4.0	-2.1	41	3.3	-2.2	-2.5	280	2.2	2.2	-0.4	265	8.8	8.8	0.7	266	11.1	11.1	0.7	270	5.8	5.8	0.0
3	67	5.8	-5.3	-2.3	66	4.7	-4.3	-1.9	57	1.7	-1.4	-0.9	270	2.5	2.5	0.0	268	9.3	9.3	0.3	256	10.6	10.3	2.5	251	3.7	3.5	1.2
4	76	5.4	-5.2	-1.3	85	4.3	-4.3	-0.4	43	2.5	-1.7	-1.8	293	3.8	3.5	-1.5	264	8.3	8.3	0.8	248	9.8	9.1	3.6	281	1.6	1.6	-0.3
5	72	4.4	-4.2	-1.4	72	4.3	-4.1	-1.3	37	3.0	-1.8	-2.4	276	2.7	2.7	-0.3	263	7.8	7.7	0.9	247	9.5	8.8	3.7	254	2.9	2.8	0.8
6	83	3.5	-3.5	-0.4	63	4.5	-4.0	-2.0	15	2.3	-0.6	-2.2	288	3.3	3.1	-1.0	262	9.5	9.4	1.4	256	12.1	11.7	3.0	275	7.3	7.3	-0.7
7	83	3.5	-3.5	-0.4	79	4.3	-4.2	-0.8	25	1.4	-0.6	-1.3	309	2.8	2.2	-1.8	262	9.7	9.6	1.4	259	12.1	11.9	2.4	287	4.7	4.5	-1.4
8	103	2.8	-2.7	0.6	66	4.5	-4.1	-1.8	42	1.5	-1.0	-1.1	321	2.8	1.8	-2.2	259	9.6	9.4	1.8	252	10.3	9.8	3.2	262	3.6	3.6	0.5
9	132	3.0	-2.2	2.0	58	4.0	-3.4	-2.1	358	2.6	0.1	-2.6	324	3.7	2.2	-3.0	261	9.2	9.1	1.4	245	9.9	9.0	4.2	310	2.3	1.8	-1.5
10	111	2.6	-2.4	0.9	67	3.8	-3.5	-1.5	2	3.1	-0.1	-3.1	312	3.6	2.7	-2.4	260	11.0	10.8	2.0	246	11.8	10.8	4.8	270	4.2	4.2	0.0
11	104	3.0	-2.9	0.7	63	4.7	-4.2	-2.1	25	3.8	-1.6	-3.5	336	2.4	1.0	-2.2	273	8.2	8.2	-0.4	236	10.3	8.6	5.7	286	2.2	2.1	-0.6
12	85	3.7	-3.7	-0.3	74	5.2	-5.0	-1.4	37	2.6	-1.6	-2.1	313	2.5	1.8	-1.7	275	8.4	8.4	-0.7	231	9.7	7.5	6.1	291	2.8	2.6	-1.0
13	93	3.8	-3.8	0.2	71	5.0	-4.7	-1.6	48	3.0	-2.2	-2.0	301	0.6	0.5	-0.3	266	8.0	8.0	0.6	245	9.8	8.9	4.1	262	2.9	2.9	0.4
14	81	3.3	-3.3	-0.5	76	4.1	-4.0	-1.0	73	1.4	-1.3	-0.4	241	1.0	0.9	0.5	263	7.3	7.2	0.9	231	6.3	4.9	3.9	265	2.4	2.4	0.2
15	83	3.8	-3.8	-0.5	76	3.8	-3.7	-0.9	19	1.8	-0.6	-1.7	259	2.5	2.5	0.5	272	7.4	7.4	-0.2	231	8.7	6.7	5.5	165	1.6	-0.4	1.5
16	90	2.6	-2.6	0.0	69	2.8	-2.6	-1.0	45	2.4	-1.7	-1.7	287	2.1	2.0	-0.6	262	6.9	6.8	0.9	242	6.2	5.5	2.9	265	2.4	2.4	0.2
17	117	2.8	-2.5	1.3	85	2.5	-2.5	-0.2	27	1.1	-0.5	-1.0	291	2.8	2.6	-1.0	245	5.9	5.3	2.5	213	6.1	3.3	5.1	207	0.2	0.1	0.2
18	136	3.2	-2.2	2.3	92	3.7	-3.7	0.1	45	1.1	-0.8	-0.8	286	3.2	3.1	-0.9	243	4.6	4.1	2.1	224	6.9	4.8	4.9	90	0.4	-0.4	0.0
19	143	3.0	-1.8	2.4	103	2.3	-2.2	0.5	48	2.4	-1.8	-1.6	284	2.9	2.8	-0.7	257	5.1	5.0	1.2	226	5.7	4.1	4.0	229	0.9	0.7	0.6
20	165	3.8	-1.0	3.7	114	2.7	-2.5	1.1	30	2.4	-1.2	-2.1	288	1.6	1.5	-0.5	277	4.0	4.0	-0.5	219	5.8	3.7	4.5	188	1.4	0.2	1.4
21	177	5.1	-0.3	5.1	95	3.6	-3.6	0.3	32	1.9	-1.0	-1.6	309	0.6	0.5	-0.4	271	5.7	5.7	-0.1	230	7.9	6.0	5.1	278	0.7	0.7	-0.1
22	167	4.3	-1.0	4.2	85	4.3	-4.3	-0.4	33	2.0	-1.1	-1.7	355	1.1	0.1	-1.1	261	8.0	7.9	1.3	237	8.4	7.0	4.6	272	3.6	3.6	-0.1
23	143	3.8	-2.3	3.0	87	3.9	-3.9	-0.2	37	2.0	-1.2	-1.6	27	0.4	-0.2	-0.4	267	7.2	7.2	0.4	238	8.3	7.0	4.4	300	4.2	3.6	-2.1
24	119	3.1	-2.7	1.5	84	4.4	-4.4	-0.5	38	3.7	-2.3	-2.9	312	1.2	0.9	-0.8	266	5.9	5.9	0.4	235	7.2	5.9	4.1	265	3.5	3.5	0.3
25	104	3.0	-2.9	0.7	81	4.5	-4.4	-0.7	41	5.0	-3.3	-3.8	337	1.3	0.5	-1.2	267	4.0	4.0	0.2	236	7.1	5.9	4.0	279	0.6	0.6	-0.1
26	104	3.0	-2.9	0.7	84	4.5	-4.5	-0.5	38	4.1	-2.5	-3.2	315	1.7	1.2	-1.2	253	6.9	6.6	2.0	250	8.6	8.1	2.9	300	2.8	2.4	-1.4
27	104	3.3	-3.2	0.8	84	4.7	-4.7	-0.5	34	4.0	-2.2	-3.3	276	0.9	0.9	-0.1	258	8.7	8.5	1.8	249	9.0	8.4	3.2	279	2.0	2.0	-0.3
28	114	3.2	-2.9	1.3	90	4.5	-4.5	0.0	53	4.4	-3.5	-2.6	309	1.4	1.1	-0.9	265	7.1	7.1	0.6	248	7.0	6.5	2.6	294	2.0	1.8	-0.8
29	71	5.3	-5.0	-1.7	61	5.8	-5.1	-2.8	63	5.6	-5.0	-2.5	67	4.0	-3.7	-1.6	215	3.5	2.0	2.9	200	8.0	2.7	7.5	299	1.0	0.9	-0.5

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	103	3.6	-3.5	0.8	94	4.2	-4.2	0.3	52	4.2	-3.3	-2.6	294	1.0	0.9	-0.4	263	7.4	7.3	0.9	245	7.8	7.1	3.3	243	0.7	0.6	0.3
2	106	3.7	-3.6	1.0	78	4.9	-4.8	-1.0	49	4.0	-3.0	-2.6	329	1.7	0.9	-1.5	259	8.6	8.5	1.6	243	10.0	8.9	4.5	190	3.5	0.6	3.4
3	93	4.3	-4.3	0.2	91	5.5	-5.5	0.1	47	4.8	-3.5	-3.3	299	1.8	1.6	-0.9	259	7.1	7.0	1.3	241	10.7	9.3	5.2	243	4.8	4.3	2.2
4	95	3.8	-3.8	0.3	91	4.9	-4.9	0.1	52	5.6	-4.4	-3.4	8	1.5	-0.2	-1.5	264	7.2	7.2	0.7	232	10.6	8.4	6.5	241	3.1	2.7	1.5
5	108	4.1	-3.9	1.3	87	4.4	-4.4	-0.2	47	4.1	-3.0	-2.8	23	2.1	-0.8	-1.9	261	9.1	9.0	1.4	239	13.0	11.1	6.7	265	5.3	5.3	0.5
6	113	3.3	-3.0	1.3	97	4.6	-4.6	0.6	54	4.4	-3.6	-2.6	307	0.5	0.4	-0.3	251	7.0	6.6	2.3	237	10.8	9.0	5.9	243	2.7	2.4	1.2
7	130	3.0	-2.3	1.9	95	4.3	-4.3	0.4	50	3.8	-2.9	-2.4	344	0.7	0.2	-0.7	263	7.0	7.0	0.8	250	11.5	10.8	4.0	279	4.6	4.5	-0.7
8	147	3.8	-2.1	3.2	103	4.8	-4.7	1.1	54	3.7	-3.0	-2.2	73	1.0	-1.0	-0.3	255	6.5	6.3	1.7	253	9.7	9.3	2.8	264	2.0	2.0	0.2
9	142	3.4	-2.1	2.7	95	4.3	-4.3	0.4	46	5.3	-3.8	-3.7	63	0.2	-0.2	-0.1	253	9.0	8.6	2.7	243	9.6	8.6	4.3	267	4.1	4.1	0.2
10	122	4.1	-3.5	2.2	98	5.2	-5.2	0.7	66	5.4	-4.9	-2.2	130	0.8	-0.6	0.5	245	8.3	7.5	3.5	240	10.3	9.0	5.1	242	3.6	3.2	1.7
11	150	4.2	-2.1	3.6	112	4.8	-4.5	1.8	63	4.6	-4.1	-2.1	320	0.8	0.5	-0.6	250	7.6	7.1	2.6	243	11.1	9.9	5.0	267	1.7	1.7	0.1
12	160	4.6	-1.6	4.3	106	3.3	-3.2	0.9	46	3.9	-2.8	-2.7	292	0.5	0.5	-0.2	264	9.3	9.3	0.9	249	11.6	10.8	4.2	257	3.6	3.5	0.8
13	159	4.3	-1.5	4.0	99	3.8	-3.8	0.6	48	4.7	-3.5	-3.2	304	1.8	1.5	-1.0	256	8.3	8.1	2.0	251	10.0	9.4	3.3	270	4.2	4.2	0.0
14	165	4.2	-1.1	4.1	103	4.7	-4.6	1.1	49	5.8	-4.4	-3.8	354	1.9	0.2	-1.9	262	8.6	8.5	1.2	253	9.4	9.0	2.8	270	2.7	2.7	0.0
15	157	4.7	-1.8	4.3	107	4.8	-4.6	1.4	57	5.7	-4.8	-3.1	23	3.0	-1.2	-2.8	271	7.1	7.1	-0.1	245	10.0	9.1	4.2	255	1.1	1.1	0.3
16	162	4.6	-1.4	4.4	104	4.9	-4.7	1.2	47	6.0	-4.4	-4.1	54	3.7	-3.0	-2.2	257	6.3	6.1	1.4	248	11.0	10.2	4.2	11	0.5	-0.1	-0.5
17	160	3.8	-1.3	3.6	105	4.7	-4.5	1.2	53	6.0	-4.8	-3.6	61	2.3	-2.0	-1.1	256	7.9	7.7	1.9	246	10.4	9.5	4.3	135	1.6	-1.1	1.1
18	167	3.9	-0.9	3.8	111	4.9	-4.6	1.8	49	5.7	-4.3	-3.7	56	2.3	-1.9	-1.3	252	7.3	6.9	2.3	240	10.9	9.4	5.5	118	2.1	-1.9	1.0
19	164	4.3	-1.2	4.1	114	4.2	-3.8	1.7	48	6.3	-4.7	-4.2	31	2.3	-1.2	-2.0	253	7.9	7.6	2.3	239	9.8	8.4	5.0	234	2.2	1.8	1.3
20	165	4.8	-1.2	4.6	122	3.4	-2.9	1.8	44	6.1	-4.2	-4.4	44	3.3	-2.3	-2.4	250	8.5	8.0	2.9	240	9.3	8.0	4.7	251	4.0	3.8	1.3
21	160	5.1	-1.7	4.8	114	4.2	-3.8	1.7	51	6.3	-4.9	-4.0	50	1.7	-1.3	-1.1	260	9.4	9.3	1.6	240	11.3	9.8	5.7	259	3.8	3.7	0.7
22	162	4.3	-1.3	4.1	105	4.1	-4.0	1.1	52	6.0	-4.7	-3.7	55	1.6	-1.3	-0.9	268	7.4	7.4	0.3	257	10.9	10.6	2.5	194	1.6	0.4	1.6
23	168	5.2	-1.1	5.1	123	4.2	-3.5	2.3	49	6.7	-5.0	-4.4	345	1.6	0.4	-1.5	269	8.2	8.2	0.1	255	9.3	9.0	2.4	330	2.2	1.1	-1.9
24	181	4.4	0.1	4.4	134	4.2	-3.0	2.9	55	5.7	-4.7	-3.3	52	1.6	-1.3	-1.0	262	10.7	10.6	1.4	245	13.4	12.1	5.7	242	1.7	1.5	0.8
25	185	6.0	0.5	6.0	133	4.2	-3.1	2.9	40	5.4	-3.5	-4.1	54	0.9	-0.7	-0.5	257	12.5	12.2	2.8	249	15.5	14.4	5.6	260	4.0	3.9	0.7
26	174	5.3	-0.6	5.3	127	3.0	-2.4	1.8	41	5.0	-3.3	-3.8	63	0.2	-0.2	-0.1	260	11.4	11.2	2.0	251	12.9	12.2	4.3	276	6.2	6.2	-0.6
27	172	4.1	-0.6	4.1	133	3.5	-2.6	2.4	39	4.9	-3.1	-3.8	29	2.3	-1.1	-2.0	260	9.2	9.1	1.6	254	12.3	11.8	3.3	268	3.0	3.0	0.1
28	174	4.0	-0.4	4.0	111	3.3	-3.1	1.2	50	6.5	-5.0	-4.2	51	3.2	-2.5	-2.0	260	7.2	7.1	1.3	251	9.5	9.0	3.1	205	1.4	0.6	1.3
29	169	4.2	-0.8	4.1	122	4.0	-3.4	2.1	52	6.3	-5.0	-3.9	43	3.8	-2.6	-2.8	268	6.3	6.3	0.2	240	9.2	8.0	4.6	138	1.3	-0.9	1.0
30	177	3.9	-0.2	3.9	144	3.2	-1.9	2.6	52	7.5	-5.9	-4.6	49	3.7	-2.8	-2.4	250	6.4	6.0	2.2	240	8.6	7.4	4.3	324	0.9	0.5	-0.7
31	192	4.8	1.0	4.7	126	2.6	-2.1	1.5	46	6.8	-4.9	-4.7	63	3.5	-3.1	-1.6	249	7.8	7.3	2.8	242	10.1	8.9	4.7	250	2.7	2.5	0.9

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	177	3.7	-0.2	3.7	134	3.9	-2.8	2.7	39	6.8	-4.3	-5.3	69	3.0	-2.8	-1.1	251	5.6	5.3	1.8	233	8.4	6.7	5.1	254	0.7	0.7	0.2
2	168	4.5	-0.9	4.4	134	3.7	-2.7	2.6	60	6.1	-5.3	-3.0	85	3.6	-3.6	-0.3	247	5.6	5.2	2.2	227	9.9	7.3	6.7	198	0.9	0.3	0.9
3	159	4.9	-1.8	4.6	138	3.6	-2.4	2.7	58	6.2	-5.3	-3.3	102	2.4	-2.3	0.5	243	5.4	4.8	2.4	230	8.7	6.7	5.6	72	1.6	-1.5	-0.5
4	164	4.0	-1.1	3.8	133	3.4	-2.5	2.3	62	5.9	-5.2	-2.8	111	2.2	-2.1	0.8	238	6.5	5.5	3.5	224	8.3	5.7	6.0	111	0.9	-0.8	0.3
5	157	3.8	-1.5	3.5	148	3.8	-2.0	3.2	61	5.4	-4.7	-2.6	111	1.4	-1.3	0.5	245	6.5	5.9	2.8	232	7.4	5.8	4.6	171	1.8	-0.3	1.8
6	172	3.5	-0.5	3.5	150	3.6	-1.8	3.1	63	5.6	-5.0	-2.5	114	1.2	-1.1	0.5	256	6.3	6.1	1.5	240	9.9	8.6	5.0	135	1.0	-0.7	0.7
7	186	4.0	0.4	4.0	136	3.7	-2.6	2.7	59	5.8	-5.0	-3.0	25	1.7	-0.7	-1.5	261	4.6	4.5	0.7	244	8.1	7.3	3.6	129	3.6	-2.8	2.3
8	178	5.0	-0.2	5.0	141	3.5	-2.2	2.7	49	5.8	-4.4	-3.8	54	2.6	-2.1	-1.5	259	5.3	5.2	1.0	252	8.8	8.4	2.7	51	1.4	-1.1	-0.9
9	187	5.9	0.7	5.9	141	3.2	-2.0	2.5	51	7.0	-5.5	-4.4	56	2.7	-2.2	-1.5	251	5.2	4.9	1.7	243	7.9	7.0	3.6	216	1.7	1.0	1.4
10	182	6.3	0.2	6.3	142	2.9	-1.8	2.3	44	6.4	-4.4	-4.6	47	2.3	-1.7	-1.6	258	5.7	5.6	1.2	247	7.8	7.2	3.1	90	0.3	-0.3	0.0
11	177	5.5	-0.3	5.5	156	3.6	-1.5	3.3	46	6.4	-4.6	-4.5	58	3.6	-3.1	-1.9	264	2.9	2.9	0.3	229	7.2	5.4	4.7	103	2.6	-2.5	0.6
12	194	5.6	1.3	5.4	157	3.8	-1.5	3.5	50	6.4	-4.9	-4.1	77	3.6	-3.5	-0.8	270	1.8	1.8	0.0	230	6.0	4.6	3.8	137	2.5	-1.7	1.8
13	192	6.1	1.3	6.0	152	3.4	-1.6	3.0	44	6.7	-4.7	-4.8	75	3.1	-3.0	-0.8	262	2.1	2.1	0.3	220	4.7	3.0	3.6	284	2.1	2.0	-0.5
14	203	5.4	2.1	5.0	150	3.0	-1.5	2.6	40	6.7	-4.3	-5.1	71	3.4	-3.2	-1.1	250	3.2	3.0	1.1	229	6.5	4.9	4.3	241	1.3	1.1	0.6
15	202	5.2	1.9	4.8	170	3.6	-0.6	3.5	60	6.4	-5.5	-3.2	58	3.4	-2.9	-1.8	250	5.2	4.9	1.8	227	9.0	6.6	6.1	240	2.4	2.1	1.2
16	189	5.8	0.9	5.7	166	3.0	-0.7	2.9	57	5.9	-4.9	-3.2	74	2.9	-2.8	-0.8	260	6.0	5.9	1.0	244	9.8	8.8	4.2	225	1.3	0.9	0.9
17	186	5.5	0.6	5.5	150	2.8	-1.4	2.4	50	5.3	-4.1	-3.4	70	3.3	-3.1	-1.1	255	5.2	5.0	1.3	233	10.2	8.1	6.2	248	3.1	2.9	1.2
18	188	6.2	0.9	6.1	175	2.3	-0.2	2.3	49	6.1	-4.6	-4.0	47	1.9	-1.4	-1.3	236	5.8	4.8	3.2	224	8.6	5.9	6.2	117	1.6	-1.4	0.7
19	184	5.5	0.4	5.5	153	2.8	-1.3	2.5	50	6.4	-4.9	-4.1	69	3.3	-3.1	-1.2	245	6.3	5.7	2.6	223	9.9	6.7	7.3	119	3.7	-3.2	1.8
20	191	5.7	1.1	5.6	158	3.2	-1.2	3.0	48	6.9	-5.1	-4.6	58	3.2	-2.7	-1.7	236	7.3	6.1	4.1	222	12.9	8.7	9.5	205	2.9	1.2	2.6
21	188	6.8	0.9	6.7	156	3.0	-1.2	2.7	49	6.9	-5.2	-4.6	69	3.1	-2.9	-1.1	241	8.1	7.1	3.9	228	12.5	9.2	8.4	124	1.8	-1.5	1.0
22	188	4.8	0.7	4.7	148	2.5	-1.3	2.1	57	7.5	-6.3	-4.1	25	1.4	-0.6	-1.3	248	7.0	6.5	2.6	241	11.7	10.3	5.6	105	2.0	-1.9	0.5
23	181	5.0	0.1	5.0	158	2.4	-0.9	2.2	57	6.9	-5.8	-3.7	79	1.6	-1.6	-0.3	256	6.5	6.3	1.6	239	9.6	8.2	5.0	37	1.5	-0.9	-1.2
24	195	6.8	1.8	6.6	175	2.1	-0.2	2.1	53	6.9	-5.5	-4.1	113	1.3	-1.2	0.5	254	6.9	6.6	1.9	246	10.5	9.6	4.2	118	1.5	-1.3	0.7
25	196	6.5	1.8	6.2	135	2.3	-1.6	1.6	53	6.4	-5.1	-3.8	53	1.0	-0.8	-0.6	263	8.5	8.4	1.0	237	8.8	7.4	4.8	83	3.4	-3.4	-0.4
26	185	4.2	0.4	4.2	147	2.7	-1.5	2.3	50	7.0	-5.4	-4.5	30	1.4	-0.7	-1.2	260	8.1	8.0	1.4	236	9.9	8.2	5.6	100	4.6	-4.5	0.8
27	200	5.1	1.7	4.8	125	1.9	-1.6	1.1	51	7.3	-5.7	-4.6	37	2.1	-1.3	-1.7	261	6.0	5.9	0.9	234	8.7	7.1	5.1	79	2.5	-2.5	-0.5
28	202	4.3	1.6	4.0	177	1.9	-0.1	1.9	49	6.5	-4.9	-4.2	37	3.1	-1.9	-2.5	283	4.6	4.5	-1.0	248	5.3	4.9	2.0	105	4.9	-4.7	1.3
29	204	5.4	2.2	4.9	183	1.8	0.1	1.8	43	6.8	-4.6	-5.0	21	2.5	-0.9	-2.3	275	6.1	6.1	-0.5	238	6.7	5.7	3.5	108	4.5	-4.3	1.4
30	205	5.1	2.1	4.6	173	1.7	-0.2	1.7	40	6.7	-4.3	-5.1	20	3.5	-1.2	-3.3	300	4.6	4.0	-2.3	239	4.3	3.7	2.2	93	6.1	-6.1	0.3

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	213	3.0	1.6	2.5	214	0.4	0.2	0.3	41	6.3	-4.1	-4.8	36	2.7	-1.6	-2.2	262	3.7	3.7	0.5	233	5.3	4.2	3.2	111	7.3	-6.8	2.6
2	209	6.4	3.1	5.6	225	1.8	1.3	1.3	42	7.1	-4.7	-5.3	43	3.7	-2.5	-2.7	272	2.6	2.6	-0.1	219	4.5	2.8	3.5	91	7.6	-7.6	0.1
3	206	6.0	2.6	5.4	187	0.8	0.1	0.8	39	6.6	-4.2	-5.1	46	2.9	-2.1	-2.0	275	1.2	1.2	-0.1	241	4.5	3.9	2.2	104	8.9	-8.6	2.2
4	187	4.8	0.6	4.8	157	1.3	-0.5	1.2	48	6.1	-4.5	-4.1	54	3.1	-2.5	-1.8	245	1.4	1.3	0.6	206	2.8	1.2	2.5	101	6.0	-5.9	1.1
5	191	6.0	1.1	5.9	193	0.9	0.2	0.9	44	6.6	-4.6	-4.8	61	3.1	-2.7	-1.5	258	1.9	1.9	0.4	186	3.9	0.4	3.9	95	8.0	-8.0	0.7
6	187	4.8	0.6	4.8	122	1.3	-1.1	0.7	54	7.0	-5.7	-4.1	59	3.1	-2.7	-1.6	292	0.5	0.5	-0.2	201	2.8	1.0	2.6	100	6.7	-6.6	1.2
7	222	6.4	4.3	4.8	214	1.8	1.0	1.5	45	7.4	-5.2	-5.2	49	4.8	-3.6	-3.1	294	1.0	0.9	-0.4	157	4.4	-1.7	4.1	104	9.4	-9.1	2.2
8	220	6.2	4.0	4.7	157	0.8	-0.3	0.7	43	6.5	-4.4	-4.8	72	4.8	-4.6	-1.5	221	2.0	1.3	1.5	192	3.9	0.8	3.8	109	8.7	-8.2	2.8
9	248	6.3	5.8	2.4	239	1.7	1.5	0.9	44	6.6	-4.6	-4.7	53	3.8	-3.0	-2.3	232	1.6	1.3	1.0	180	2.1	0.0	2.1	76	9.2	-8.9	-2.2
10	231	8.5	6.6	5.3	247	1.5	1.4	0.6	41	6.4	-4.2	-4.8	55	3.5	-2.9	-2.0	232	1.1	0.9	0.7	169	3.6	-0.7	3.5	92	9.5	-9.5	0.3
11	226	7.1	5.1	4.9	299	1.0	0.9	-0.5	29	5.5	-2.7	-4.8	52	3.3	-2.6	-2.0	187	0.8	0.1	0.8	164	4.4	-1.2	4.2	102	7.9	-7.7	1.6
12	230	6.1	4.7	3.9	192	1.4	0.3	1.4	40	6.0	-3.9	-4.6	52	3.3	-2.6	-2.0	200	1.2	0.4	1.1	189	4.7	0.7	4.6	99	10.5	-10.4	1.7
13	232	6.1	4.8	3.8	243	2.8	2.5	1.3	28	4.7	-2.2	-4.1	70	3.0	-2.8	-1.0	155	2.1	-0.9	1.9	156	3.7	-1.5	3.4	93	11.7	-11.7	0.7
14	229	4.9	3.7	3.2	239	2.1	1.8	1.1	41	4.5	-3.0	-3.4	82	3.0	-3.0	-0.4	163	1.0	-0.3	1.0	142	3.3	-2.0	2.6	92	9.8	-9.8	0.3
15	233	4.0	3.2	2.4	233	3.0	2.4	1.8	50	4.3	-3.3	-2.8	88	2.7	-2.7	-0.1	143	1.0	-0.6	0.8	107	3.4	-3.3	1.0	91	13.7	-13.7	0.3
16	247	6.0	5.5	2.3	250	2.0	1.9	0.7	44	5.4	-3.8	-3.9	45	1.6	-1.1	-1.1	81	1.3	-1.3	-0.2	108	4.9	-4.7	1.5	97	13.7	-13.6	1.7
17	245	7.8	7.1	3.3	272	3.2	3.2	-0.1	34	5.7	-3.2	-4.7	30	2.2	-1.1	-1.9	117	0.9	-0.8	0.4	109	5.0	-4.7	1.6	100	12.7	-12.5	2.1
18	255	8.8	8.5	2.3	270	3.5	3.5	0.0	32	5.4	-2.9	-4.6	26	2.5	-1.1	-2.3	70	1.2	-1.1	-0.4	120	4.3	-3.7	2.1	101	11.4	-11.2	2.2
19	258	7.5	7.3	1.6	290	3.8	3.6	-1.3	31	4.5	-2.3	-3.9	28	3.0	-1.4	-2.6	243	0.2	0.2	0.1	121	4.9	-4.2	2.5	85	12.1	-12.1	-1.0
20	264	8.0	8.0	0.8	293	3.6	3.3	-1.4	40	5.1	-3.3	-3.9	43	2.5	-1.7	-1.8	105	2.3	-2.2	0.6	129	5.1	-4.0	3.2	107	12.9	-12.3	3.8
21	261	8.2	8.1	1.3	289	3.9	3.7	-1.3	37	4.5	-2.7	-3.6	34	2.3	-1.3	-1.9	115	1.4	-1.3	0.6	118	6.1	-5.4	2.9	94	14.5	-14.5	1.0
22	247	6.9	6.3	2.7	273	3.8	3.8	-0.2	19	5.0	-1.6	-4.7	40	1.6	-1.0	-1.2	108	0.9	-0.9	0.3	125	6.0	-4.9	3.4	93	11.8	-11.8	0.6
23	241	8.6	7.5	4.2	275	4.4	4.4	-0.4	33	4.9	-2.7	-4.1	37	2.0	-1.2	-1.6	59	2.1	-1.8	-1.1	117	6.9	-6.2	3.1	97	13.4	-13.3	1.6
24	238	10.2	8.6	5.4	274	5.4	5.4	-0.4	30	4.3	-2.1	-3.7	23	3.8	-1.5	-3.5	76	1.6	-1.6	-0.4	122	6.2	-5.3	3.3	90	13.4	-13.4	0.1
25	257	8.6	8.4	1.9	276	4.9	4.9	-0.5	32	4.7	-2.5	-4.0	49	3.3	-2.5	-2.2	86	1.6	-1.6	-0.1	105	5.6	-5.4	1.4	100	17.3	-17.1	2.9
26	258	8.5	8.3	1.8	281	3.2	3.1	-0.6	45	3.8	-2.7	-2.7	30	2.2	-1.1	-1.9	103	3.1	-3.0	0.7	99	7.3	-7.2	1.1	95	14.4	-14.3	1.3
27	262	7.5	7.4	1.0	270	4.6	4.6	0.0	44	3.0	-2.1	-2.2	52	2.4	-1.9	-1.5	95	2.2	-2.2	0.2	96	7.1	-7.1	0.8	96	18.4	-18.3	1.8
28	258	9.4	9.2	2.0	281	5.2	5.1	-1.0	38	3.9	-2.4	-3.1	38	2.3	-1.4	-1.8	111	3.0	-2.8	1.1	110	8.4	-7.9	2.8	96	15.4	-15.3	1.6
29	257	8.3	8.1	1.8	288	4.6	4.4	-1.4	35	2.9	-1.7	-2.4	17	1.0	-0.3	-1.0	98	3.7	-3.7	0.5	103	6.9	-6.7	1.5	96	16.7	-16.6	1.7
30	262	8.2	8.1	1.2	270	5.2	5.2	0.0	39	3.6	-2.3	-2.8	38	1.6	-1.0	-1.3	99	2.6	-2.6	0.4	98	6.7	-6.6	0.9	92	18.1	-18.1	0.7
31	260	8.3	8.2	1.4	280	5.3	5.2	-0.9	19	2.8	-0.9	-2.6	34	2.9	-1.6	-2.4	97	3.4	-3.4	0.4	101	8.2	-8.0	1.6	93	18.0	-18.0	0.8

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	256	7.9	7.7	1.9	283	5.5	5.4	-1.2	358	3.1	0.1	-3.1	21	0.9	-0.3	-0.8	106	4.0	-3.8	1.1	94	7.8	-7.8	0.5	87	18.6	-18.6	-1.1
2	252	8.6	8.2	2.7	282	6.1	6.0	-1.3	15	2.8	-0.7	-2.7	23	1.5	-0.6	-1.4	47	1.9	-1.4	-1.3	91	8.5	-8.5	0.1	92	23.8	-23.8	0.8
3	264	9.4	9.3	1.0	272	6.7	6.7	-0.2	338	1.6	0.6	-1.5	348	1.4	0.3	-1.4	79	3.3	-3.2	-0.6	97	9.3	-9.2	1.2	95	22.3	-22.2	1.9
4	259	8.9	8.7	1.7	280	8.2	8.1	-1.4	313	2.5	1.8	-1.7	360	0.4	0.0	-0.4	97	3.3	-3.3	0.4	100	9.2	-9.1	1.6	97	24.2	-24.0	3.0
5	250	7.4	7.0	2.5	288	6.8	6.5	-2.1	329	2.6	1.3	-2.2	215	2.4	1.4	2.0	93	4.5	-4.5	0.2	96	9.6	-9.5	1.0	90	24.0	-24.0	0.0
6	247	8.0	7.4	3.1	265	7.5	7.5	0.6	270	2.3	2.3	0.0	212	1.3	0.7	1.1	96	4.5	-4.5	0.5	91	10.0	-10.0	0.2	90	24.6	-24.6	0.1
7	247	8.6	7.9	3.4	272	7.1	7.1	-0.2	276	2.8	2.8	-0.3	246	1.2	1.1	0.5	76	3.7	-3.6	-0.9	91	12.5	-12.5	0.2	87	24.1	-24.1	-1.3
8	267	8.3	8.3	0.4	276	9.2	9.1	-1.0	280	2.3	2.3	-0.4	153	0.7	-0.3	0.6	88	5.1	-5.1	-0.2	89	12.8	-12.8	-0.3	86	26.5	-26.4	-1.7
9	271	10.5	10.5	-0.2	279	8.5	8.4	-1.4	293	2.8	2.6	-1.1	284	1.2	1.2	-0.3	82	5.9	-5.8	-0.8	87	13.7	-13.7	-0.7	88	25.2	-25.2	-0.7
10	268	9.7	9.7	0.4	284	9.2	8.9	-2.3	284	3.6	3.5	-0.9	265	2.2	2.2	0.2	82	6.5	-6.4	-0.9	88	15.7	-15.7	-0.5	86	27.8	-27.7	-2.0
11	269	11.0	11.0	0.2	282	10.1	9.9	-2.1	289	4.6	4.4	-1.5	278	3.0	3.0	-0.4	82	6.1	-6.0	-0.8	86	17.9	-17.9	-1.3	83	25.6	-25.4	-3.3
12	266	10.2	10.2	0.7	287	9.6	9.2	-2.8	279	8.4	8.3	-1.3	276	2.8	2.8	-0.3	76	5.6	-5.4	-1.3	88	16.6	-16.6	-0.7	86	23.9	-23.8	-1.6
13	276	11.6	11.5	-1.3	286	10.0	9.6	-2.8	288	6.3	6.0	-1.9	268	3.4	3.4	0.1	72	6.3	-6.0	-2.0	78	16.2	-15.9	-3.3	89	27.1	-27.1	-0.3
14	271	12.2	12.2	-0.2	282	11.3	11.1	-2.3	287	5.9	5.7	-1.7	269	5.2	5.2	0.1	79	4.8	-4.7	-0.9	78	15.2	-14.9	-3.2	92	26.0	-26.0	0.7
15	267	14.1	14.1	0.8	276	12.5	12.4	-1.3	277	7.5	7.4	-0.9	263	5.9	5.9	0.7	85	4.6	-4.6	-0.4	77	16.4	-16.0	-3.6	86	24.7	-24.6	-1.8
16	264	11.7	11.6	1.3	277	12.8	12.7	-1.5	271	8.8	8.8	-0.2	256	6.6	6.4	1.6	79	4.1	-4.0	-0.8	80	16.4	-16.2	-2.8	86	27.6	-27.5	-2.1
17	261	12.6	12.5	1.9	277	13.1	13.0	-1.7	274	8.9	8.9	-0.6	256	7.6	7.4	1.8	89	3.9	-3.9	-0.1	79	17.7	-17.4	-3.3	87	26.4	-26.4	-1.4
18	261	12.3	12.2	1.9	278	13.9	13.8	-1.9	277	8.8	8.7	-1.0	267	7.2	7.2	0.4	82	3.7	-3.7	-0.5	80	15.8	-15.6	-2.8	85	28.2	-28.1	-2.3
19	256	11.0	10.7	2.7	278	13.6	13.5	-1.8	273	9.0	9.0	-0.4	267	7.7	7.7	0.4	78	5.3	-5.2	-1.1	81	19.7	-19.4	-3.2	84	28.4	-28.3	-2.9
20	261	10.7	10.6	1.6	280	13.6	13.4	-2.3	278	9.4	9.3	-1.3	270	6.4	6.4	0.0	81	7.3	-7.2	-1.2	84	21.1	-21.0	-2.3	85	28.6	-28.5	-2.4
21	271	10.8	10.8	-0.1	289	11.2	10.6	-3.7	275	7.1	7.1	-0.6	265	4.8	4.8	0.4	80	6.1	-6.0	-1.1	81	21.7	-21.4	-3.4	85	29.8	-29.7	-2.5
22	272	12.4	12.4	-0.5	286	12.5	12.0	-3.5	274	7.8	7.8	-0.6	267	6.8	6.8	0.3	73	5.0	-4.8	-1.5	78	20.2	-19.7	-4.3	85	28.5	-28.4	-2.4
23	271	11.3	11.3	-0.2	280	11.5	11.3	-1.9	274	7.5	7.5	-0.5	260	7.2	7.1	1.2	87	5.2	-5.2	-0.3	82	21.8	-21.6	-3.1	80	33.7	-33.2	-6.0
24	270	12.0	12.0	-0.1	281	13.4	13.2	-2.5	271	8.8	8.8	-0.1	262	6.5	6.4	0.9	86	4.9	-4.9	-0.3	80	20.9	-20.6	-3.5	84	32.3	-32.1	-3.3
25	265	11.6	11.5	1.1	276	13.1	13.0	-1.4	271	8.4	8.4	-0.2	261	6.4	6.3	1.0	75	5.0	-4.8	-1.3	83	22.9	-22.8	-2.6	89	32.1	-32.1	-0.4
26	268	10.5	10.5	0.3	281	11.8	11.6	-2.3	271	9.2	9.2	-0.2	272	6.1	6.1	-0.2	80	7.1	-7.0	-1.2	81	21.6	-21.3	-3.3	84	31.9	-31.7	-3.2
27	264	10.5	10.4	1.1	276	13.2	13.1	-1.4	272	8.9	8.9	-0.3	263	6.3	6.2	0.8	90	4.2	-4.2	0.0	80	18.7	-18.4	-3.2	84	30.7	-30.5	-3.4
28	263	11.1	11.0	1.3	278	12.2	12.1	-1.7	272	8.7	8.7	-0.3	261	7.0	6.9	1.1	95	6.7	-6.7	0.6	81	21.7	-21.4	-3.5	84	33.5	-33.3	-3.7
29	259	10.9	10.7	2.0	277	13.0	12.9	-1.5	273	8.5	8.5	-0.5	262	6.0	5.9	0.8	85	7.1	-7.1	-0.6	82	20.8	-20.6	-2.8	85	31.1	-31.0	-2.8
30	265	11.5	11.5	1.0	278	12.8	12.7	-1.7	269	8.4	8.4	0.1	265	4.4	4.4	0.4	70	5.6	-5.3	-1.9	82	20.8	-20.6	-2.8	80	34.9	-34.4	-5.8

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	270	11.3	11.3	0.0	280	11.5	11.3	-1.9	275	8.0	8.0	-0.7	259	5.3	5.2	1.0	86	6.7	-6.7	-0.5	80	21.1	-20.8	-3.7	84	34.3	-34.1	-3.5
2	265	11.4	11.4	1.0	280	12.1	11.9	-2.2	271	8.0	8.0	-0.2	253	5.5	5.3	1.6	92	6.8	-6.8	0.2	82	24.1	-23.9	-3.4	86	36.5	-36.4	-2.4
3	272	11.2	11.2	-0.3	278	11.5	11.4	-1.7	277	8.3	8.2	-1.0	262	4.9	4.9	0.7	94	9.2	-9.2	0.6	82	22.0	-21.8	-3.2	87	36.4	-36.4	-1.6
4	268	10.0	10.0	0.4	280	11.3	11.1	-2.0	278	7.4	7.3	-1.0	258	4.3	4.2	0.9	94	7.9	-7.9	0.5	83	24.1	-23.9	-3.0	84	36.6	-36.4	-3.6
5	264	9.1	9.0	1.0	283	10.4	10.1	-2.3	277	7.4	7.3	-0.9	258	4.5	4.4	0.9	74	7.8	-7.5	-2.1	80	23.5	-23.2	-4.0	82	31.4	-31.1	-4.3
6	275	9.9	9.9	-0.9	283	11.6	11.3	-2.6	271	8.0	8.0	-0.2	269	5.7	5.7	0.1	85	6.2	-6.2	-0.5	78	21.3	-20.8	-4.4	87	32.0	-31.9	-1.8
7	275	11.4	11.4	-0.9	277	11.5	11.4	-1.3	268	7.4	7.4	0.2	255	5.2	5.0	1.3	74	7.0	-6.7	-1.9	78	20.0	-19.6	-4.2	85	32.1	-32.0	-3.0
8	263	9.8	9.7	1.2	280	11.8	11.6	-2.0	267	8.9	8.9	0.4	254	6.5	6.2	1.8	82	5.5	-5.4	-0.8	80	19.6	-19.3	-3.4	81	36.0	-35.5	-5.7
9	263	11.2	11.1	1.4	279	11.6	11.4	-1.9	273	7.8	7.8	-0.4	244	5.2	4.7	2.3	92	5.4	-5.4	0.2	79	20.7	-20.3	-3.8	89	31.5	-31.5	-0.3
10	262	10.7	10.6	1.5	281	10.7	10.5	-2.0	280	6.5	6.4	-1.1	271	4.3	4.3	-0.1	90	9.4	-9.4	0.0	81	21.2	-20.9	-3.3	84	33.6	-33.4	-3.6
11	264	11.5	11.4	1.2	279	11.1	11.0	-1.8	279	7.5	7.4	-1.2	273	5.5	5.5	-0.3	88	7.7	-7.7	-0.3	79	22.0	-21.6	-4.1	78	34.2	-33.4	-7.3
12	260	11.6	11.4	2.0	280	11.2	11.0	-2.0	274	8.7	8.7	-0.6	257	7.1	6.9	1.6	85	6.3	-6.3	-0.5	73	19.5	-18.6	-5.8	85	31.2	-31.1	-2.7
13	261	11.7	11.6	1.8	281	11.1	10.9	-2.1	276	7.5	7.5	-0.8	254	5.6	5.4	1.5	94	6.5	-6.5	0.4	80	19.2	-18.9	-3.5	75	27.3	-26.4	-7.0
14	264	11.4	11.3	1.2	284	10.9	10.6	-2.6	269	7.3	7.3	0.1	256	5.6	5.4	1.3	77	6.9	-6.7	-1.5	83	22.0	-21.8	-2.8	83	28.4	-28.2	-3.3
15	269	11.1	11.1	0.2	288	12.1	11.5	-3.7	276	8.5	8.5	-0.9	258	4.2	4.1	0.9	97	7.8	-7.7	0.9	81	21.6	-21.4	-3.2	83	32.1	-31.9	-3.9
16	266	11.1	11.1	0.7	284	12.2	11.8	-3.0	281	9.5	9.3	-1.8	278	5.9	5.8	-0.8	82	6.5	-6.4	-0.9	80	19.7	-19.4	-3.5	84	33.3	-33.1	-3.5
17	268	12.0	12.0	0.4	286	12.6	12.1	-3.5	279	8.2	8.1	-1.3	255	4.6	4.4	1.2	75	7.3	-7.0	-1.9	80	19.7	-19.4	-3.4	84	32.5	-32.3	-3.5
18	270	12.4	12.4	0.1	283	13.2	12.9	-3.0	278	9.1	9.0	-1.2	253	4.7	4.5	1.4	82	7.6	-7.5	-1.0	81	21.7	-21.4	-3.5	82	34.5	-34.2	-4.8
19	257	9.7	9.4	2.2	282	11.1	10.9	-2.3	282	8.5	8.3	-1.8	262	4.9	4.8	0.7	95	9.5	-9.5	0.8	81	22.0	-21.7	-3.4	85	31.5	-31.4	-2.7
20	264	10.6	10.5	1.1	286	11.1	10.7	-3.0	279	6.7	6.6	-1.0	260	4.5	4.4	0.8	88	8.4	-8.4	-0.3	81	22.1	-21.8	-3.6	84	32.9	-32.7	-3.4
21	260	9.6	9.5	1.6	287	10.3	9.9	-3.0	279	7.1	7.0	-1.1	265	3.3	3.3	0.3	88	8.2	-8.2	-0.3	78	20.3	-19.8	-4.3	84	32.7	-32.5	-3.7
22	266	9.6	9.6	0.7	279	10.8	10.7	-1.6	276	7.3	7.3	-0.8	258	4.5	4.4	0.9	89	9.8	-9.8	-0.2	81	21.5	-21.2	-3.5	84	31.8	-31.6	-3.6
23	268	10.9	10.9	0.3	279	9.6	9.5	-1.5	278	6.5	6.4	-0.9	260	4.1	4.0	0.7	82	7.5	-7.4	-1.0	80	21.2	-20.9	-3.5	85	33.5	-33.4	-3.1
24	266	10.3	10.3	0.8	280	10.9	10.7	-1.8	272	6.6	6.6	-0.2	262	3.0	3.0	0.4	84	9.1	-9.1	-0.9	82	22.7	-22.5	-3.3	81	33.4	-33.0	-5.1
25	270	11.7	11.7	0.0	282	11.0	10.8	-2.2	272	6.4	6.4	-0.2	248	4.8	4.4	1.8	89	8.6	-8.6	-0.2	86	22.1	-22.0	-1.7	88	28.6	-28.6	-0.9
26	265	12.5	12.5	1.0	285	11.4	11.0	-3.0	278	7.4	7.3	-1.0	261	4.3	4.2	0.7	87	8.4	-8.4	-0.5	82	23.9	-23.6	-3.5	84	31.9	-31.7	-3.1
27	263	11.6	11.5	1.5	283	10.5	10.2	-2.4	275	8.7	8.7	-0.7	260	5.2	5.1	0.9	75	6.4	-6.2	-1.7	81	21.2	-21.0	-3.2	85	34.2	-34.0	-3.2
28	273	12.8	12.8	-0.7	289	11.8	11.2	-3.8	284	7.6	7.4	-1.9	267	4.5	4.5	0.2	96	8.3	-8.3	0.8	79	22.9	-22.5	-4.2	85	34.0	-33.9	-3.1
29	270	11.7	11.7	0.0	289	10.3	9.8	-3.3	284	7.4	7.2	-1.8	267	5.1	5.1	0.3	82	7.8	-7.7	-1.1	84	21.5	-21.4	-2.2	86	32.3	-32.2	-2.4
30	270	13.1	13.1	0.1	281	10.8	10.6	-2.0	282	7.7	7.5	-1.6	271	5.1	5.1	-0.1	85	6.6	-6.6	-0.6	83	20.8	-20.6	-2.7	83	31.6	-31.3	-4.0
31	270	11.0	11.0	0.0	285	11.9	11.5	-3.0	287	8.4	8.0	-2.5	263	6.2	6.1	0.8	87	7.6	-7.6	-0.4	81	20.8	-20.6	-3.1	83	30.5	-30.3	-3.6

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	276	12.3	12.2	-1.3	285	12.1	11.7	-3.1	279	9.1	9.0	-1.5	263	6.4	6.4	0.8	85	5.0	-5.0	-0.4	82	21.8	-21.6	-2.9	80	30.1	-29.7	-5.1
2	270	11.8	11.8	0.0	285	12.0	11.6	-3.1	272	8.0	8.0	-0.3	273	5.8	5.8	-0.3	88	4.8	-4.8	-0.2	80	20.0	-19.7	-3.5	80	28.4	-28.0	-5.0
3	266	11.1	11.1	0.7	285	12.0	11.6	-3.1	285	7.3	7.1	-1.9	251	4.3	4.1	1.4	97	7.2	-7.1	0.9	79	20.3	-19.9	-3.9	82	33.2	-32.9	-4.5
4	265	8.5	8.5	0.7	288	9.8	9.3	-3.1	274	7.0	7.0	-0.5	244	3.7	3.3	1.6	96	8.2	-8.2	0.8	81	24.1	-23.8	-3.6	83	32.8	-32.5	-4.1
5	264	8.1	8.1	0.8	279	9.9	9.8	-1.5	277	6.5	6.5	-0.8	266	4.1	4.1	0.3	86	9.2	-9.2	-0.6	79	22.0	-21.6	-4.2	86	29.2	-29.1	-2.2
6	261	9.3	9.2	1.5	284	11.3	10.9	-2.8	276	7.4	7.4	-0.8	262	3.4	3.4	0.5	92	7.3	-7.3	0.2	82	22.0	-21.8	-2.9	84	33.2	-33.0	-3.3
7	256	8.7	8.4	2.1	283	12.0	11.7	-2.7	278	8.1	8.0	-1.1	253	4.5	4.3	1.3	85	7.8	-7.8	-0.7	78	21.7	-21.3	-4.4	82	28.5	-28.2	-3.9
8	263	8.7	8.6	1.0	286	12.2	11.7	-3.4	279	10.1	10.0	-1.6	270	6.6	6.6	0.0	80	6.4	-6.3	-1.1	75	20.8	-20.1	-5.4	87	29.6	-29.5	-1.8
9	273	11.3	11.3	-0.6	284	11.7	11.4	-2.8	282	9.8	9.6	-2.0	263	6.4	6.4	0.8	84	6.7	-6.7	-0.7	80	20.5	-20.2	-3.4	85	30.3	-30.2	-2.7
10	267	10.2	10.2	0.5	286	11.5	11.1	-3.1	275	9.1	9.1	-0.8	262	6.7	6.6	0.9	94	4.6	-4.6	0.3	79	19.0	-18.7	-3.6	79	31.4	-30.9	-5.8
11	268	10.1	10.1	0.4	285	12.2	11.8	-3.2	276	9.5	9.4	-1.0	270	6.2	6.2	0.0	73	6.3	-6.0	-1.8	78	18.0	-17.6	-3.7	88	30.1	-30.1	-0.8
12	268	9.8	9.8	0.4	285	11.6	11.2	-3.0	279	7.9	7.8	-1.2	262	4.9	4.9	0.7	77	6.7	-6.5	-1.5	80	22.4	-22.1	-3.7	82	30.6	-30.3	-4.1
13	266	10.7	10.7	0.7	286	12.4	11.9	-3.5	284	8.4	8.2	-2.0	270	5.3	5.3	0.0	88	5.9	-5.9	-0.2	80	20.3	-20.0	-3.7	85	34.3	-34.2	-3.2
14	264	9.0	8.9	1.0	288	11.4	10.8	-3.5	287	9.0	8.6	-2.6	282	5.0	4.9	-1.0	89	6.0	-6.0	-0.1	81	22.7	-22.4	-3.5	84	29.8	-29.6	-3.2
15	267	8.5	8.5	0.5	288	12.8	12.2	-3.9	286	8.2	7.9	-2.2	275	4.3	4.3	-0.4	93	6.4	-6.4	0.3	82	20.9	-20.7	-3.0	83	28.8	-28.6	-3.4
16	266	9.5	9.5	0.7	285	10.7	10.4	-2.7	282	8.2	8.0	-1.7	264	4.6	4.6	0.5	93	7.7	-7.7	0.4	84	21.9	-21.8	-2.4	83	29.6	-29.4	-3.4
17	262	9.0	8.9	1.3	284	9.8	9.5	-2.4	290	6.7	6.3	-2.3	266	5.1	5.1	0.4	98	6.8	-6.7	0.9	86	19.9	-19.8	-1.5	85	30.7	-30.6	-2.9
18	258	9.7	9.5	2.1	282	11.3	11.0	-2.4	278	7.8	7.7	-1.1	260	4.0	3.9	0.7	89	8.3	-8.3	-0.2	82	20.0	-19.8	-2.9	85	27.6	-27.5	-2.5
19	260	8.7	8.6	1.5	294	9.8	9.0	-4.0	282	7.4	7.2	-1.5	261	3.6	3.6	0.6	86	8.9	-8.9	-0.6	84	21.2	-21.1	-2.4	86	29.0	-28.9	-2.2
20	265	9.1	9.1	0.8	286	9.9	9.5	-2.7	283	6.9	6.7	-1.6	272	3.4	3.4	-0.1	92	7.3	-7.3	0.3	82	18.8	-18.6	-2.7	86	30.7	-30.6	-2.4
21	276	8.4	8.4	-0.9	293	10.3	9.5	-4.0	283	7.3	7.1	-1.7	266	3.9	3.9	0.3	94	8.0	-8.0	0.6	82	21.4	-21.2	-3.1	87	32.1	-32.0	-1.9
22	272	9.6	9.6	-0.3	287	9.6	9.2	-2.9	279	6.1	6.0	-1.0	273	2.2	2.2	-0.1	94	6.4	-6.4	0.5	83	18.9	-18.7	-2.4	83	32.2	-32.0	-3.7
23	260	7.8	7.7	1.3	282	9.5	9.3	-1.9	278	6.6	6.5	-0.9	243	2.9	2.6	1.3	94	8.9	-8.9	0.7	84	20.4	-20.3	-2.2	87	30.3	-30.3	-1.6
24	261	9.1	9.0	1.5	284	8.9	8.6	-2.2	280	6.3	6.2	-1.1	249	3.6	3.4	1.3	89	9.0	-9.0	-0.2	84	22.7	-22.6	-2.2	84	30.0	-29.8	-3.3
25	266	9.0	9.0	0.7	281	8.6	8.4	-1.6	273	6.2	6.2	-0.3	269	3.9	3.9	0.1	89	8.1	-8.1	-0.2	85	20.5	-20.4	-1.8	84	29.7	-29.5	-3.2
26	268	10.4	10.4	0.3	283	10.0	9.8	-2.2	277	7.1	7.0	-0.9	280	3.5	3.4	-0.6	85	6.5	-6.5	-0.6	80	19.4	-19.1	-3.2	89	29.8	-29.8	-0.7
27	266	9.4	9.4	0.6	287	10.2	9.7	-3.0	282	7.4	7.2	-1.5	265	4.5	4.5	0.4	82	6.9	-6.8	-1.0	79	18.7	-18.4	-3.6	88	30.0	-30.0	-1.1
28	269	11.2	11.2	0.2	285	9.5	9.2	-2.5	279	7.0	6.9	-1.1	261	5.3	5.2	0.8	101	6.7	-6.6	1.3	78	20.5	-20.1	-4.1	90	28.9	-28.9	0.2
29	274	11.7	11.7	-0.9	286	10.6	10.2	-3.0	282	8.0	7.8	-1.7	250	5.0	4.7	1.7	94	6.5	-6.5	0.5	81	20.7	-20.4	-3.4	84	29.6	-29.4	-3.2
30	279	11.2	11.1	-1.7	284	9.8	9.5	-2.4	272	7.0	7.0	-0.3	250	4.5	4.2	1.5	91	7.5	-7.5	0.1	84	20.9	-20.8	-2.2	85	27.1	-27.0	-2.3
31	269	8.3	8.3	0.2	284	7.9	7.7	-1.9	279	6.2	6.1	-1.0	265	3.6	3.6	0.3	85	6.7	-6.7	-0.6	85	20.1	-20.0	-1.7	89	27.0	-27.0	-0.3

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	266	9.0	9.0	0.7	277	7.2	7.1	-0.9	267	4.5	4.5	0.2	261	1.2	1.2	0.2	90	10.6	-10.6	0.0	86	22.4	-22.3	-1.7	88	28.4	-28.4	-0.8
2	263	8.9	8.8	1.1	272	7.5	7.5	-0.3	272	5.0	5.0	-0.2	254	2.2	2.1	0.6	94	8.7	-8.7	0.6	83	21.9	-21.7	-2.8	85	28.3	-28.2	-2.4
3	275	10.6	10.6	-0.9	277	7.9	7.8	-0.9	277	5.7	5.7	-0.7	248	1.6	1.5	0.6	99	9.5	-9.4	1.5	87	21.6	-21.6	-1.1	84	28.4	-28.3	-2.8
4	273	9.5	9.5	-0.5	278	6.9	6.8	-0.9	279	5.3	5.2	-0.8	263	1.7	1.7	0.2	89	8.8	-8.8	-0.2	86	21.8	-21.7	-1.7	86	26.8	-26.7	-2.0
5	271	9.1	9.1	-0.2	274	6.0	6.0	-0.4	272	4.8	4.8	-0.2	275	2.4	2.4	-0.2	88	7.1	-7.1	-0.2	81	19.3	-19.0	-3.1	87	26.1	-26.1	-1.2
6	261	8.1	8.0	1.2	289	6.0	5.7	-2.0	280	5.1	5.0	-0.9	270	2.3	2.3	0.0	95	8.4	-8.4	0.8	77	19.3	-18.8	-4.3	90	24.7	-24.7	-0.2
7	268	9.2	9.2	0.4	282	6.6	6.4	-1.4	284	4.6	4.5	-1.1	280	1.7	1.7	-0.3	85	8.7	-8.7	-0.7	83	19.4	-19.3	-2.3	85	26.7	-26.6	-2.1
8	259	7.5	7.4	1.4	293	6.7	6.2	-2.6	285	5.5	5.3	-1.4	321	1.4	0.9	-1.1	89	7.4	-7.4	-0.1	88	18.8	-18.8	-0.7	90	24.8	-24.8	0.0
9	252	6.9	6.6	2.1	290	6.9	6.5	-2.4	296	5.5	5.0	-2.4	294	1.2	1.1	-0.5	93	6.6	-6.6	0.3	87	17.6	-17.6	-0.8	83	25.9	-25.7	-3.0
10	265	6.3	6.3	0.6	294	6.2	5.7	-2.5	293	4.7	4.3	-1.8	276	2.0	2.0	-0.2	92	6.9	-6.9	0.2	85	16.8	-16.7	-1.4	86	25.8	-25.8	-1.6
11	249	6.5	6.1	2.3	283	5.8	5.7	-1.3	287	3.7	3.5	-1.1	252	1.3	1.2	0.4	98	6.9	-6.8	0.9	85	17.7	-17.6	-1.6	89	22.1	-22.1	-0.4
12	238	6.8	5.8	3.6	281	5.6	5.5	-1.1	272	3.4	3.4	-0.1	233	2.1	1.7	1.3	95	6.9	-6.9	0.6	89	17.2	-17.2	-0.3	89	22.5	-22.5	-0.2
13	243	7.8	7.0	3.5	281	4.1	4.0	-0.8	285	2.7	2.6	-0.7	143	0.5	-0.3	0.4	100	7.7	-7.6	1.4	85	15.9	-15.8	-1.3	86	23.5	-23.4	-1.7
14	268	8.1	8.1	0.3	290	4.4	4.1	-1.5	307	3.9	3.1	-2.3	270	0.4	0.4	0.0	87	7.3	-7.3	-0.4	92	15.8	-15.8	0.6	88	22.9	-22.9	-0.8
15	249	8.5	8.0	3.0	296	3.7	3.3	-1.6	326	2.7	1.5	-2.2	117	0.9	-0.8	0.4	88	7.9	-7.9	-0.3	93	14.1	-14.1	0.8	89	22.1	-22.1	-0.4
16	261	8.5	8.4	1.4	280	3.5	3.4	-0.6	332	2.6	1.2	-2.3	63	1.6	-1.4	-0.7	92	7.3	-7.3	0.3	93	16.0	-16.0	0.9	87	23.7	-23.7	-1.1
17	256	7.4	7.2	1.8	282	2.9	2.8	-0.6	337	2.3	0.9	-2.1	114	2.0	-1.8	0.8	92	8.5	-8.5	0.3	94	16.5	-16.5	1.1	92	23.9	-23.9	0.8
18	259	7.8	7.7	1.5	279	3.8	3.8	-0.6	311	2.9	2.2	-1.9	83	0.8	-0.8	-0.1	87	8.3	-8.3	-0.4	91	15.4	-15.4	0.2	87	22.4	-22.4	-1.3
19	259	7.0	6.9	1.4	282	4.0	3.9	-0.8	311	2.9	2.2	-1.9	58	1.5	-1.3	-0.8	92	7.7	-7.7	0.3	94	14.7	-14.7	1.1	88	23.0	-23.0	-0.7
20	257	6.6	6.4	1.5	284	4.0	3.9	-1.0	315	3.5	2.5	-2.5	39	1.3	-0.8	-1.0	87	6.7	-6.7	-0.4	93	14.5	-14.5	0.8	91	21.2	-21.2	0.4
21	265	5.4	5.4	0.5	290	3.3	3.1	-1.1	322	3.6	2.2	-2.8	9	0.6	-0.1	-0.6	96	7.2	-7.2	0.7	94	14.0	-14.0	0.9	90	24.7	-24.7	0.1
22	250	4.5	4.2	1.5	294	3.7	3.4	-1.5	302	3.2	2.7	-1.7	225	0.1	0.1	0.1	91	7.9	-7.9	0.2	90	13.7	-13.7	0.1	92	24.4	-24.4	0.7
23	249	5.1	4.8	1.8	276	4.5	4.5	-0.5	307	2.6	2.1	-1.6	135	0.1	-0.1	0.1	98	6.8	-6.7	0.9	95	14.7	-14.7	1.2	85	21.5	-21.4	-1.7
24	236	3.2	2.7	1.8	293	3.3	3.0	-1.3	311	2.0	1.5	-1.3	122	1.9	-1.6	1.0	102	7.4	-7.2	1.5	89	13.4	-13.4	-0.3	92	20.7	-20.7	0.8
25	237	3.3	2.8	1.8	278	2.8	2.8	-0.4	329	1.2	0.6	-1.0	142	2.4	-1.5	1.9	96	8.9	-8.9	0.9	98	14.0	-13.9	1.9	86	19.7	-19.7	-1.3
26	232	4.6	3.6	2.8	272	3.2	3.2	-0.1	297	1.3	1.2	-0.6	118	2.7	-2.4	1.3	96	7.7	-7.7	0.8	88	11.6	-11.6	-0.5	89	21.7	-21.7	-0.4
27	238	2.8	2.4	1.5	287	3.8	3.6	-1.1	307	2.5	2.0	-1.5	122	1.3	-1.1	0.7	95	6.2	-6.2	0.5	93	14.5	-14.5	0.8	86	18.1	-18.1	-1.2
28	239	3.5	3.0	1.8	301	3.1	2.7	-1.6	318	2.5	1.7	-1.9	143	1.0	-0.6	0.8	92	6.1	-6.1	0.2	87	11.3	-11.3	-0.6	94	19.6	-19.6	1.4
29	238	3.6	3.1	1.9	305	2.1	1.7	-1.2	357	1.9	0.1	-1.9	96	2.0	-2.0	0.2	98	7.2	-7.1	1.0	93	11.6	-11.6	0.6	92	18.7	-18.7	0.7
30	229	3.0	2.3	2.0	298	2.1	1.9	-1.0	326	1.8	1.0	-1.5	96	1.0	-1.0	0.1	96	6.6	-6.6	0.7	95	12.3	-12.3	1.0	89	16.2	-16.2	-0.2

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	233	3.9	3.1	2.3	279	3.6	3.6	-0.6	315	1.6	1.1	-1.1	55	1.2	-1.0	-0.7	91	6.0	-6.0	0.1	93	11.7	-11.7	0.6	98	17.8	-17.6	2.4
2	249	3.0	2.8	1.1	292	2.9	2.7	-1.1	302	1.9	1.6	-1.0	146	0.4	-0.2	0.3	93	6.1	-6.1	0.3	86	11.8	-11.8	-0.9	92	15.8	-15.8	0.6
3	259	2.5	2.5	0.5	305	3.8	3.1	-2.2	311	2.3	1.7	-1.5	101	1.0	-1.0	0.2	99	6.6	-6.5	1.0	95	12.2	-12.2	1.1	87	15.2	-15.2	-0.7
4	294	4.5	4.1	-1.8	309	3.6	2.8	-2.3	310	3.5	2.7	-2.3	214	0.4	0.2	0.3	104	5.0	-4.9	1.2	100	10.7	-10.5	1.9	92	14.8	-14.8	0.5
5	287	5.1	4.9	-1.5	303	3.5	2.9	-1.9	326	2.9	1.6	-2.4	90	0.6	-0.6	0.0	99	6.6	-6.5	1.0	102	11.3	-11.0	2.4	92	15.9	-15.9	0.5
6	288	0.9	0.9	-0.3	319	2.0	1.3	-1.5	317	1.6	1.1	-1.2	137	1.8	-1.2	1.3	102	6.2	-6.1	1.3	95	12.3	-12.3	1.1	88	14.7	-14.7	-0.6
7	312	2.4	1.8	-1.6	323	2.1	1.3	-1.7	336	1.0	0.4	-0.9	133	1.8	-1.3	1.2	95	5.6	-5.6	0.5	85	10.2	-10.2	-0.9	93	13.2	-13.2	0.8
8	315	2.3	1.6	-1.6	332	1.7	0.8	-1.5	360	1.7	0.0	-1.7	104	1.2	-1.2	0.3	93	6.1	-6.1	0.3	93	10.3	-10.3	0.5	93	13.9	-13.9	0.7
9	257	2.7	2.6	0.6	287	1.4	1.3	-0.4	321	0.6	0.4	-0.5	114	2.4	-2.2	1.0	103	6.4	-6.2	1.4	99	9.4	-9.3	1.4	95	14.3	-14.2	1.2
10	214	1.4	0.8	1.2	270	0.3	0.3	0.0	331	1.0	0.5	-0.9	88	2.8	-2.8	-0.1	88	5.4	-5.4	-0.2	99	10.7	-10.6	1.7	94	14.7	-14.7	1.1
11	220	3.5	2.3	2.7	225	0.7	0.5	0.5	347	1.7	0.4	-1.7	93	1.9	-1.9	0.1	97	5.6	-5.6	0.7	95	8.9	-8.9	0.8	97	10.0	-9.9	1.2
12	242	1.7	1.5	0.8	347	1.3	0.3	-1.3	11	2.1	-0.4	-2.1	76	3.0	-2.9	-0.7	90	5.8	-5.8	0.0	97	9.2	-9.1	1.1	88	14.3	-14.3	-0.6
13	313	2.3	1.7	-1.6	354	1.8	0.2	-1.8	360	2.8	0.0	-2.8	81	3.1	-3.1	-0.5	98	3.7	-3.7	0.5	108	8.2	-7.8	2.6	98	14.8	-14.7	2.1
14	301	3.9	3.3	-2.0	13	2.7	-0.6	-2.6	15	3.1	-0.8	-3.0	68	3.1	-2.9	-1.2	97	3.4	-3.4	0.4	108	8.3	-7.9	2.5	99	13.5	-13.3	2.1
15	306	3.2	2.6	-1.9	2	3.0	-0.1	-3.0	21	3.0	-1.1	-2.8	34	1.8	-1.0	-1.5	110	5.4	-5.1	1.9	100	10.1	-9.9	1.8	94	11.5	-11.5	0.8
16	298	4.4	3.9	-2.1	355	3.7	0.3	-3.7	7	3.4	-0.4	-3.4	63	2.0	-1.8	-0.9	108	4.0	-3.8	1.2	99	10.5	-10.4	1.7	95	15.0	-14.9	1.4
17	345	2.8	0.7	-2.7	12	3.5	-0.7	-3.4	21	2.6	-0.9	-2.4	102	3.3	-3.2	0.7	107	3.8	-3.6	1.1	102	8.6	-8.4	1.8	100	13.8	-13.6	2.5
18	295	2.1	1.9	-0.9	18	3.5	-1.1	-3.3	29	3.8	-1.8	-3.3	80	2.2	-2.2	-0.4	111	4.8	-4.5	1.7	103	7.3	-7.1	1.6	95	10.9	-10.9	0.9
19	225	0.4	0.3	0.3	40	2.3	-1.5	-1.8	45	1.1	-0.8	-0.8	129	2.6	-2.0	1.6	123	6.7	-5.6	3.6	102	8.8	-8.6	1.9	97	15.1	-15.0	1.9
20	198	1.6	0.5	1.5	55	1.9	-1.6	-1.1	49	2.1	-1.6	-1.4	111	2.8	-2.6	1.0	92	3.2	-3.2	0.1	116	8.4	-7.5	3.7	91	10.3	-10.3	0.2
21	76	1.6	-1.6	-0.4	59	3.1	-2.7	-1.6	74	1.5	-1.4	-0.4	105	4.2	-4.1	1.1	118	3.2	-2.8	1.5	114	6.4	-5.9	2.6	104	8.8	-8.5	2.1
22	124	1.4	-1.2	0.8	65	2.1	-1.9	-0.9	62	2.4	-2.1	-1.1	109	2.8	-2.6	0.9	102	4.4	-4.3	0.9	114	7.3	-6.7	3.0	94	11.6	-11.6	0.8
23	83	0.8	-0.8	-0.1	70	2.9	-2.7	-1.0	67	2.5	-2.3	-1.0	97	3.5	-3.5	0.4	88	3.6	-3.6	-0.1	113	6.5	-6.0	2.5	95	10.8	-10.8	0.9
24	70	2.7	-2.5	-0.9	72	4.1	-3.9	-1.3	78	3.0	-2.9	-0.6	95	3.4	-3.4	0.3	88	2.9	-2.9	-0.1	117	5.9	-5.2	2.7	95	7.3	-7.3	0.7
25	43	2.5	-1.7	-1.8	65	4.1	-3.7	-1.7	70	2.9	-2.7	-1.0	90	4.4	-4.4	0.0	89	4.1	-4.1	-0.1	113	5.7	-5.3	2.2	99	7.9	-7.8	1.3
26	26	2.5	-1.1	-2.3	53	5.4	-4.3	-3.2	47	4.2	-3.1	-2.9	78	4.5	-4.4	-0.9	99	3.8	-3.8	0.6	115	6.9	-6.3	2.9	100	5.7	-5.6	1.0
27	9	1.3	-0.2	-1.3	50	5.1	-3.9	-3.3	55	4.4	-3.6	-2.5	88	2.8	-2.8	-0.1	111	4.3	-4.0	1.5	123	6.6	-5.5	3.6	112	7.6	-7.1	2.8
28	27	2.7	-1.2	-2.4	61	3.8	-3.3	-1.8	76	2.1	-2.0	-0.5	92	3.3	-3.3	0.1	101	4.4	-4.3	0.8	110	5.1	-4.8	1.7	98	9.2	-9.1	1.3
29	8	4.1	-0.6	-4.1	45	4.7	-3.3	-3.3	45	2.7	-1.9	-1.9	98	3.5	-3.5	0.5	95	3.5	-3.5	0.3	112	4.5	-4.2	1.7	102	7.6	-7.4	1.6
30	13	5.0	-1.1	-4.9	42	4.7	-3.2	-3.5	58	3.2	-2.7	-1.7	87	3.3	-3.3	-0.2	119	2.9	-2.5	1.4	129	5.0	-3.9	3.2	92	7.2	-7.2	0.3
31	305	2.9	2.4	-1.7	30	3.9	-2.0	-3.4	32	0.9	-0.5	-0.8	82	2.1	-2.1	-0.3	97	3.1	-3.1	0.4	116	5.8	-5.2	2.5	116	5.3	-4.8	2.3

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	21	0.9	-0.3	-0.8	49	3.8	-2.9	-2.5	76	3.3	-3.2	-0.8	68	4.1	-3.8	-1.5	106	3.2	-3.1	0.9	126	6.3	-5.1	3.7	97	6.8	-6.8	0.8
2	66	2.0	-1.8	-0.8	46	3.9	-2.8	-2.7	64	2.8	-2.5	-1.2	83	3.5	-3.5	-0.4	100	2.9	-2.9	0.5	134	6.0	-4.3	4.2	97	6.6	-6.6	0.8
3	48	4.2	-3.1	-2.8	53	3.6	-2.9	-2.2	79	3.6	-3.5	-0.7	84	4.4	-4.4	-0.5	126	4.1	-3.3	2.4	148	8.0	-4.2	6.8	107	8.5	-8.1	2.5
4	43	5.0	-3.4	-3.7	60	5.6	-4.9	-2.8	73	4.5	-4.3	-1.3	88	5.2	-5.2	-0.2	105	3.9	-3.8	1.0	134	7.6	-5.4	5.3	94	8.3	-8.3	0.6
5	40	7.9	-5.1	-6.0	52	6.5	-5.1	-4.0	76	4.0	-3.9	-1.0	103	4.7	-4.6	1.1	121	3.7	-3.2	1.9	137	5.9	-4.0	4.3	112	8.1	-7.5	3.1
6	42	7.9	-5.3	-5.8	51	6.3	-4.9	-4.0	69	4.3	-4.0	-1.5	93	4.0	-4.0	0.2	118	3.4	-3.0	1.6	144	5.9	-3.5	4.8	102	6.3	-6.2	1.3
7	54	4.7	-3.8	-2.8	55	5.1	-4.2	-2.9	79	3.2	-3.1	-0.6	90	4.2	-4.2	0.0	115	2.6	-2.4	1.1	134	7.4	-5.3	5.2	102	6.1	-6.0	1.3
8	63	4.4	-3.9	-2.0	58	4.6	-3.9	-2.4	82	3.0	-3.0	-0.4	82	4.9	-4.8	-0.7	81	3.6	-3.6	-0.6	142	7.0	-4.3	5.5	91	6.1	-6.1	0.1
9	80	3.6	-3.5	-0.6	56	4.6	-3.8	-2.6	58	2.8	-2.4	-1.5	79	4.7	-4.6	-0.9	107	3.0	-2.9	0.9	137	5.2	-3.6	3.8	97	6.0	-6.0	0.7
10	71	5.4	-5.1	-1.8	60	4.8	-4.1	-2.4	72	3.5	-3.3	-1.1	85	4.9	-4.9	-0.4	102	2.9	-2.8	0.6	142	4.7	-2.9	3.7	106	4.3	-4.1	1.2
11	66	5.9	-5.4	-2.4	47	6.6	-4.8	-4.5	67	5.2	-4.8	-2.0	82	5.3	-5.3	-0.7	82	3.7	-3.7	-0.5	136	6.2	-4.3	4.5	84	5.9	-5.9	-0.6
12	55	5.9	-4.8	-3.4	64	5.9	-5.3	-2.6	74	4.5	-4.3	-1.2	82	5.1	-5.1	-0.7	124	2.9	-2.4	1.6	143	6.5	-3.9	5.2	104	8.0	-7.8	1.9
13	40	6.9	-4.4	-5.3	37	5.6	-3.4	-4.5	48	3.1	-2.3	-2.1	83	4.7	-4.7	-0.6	112	2.2	-2.0	0.8	141	6.5	-4.1	5.1	101	3.1	-3.0	0.6
14	43	7.9	-5.4	-5.7	46	5.7	-4.1	-3.9	77	3.5	-3.4	-0.8	87	3.8	-3.8	-0.2	127	2.1	-1.7	1.3	137	5.7	-3.9	4.2	101	6.6	-6.5	1.3
15	62	5.9	-5.2	-2.8	65	4.7	-4.2	-2.0	82	2.8	-2.8	-0.4	93	3.9	-3.9	0.2	104	2.9	-2.8	0.7	128	5.6	-4.4	3.4	91	6.6	-6.6	0.1
16	69	4.4	-4.1	-1.6	62	5.5	-4.9	-2.6	96	2.8	-2.8	0.3	94	3.9	-3.9	0.3	95	2.2	-2.2	0.2	132	5.8	-4.3	3.9	87	6.4	-6.4	-0.3
17	63	4.4	-3.9	-2.0	54	5.4	-4.4	-3.2	92	2.3	-2.3	0.1	83	4.1	-4.1	-0.5	133	2.5	-1.8	1.7	154	6.8	-3.0	6.1	115	5.3	-4.8	2.2
18	44	4.6	-3.2	-3.3	50	5.7	-4.4	-3.7	69	3.0	-2.8	-1.1	94	3.0	-3.0	0.2	148	1.9	-1.0	1.6	160	6.6	-2.2	6.2	113	3.9	-3.6	1.5
19	56	3.7	-3.1	-2.1	45	5.4	-3.8	-3.8	36	2.6	-1.5	-2.1	60	2.4	-2.1	-1.2	178	2.3	-0.1	2.3	180	7.5	0.0	7.5	133	3.8	-2.8	2.6
20	38	5.7	-3.5	-4.5	44	4.7	-3.3	-3.4	55	2.1	-1.7	-1.2	75	3.0	-2.9	-0.8	185	3.8	0.3	3.8	162	8.2	-2.6	7.8	109	2.4	-2.3	0.8
21	61	6.3	-5.5	-3.1	57	6.2	-5.2	-3.4	73	2.4	-2.3	-0.7	80	3.9	-3.8	-0.7	190	2.9	0.5	2.9	171	9.3	-1.4	9.2	127	2.1	-1.7	1.3
22	53	6.1	-4.9	-3.7	40	5.5	-3.5	-4.2	72	3.6	-3.4	-1.1	87	2.2	-2.2	-0.1	206	2.8	1.2	2.5	187	7.8	0.9	7.7	128	2.8	-2.2	1.7
23	59	7.6	-6.5	-3.9	61	5.6	-4.9	-2.7	98	4.3	-4.3	0.6	86	2.6	-2.6	-0.2	238	2.2	1.9	1.2	181	8.3	0.2	8.3	126	1.7	-1.4	1.0
24	39	7.1	-4.5	-5.5	48	7.9	-5.8	-5.3	70	5.6	-5.3	-1.9	75	4.1	-4.0	-1.1	187	1.6	0.2	1.6	176	7.1	-0.5	7.1	103	4.0	-3.9	0.9
25	36	6.2	-3.6	-5.0	43	6.9	-4.7	-5.0	58	3.6	-3.0	-1.9	55	3.7	-3.0	-2.1	215	2.4	1.4	2.0	198	6.7	2.1	6.4	132	3.9	-2.9	2.6
26	34	7.0	-3.9	-5.8	47	5.0	-3.7	-3.4	70	2.0	-1.9	-0.7	78	3.5	-3.4	-0.7	244	2.5	2.3	1.1	198	4.6	1.4	4.4	93	3.4	-3.4	0.2
27	38	6.1	-3.7	-4.8	46	5.9	-4.3	-4.1	61	3.5	-3.1	-1.7	63	3.4	-3.0	-1.5	101	0.5	-0.5	0.1	174	6.0	-0.6	6.0	95	3.6	-3.6	0.3
28	38	7.1	-4.3	-5.6	53	6.0	-4.8	-3.6	68	4.3	-4.0	-1.6	70	6.2	-5.8	-2.1	239	0.6	0.5	0.3	193	5.4	1.2	5.3	92	3.2	-3.2	0.1
29	39	7.7	-4.9	-6.0	56	6.8	-5.6	-3.8	73	3.4	-3.3	-1.0	60	5.6	-4.8	-2.8	27	0.4	-0.2	-0.4	176	6.2	-0.4	6.2	100	3.9	-3.8	0.7
30	51	6.3	-4.9	-3.9	61	6.4	-5.6	-3.1	71	3.6	-3.4	-1.2	65	5.1	-4.6	-2.1	270	1.8	1.8	0.0	192	7.1	1.5	6.9	87	4.4	-4.4	-0.2

Daily Normals of Upper Air Winds (1971-2000)

CHENNAI **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	44	6.2	-4.3	-4.5	48	7.4	-5.5	-5.0	77	4.4	-4.3	-1.0	76	4.4	-4.3	-1.1	221	1.1	0.7	0.8	184	6.8	0.5	6.8	103	0.9	-0.9	0.2
2	41	6.9	-4.5	-5.2	66	6.9	-6.3	-2.8	86	4.7	-4.7	-0.3	73	5.8	-5.5	-1.7	45	0.4	-0.3	-0.3	186	8.7	0.9	8.7	86	1.4	-1.4	-0.1
3	35	7.5	-4.3	-6.1	60	7.4	-6.4	-3.7	76	5.7	-5.5	-1.4	61	5.4	-4.7	-2.6	189	1.8	0.3	1.8	189	6.8	1.1	6.7	236	0.7	0.6	0.4
4	41	7.8	-5.1	-5.9	64	8.0	-7.2	-3.5	81	6.1	-6.0	-1.0	78	5.9	-5.8	-1.2	216	2.6	1.5	2.1	216	7.7	4.5	6.2	266	1.4	1.4	0.1
5	54	5.2	-4.2	-3.0	57	7.8	-6.5	-4.3	69	5.1	-4.8	-1.8	59	3.3	-2.8	-1.7	220	3.3	2.1	2.5	195	7.3	1.9	7.1	120	2.0	-1.7	1.0
6	37	7.0	-4.2	-5.6	53	7.9	-6.3	-4.8	67	4.9	-4.5	-1.9	61	4.1	-3.6	-2.0	231	2.2	1.7	1.4	199	8.2	2.7	7.7	140	0.8	-0.5	0.6
7	51	8.2	-6.4	-5.1	65	6.3	-5.7	-2.7	76	5.0	-4.9	-1.2	67	3.9	-3.6	-1.5	247	2.1	1.9	0.8	191	7.1	1.3	7.0	129	2.8	-2.2	1.8
8	46	8.5	-6.1	-5.9	50	6.7	-5.2	-4.3	69	4.3	-4.0	-1.5	69	3.6	-3.4	-1.3	260	3.4	3.3	0.6	188	6.3	0.9	6.2	194	0.4	0.1	0.4
9	26	7.2	-3.2	-6.5	48	5.5	-4.1	-3.7	76	3.8	-3.7	-0.9	65	2.6	-2.4	-1.1	227	1.6	1.2	1.1	203	7.8	3.1	7.2	183	2.0	0.1	2.0
10	49	6.6	-5.0	-4.3	61	5.8	-5.1	-2.8	80	4.2	-4.1	-0.7	100	2.2	-2.2	0.4	209	2.5	1.2	2.2	201	7.5	2.7	7.0	232	2.4	1.9	1.5
11	44	7.1	-4.9	-5.1	62	6.4	-5.6	-3.0	77	4.6	-4.5	-1.0	78	3.9	-3.8	-0.8	211	2.7	1.4	2.3	205	7.5	3.1	6.8	125	2.9	-2.4	1.7
12	56	7.6	-6.3	-4.2	69	6.6	-6.1	-2.4	75	5.9	-5.7	-1.5	80	3.9	-3.8	-0.7	231	2.6	2.0	1.6	208	8.4	3.9	7.4	189	3.1	0.5	3.1
13	48	7.2	-5.4	-4.8	66	6.8	-6.2	-2.8	82	5.5	-5.4	-0.8	88	3.5	-3.5	-0.1	236	4.3	3.6	2.4	216	7.9	4.7	6.4	185	1.2	0.1	1.2
14	50	6.7	-5.2	-4.3	65	6.0	-5.4	-2.5	72	3.9	-3.7	-1.2	77	2.7	-2.6	-0.6	233	4.6	3.7	2.8	216	10.1	5.9	8.2	148	1.3	-0.7	1.1
15	46	6.9	-5.0	-4.8	60	6.2	-5.4	-3.1	79	4.4	-4.3	-0.8	69	2.2	-2.1	-0.8	256	6.2	6.0	1.5	239	9.0	7.7	4.7	211	2.1	1.1	1.8
16	47	7.9	-5.7	-5.4	64	7.0	-6.3	-3.1	73	4.1	-3.9	-1.2	71	3.1	-2.9	-1.0	270	5.9	5.9	0.0	243	9.7	8.6	4.4	247	1.3	1.2	0.5
17	39	8.0	-5.1	-6.2	66	6.7	-6.1	-2.7	78	4.4	-4.3	-0.9	92	3.4	-3.4	0.1	265	5.3	5.3	0.5	221	11.4	7.5	8.6	222	2.5	1.7	1.9
18	38	7.4	-4.6	-5.8	61	6.5	-5.7	-3.1	62	4.1	-3.6	-1.9	72	3.2	-3.0	-1.0	265	5.4	5.4	0.5	233	11.1	8.8	6.7	90	1.4	-1.4	0.0
19	37	6.9	-4.1	-5.5	57	5.7	-4.8	-3.1	67	4.3	-4.0	-1.7	81	3.7	-3.7	-0.6	258	4.7	4.6	1.0	234	9.7	7.8	5.7	260	2.2	2.2	0.4
20	48	7.7	-5.7	-5.2	60	7.5	-6.5	-3.7	87	5.1	-5.1	-0.3	79	3.1	-3.0	-0.6	258	6.4	6.3	1.3	221	9.1	6.0	6.9	251	1.8	1.7	0.6
21	49	7.4	-5.6	-4.8	66	7.0	-6.4	-2.8	83	4.8	-4.8	-0.6	66	3.4	-3.1	-1.4	265	3.4	3.4	0.3	219	9.2	5.8	7.1	312	3.1	2.3	-2.1
22	54	6.9	-5.6	-4.1	66	6.4	-5.9	-2.6	80	4.1	-4.0	-0.7	68	1.8	-1.7	-0.7	239	6.4	5.5	3.3	233	10.7	8.6	6.4	241	2.3	2.0	1.1
23	45	6.5	-4.6	-4.6	63	5.4	-4.8	-2.4	56	4.0	-3.3	-2.2	57	1.7	-1.4	-0.9	258	8.1	7.9	1.7	235	11.8	9.7	6.8	226	3.9	2.8	2.7
24	50	5.9	-4.5	-3.8	61	6.2	-5.4	-3.0	79	5.4	-5.3	-1.0	67	0.8	-0.7	-0.3	257	8.7	8.5	1.9	233	10.9	8.7	6.5	250	6.6	6.2	2.2
25	55	5.2	-4.3	-3.0	67	5.6	-5.2	-2.2	68	2.7	-2.5	-1.0	90	0.2	-0.2	0.0	245	7.0	6.3	3.0	233	11.3	9.0	6.9	249	3.3	3.1	1.2
26	43	6.3	-4.3	-4.6	59	4.9	-4.2	-2.5	84	2.7	-2.7	-0.3	83	2.5	-2.5	-0.3	244	7.0	6.3	3.1	229	13.3	10.0	8.7	264	4.0	4.0	0.4
27	46	6.2	-4.5	-4.3	61	5.8	-5.1	-2.8	76	3.0	-2.9	-0.7	107	1.7	-1.6	0.5	252	5.7	5.4	1.8	228	11.6	8.7	7.7	241	3.1	2.7	1.5
28	55	7.3	-6.0	-4.2	65	6.3	-5.7	-2.7	93	3.8	-3.8	0.2	123	2.4	-2.0	1.3	247	4.6	4.2	1.8	234	8.3	6.7	4.9	300	0.8	0.7	-0.4
29	63	6.6	-5.9	-3.0	68	4.8	-4.5	-1.8	93	2.1	-2.1	0.1	58	1.5	-1.3	-0.8	257	6.3	6.1	1.4	230	8.9	6.8	5.7	180	0.1	0.0	0.1
30	58	6.7	-5.7	-3.5	65	6.5	-5.9	-2.7	77	2.3	-2.2	-0.5	48	1.5	-1.1	-1.0	279	4.4	4.3	-0.7	223	9.2	6.3	6.7	270	0.5	0.5	0.0
31	58	4.9	-4.2	-2.6	73	4.5	-4.3	-1.3	72	2.8	-2.7	-0.9	53	1.5	-1.2	-0.9	274	5.4	5.4	-0.4	227	10.8	7.8	7.4	313	2.3	1.7	-1.6

Daily Normals of Upper Air Winds (1971-2000)

GOA **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	103	7.0	-6.8	1.6	120	3.4	-3.0	1.7	214	0.4	0.2	0.3	274	3.9	3.9	-0.3	266	13.5	13.5	1.0	253	18.6	17.8	5.4	247	5.2	4.8	2.0
2	95	4.8	-4.8	0.4	98	2.7	-2.7	0.4	260	1.7	1.7	0.3	286	6.6	6.3	-1.8	272	14.9	14.9	-0.6	260	14.6	14.4	2.6	268	4.6	4.6	0.2
3	88	6.8	-6.8	-0.2	117	3.0	-2.7	1.4	113	0.8	-0.7	0.3	299	7.5	6.6	-3.6	265	11.6	11.6	1.0	262	15.0	14.8	2.2	275	9.2	9.2	-0.8
4	87	5.3	-5.3	-0.3	105	3.8	-3.7	1.0	336	1.0	0.4	-0.9	306	4.1	3.3	-2.4	265	10.8	10.8	0.9	256	14.1	13.7	3.3	271	4.0	4.0	-0.1
5	76	4.4	-4.3	-1.1	87	3.6	-3.6	-0.2	48	1.5	-1.1	-1.0	296	3.2	2.9	-1.4	262	12.5	12.4	1.8	254	15.6	15.0	4.4	244	7.3	6.6	3.2
6	81	5.0	-4.9	-0.8	92	3.8	-3.8	0.1	304	0.7	0.6	-0.4	280	5.1	5.0	-0.9	258	13.6	13.3	2.8	259	15.1	14.8	2.8	263	9.4	9.3	1.1
7	98	5.0	-5.0	0.7	92	3.0	-3.0	0.1	326	0.4	0.2	-0.3	272	6.0	6.0	-0.2	258	16.0	15.7	3.2	266	18.3	18.3	1.3	280	8.8	8.7	-1.5
8	96	3.1	-3.1	0.3	108	2.2	-2.1	0.7	249	1.4	1.3	0.5	283	7.1	6.9	-1.6	276	14.8	14.7	-1.5	261	14.1	13.9	2.1	278	9.7	9.6	-1.4
9	93	5.0	-5.0	0.3	111	2.8	-2.6	1.0	270	0.6	0.6	0.0	288	5.6	5.3	-1.7	264	14.8	14.7	1.6	268	12.9	12.9	0.5	307	6.9	5.5	-4.1
10	86	4.5	-4.5	-0.3	106	3.6	-3.5	1.0	261	1.3	1.3	0.2	272	7.4	7.4	-0.2	262	15.2	15.1	2.1	266	15.0	15.0	1.0	215	8.5	4.9	6.9
11	90	3.6	-3.6	0.0	137	2.6	-1.8	1.9	258	1.9	1.9	0.4	278	7.8	7.7	-1.1	269	16.5	16.5	0.3	264	16.7	16.6	1.6	257	10.0	9.7	2.3
12	73	2.1	-2.0	-0.6	129	2.8	-2.2	1.8	288	1.6	1.5	-0.5	288	6.4	6.1	-2.0	274	17.7	17.7	-1.3	245	16.9	15.3	7.1	275	5.8	5.8	-0.5
13	44	3.3	-2.3	-2.4	101	2.5	-2.5	0.5	287	1.7	1.6	-0.5	295	5.2	4.7	-2.2	269	15.0	15.0	0.3	257	18.9	18.4	4.4	262	6.1	6.0	0.8
14	47	3.5	-2.6	-2.4	102	2.5	-2.4	0.5	175	1.1	-0.1	1.1	280	7.2	7.1	-1.2	267	15.7	15.7	0.7	258	15.5	15.1	3.3	197	3.8	1.1	3.6
15	2	2.8	-0.1	-2.8	120	3.4	-3.0	1.7	219	2.1	1.3	1.6	273	7.3	7.3	-0.4	267	16.8	16.8	1.0	250	16.5	15.5	5.7	240	2.0	1.7	1.0
16	9	3.0	-0.5	-3.0	94	2.6	-2.6	0.2	247	1.5	1.4	0.6	268	6.2	6.2	0.2	270	13.3	13.3	0.0	245	14.3	13.0	6.0	303	4.2	3.5	-2.3
17	36	2.6	-1.5	-2.1	101	3.6	-3.5	0.7	96	0.9	-0.9	0.1	262	4.8	4.7	0.7	265	12.4	12.4	1.1	247	11.7	10.8	4.5	229	4.0	3.0	2.6
18	69	3.1	-2.9	-1.1	132	2.5	-1.9	1.7	223	1.9	1.3	1.4	283	7.4	7.2	-1.6	265	14.2	14.1	1.2	266	14.8	14.8	1.0	253	6.6	6.3	1.9
19	20	3.8	-1.3	-3.6	124	2.5	-2.1	1.4	207	0.7	0.3	0.6	295	5.0	4.5	-2.1	269	12.3	12.3	0.2	250	14.8	13.9	5.0	245	2.9	2.6	1.2
20	9	1.8	-0.3	-1.8	144	1.7	-1.0	1.4	302	1.5	1.3	-0.8	290	4.7	4.4	-1.6	267	13.8	13.8	0.7	250	16.1	15.1	5.6	264	8.2	8.2	0.9
21	331	2.9	1.4	-2.5	75	1.1	-1.1	-0.3	333	1.1	0.5	-1.0	272	5.9	5.9	-0.2	266	16.0	16.0	1.2	255	15.6	15.0	4.1	245	3.8	3.4	1.6
22	78	2.5	-2.4	-0.5	95	3.5	-3.5	0.3	14	0.4	-0.1	-0.4	293	4.8	4.4	-1.9	269	17.6	17.6	0.2	259	21.4	21.0	3.9	279	8.2	8.1	-1.3
23	22	4.0	-1.5	-3.7	99	3.2	-3.2	0.5	68	0.5	-0.5	-0.2	294	6.4	5.9	-2.6	272	14.0	14.0	-0.5	253	16.5	15.8	4.7	276	6.5	6.5	-0.7
24	96	4.1	-4.1	0.4	105	3.8	-3.7	1.0	51	0.6	-0.5	-0.4	273	5.0	5.0	-0.3	269	13.5	13.5	0.2	256	12.2	11.8	3.0	214	2.5	1.4	2.1
25	95	4.6	-4.6	0.4	101	4.2	-4.1	0.8	56	1.4	-1.2	-0.8	289	4.0	3.8	-1.3	286	13.0	12.5	-3.7	256	13.4	13.0	3.3	266	4.6	4.6	0.3
26	97	3.3	-3.3	0.4	103	4.0	-3.9	0.9	9	1.8	-0.3	-1.8	318	3.1	2.1	-2.3	271	14.8	14.8	-0.3	264	15.3	15.2	1.7	221	2.8	1.8	2.1
27	76	3.4	-3.3	-0.8	93	4.5	-4.5	0.2	67	0.8	-0.7	-0.3	282	5.4	5.3	-1.1	266	13.2	13.2	1.0	259	15.2	14.9	2.8	282	6.0	5.9	-1.3
28	88	3.7	-3.7	-0.1	88	3.1	-3.1	-0.1	32	1.5	-0.8	-1.3	277	5.6	5.6	-0.7	271	14.4	14.4	-0.2	262	16.6	16.5	2.2	274	6.2	6.2	-0.4
29	63	4.7	-4.2	-2.1	89	3.9	-3.9	-0.1	57	1.7	-1.4	-0.9	293	5.7	5.3	-2.2	271	13.1	13.1	-0.3	269	17.0	17.0	0.4	291	5.0	4.7	-1.8
30	87	3.4	-3.4	-0.2	106	3.7	-3.6	1.0	63	0.7	-0.6	-0.3	294	4.9	4.5	-2.0	273	12.6	12.6	-0.7	252	13.7	13.0	4.2	247	4.8	4.4	1.9
31	11	2.1	-0.4	-2.1	90	1.6	-1.6	0.0	27	1.1	-0.5	-1.0	299	6.6	5.8	-3.2	268	15.0	15.0	0.4	276	17.9	17.8	-1.9	277	10.6	10.5	-1.3

Daily Normals of Upper Air Winds (1971-2000)

GOA **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	65	1.7	-1.5	-0.7	127	1.5	-1.2	0.9	270	0.8	0.8	0.0	282	6.3	6.2	-1.3	274	17.0	17.0	-1.3	272	17.0	17.0	-0.7	238	7.3	6.2	3.9
2	358	3.0	0.1	-3.0	112	2.2	-2.0	0.8	299	1.0	0.9	-0.5	280	6.0	5.9	-1.0	275	16.5	16.4	-1.5	263	17.8	17.7	2.1	243	5.3	4.7	2.4
3	58	4.0	-3.4	-2.1	110	1.5	-1.4	0.5	293	0.8	0.7	-0.3	281	6.4	6.3	-1.2	279	17.6	17.4	-2.7	268	17.2	17.2	0.7	267	8.4	8.4	0.4
4	63	3.5	-3.1	-1.6	104	3.0	-2.9	0.7	207	0.7	0.3	0.6	279	6.7	6.6	-1.1	281	15.4	15.1	-2.9	257	15.0	14.6	3.3	273	5.5	5.5	-0.3
5	18	2.8	-0.9	-2.7	74	1.5	-1.4	-0.4	36	0.9	-0.5	-0.7	287	7.8	7.5	-2.3	271	15.2	15.2	-0.2	267	17.6	17.6	0.8	273	8.4	8.4	-0.4
6	347	3.9	0.9	-3.8	108	1.3	-1.2	0.4	256	0.4	0.4	0.1	289	7.6	7.2	-2.5	268	16.1	16.1	0.5	258	18.6	18.2	3.8	277	4.2	4.2	-0.5
7	3	3.8	-0.2	-3.8	82	2.1	-2.1	-0.3	34	0.4	-0.2	-0.3	310	5.5	4.2	-3.5	284	17.0	16.5	-4.1	272	17.8	17.8	-0.5	311	5.3	4.0	-3.5
8	350	4.6	0.8	-4.5	65	1.7	-1.5	-0.7	252	0.3	0.3	0.1	293	6.7	6.2	-2.6	275	14.7	14.7	-1.2	265	17.7	17.6	1.6	234	6.4	5.2	3.8
9	350	3.6	0.6	-3.5	131	0.9	-0.7	0.6	81	0.6	-0.6	-0.1	293	7.3	6.7	-2.9	274	16.2	16.2	-1.0	277	17.0	16.9	-2.1	285	11.3	10.9	-3.0
10	346	4.1	1.0	-4.0	22	0.5	-0.2	-0.5	152	1.5	-0.7	1.3	297	8.7	7.7	-4.0	281	16.5	16.2	-3.1	283	15.4	15.0	-3.4	345	2.3	0.6	-2.2
11	34	2.9	-1.6	-2.4	103	1.3	-1.3	0.3	135	1.3	-0.9	0.9	309	6.4	5.0	-4.0	297	14.1	12.6	-6.4	274	13.7	13.7	-1.0	226	3.2	2.3	2.2
12	43	2.5	-1.7	-1.8	119	1.8	-1.6	0.9	144	2.2	-1.3	1.8	293	5.7	5.3	-2.2	278	13.3	13.2	-1.8	261	14.1	13.9	2.1	253	5.8	5.5	1.7
13	32	2.2	-1.2	-1.9	115	1.4	-1.3	0.6	178	3.0	-0.1	3.0	274	7.1	7.1	-0.5	271	15.8	15.8	-0.2	271	16.4	16.4	-0.2	274	9.4	9.4	-0.6
14	32	2.2	-1.2	-1.9	233	0.5	0.4	0.3	159	2.5	-0.9	2.3	276	7.7	7.7	-0.8	257	16.7	16.3	3.7	249	18.6	17.4	6.7	239	2.6	2.2	1.3
15	351	5.2	0.8	-5.1	270	0.6	0.6	0.0	196	2.2	0.6	2.1	273	8.6	8.6	-0.5	263	17.4	17.3	2.0	257	16.8	16.4	3.8	264	5.4	5.4	0.6
16	341	3.7	1.2	-3.5	285	1.6	1.5	-0.4	193	2.7	0.6	2.6	270	9.4	9.4	0.0	255	15.5	15.0	3.9	255	16.2	15.7	4.1	268	7.2	7.2	0.3
17	337	5.2	2.0	-4.8	270	1.3	1.3	0.0	197	3.4	1.0	3.2	269	9.6	9.6	0.1	257	15.9	15.5	3.6	241	17.1	14.9	8.3	256	5.7	5.5	1.4
18	331	4.7	2.3	-4.1	202	2.2	0.8	2.0	197	2.4	0.7	2.3	276	10.1	10.1	-1.0	258	16.0	15.6	3.4	237	13.5	11.4	7.3	257	1.7	1.7	0.4
19	343	3.4	1.0	-3.3	293	1.3	1.2	-0.5	195	2.8	0.7	2.7	278	6.9	6.8	-1.0	262	14.8	14.7	2.1	257	15.2	14.8	3.4	312	6.2	4.6	-4.1
20	338	4.1	1.5	-3.8	304	0.7	0.6	-0.4	219	2.1	1.3	1.6	285	7.3	7.1	-1.9	267	14.1	14.1	0.8	258	14.2	13.9	3.0	257	5.5	5.4	1.2
21	344	3.6	1.0	-3.5	68	0.5	-0.5	-0.2	229	1.1	0.8	0.7	282	6.0	5.9	-1.3	272	14.6	14.6	-0.5	260	13.4	13.2	2.3	322	7.2	4.4	-5.7
22	8	2.1	-0.3	-2.1	9	0.6	-0.1	-0.6	326	0.4	0.2	-0.3	294	7.2	6.6	-2.9	284	12.4	12.0	-3.1	274	14.0	14.0	-1.0	254	5.2	5.0	1.4
23	357	2.1	0.1	-2.1	76	0.4	-0.4	-0.1	121	0.6	-0.5	0.3	302	5.2	4.4	-2.7	269	13.8	13.8	0.2	265	13.5	13.5	1.1	256	6.7	6.5	1.6
24	342	3.9	1.2	-3.7	53	0.5	-0.4	-0.3	145	1.9	-1.1	1.6	290	4.7	4.4	-1.6	264	12.5	12.4	1.3	265	12.0	11.9	1.1	260	5.4	5.3	0.9
25	360	3.4	0.0	-3.4	68	1.1	-1.0	-0.4	114	1.7	-1.6	0.7	306	4.1	3.3	-2.4	266	15.3	15.3	1.2	267	13.4	13.4	0.6	301	5.4	4.6	-2.8
26	349	5.3	1.0	-5.2	12	1.9	-0.4	-1.9	99	2.4	-2.4	0.4	279	5.9	5.8	-0.9	272	14.0	14.0	-0.6	269	16.2	16.2	0.2	261	6.2	6.1	1.0
27	21	3.3	-1.2	-3.1	53	1.0	-0.8	-0.6	106	1.9	-1.8	0.5	290	5.2	4.9	-1.8	269	12.4	12.4	0.2	255	12.6	12.2	3.3	246	5.2	4.8	2.1
28	45	2.5	-1.8	-1.8	360	0.8	0.0	-0.8	112	2.4	-2.2	0.9	277	5.4	5.4	-0.7	274	12.2	12.2	-0.9	262	12.3	12.2	1.8	273	5.6	5.6	-0.3
29	50	5.1	-3.9	-3.3	57	2.4	-2.0	-1.3	128	3.1	-2.4	1.9	333	1.1	0.5	-1.0	260	10.9	10.7	1.8	246	13.5	12.3	5.6	216	2.9	1.7	2.3

Daily Normals of Upper Air Winds (1971-2000)

GOA **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	10	3.5	-0.6	-3.4	358	2.6	0.1	-2.6	134	2.8	-2.0	1.9	277	5.9	5.9	-0.7	275	16.1	16.0	-1.5	257	15.4	15.0	3.4	273	4.0	4.0	-0.2
2	360	2.8	0.0	-2.8	27	0.9	-0.4	-0.8	133	2.3	-1.7	1.6	272	5.6	5.6	-0.2	263	15.8	15.7	2.0	260	16.0	15.7	2.9	271	6.5	6.5	-0.1
3	23	2.3	-0.9	-2.1	85	1.2	-1.2	-0.1	122	3.9	-3.3	2.1	301	5.8	5.0	-3.0	280	15.5	15.3	-2.6	255	16.5	15.9	4.3	254	12.2	11.7	3.3
4	355	4.6	0.4	-4.6	58	1.9	-1.6	-1.0	117	3.7	-3.3	1.7	312	3.9	2.9	-2.6	269	13.8	13.8	0.3	260	16.8	16.6	2.8	252	4.7	4.5	1.5
5	355	4.8	0.4	-4.8	49	2.1	-1.6	-1.4	116	2.5	-2.3	1.1	301	3.7	3.2	-1.9	267	14.7	14.7	0.8	258	16.3	15.9	3.4	279	8.3	8.2	-1.3
6	350	7.5	1.3	-7.4	326	1.8	1.0	-1.5	114	2.7	-2.5	1.1	282	5.0	4.9	-1.0	270	14.1	14.1	0.0	262	15.8	15.7	2.1	289	5.0	4.7	-1.6
7	352	4.8	0.7	-4.7	11	1.5	-0.3	-1.5	121	2.3	-2.0	1.2	275	4.5	4.5	-0.4	273	13.2	13.2	-0.8	268	12.7	12.7	0.5	246	3.7	3.4	1.5
8	351	3.0	0.5	-3.0	9	1.3	-0.2	-1.3	111	3.0	-2.8	1.1	277	7.0	7.0	-0.8	273	15.1	15.1	-0.8	283	13.9	13.5	-3.2	259	4.6	4.5	0.9
9	324	1.4	0.8	-1.1	339	2.5	0.9	-2.3	133	2.5	-1.8	1.7	280	3.9	3.8	-0.7	271	14.1	14.1	-0.3	266	15.0	15.0	1.0	263	6.6	6.6	0.8
10	353	3.8	0.5	-3.8	348	1.4	0.3	-1.4	107	4.2	-4.0	1.2	276	6.8	6.8	-0.7	275	16.2	16.1	-1.3	267	16.5	16.5	0.8	276	3.9	3.9	-0.4
11	337	4.7	1.8	-4.3	346	1.2	0.3	-1.2	129	3.3	-2.6	2.1	276	7.1	7.1	-0.8	278	14.4	14.2	-2.1	264	13.9	13.8	1.4	236	4.8	4.0	2.7
12	345	5.2	1.3	-5.0	328	2.5	1.3	-2.1	135	3.0	-2.1	2.1	294	6.4	5.8	-2.6	271	15.8	15.8	-0.3	273	14.6	14.6	-0.7	277	2.5	2.5	-0.3
13	340	5.1	1.7	-4.8	348	2.9	0.6	-2.8	111	2.8	-2.6	1.0	294	4.9	4.5	-2.0	277	16.3	16.2	-2.1	269	15.8	15.8	0.3	282	5.0	4.9	-1.0
14	341	6.7	2.2	-6.3	347	3.1	0.7	-3.0	131	3.8	-2.9	2.5	281	3.6	3.5	-0.7	275	12.9	12.9	-1.1	275	14.9	14.9	-1.2	261	1.9	1.9	0.3
15	331	5.4	2.6	-4.7	8	1.5	-0.2	-1.5	117	3.9	-3.5	1.8	302	3.8	3.2	-2.0	281	10.9	10.7	-2.0	267	14.8	14.8	0.9	276	3.1	3.1	-0.3
16	327	2.0	1.1	-1.7	324	1.7	1.0	-1.4	114	3.9	-3.6	1.6	298	2.4	2.1	-1.1	257	12.0	11.7	2.6	253	13.5	12.9	4.0	267	3.4	3.4	0.2
17	332	5.0	2.3	-4.4	331	2.5	1.2	-2.2	114	2.7	-2.5	1.1	293	5.4	5.0	-2.1	263	13.3	13.2	1.6	259	15.1	14.8	2.8	249	7.7	7.2	2.8
18	339	5.6	2.0	-5.2	339	4.9	1.8	-4.6	117	4.2	-3.8	1.9	276	4.9	4.9	-0.5	263	14.5	14.4	1.7	251	14.8	14.0	4.9	249	5.7	5.3	2.0
19	348	7.5	1.5	-7.3	354	4.5	0.5	-4.5	113	4.3	-4.0	1.7	292	4.6	4.3	-1.7	264	11.6	11.5	1.3	249	13.6	12.7	4.8	197	1.7	0.5	1.6
20	355	4.8	0.4	-4.8	343	4.9	1.4	-4.7	116	4.1	-3.7	1.8	311	3.5	2.6	-2.3	263	12.0	11.9	1.4	260	14.0	13.8	2.4	258	2.5	2.4	0.5
21	358	3.4	0.1	-3.4	352	4.9	0.7	-4.8	112	4.8	-4.5	1.8	312	2.4	1.8	-1.6	274	13.1	13.1	-0.9	269	13.6	13.6	0.2	212	2.2	1.2	1.9
22	343	5.6	1.6	-5.4	351	5.7	0.9	-5.6	121	3.7	-3.2	1.9	292	3.2	3.0	-1.2	270	11.9	11.9	0.1	253	14.2	13.6	4.1	265	4.5	4.5	0.4
23	352	3.4	0.5	-3.4	338	3.8	1.4	-3.5	104	3.6	-3.5	0.9	310	5.1	3.9	-3.3	278	12.1	12.0	-1.6	264	14.6	14.5	1.5	306	2.7	2.2	-1.6
24	343	2.8	0.8	-2.7	332	4.9	2.3	-4.3	140	3.1	-2.0	2.4	302	3.6	3.0	-1.9	270	13.3	13.3	-0.1	265	16.1	16.0	1.5	267	5.2	5.2	0.3
25	334	3.2	1.4	-2.9	317	3.8	2.6	-2.8	136	3.2	-2.2	2.3	309	5.1	4.0	-3.2	282	12.9	12.6	-2.6	265	18.2	18.1	1.5	275	8.7	8.7	-0.7
26	347	3.5	0.8	-3.4	342	4.2	1.3	-4.0	146	2.5	-1.4	2.1	310	3.5	2.7	-2.3	283	14.2	13.8	-3.2	258	18.8	18.4	4.0	279	4.9	4.8	-0.8
27	3	2.0	-0.1	-2.0	336	2.0	0.8	-1.8	129	2.6	-2.0	1.6	350	3.9	0.7	-3.8	291	12.7	11.9	-4.5	276	15.1	15.0	-1.6	266	4.8	4.8	0.3
28	323	2.0	1.2	-1.6	338	2.2	0.8	-2.0	103	3.1	-3.0	0.7	343	3.1	0.9	-3.0	283	12.8	12.5	-2.9	272	14.1	14.1	-0.6	262	4.3	4.3	0.6
29	326	3.0	1.7	-2.5	322	2.4	1.5	-1.9	114	4.3	-3.9	1.7	344	3.3	0.9	-3.2	280	10.8	10.6	-1.9	271	12.8	12.8	-0.3	252	4.4	4.2	1.4
30	321	1.9	1.2	-1.5	330	3.2	1.6	-2.8	111	4.0	-3.7	1.4	290	1.5	1.4	-0.5	258	11.5	11.2	2.4	258	13.8	13.5	2.8	250	3.5	3.3	1.2
31	332	3.2	1.5	-2.8	333	3.5	1.6	-3.1	106	4.3	-4.1	1.2	282	2.5	2.4	-0.5	257	11.1	10.8	2.5	253	15.9	15.2	4.6	284	5.8	5.6	-1.4

Daily Normals of Upper Air Winds (1971-2000)

GOA **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	338	4.8	1.8	-4.5	338	5.4	2.0	-5.0	121	4.5	-3.9	2.3	325	2.1	1.2	-1.7	261	13.0	12.8	2.1	266	14.6	14.6	1.1	270	7.2	7.2	0.0
2	341	4.6	1.5	-4.3	340	3.3	1.1	-3.1	121	4.1	-3.5	2.1	254	2.5	2.4	0.7	249	12.2	11.4	4.3	246	14.3	13.1	5.7	211	2.9	1.5	2.5
3	335	2.9	1.2	-2.6	330	2.8	1.4	-2.4	105	4.6	-4.4	1.2	211	1.2	0.6	1.0	258	11.4	11.1	2.4	255	13.5	13.0	3.6	237	3.3	2.8	1.8
4	341	3.6	1.2	-3.4	337	4.1	1.6	-3.8	116	4.1	-3.7	1.8	245	1.4	1.3	0.6	256	13.0	12.6	3.2	244	14.0	12.6	6.2	216	2.9	1.7	2.3
5	357	3.4	0.2	-3.4	351	3.0	0.5	-3.0	120	4.4	-3.8	2.2	293	2.8	2.6	-1.1	272	12.8	12.8	-0.5	252	13.6	13.0	4.1	270	3.7	3.7	0.0
6	356	4.0	0.3	-4.0	334	4.1	1.8	-3.7	124	3.7	-3.1	2.1	276	0.9	0.9	-0.1	275	11.3	11.3	-1.0	263	13.7	13.6	1.6	257	3.1	3.0	0.7
7	332	1.5	0.7	-1.3	347	3.6	0.8	-3.5	114	4.4	-4.0	1.8	331	1.3	0.6	-1.1	276	9.2	9.2	-0.9	269	11.4	11.4	0.1	253	2.4	2.3	0.7
8	345	4.3	1.1	-4.2	342	5.1	1.6	-4.8	107	4.4	-4.2	1.3	305	3.7	3.0	-2.1	277	8.7	8.6	-1.0	256	12.3	12.0	2.9	234	3.2	2.6	1.9
9	345	6.2	1.6	-6.0	333	5.3	2.4	-4.7	120	3.4	-2.9	1.7	282	3.4	3.3	-0.7	269	11.6	11.6	0.3	261	11.3	11.2	1.7	290	3.2	3.0	-1.1
10	357	4.3	0.2	-4.3	332	5.5	2.6	-4.9	121	3.7	-3.2	1.9	321	1.9	1.2	-1.5	274	11.9	11.9	-0.9	256	15.7	15.2	3.8	246	3.6	3.3	1.5
11	332	3.8	1.8	-3.4	339	5.6	2.0	-5.2	114	2.7	-2.5	1.1	338	1.1	0.4	-1.0	282	9.3	9.1	-2.0	266	11.2	11.2	0.7	234	5.7	4.6	3.4
12	336	3.6	1.5	-3.3	333	4.9	2.2	-4.4	92	2.8	-2.8	0.1	304	2.2	1.8	-1.2	281	6.9	6.8	-1.3	262	9.1	9.0	1.2	160	2.3	-0.8	2.2
13	319	3.2	2.1	-2.4	341	3.6	1.2	-3.4	105	3.9	-3.8	1.0	302	1.5	1.3	-0.8	278	7.5	7.4	-1.1	248	8.9	8.3	3.3	263	3.2	3.2	0.4
14	339	2.6	0.9	-2.4	318	2.5	1.7	-1.9	102	4.0	-3.9	0.8	288	2.3	2.2	-0.7	260	9.5	9.3	1.7	255	14.5	14.0	3.7	257	4.8	4.7	1.1
15	336	4.2	1.7	-3.8	323	3.6	2.2	-2.9	109	3.6	-3.4	1.2	317	2.2	1.5	-1.6	257	11.1	10.8	2.5	253	14.3	13.7	4.2	251	3.1	2.9	1.0
16	339	4.3	1.5	-4.0	341	4.6	1.5	-4.4	66	1.7	-1.6	-0.7	289	2.8	2.6	-0.9	270	11.1	11.1	0.0	254	17.1	16.5	4.6	293	4.6	4.2	-1.8
17	325	4.7	2.7	-3.9	347	5.4	1.2	-5.3	82	3.6	-3.6	-0.5	313	1.8	1.3	-1.2	259	9.5	9.3	1.8	256	13.3	12.9	3.1	123	2.0	-1.7	1.1
18	323	4.0	2.4	-3.2	328	5.2	2.7	-4.4	98	3.0	-3.0	0.4	11	1.5	-0.3	-1.5	273	9.9	9.9	-0.5	258	9.3	9.1	2.0	80	1.7	-1.7	-0.3
19	347	2.2	0.5	-2.1	343	4.7	1.4	-4.5	101	4.4	-4.3	0.8	360	1.5	0.0	-1.5	258	10.6	10.4	2.2	241	14.8	13.0	7.1	195	2.8	0.7	2.7
20	349	6.4	1.2	-6.3	349	3.8	0.7	-3.7	109	3.9	-3.7	1.3	124	1.1	-0.9	0.6	263	11.0	10.9	1.3	243	17.0	15.2	7.7	112	3.5	-3.2	1.3
21	347	5.8	1.3	-5.7	351	3.0	0.5	-3.0	119	3.3	-2.9	1.6	297	0.9	0.8	-0.4	257	11.7	11.4	2.6	244	15.7	14.1	6.9	171	3.3	-0.5	3.3
22	358	4.7	0.2	-4.7	347	4.1	0.9	-4.0	100	3.4	-3.3	0.6	311	0.9	0.7	-0.6	266	10.8	10.8	0.8	242	15.2	13.4	7.2	93	1.8	-1.8	0.1
23	360	3.6	0.0	-3.6	348	3.9	0.8	-3.8	83	4.1	-4.1	-0.5	315	2.1	1.5	-1.5	256	13.2	12.8	3.2	261	17.3	17.1	2.6	270	7.1	7.1	0.0
24	336	3.7	1.5	-3.4	339	4.5	1.6	-4.2	82	2.8	-2.8	-0.4	305	2.8	2.3	-1.6	261	11.2	11.1	1.7	247	15.7	14.4	6.2	281	3.8	3.7	-0.7
25	333	3.5	1.6	-3.1	324	3.1	1.8	-2.5	117	2.2	-2.0	1.0	323	2.6	1.6	-2.1	276	12.4	12.3	-1.4	258	14.2	13.9	2.9	360	2.5	0.0	-2.5
26	326	4.2	2.4	-3.5	338	4.8	1.8	-4.5	102	2.9	-2.8	0.6	343	3.4	1.0	-3.2	280	9.4	9.2	-1.7	257	13.0	12.6	3.0	148	3.2	-1.7	2.7
27	322	3.3	2.0	-2.6	338	4.2	1.6	-3.9	88	3.0	-3.0	-0.1	30	2.2	-1.1	-1.9	288	8.5	8.1	-2.6	248	11.3	10.5	4.2	99	2.0	-2.0	0.3
28	331	2.9	1.4	-2.5	315	2.7	1.9	-1.9	103	4.5	-4.4	1.0	20	2.9	-1.0	-2.7	273	7.5	7.5	-0.4	254	10.4	10.0	2.9	191	1.5	0.3	1.5
29	330	2.8	1.4	-2.4	340	3.5	1.2	-3.3	73	3.9	-3.7	-1.1	22	3.2	-1.2	-3.0	278	9.2	9.1	-1.3	262	12.4	12.3	1.7	142	2.3	-1.4	1.8
30	340	3.7	1.3	-3.5	347	4.9	1.1	-4.8	72	3.2	-3.0	-1.0	356	2.8	0.2	-2.8	273	9.0	9.0	-0.5	253	8.8	8.4	2.6	75	2.0	-1.9	-0.5

Daily Normals of Upper Air Winds (1971-2000)

GOA **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	337	2.8	1.1	-2.6	333	5.6	2.6	-5.0	93	4.5	-4.5	0.2	337	3.9	1.5	-3.6	269	10.0	10.0	0.1	248	11.6	10.7	4.4	101	3.3	-3.2	0.6
2	340	4.7	1.6	-4.4	340	4.7	1.6	-4.4	120	2.2	-1.9	1.1	347	2.6	0.6	-2.5	276	6.8	6.8	-0.7	253	10.8	10.3	3.1	101	4.3	-4.2	0.8
3	333	4.7	2.1	-4.2	320	6.4	4.1	-4.9	135	2.0	-1.4	1.4	356	1.6	0.1	-1.6	276	6.2	6.2	-0.6	256	9.6	9.3	2.4	98	4.2	-4.2	0.6
4	333	4.7	2.1	-4.2	323	5.1	3.1	-4.1	85	3.7	-3.7	-0.3	18	1.9	-0.6	-1.8	280	6.4	6.3	-1.1	250	9.1	8.6	3.1	92	2.6	-2.6	0.1
5	336	5.9	2.4	-5.4	328	4.9	2.6	-4.2	108	4.6	-4.4	1.4	117	1.1	-1.0	0.5	270	6.5	6.5	0.0	250	9.8	9.2	3.4	110	6.9	-6.5	2.4
6	332	4.7	2.2	-4.1	330	4.8	2.4	-4.1	84	2.9	-2.9	-0.3	51	1.3	-1.0	-0.8	289	6.1	5.8	-2.0	267	6.7	6.7	0.4	113	4.8	-4.4	1.9
7	328	3.6	1.9	-3.1	333	4.2	1.9	-3.8	82	4.9	-4.8	-0.7	43	3.5	-2.4	-2.6	264	4.8	4.8	0.5	232	8.7	6.9	5.3	100	3.4	-3.3	0.6
8	278	2.1	2.1	-0.3	327	4.3	2.3	-3.6	96	3.8	-3.8	0.4	21	3.0	-1.1	-2.8	289	3.7	3.5	-1.2	247	6.2	5.7	2.4	103	6.3	-6.1	1.4
9	321	3.5	2.2	-2.7	330	4.6	2.3	-4.0	79	3.3	-3.2	-0.6	47	3.4	-2.5	-2.3	283	2.6	2.5	-0.6	234	5.2	4.2	3.1	100	6.2	-6.1	1.1
10	318	5.0	3.3	-3.7	329	5.0	2.6	-4.3	82	3.7	-3.7	-0.5	49	2.9	-2.2	-1.9	256	4.5	4.4	1.1	227	4.0	2.9	2.7	99	9.8	-9.7	1.5
11	325	5.0	2.9	-4.1	325	4.9	2.8	-4.0	72	2.9	-2.8	-0.9	20	2.3	-0.8	-2.2	266	4.2	4.2	0.3	224	4.6	3.2	3.3	105	6.1	-5.9	1.6
12	311	4.6	3.5	-3.0	323	5.4	3.2	-4.3	63	3.3	-2.9	-1.5	47	3.5	-2.6	-2.4	266	4.2	4.2	0.3	203	3.0	1.2	2.8	101	9.8	-9.6	1.9
13	299	6.5	5.7	-3.2	321	4.8	3.0	-3.7	63	3.1	-2.8	-1.4	40	2.6	-1.7	-2.0	249	2.2	2.1	0.8	224	3.7	2.6	2.7	120	6.4	-5.5	3.2
14	315	3.4	2.4	-2.4	324	4.7	2.8	-3.8	54	3.6	-2.9	-2.1	37	3.6	-2.2	-2.9	342	0.9	0.3	-0.9	179	4.1	-0.1	4.1	101	9.7	-9.5	1.9
15	310	3.4	2.6	-2.2	322	4.3	2.7	-3.4	60	2.2	-1.9	-1.1	72	5.2	-4.9	-1.6	243	0.9	0.8	0.4	182	2.5	0.1	2.5	117	13.1	-11.7	5.9
16	277	3.3	3.3	-0.4	321	4.4	2.8	-3.4	83	3.3	-3.3	-0.4	71	4.6	-4.4	-1.5	238	1.3	1.1	0.7	173	3.9	-0.5	3.9	97	11.2	-11.1	1.4
17	272	3.4	3.4	-0.1	294	2.7	2.5	-1.1	86	3.9	-3.9	-0.3	86	2.8	-2.8	-0.2	257	1.3	1.3	0.3	185	3.8	0.3	3.8	107	10.8	-10.3	3.2
18	269	4.7	4.7	0.1	295	4.3	3.9	-1.8	76	0.4	-0.4	-0.1	37	2.1	-1.3	-1.7	252	0.6	0.6	0.2	187	2.3	0.3	2.3	100	8.8	-8.7	1.6
19	305	5.4	4.4	-3.1	317	5.0	3.4	-3.6	82	2.9	-2.9	-0.4	13	3.6	-0.8	-3.5	263	0.8	0.8	0.1	178	7.0	-0.3	7.0	120	9.5	-8.3	4.7
20	296	5.8	5.2	-2.5	300	5.0	4.3	-2.5	310	0.8	0.6	-0.5	34	3.7	-2.1	-3.1	225	1.3	0.9	0.9	185	6.7	0.6	6.7	105	11.9	-11.5	3.0
21	292	4.5	4.2	-1.7	317	4.4	3.0	-3.2	22	2.2	-0.8	-2.0	55	3.5	-2.9	-2.0	212	1.3	0.7	1.1	165	5.5	-1.4	5.3	124	10.5	-8.7	5.8
22	321	3.5	2.2	-2.7	311	4.3	3.2	-2.8	80	1.1	-1.1	-0.2	43	4.5	-3.1	-3.3	180	0.4	0.0	0.4	154	4.6	-2.0	4.1	105	9.4	-9.1	2.4
23	288	3.6	3.4	-1.1	304	5.0	4.1	-2.8	114	2.2	-2.0	0.9	35	2.9	-1.7	-2.4	286	2.2	2.1	-0.6	173	2.6	-0.3	2.6	96	9.7	-9.6	1.0
24	294	2.7	2.5	-1.1	301	4.1	3.5	-2.1	84	0.9	-0.9	-0.1	31	2.3	-1.2	-2.0	292	1.6	1.5	-0.6	176	3.2	-0.2	3.2	96	13.9	-13.8	1.4
25	306	5.4	4.4	-3.2	293	4.8	4.4	-1.9	81	1.3	-1.3	-0.2	71	4.6	-4.3	-1.5	29	1.0	-0.5	-0.9	153	3.9	-1.8	3.5	99	14.0	-13.8	2.3
26	304	5.0	4.2	-2.8	315	5.7	4.0	-4.0	74	2.9	-2.8	-0.8	52	5.1	-4.0	-3.1	66	2.2	-2.0	-0.9	127	5.1	-4.1	3.1	101	17.1	-16.8	3.3
27	351	3.2	0.5	-3.2	317	4.5	3.1	-3.3	51	3.8	-3.0	-2.4	66	4.4	-4.0	-1.8	77	3.9	-3.8	-0.9	111	6.3	-5.9	2.3	98	17.6	-17.4	2.5
28	304	4.2	3.5	-2.4	316	5.2	3.6	-3.7	46	3.0	-2.2	-2.1	76	3.0	-2.9	-0.7	123	2.0	-1.7	1.1	116	4.1	-3.7	1.8	106	15.2	-14.6	4.3
29	293	5.3	4.9	-2.1	302	6.4	5.4	-3.4	69	0.9	-0.8	-0.3	110	2.0	-1.9	0.7	120	1.4	-1.2	0.7	156	4.2	-1.7	3.8	113	13.8	-12.7	5.3
30	309	3.5	2.7	-2.2	322	4.1	2.5	-3.2	64	3.7	-3.3	-1.6	88	3.7	-3.7	-0.1	198	2.0	0.6	1.9	167	2.3	-0.5	2.2	103	17.0	-16.6	3.8
31	301	3.9	3.3	-2.0	288	4.4	4.2	-1.4	96	2.0	-2.0	0.2	74	1.5	-1.4	-0.4	143	2.1	-1.3	1.7	137	5.1	-3.5	3.7	99	17.9	-17.7	2.9

Daily Normals of Upper Air Winds (1971-2000)

GOA **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	306	3.6	2.9	-2.1	307	4.3	3.4	-2.6	79	1.5	-1.5	-0.3	99	2.5	-2.5	0.4	129	2.7	-2.1	1.7	131	5.0	-3.8	3.3	104	17.0	-16.5	4.1
2	300	5.3	4.6	-2.7	308	4.4	3.5	-2.7	37	2.0	-1.2	-1.6	70	1.2	-1.1	-0.4	108	2.0	-1.9	0.6	141	5.3	-3.3	4.1	107	16.0	-15.3	4.7
3	295	3.5	3.2	-1.5	273	3.5	3.5	-0.2	82	0.7	-0.7	-0.1	90	1.6	-1.6	0.0	107	3.4	-3.2	1.0	106	8.1	-7.8	2.3	102	16.1	-15.8	3.3
4	308	3.6	2.8	-2.2	280	4.2	4.1	-0.7	90	1.8	-1.8	0.0	112	2.7	-2.5	1.0	106	2.6	-2.5	0.7	112	7.9	-7.3	3.0	103	21.9	-21.3	4.9
5	288	4.2	4.0	-1.3	291	5.3	5.0	-1.9	24	1.0	-0.4	-0.9	96	3.1	-3.1	0.3	102	3.8	-3.7	0.8	113	9.1	-8.4	3.6	98	22.5	-22.3	3.1
6	300	4.0	3.5	-2.0	274	4.9	4.9	-0.3	360	0.7	0.0	-0.7	103	3.7	-3.6	0.8	101	4.3	-4.2	0.8	108	10.3	-9.8	3.2	101	22.2	-21.8	4.1
7	279	3.0	3.0	-0.5	268	5.2	5.2	0.2	27	0.4	-0.2	-0.4	67	2.1	-1.9	-0.8	105	2.4	-2.3	0.6	101	7.6	-7.4	1.5	96	19.0	-18.9	2.1
8	270	5.6	5.6	0.0	268	5.2	5.2	0.2	232	1.1	0.9	0.7	59	2.3	-2.0	-1.2	91	5.3	-5.3	0.1	101	9.1	-8.9	1.7	92	22.1	-22.1	0.7
9	217	4.0	2.4	3.2	253	7.7	7.3	2.3	236	4.0	3.3	2.2	207	0.9	0.4	0.8	104	4.4	-4.3	1.1	91	11.0	-11.0	0.1	93	22.6	-22.6	1.0
10	242	4.9	4.3	2.3	263	8.1	8.0	1.0	265	4.5	4.5	0.4	326	1.4	0.8	-1.2	94	6.7	-6.7	0.5	92	13.6	-13.6	0.4	91	22.0	-22.0	0.3
11	263	2.4	2.4	0.3	287	7.6	7.3	-2.2	280	2.8	2.8	-0.5	60	0.8	-0.7	-0.4	85	4.8	-4.8	-0.4	86	9.2	-9.2	-0.6	91	19.5	-19.5	0.5
12	305	6.1	5.0	-3.5	278	6.6	6.5	-0.9	277	3.5	3.5	-0.4	236	0.7	0.6	0.4	100	3.4	-3.3	0.6	93	10.7	-10.7	0.6	91	25.7	-25.7	0.6
13	273	4.0	4.0	-0.2	284	7.2	7.0	-1.7	284	3.2	3.1	-0.8	254	1.5	1.4	0.4	95	6.0	-6.0	0.5	94	12.8	-12.8	0.9	92	18.7	-18.7	0.8
14	261	6.1	6.0	1.0	282	8.1	7.9	-1.7	253	3.0	2.9	0.9	270	0.6	0.6	0.0	87	6.3	-6.3	-0.3	98	13.1	-13.0	1.9	101	26.5	-26.0	5.0
15	277	6.6	6.6	-0.8	273	7.9	7.9	-0.4	266	4.6	4.6	0.3	229	1.1	0.8	0.7	89	6.2	-6.2	-0.1	92	14.6	-14.6	0.5	98	21.9	-21.7	3.1
16	277	8.5	8.4	-1.0	274	8.4	8.4	-0.6	260	5.7	5.6	1.0	230	3.0	2.3	1.9	89	5.0	-5.0	-0.1	92	15.1	-15.1	0.4	92	32.2	-32.2	1.4
17	270	7.2	7.2	0.0	271	9.9	9.9	-0.2	275	6.9	6.9	-0.6	300	2.2	1.9	-1.1	102	7.6	-7.4	1.6	100	16.9	-16.7	2.9	99	31.2	-30.8	4.8
18	264	7.3	7.3	0.8	271	10.3	10.3	-0.1	271	8.3	8.3	-0.1	255	4.3	4.2	1.1	91	7.6	-7.6	0.1	84	19.5	-19.4	-2.0	93	29.7	-29.7	1.4
19	266	10.2	10.2	0.8	270	11.6	11.6	0.1	269	10.1	10.1	0.1	285	4.9	4.7	-1.3	92	5.6	-5.6	0.2	89	17.8	-17.8	-0.2	87	28.0	-28.0	-1.3
20	268	9.1	9.1	0.3	276	10.8	10.7	-1.1	276	8.6	8.6	-0.9	287	3.9	3.7	-1.1	88	6.0	-6.0	-0.2	90	16.6	-16.6	0.1	89	30.0	-30.0	-0.5
21	267	9.4	9.4	0.5	279	9.8	9.7	-1.5	281	6.9	6.8	-1.3	274	3.0	3.0	-0.2	85	7.5	-7.5	-0.7	90	16.8	-16.8	0.1	92	33.8	-33.8	1.2
22	256	7.5	7.3	1.8	282	8.8	8.6	-1.9	280	8.8	8.7	-1.5	273	3.7	3.7	-0.2	91	7.3	-7.3	0.1	89	17.5	-17.5	-0.4	88	27.2	-27.2	-0.9
23	275	8.4	8.4	-0.8	280	10.3	10.1	-1.8	278	8.4	8.3	-1.1	268	3.6	3.6	0.1	97	6.2	-6.1	0.8	90	17.5	-17.5	0.0	94	32.7	-32.6	2.0
24	264	8.6	8.6	0.9	271	10.3	10.3	-0.2	272	8.7	8.7	-0.3	259	4.8	4.7	0.9	90	5.2	-5.2	0.0	90	19.3	-19.3	-0.1	94	33.7	-33.6	2.3
25	271	8.2	8.2	-0.1	273	9.2	9.2	-0.5	269	8.7	8.7	0.1	269	5.8	5.8	0.1	83	6.3	-6.2	-0.8	95	21.3	-21.2	1.7	96	28.7	-28.5	3.1
26	267	8.9	8.9	0.5	271	11.2	11.2	-0.1	275	8.7	8.7	-0.7	264	4.8	4.8	0.5	76	7.1	-6.9	-1.7	87	17.2	-17.2	-0.9	91	30.0	-30.0	0.6
27	278	10.1	10.0	-1.4	269	10.7	10.7	0.1	268	7.6	7.6	0.3	259	2.1	2.1	0.4	81	8.1	-8.0	-1.3	84	17.0	-16.9	-1.9	97	30.5	-30.2	3.9
28	269	9.3	9.3	0.1	265	10.5	10.5	0.9	274	8.3	8.3	-0.6	273	1.8	1.8	-0.1	87	7.4	-7.4	-0.4	88	20.2	-20.2	-0.7	91	35.2	-35.2	0.6
29	280	11.2	11.0	-1.9	273	11.0	11.0	-0.5	269	8.3	8.3	0.1	261	1.2	1.2	0.2	95	9.1	-9.1	0.8	90	22.3	-22.3	0.0	92	33.7	-33.7	1.0
30	266	10.6	10.6	0.7	270	10.6	10.6	0.0	272	8.3	8.3	-0.3	257	3.7	3.6	0.8	79	6.4	-6.3	-1.2	86	21.5	-21.4	-1.5	93	35.3	-35.2	1.9

Daily Normals of Upper Air Winds (1971-2000)

GOA **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	266	10.6	10.6	0.8	268	10.4	10.4	0.4	279	10.6	10.5	-1.7	285	2.8	2.7	-0.7	97	8.7	-8.6	1.1	96	23.8	-23.7	2.6	95	35.3	-35.2	3.2
2	262	8.3	8.2	1.1	269	9.4	9.4	0.1	281	8.9	8.7	-1.7	296	2.5	2.3	-1.1	91	8.4	-8.4	0.1	94	21.6	-21.5	1.5	86	35.4	-35.3	-2.3
3	282	6.6	6.4	-1.4	272	10.6	10.6	-0.3	276	8.0	8.0	-0.8	286	3.3	3.2	-0.9	93	8.6	-8.6	0.5	94	23.2	-23.1	1.6	86	32.6	-32.5	-2.2
4	287	6.7	6.4	-1.9	274	11.2	11.2	-0.7	277	8.6	8.5	-1.0	293	2.5	2.3	-1.0	88	10.0	-10.0	-0.4	91	22.8	-22.8	0.3	94	35.2	-35.1	2.2
5	274	8.1	8.1	-0.6	274	10.7	10.7	-0.8	272	9.3	9.3	-0.3	284	2.5	2.4	-0.6	93	8.1	-8.1	0.4	88	22.7	-22.7	-0.6	92	38.2	-38.2	1.5
6	288	7.3	6.9	-2.3	279	9.3	9.2	-1.4	280	6.8	6.7	-1.2	301	2.1	1.8	-1.1	99	9.7	-9.6	1.6	93	21.7	-21.7	1.3	96	28.7	-28.6	2.8
7	273	8.3	8.3	-0.5	276	10.0	10.0	-1.0	273	7.2	7.2	-0.4	301	2.1	1.8	-1.1	83	8.9	-8.8	-1.1	90	20.6	-20.6	0.1	94	32.1	-32.0	2.3
8	261	9.4	9.3	1.4	276	11.2	11.1	-1.2	282	9.1	8.9	-1.9	294	3.4	3.1	-1.4	80	9.7	-9.6	-1.7	87	22.2	-22.2	-1.3	92	37.1	-37.1	1.3
9	269	10.5	10.5	0.2	278	10.2	10.1	-1.4	281	8.3	8.1	-1.6	299	3.1	2.7	-1.5	91	8.6	-8.6	0.2	90	20.2	-20.2	-0.1	89	30.9	-30.9	-0.8
10	285	9.9	9.6	-2.5	282	10.6	10.4	-2.2	287	8.0	7.7	-2.3	273	3.4	3.4	-0.2	92	10.4	-10.4	0.3	89	22.3	-22.3	-0.4	89	39.5	-39.5	-1.0
11	265	11.3	11.3	1.0	275	11.0	11.0	-1.0	270	8.2	8.2	0.0	301	3.5	3.0	-1.8	94	7.9	-7.9	0.6	92	23.6	-23.6	0.8	91	37.2	-37.2	0.7
12	267	12.2	12.2	0.7	279	10.7	10.6	-1.6	277	10.1	10.0	-1.2	300	3.4	3.0	-1.7	101	7.6	-7.4	1.5	92	20.0	-20.0	0.8	93	32.5	-32.4	1.9
13	260	11.9	11.7	2.1	276	10.7	10.6	-1.2	273	8.6	8.6	-0.5	284	2.5	2.4	-0.6	98	8.8	-8.7	1.2	90	23.6	-23.6	-0.1	90	33.7	-33.7	0.0
14	265	11.0	11.0	0.9	273	10.3	10.3	-0.5	274	9.3	9.3	-0.6	274	4.0	4.0	-0.3	101	9.1	-8.9	1.7	88	22.9	-22.9	-0.9	95	29.9	-29.8	2.5
15	262	9.0	8.9	1.3	269	11.9	11.9	0.2	272	9.4	9.4	-0.4	253	4.1	3.9	1.2	85	7.2	-7.2	-0.6	90	21.3	-21.3	0.1	85	36.5	-36.3	-3.4
16	264	11.1	11.0	1.1	270	12.2	12.2	-0.1	277	10.4	10.3	-1.2	289	3.9	3.7	-1.3	92	8.9	-8.9	0.3	94	24.7	-24.6	1.8	95	33.9	-33.8	2.9
17	262	10.4	10.3	1.4	274	10.8	10.8	-0.8	275	9.5	9.5	-0.8	294	1.7	1.6	-0.7	89	8.2	-8.2	-0.1	93	26.3	-26.3	1.4	90	33.7	-33.7	0.0
18	266	13.0	13.0	1.0	268	12.0	12.0	0.5	273	9.9	9.9	-0.6	268	3.6	3.6	0.1	79	7.8	-7.7	-1.5	84	20.7	-20.6	-2.3	92	32.7	-32.7	1.2
19	268	11.7	11.7	0.4	272	11.5	11.5	-0.5	270	9.3	9.3	0.0	255	3.1	3.0	0.8	99	7.5	-7.4	1.2	93	21.5	-21.5	1.3	85	37.4	-37.3	-3.2
20	273	10.2	10.2	-0.6	273	11.6	11.6	-0.6	271	8.4	8.4	-0.2	263	3.1	3.1	0.4	93	8.8	-8.8	0.4	94	22.6	-22.6	1.4	91	30.8	-30.8	0.6
21	266	10.8	10.8	0.8	271	10.9	10.9	-0.2	274	9.1	9.1	-0.7	270	2.9	2.9	0.0	97	8.7	-8.6	1.0	91	23.2	-23.2	0.6	91	35.0	-35.0	0.6
22	267	8.7	8.7	0.5	276	11.0	10.9	-1.2	276	8.2	8.2	-0.8	270	3.3	3.3	0.0	96	10.1	-10.1	1.0	96	22.7	-22.6	2.4	89	30.2	-30.2	-0.6
23	287	8.8	8.4	-2.5	283	10.8	10.5	-2.4	284	6.6	6.4	-1.6	325	2.1	1.2	-1.7	89	10.0	-10.0	-0.1	95	22.4	-22.3	2.0	89	32.5	-32.5	-0.4
24	278	10.4	10.3	-1.4	280	9.6	9.5	-1.6	273	7.6	7.6	-0.4	300	2.2	1.9	-1.1	85	9.5	-9.5	-0.8	91	21.0	-21.0	0.2	95	36.9	-36.8	3.2
25	276	9.9	9.8	-1.1	275	11.2	11.2	-1.0	281	8.6	8.4	-1.6	281	3.7	3.6	-0.7	101	7.7	-7.6	1.5	92	25.2	-25.2	0.9	81	31.6	-31.2	-4.7
26	274	11.4	11.4	-0.7	277	11.8	11.7	-1.5	276	9.7	9.6	-1.0	275	2.4	2.4	-0.2	96	8.9	-8.9	0.9	86	19.3	-19.3	-1.3	88	35.3	-35.3	-1.4
27	273	10.9	10.9	-0.6	279	12.3	12.2	-1.9	278	10.3	10.2	-1.4	292	3.8	3.5	-1.4	95	7.5	-7.5	0.7	87	21.7	-21.7	-1.2	91	31.5	-31.5	0.5
28	280	11.4	11.2	-1.9	280	10.9	10.7	-1.8	279	8.5	8.4	-1.3	276	3.0	3.0	-0.3	93	8.4	-8.4	0.4	87	22.6	-22.6	-1.1	93	35.8	-35.8	1.6
29	280	13.4	13.2	-2.4	277	11.5	11.4	-1.5	278	9.7	9.6	-1.4	296	3.7	3.3	-1.6	97	7.7	-7.6	0.9	89	22.1	-22.1	-0.4	95	33.1	-33.0	2.6
30	276	11.7	11.6	-1.2	278	11.4	11.3	-1.6	276	10.3	10.2	-1.1	286	3.7	3.6	-1.0	93	7.6	-7.6	0.4	90	22.5	-22.5	0.0	87	31.2	-31.2	-1.4
31	288	10.4	9.9	-3.3	282	11.5	11.2	-2.4	278	9.8	9.7	-1.3	285	3.8	3.7	-1.0	77	6.9	-6.7	-1.6	91	20.6	-20.6	0.4	94	29.0	-28.9	1.8

Daily Normals of Upper Air Winds (1971-2000)

GOA **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	281	12.9	12.7	-2.4	280	11.4	11.2	-1.9	284	10.2	9.9	-2.4	280	4.2	4.1	-0.7	88	7.5	-7.5	-0.3	91	22.7	-22.7	0.4	93	32.1	-32.0	1.9
2	280	12.0	11.8	-2.1	280	11.6	11.4	-2.1	279	9.9	9.8	-1.6	317	3.5	2.4	-2.6	87	8.4	-8.4	-0.5	88	22.3	-22.3	-0.8	91	34.7	-34.7	0.8
3	277	11.6	11.5	-1.5	279	11.3	11.2	-1.8	281	9.3	9.1	-1.8	285	3.5	3.4	-0.9	95	7.4	-7.4	0.7	88	23.3	-23.3	-0.9	89	30.9	-30.9	-0.5
4	281	9.8	9.6	-1.8	276	10.5	10.4	-1.1	277	8.7	8.6	-1.1	285	2.4	2.3	-0.6	100	8.4	-8.3	1.5	89	22.7	-22.7	-0.2	90	28.3	-28.3	0.2
5	277	9.3	9.2	-1.2	279	9.4	9.3	-1.5	281	9.9	9.7	-1.9	288	4.2	4.0	-1.3	96	7.8	-7.8	0.8	91	21.0	-21.0	0.2	91	35.8	-35.8	0.5
6	273	8.3	8.3	-0.4	278	9.6	9.5	-1.4	281	7.8	7.7	-1.5	282	3.4	3.3	-0.7	79	8.1	-7.9	-1.6	89	23.8	-23.8	-0.5	89	30.5	-30.5	-0.3
7	271	11.3	11.3	-0.2	275	10.8	10.8	-0.9	275	8.6	8.6	-0.8	276	4.4	4.4	-0.5	89	9.1	-9.1	-0.2	92	23.4	-23.4	0.8	80	29.1	-28.6	-5.1
8	287	8.8	8.4	-2.5	278	10.9	10.8	-1.6	279	11.1	11.0	-1.7	282	5.1	5.0	-1.1	89	7.2	-7.2	-0.1	91	21.6	-21.6	0.2	94	28.8	-28.7	2.2
9	283	8.6	8.4	-1.9	282	11.2	10.9	-2.4	280	12.0	11.8	-2.0	302	3.6	3.0	-1.9	84	6.2	-6.2	-0.7	89	22.5	-22.5	-0.5	92	29.9	-29.9	0.9
10	279	10.5	10.4	-1.7	282	10.9	10.7	-2.2	280	9.3	9.2	-1.6	283	4.8	4.7	-1.1	95	7.7	-7.7	0.7	95	21.5	-21.4	1.7	94	29.6	-29.5	2.2
11	258	9.5	9.3	1.9	275	10.6	10.6	-1.0	282	10.1	9.9	-2.1	294	3.0	2.7	-1.2	90	8.7	-8.7	0.0	91	20.2	-20.2	0.4	89	27.0	-27.0	-0.5
12	271	11.7	11.7	-0.2	279	11.1	11.0	-1.8	280	9.5	9.4	-1.6	276	3.1	3.1	-0.3	93	9.1	-9.1	0.5	92	23.5	-23.5	0.8	85	27.2	-27.1	-2.5
13	271	9.8	9.8	-0.2	278	10.9	10.8	-1.5	277	9.5	9.4	-1.1	281	3.1	3.0	-0.6	91	8.5	-8.5	0.1	91	22.1	-22.1	0.3	93	29.6	-29.6	1.3
14	275	8.3	8.3	-0.7	279	10.7	10.6	-1.7	278	9.6	9.5	-1.4	292	3.8	3.5	-1.4	94	8.0	-8.0	0.6	91	22.2	-22.2	0.5	95	27.4	-27.3	2.3
15	279	7.6	7.5	-1.2	279	9.8	9.7	-1.5	278	9.5	9.4	-1.3	329	1.2	0.6	-1.0	84	9.3	-9.3	-0.9	94	24.2	-24.1	1.7	92	23.1	-23.1	0.7
16	279	7.3	7.2	-1.2	281	10.4	10.2	-1.9	281	8.6	8.5	-1.6	313	2.3	1.7	-1.6	91	10.6	-10.6	0.2	95	23.8	-23.7	2.2	91	31.2	-31.2	0.5
17	284	8.1	7.9	-1.9	283	9.9	9.6	-2.3	284	8.9	8.6	-2.2	284	3.3	3.2	-0.8	99	8.6	-8.5	1.4	88	22.4	-22.4	-0.6	90	34.1	-34.1	0.2
18	292	8.7	8.1	-3.2	284	11.0	10.7	-2.7	285	7.9	7.6	-2.0	298	2.4	2.1	-1.1	96	7.1	-7.1	0.8	96	21.8	-21.7	2.1	95	30.2	-30.1	2.5
19	292	9.4	8.7	-3.6	282	10.0	9.8	-2.1	282	8.0	7.8	-1.7	288	2.3	2.2	-0.7	98	9.3	-9.2	1.3	92	22.0	-22.0	0.8	92	30.8	-30.8	1.1
20	282	11.5	11.2	-2.4	285	10.2	9.8	-2.7	286	8.3	8.0	-2.3	287	2.1	2.0	-0.6	99	9.1	-9.0	1.5	88	22.1	-22.1	-0.8	88	29.5	-29.5	-1.0
21	290	8.9	8.4	-3.0	288	9.6	9.1	-2.9	285	8.6	8.3	-2.2	300	2.8	2.4	-1.4	89	7.7	-7.7	-0.2	90	20.2	-20.2	0.1	95	29.6	-29.5	2.4
22	291	7.5	7.0	-2.7	285	9.4	9.1	-2.5	282	7.7	7.5	-1.6	329	1.2	0.6	-1.0	96	7.0	-7.0	0.7	93	20.8	-20.8	1.1	94	34.3	-34.2	2.4
23	286	7.5	7.2	-2.1	283	9.1	8.9	-2.1	280	6.6	6.5	-1.2	279	1.2	1.2	-0.2	95	8.7	-8.7	0.8	92	21.6	-21.6	0.9	97	29.4	-29.2	3.8
24	287	6.8	6.5	-2.0	282	9.1	8.9	-1.9	281	6.1	6.0	-1.2	270	1.5	1.5	0.0	107	8.9	-8.5	2.6	92	20.8	-20.8	0.9	95	28.4	-28.3	2.5
25	277	9.3	9.2	-1.2	284	10.0	9.7	-2.4	277	7.5	7.4	-0.9	263	2.4	2.4	0.3	91	8.0	-8.0	0.2	92	19.5	-19.5	0.8	96	28.9	-28.8	2.8
26	281	10.6	10.4	-2.1	281	9.6	9.4	-1.9	282	7.5	7.3	-1.6	297	2.7	2.4	-1.2	86	8.1	-8.1	-0.6	91	23.1	-23.1	0.6	95	25.3	-25.2	2.3
27	267	10.2	10.2	0.5	276	10.0	9.9	-1.1	273	7.8	7.8	-0.4	303	2.4	2.0	-1.3	68	7.4	-6.8	-2.8	90	19.6	-19.6	0.1	93	26.9	-26.9	1.2
28	286	9.3	8.9	-2.6	280	10.2	10.0	-1.8	281	7.6	7.5	-1.5	287	3.1	3.0	-0.9	102	6.9	-6.8	1.4	88	20.2	-20.2	-0.6	93	24.3	-24.3	1.3
29	282	8.5	8.3	-1.8	284	10.1	9.8	-2.4	280	8.2	8.1	-1.5	284	3.6	3.5	-0.9	90	6.5	-6.5	0.0	89	17.7	-17.7	-0.3	92	26.0	-26.0	0.8
30	287	8.5	8.1	-2.5	286	9.1	8.7	-2.5	280	7.7	7.6	-1.4	279	3.3	3.3	-0.5	86	7.7	-7.7	-0.5	88	18.7	-18.7	-0.6	96	20.8	-20.7	2.1
31	292	8.2	7.6	-3.0	284	9.3	9.0	-2.3	280	7.4	7.3	-1.3	280	3.4	3.3	-0.6	89	7.5	-7.5	-0.1	90	20.4	-20.4	0.0	97	26.3	-26.1	3.0

Daily Normals of Upper Air Winds (1971-2000)

GOA **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	290	7.9	7.4	-2.7	285	8.6	8.3	-2.2	277	7.0	6.9	-0.9	323	0.5	0.3	-0.4	93	8.7	-8.7	0.4	88	21.9	-21.9	-0.6	93	26.3	-26.3	1.4
2	283	7.2	7.0	-1.6	284	8.1	7.8	-2.0	279	5.8	5.7	-0.9	317	2.3	1.6	-1.7	86	7.8	-7.8	-0.5	93	19.2	-19.2	1.1	91	23.9	-23.9	0.5
3	284	9.3	9.0	-2.2	284	7.4	7.2	-1.8	287	5.6	5.4	-1.6	270	2.5	2.5	0.0	94	9.1	-9.1	0.7	93	22.1	-22.1	1.0	94	25.7	-25.6	1.9
4	283	9.0	8.8	-2.0	281	8.3	8.1	-1.6	271	6.5	6.5	-0.1	260	2.2	2.2	0.4	96	8.9	-8.8	1.0	89	19.8	-19.8	-0.2	94	24.3	-24.2	1.7
5	287	7.4	7.1	-2.2	285	8.0	7.7	-2.0	271	6.6	6.6	-0.1	306	1.7	1.4	-1.0	84	8.0	-8.0	-0.8	98	20.3	-20.1	2.7	90	24.7	-24.7	-0.1
6	286	6.9	6.6	-1.9	283	8.6	8.4	-2.0	274	6.1	6.1	-0.4	270	2.6	2.6	0.0	88	8.3	-8.3	-0.3	99	20.3	-20.1	3.1	91	23.1	-23.1	0.5
7	291	7.4	6.9	-2.6	286	8.6	8.3	-2.4	281	4.9	4.8	-0.9	287	3.8	3.6	-1.1	91	8.1	-8.1	0.1	95	18.5	-18.4	1.6	96	22.0	-21.9	2.2
8	281	6.1	6.0	-1.2	290	7.5	7.0	-2.6	291	4.7	4.4	-1.7	304	2.5	2.1	-1.4	88	7.5	-7.5	-0.2	95	17.7	-17.6	1.5	101	21.4	-21.0	3.9
9	276	5.7	5.7	-0.6	288	7.6	7.2	-2.3	297	4.5	4.0	-2.0	280	1.1	1.1	-0.2	87	8.0	-8.0	-0.4	98	17.9	-17.7	2.5	91	21.4	-21.4	0.3
10	289	6.1	5.8	-2.0	293	7.4	6.8	-2.9	296	3.4	3.1	-1.5	4	1.6	-0.1	-1.6	85	7.8	-7.8	-0.7	93	15.1	-15.1	0.9	91	19.9	-19.9	0.4
11	296	6.0	5.4	-2.6	288	7.4	7.0	-2.3	291	3.3	3.1	-1.2	337	1.3	0.5	-1.2	97	7.0	-7.0	0.8	95	18.4	-18.3	1.7	94	19.2	-19.1	1.4
12	300	5.1	4.4	-2.5	294	5.8	5.3	-2.4	280	2.3	2.3	-0.4	326	0.7	0.4	-0.6	93	6.8	-6.8	0.4	98	15.5	-15.4	2.1	93	20.7	-20.7	1.0
13	314	5.6	4.0	-3.9	298	4.0	3.5	-1.9	276	2.9	2.9	-0.3	324	1.4	0.8	-1.1	93	6.8	-6.8	0.4	99	16.0	-15.8	2.4	93	21.6	-21.6	1.0
14	304	5.7	4.7	-3.2	297	4.7	4.2	-2.1	292	2.2	2.0	-0.8	360	1.7	0.0	-1.7	88	7.0	-7.0	-0.2	95	16.0	-15.9	1.5	97	19.9	-19.8	2.3
15	307	6.1	4.9	-3.7	295	5.0	4.5	-2.1	291	1.7	1.6	-0.6	324	1.4	0.8	-1.1	89	6.6	-6.6	-0.1	99	15.8	-15.6	2.4	94	16.0	-16.0	1.0
16	313	7.1	5.2	-4.9	306	5.2	4.2	-3.1	278	1.5	1.5	-0.2	343	1.4	0.4	-1.3	83	6.4	-6.4	-0.8	99	16.2	-16.0	2.5	93	20.9	-20.9	1.2
17	312	6.2	4.6	-4.1	313	4.0	2.9	-2.7	45	0.6	-0.4	-0.4	41	1.8	-1.2	-1.4	91	8.3	-8.3	0.1	100	15.4	-15.2	2.7	96	22.4	-22.3	2.5
18	304	5.0	4.2	-2.8	302	3.6	3.1	-1.9	180	0.2	0.0	0.2	53	1.5	-1.2	-0.9	102	6.3	-6.2	1.3	99	14.5	-14.3	2.3	108	19.5	-18.5	6.1
19	297	3.6	3.2	-1.6	303	3.3	2.8	-1.8	311	1.1	0.8	-0.7	326	0.7	0.4	-0.6	97	6.5	-6.5	0.8	94	14.7	-14.7	1.1	91	16.5	-16.5	0.3
20	320	5.5	3.5	-4.2	321	3.5	2.2	-2.7	360	0.4	0.0	-0.4	32	1.3	-0.7	-1.1	88	5.9	-5.9	-0.2	105	12.3	-11.9	3.2	96	18.5	-18.4	1.9
21	325	5.9	3.4	-4.8	292	2.4	2.2	-0.9	156	1.2	-0.5	1.1	45	0.3	-0.2	-0.2	102	6.6	-6.4	1.4	105	12.4	-12.0	3.2	98	19.1	-18.9	2.7
22	328	5.1	2.7	-4.3	302	4.1	3.5	-2.2	63	0.4	-0.4	-0.2	253	1.0	1.0	0.3	98	6.9	-6.8	0.9	100	13.2	-13.0	2.2	102	19.5	-19.0	4.2
23	327	5.9	3.2	-4.9	322	3.1	1.9	-2.4	322	1.1	0.7	-0.9	4	1.3	-0.1	-1.3	92	8.0	-8.0	0.3	101	13.7	-13.5	2.6	102	16.1	-15.8	3.3
24	313	3.7	2.7	-2.5	322	3.6	2.2	-2.8	31	1.7	-0.9	-1.5	42	2.5	-1.7	-1.9	90	7.0	-7.0	0.0	107	12.5	-12.0	3.6	102	17.2	-16.8	3.6
25	315	4.2	3.0	-3.0	335	3.3	1.4	-3.0	87	2.2	-2.2	-0.1	76	3.4	-3.3	-0.8	105	7.3	-7.1	1.9	104	13.8	-13.4	3.3	98	17.1	-16.9	2.3
26	329	4.8	2.5	-4.1	312	3.1	2.3	-2.1	65	2.6	-2.4	-1.1	77	2.2	-2.1	-0.5	92	7.6	-7.6	0.3	98	12.0	-11.9	1.7	102	15.9	-15.6	3.3
27	342	2.3	0.7	-2.2	308	2.8	2.2	-1.7	70	1.2	-1.1	-0.4	45	0.7	-0.5	-0.5	103	5.1	-5.0	1.2	105	11.6	-11.2	2.9	98	15.6	-15.5	2.1
28	323	1.5	0.9	-1.2	285	2.4	2.3	-0.6	106	1.5	-1.4	0.4	79	0.5	-0.5	-0.1	99	6.4	-6.3	1.0	93	11.2	-11.2	0.6	94	15.7	-15.7	1.1
29	338	0.5	0.2	-0.5	321	1.9	1.2	-1.5	82	0.7	-0.7	-0.1	45	0.1	-0.1	-0.1	96	3.8	-3.8	0.4	103	10.1	-9.8	2.3	98	14.7	-14.6	2.0
30	11	0.5	-0.1	-0.5	360	1.1	0.0	-1.1	73	1.7	-1.6	-0.5	112	0.5	-0.5	0.2	93	5.2	-5.2	0.3	101	10.6	-10.4	2.0	96	14.7	-14.6	1.6

Daily Normals of Upper Air Winds (1971-2000)

GOA **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	307	1.5	1.2	-0.9	326	3.0	1.7	-2.5	59	2.6	-2.2	-1.3	14	1.2	-0.3	-1.2	89	4.9	-4.9	-0.1	105	11.6	-11.2	2.9	96	14.6	-14.5	1.4
2	300	0.8	0.7	-0.4	340	2.0	0.7	-1.9	61	2.6	-2.3	-1.3	62	2.6	-2.3	-1.2	90	5.7	-5.7	0.0	106	9.7	-9.3	2.7	89	11.6	-11.6	-0.3
3	220	0.8	0.5	0.6	300	0.8	0.7	-0.4	48	2.5	-1.9	-1.7	50	1.7	-1.3	-1.1	85	3.6	-3.6	-0.3	108	10.1	-9.6	3.1	90	9.6	-9.6	0.0
4	294	1.0	0.9	-0.4	321	2.2	1.4	-1.7	45	2.3	-1.6	-1.6	72	1.9	-1.8	-0.6	89	4.4	-4.4	-0.1	110	10.9	-10.2	3.8	87	13.0	-13.0	-0.7
5	311	1.1	0.8	-0.7	333	1.6	0.7	-1.4	65	2.1	-1.9	-0.9	63	2.0	-1.8	-0.9	100	3.4	-3.3	0.6	104	9.6	-9.3	2.3	105	12.6	-12.2	3.2
6	329	2.3	1.2	-2.0	17	1.0	-0.3	-1.0	79	2.0	-2.0	-0.4	90	2.0	-2.0	0.0	101	4.8	-4.7	0.9	114	8.7	-8.0	3.5	99	12.3	-12.2	1.9
7	24	1.7	-0.7	-1.6	360	1.5	0.0	-1.5	51	2.1	-1.6	-1.3	97	2.6	-2.6	0.3	101	5.2	-5.1	1.0	114	10.8	-9.9	4.4	101	10.8	-10.6	2.1
8	343	1.7	0.5	-1.6	40	1.7	-1.1	-1.3	84	2.9	-2.9	-0.3	96	2.0	-2.0	0.2	120	3.4	-3.0	1.7	121	9.1	-7.8	4.6	101	12.8	-12.6	2.5
9	49	1.1	-0.8	-0.7	19	3.1	-1.0	-2.9	60	3.2	-2.8	-1.6	72	0.6	-0.6	-0.2	95	3.8	-3.8	0.3	117	9.8	-8.7	4.5	101	12.1	-11.9	2.4
10	331	1.8	0.9	-1.6	28	3.4	-1.6	-3.0	47	4.0	-2.9	-2.7	85	2.4	-2.4	-0.2	99	5.3	-5.2	0.8	117	6.8	-6.0	3.1	108	11.2	-10.6	3.5
11	317	1.9	1.3	-1.4	8	2.8	-0.4	-2.8	53	3.0	-2.4	-1.8	191	0.5	0.1	0.5	93	1.8	-1.8	0.1	121	8.2	-7.0	4.2	94	8.8	-8.8	0.6
12	164	3.5	-1.0	3.4	11	1.0	-0.2	-1.0	77	3.9	-3.8	-0.9	85	2.2	-2.2	-0.2	99	5.0	-4.9	0.8	115	7.2	-6.5	3.1	108	10.0	-9.5	3.0
13	171	4.4	-0.7	4.3	66	1.0	-0.9	-0.4	83	4.0	-4.0	-0.5	47	2.5	-1.8	-1.7	99	3.2	-3.2	0.5	127	5.3	-4.2	3.2	98	8.9	-8.8	1.3
14	197	1.4	0.4	1.3	28	1.7	-0.8	-1.5	73	3.4	-3.2	-1.0	36	1.4	-0.8	-1.1	101	1.0	-1.0	0.2	165	5.8	-1.5	5.6	110	6.1	-5.7	2.1
15	7	0.8	-0.1	-0.8	61	2.3	-2.0	-1.1	61	3.5	-3.1	-1.7	29	2.5	-1.2	-2.2	102	2.9	-2.8	0.6	149	8.1	-4.2	6.9	117	9.6	-8.5	4.4
16	72	0.9	-0.9	-0.3	60	2.8	-2.4	-1.4	68	3.1	-2.9	-1.2	46	3.5	-2.5	-2.4	98	3.4	-3.4	0.5	144	8.2	-4.8	6.6	98	8.7	-8.6	1.2
17	328	0.9	0.5	-0.8	27	2.9	-1.3	-2.6	93	3.6	-3.6	0.2	61	2.1	-1.8	-1.0	163	1.4	-0.4	1.3	152	4.4	-2.1	3.9	104	10.5	-10.2	2.5
18	347	2.3	0.5	-2.2	63	2.0	-1.8	-0.9	90	2.2	-2.2	0.0	56	1.4	-1.2	-0.8	97	2.6	-2.6	0.3	123	9.0	-7.6	4.9	103	9.5	-9.3	2.1
19	53	3.1	-2.5	-1.9	58	3.2	-2.7	-1.7	58	3.6	-3.1	-1.9	98	1.4	-1.4	0.2	93	2.0	-2.0	0.1	137	5.2	-3.5	3.8	112	9.8	-9.1	3.6
20	62	3.4	-3.0	-1.6	63	3.7	-3.3	-1.7	81	4.3	-4.2	-0.7	74	2.2	-2.1	-0.6	112	3.8	-3.5	1.4	126	5.4	-4.4	3.2	82	10.7	-10.6	-1.5
21	69	4.3	-4.0	-1.5	95	4.3	-4.3	0.4	87	4.2	-4.2	-0.2	92	3.5	-3.5	0.1	124	2.3	-1.9	1.3	126	6.2	-5.0	3.6	102	7.5	-7.3	1.6
22	45	2.8	-2.0	-2.0	80	4.1	-4.0	-0.7	94	4.6	-4.6	0.3	61	2.5	-2.2	-1.2	115	1.9	-1.7	0.8	147	5.0	-2.7	4.2	106	9.3	-9.0	2.5
23	92	3.3	-3.3	0.1	101	4.7	-4.6	0.9	90	2.9	-2.9	0.0	90	1.4	-1.4	0.0	115	2.3	-2.1	1.0	128	5.2	-4.1	3.2	113	7.5	-6.9	3.0
24	61	1.8	-1.6	-0.9	83	4.3	-4.3	-0.5	107	3.4	-3.3	1.0	79	2.1	-2.1	-0.4	210	1.4	0.7	1.2	175	5.6	-0.5	5.6	114	4.9	-4.5	2.0
25	270	0.1	0.1	0.0	91	4.1	-4.1	0.1	116	3.0	-2.7	1.3	86	1.4	-1.4	-0.1	225	0.3	0.2	0.2	169	4.1	-0.8	4.0	104	5.4	-5.2	1.3
26	47	1.6	-1.2	-1.1	90	3.8	-3.8	0.0	120	2.2	-1.9	1.1	93	1.7	-1.7	0.1	198	2.6	0.8	2.5	191	5.7	1.1	5.6	110	3.7	-3.5	1.3
27	43	2.1	-1.4	-1.5	97	3.9	-3.9	0.5	96	3.0	-3.0	0.3	52	1.8	-1.4	-1.1	237	3.1	2.6	1.7	191	7.1	1.4	7.0	104	5.4	-5.2	1.3
28	90	2.7	-2.7	0.0	84	6.2	-6.2	-0.7	67	2.8	-2.6	-1.1	54	1.7	-1.4	-1.0	246	2.7	2.5	1.1	207	6.6	3.0	5.9	103	5.2	-5.1	1.2
29	90	2.1	-2.1	0.0	88	5.3	-5.3	-0.2	85	3.4	-3.4	-0.3	60	1.6	-1.4	-0.8	263	4.2	4.2	0.5	215	6.0	3.4	4.9	112	2.4	-2.2	0.9
30	65	3.8	-3.4	-1.6	76	5.0	-4.9	-1.2	72	3.5	-3.3	-1.1	43	2.6	-1.8	-1.9	249	3.1	2.9	1.1	196	6.6	1.8	6.3	119	6.3	-5.5	3.1
31	27	4.6	-2.1	-4.1	90	6.4	-6.4	0.0	87	3.5	-3.5	-0.2	56	2.5	-2.1	-1.4	238	3.8	3.2	2.0	190	6.6	1.1	6.5	123	4.8	-4.0	2.6

Daily Normals of Upper Air Winds (1971-2000)

GOA **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	63	6.2	-5.5	-2.8	84	6.0	-6.0	-0.6	65	3.8	-3.5	-1.6	46	3.7	-2.7	-2.6	233	3.0	2.4	1.8	198	7.7	2.4	7.3	82	2.1	-2.1	-0.3
2	72	3.8	-3.6	-1.2	85	5.4	-5.4	-0.5	81	3.1	-3.1	-0.5	61	5.2	-4.6	-2.5	247	2.1	1.9	0.8	193	6.1	1.4	5.9	103	5.5	-5.4	1.2
3	74	6.0	-5.8	-1.7	85	6.0	-6.0	-0.5	89	4.1	-4.1	-0.1	57	5.6	-4.7	-3.0	104	0.4	-0.4	0.1	181	6.3	0.1	6.3	93	4.5	-4.5	0.2
4	70	5.4	-5.1	-1.9	91	4.3	-4.3	0.1	104	4.0	-3.9	1.0	60	5.1	-4.4	-2.5	259	0.5	0.5	0.1	187	7.3	0.9	7.2	95	5.0	-5.0	0.4
5	74	5.8	-5.6	-1.6	86	6.5	-6.5	-0.5	96	3.1	-3.1	0.3	64	5.5	-5.0	-2.4	253	1.4	1.3	0.4	182	6.5	0.2	6.5	72	4.7	-4.5	-1.5
6	63	5.6	-5.0	-2.6	85	5.7	-5.7	-0.5	90	4.0	-4.0	0.0	77	4.1	-4.0	-0.9	194	3.2	0.8	3.1	194	6.3	1.5	6.1	127	5.9	-4.7	3.5
7	80	6.3	-6.2	-1.1	94	7.0	-7.0	0.5	77	3.9	-3.8	-0.9	72	5.8	-5.5	-1.8	113	0.8	-0.7	0.3	172	6.6	-0.9	6.5	120	2.2	-1.9	1.1
8	85	7.4	-7.4	-0.6	93	6.3	-6.3	0.3	98	4.3	-4.3	0.6	78	2.9	-2.8	-0.6	270	1.2	1.2	0.0	193	8.3	1.8	8.1	214	1.8	1.0	1.5
9	73	4.1	-3.9	-1.2	90	5.4	-5.4	0.0	80	3.6	-3.5	-0.6	73	3.1	-3.0	-0.9	265	2.2	2.2	0.2	190	6.4	1.1	6.3	90	2.2	-2.2	0.0
10	94	5.6	-5.6	0.4	84	4.9	-4.9	-0.5	80	2.9	-2.9	-0.5	58	2.5	-2.1	-1.3	242	3.8	3.4	1.8	234	5.8	4.7	3.4	61	3.9	-3.4	-1.9
11	60	2.0	-1.7	-1.0	90	4.2	-4.2	0.0	81	3.0	-3.0	-0.5	27	3.0	-1.4	-2.7	252	2.8	2.7	0.9	209	5.0	2.4	4.4	94	2.7	-2.7	0.2
12	84	3.7	-3.7	-0.4	81	5.0	-4.9	-0.8	82	2.7	-2.7	-0.4	47	4.8	-3.5	-3.3	276	3.1	3.1	-0.3	214	5.7	3.2	4.7	169	3.2	-0.6	3.1
13	89	4.8	-4.8	-0.1	89	5.6	-5.6	-0.1	95	3.8	-3.8	0.3	60	5.1	-4.4	-2.5	288	1.6	1.5	-0.5	209	6.2	3.0	5.4	135	2.5	-1.8	1.8
14	80	5.1	-5.0	-0.9	92	6.0	-6.0	0.2	90	4.1	-4.1	0.0	76	3.2	-3.1	-0.8	228	4.2	3.1	2.8	205	7.9	3.3	7.2	261	1.2	1.2	0.2
15	78	4.2	-4.1	-0.9	101	5.4	-5.3	1.0	90	3.3	-3.3	0.0	86	4.6	-4.6	-0.3	194	1.2	0.3	1.2	190	6.6	1.1	6.5	103	2.8	-2.7	0.6
16	89	6.3	-6.3	-0.1	99	6.7	-6.6	1.1	81	5.4	-5.3	-0.8	93	4.3	-4.3	0.2	243	2.7	2.4	1.2	202	9.2	3.4	8.6	119	4.7	-4.1	2.3
17	90	6.3	-6.3	0.0	102	7.0	-6.8	1.5	94	4.2	-4.2	0.3	63	2.7	-2.4	-1.2	221	6.1	4.0	4.6	202	9.8	3.7	9.1	69	2.2	-2.1	-0.8
18	102	5.8	-5.7	1.2	113	4.9	-4.5	1.9	123	1.7	-1.4	0.9	51	0.6	-0.5	-0.4	234	6.9	5.6	4.0	221	10.1	6.6	7.6	130	0.8	-0.6	0.5
19	79	3.8	-3.7	-0.7	96	4.5	-4.5	0.5	93	2.2	-2.2	0.1	360	1.1	0.0	-1.1	250	5.9	5.5	2.0	222	11.1	7.5	8.2	233	3.5	2.8	2.1
20	79	4.9	-4.8	-0.9	83	4.7	-4.7	-0.6	72	3.3	-3.1	-1.0	333	1.3	0.6	-1.2	239	7.6	6.5	3.9	235	11.5	9.4	6.7	236	1.1	0.9	0.6
21	89	6.7	-6.7	-0.1	102	5.0	-4.9	1.0	99	2.4	-2.4	0.4	337	0.8	0.3	-0.7	256	9.4	9.1	2.2	235	14.9	12.2	8.6	324	4.8	2.8	-3.9
22	96	5.6	-5.6	0.6	96	5.3	-5.3	0.6	77	3.1	-3.0	-0.7	339	1.9	0.7	-1.8	250	8.4	7.9	2.8	219	12.7	8.0	9.9	225	1.7	1.2	1.2
23	95	7.3	-7.3	0.7	94	4.5	-4.5	0.3	85	1.1	-1.1	-0.1	338	1.8	0.7	-1.7	267	7.0	7.0	0.4	222	12.2	8.2	9.0	268	7.7	7.7	0.3
24	86	6.4	-6.4	-0.5	93	4.2	-4.2	0.2	99	2.0	-2.0	0.3	3	4.3	-0.2	-4.3	262	5.2	5.2	0.7	232	10.8	8.5	6.7	137	1.9	-1.3	1.4
25	67	5.2	-4.8	-2.0	98	4.3	-4.3	0.6	86	2.9	-2.9	-0.2	30	4.2	-2.1	-3.6	265	6.3	6.3	0.6	240	10.5	9.1	5.2	180	0.5	0.0	0.5
26	78	3.4	-3.3	-0.7	99	3.9	-3.9	0.6	98	2.8	-2.8	0.4	81	3.2	-3.2	-0.5	246	4.3	3.9	1.7	223	10.2	6.9	7.5	135	1.0	-0.7	0.7
27	94	4.3	-4.3	0.3	97	4.0	-4.0	0.5	92	2.5	-2.5	0.1	87	1.7	-1.7	-0.1	269	5.6	5.6	0.1	239	10.1	8.7	5.2	243	5.6	5.0	2.6
28	88	5.1	-5.1	-0.2	91	4.0	-4.0	0.1	75	1.6	-1.5	-0.4	311	0.9	0.7	-0.6	268	6.2	6.2	0.2	216	9.8	5.8	7.9	184	1.4	0.1	1.4
29	100	5.9	-5.8	1.0	98	4.4	-4.4	0.6	56	1.1	-0.9	-0.6	10	2.2	-0.4	-2.2	259	7.8	7.7	1.5	241	14.9	13.0	7.3	243	1.1	1.0	0.5
30	87	4.2	-4.2	-0.2	87	5.4	-5.4	-0.3	18	1.3	-0.4	-1.2	23	0.8	-0.3	-0.7	257	9.0	8.8	2.1	227	11.8	8.7	8.0	255	2.3	2.2	0.6

Daily Normals of Upper Air Winds (1971-2000)

GOA **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	73	4.1	-3.9	-1.2	86	5.2	-5.2	-0.4	101	2.1	-2.1	0.4	58	1.3	-1.1	-0.7	253	7.0	6.7	2.1	228	11.8	8.8	7.9	186	0.9	0.1	0.9
2	90	5.5	-5.5	0.0	98	6.5	-6.4	0.9	96	2.8	-2.8	0.3	191	1.0	0.2	1.0	237	6.4	5.3	3.5	244	12.9	11.6	5.7	277	6.0	6.0	-0.7
3	93	6.9	-6.9	0.4	107	5.7	-5.4	1.7	102	3.4	-3.3	0.7	62	1.5	-1.3	-0.7	256	6.2	6.0	1.5	234	11.6	9.4	6.8	282	1.4	1.4	-0.3
4	95	5.7	-5.7	0.5	115	5.2	-4.7	2.2	72	2.2	-2.1	-0.7	77	2.3	-2.2	-0.5	254	8.1	7.8	2.3	226	11.3	8.1	7.9	207	2.0	0.9	1.8
5	81	6.9	-6.8	-1.1	93	5.2	-5.2	0.3	67	1.5	-1.4	-0.6	67	1.5	-1.4	-0.6	253	7.2	6.9	2.1	242	12.6	11.1	5.9	222	3.1	2.1	2.3
6	93	6.5	-6.5	0.3	89	5.1	-5.1	-0.1	67	3.6	-3.3	-1.4	26	2.5	-1.1	-2.3	270	7.1	7.1	0.0	236	11.8	9.8	6.6	175	2.2	-0.2	2.2
7	83	5.9	-5.9	-0.7	86	5.3	-5.3	-0.4	78	4.3	-4.2	-0.9	36	0.9	-0.5	-0.7	255	9.7	9.4	2.5	234	14.2	11.5	8.3	255	2.4	2.3	0.6
8	92	6.7	-6.7	0.2	98	4.1	-4.1	0.6	72	2.3	-2.2	-0.7	156	1.0	-0.4	0.9	257	8.7	8.5	1.9	232	11.1	8.8	6.8	228	6.1	4.5	4.1
9	85	4.7	-4.7	-0.4	97	4.0	-4.0	0.5	93	2.2	-2.2	0.1	231	1.9	1.5	1.2	248	9.8	9.1	3.6	229	11.5	8.7	7.5	263	5.0	5.0	0.6
10	84	5.8	-5.8	-0.6	99	5.1	-5.0	0.8	100	1.1	-1.1	0.2	284	1.6	1.6	-0.4	255	9.9	9.6	2.6	243	13.1	11.7	6.0	217	3.5	2.1	2.8
11	92	7.2	-7.2	0.2	111	5.3	-4.9	1.9	114	3.4	-3.1	1.4	288	0.6	0.6	-0.2	246	10.4	9.5	4.2	232	13.5	10.6	8.4	235	3.3	2.7	1.9
12	94	7.9	-7.9	0.5	108	5.8	-5.5	1.8	81	1.9	-1.9	-0.3	153	1.3	-0.6	1.2	239	11.1	9.5	5.8	241	15.2	13.3	7.4	241	1.8	1.6	0.9
13	93	6.0	-6.0	0.3	108	4.7	-4.5	1.5	108	2.5	-2.4	0.8	72	0.6	-0.6	-0.2	241	8.5	7.4	4.1	241	15.4	13.4	7.5	351	0.6	0.1	-0.6
14	98	6.9	-6.8	0.9	103	4.4	-4.3	1.0	95	2.4	-2.4	0.2	242	2.1	1.9	1.0	275	10.9	10.9	-1.0	264	16.0	15.9	1.7	268	5.8	5.8	0.2
15	88	5.6	-5.6	-0.2	101	3.3	-3.2	0.6	93	2.2	-2.2	0.1	287	1.4	1.3	-0.4	273	12.0	12.0	-0.6	265	15.9	15.8	1.3	219	0.6	0.4	0.5
16	94	7.0	-7.0	0.5	102	4.3	-4.2	0.9	82	2.2	-2.2	-0.3	270	0.2	0.2	0.0	262	12.6	12.5	1.8	257	15.6	15.2	3.5	241	4.3	3.8	2.1
17	99	7.2	-7.1	1.1	106	3.7	-3.6	1.0	101	3.3	-3.2	0.6	312	1.3	1.0	-0.9	266	11.5	11.5	0.8	252	16.1	15.3	5.0	252	3.6	3.4	1.1
18	99	7.3	-7.2	1.2	102	4.3	-4.2	0.9	102	2.4	-2.3	0.5	299	2.5	2.2	-1.2	271	13.8	13.8	-0.2	252	17.5	16.6	5.4	275	7.6	7.6	-0.7
19	101	5.3	-5.2	1.0	106	4.6	-4.4	1.3	93	1.7	-1.7	0.1	313	2.1	1.5	-1.4	278	12.5	12.4	-1.8	249	15.4	14.3	5.6	262	5.6	5.5	0.8
20	93	6.1	-6.1	0.3	99	4.3	-4.2	0.7	67	2.1	-1.9	-0.8	283	3.7	3.6	-0.8	266	11.7	11.7	0.8	248	18.3	17.0	6.9	270	6.4	6.4	0.0
21	98	7.4	-7.3	1.0	98	5.0	-5.0	0.7	77	2.2	-2.1	-0.5	329	0.6	0.3	-0.5	268	11.9	11.9	0.4	259	13.1	12.8	2.6	242	5.9	5.2	2.8
22	87	6.1	-6.1	-0.3	98	5.3	-5.3	0.7	72	3.2	-3.0	-1.0	342	1.6	0.5	-1.5	263	10.3	10.2	1.2	263	15.7	15.6	1.8	196	3.6	1.0	3.5
23	85	6.1	-6.1	-0.5	101	3.8	-3.7	0.7	66	1.7	-1.6	-0.7	296	4.1	3.7	-1.8	263	11.8	11.7	1.5	251	16.8	15.9	5.4	246	6.4	5.9	2.6
24	99	5.6	-5.5	0.9	119	4.7	-4.1	2.3	339	0.9	0.3	-0.8	276	4.1	4.1	-0.4	265	14.5	14.4	1.3	247	16.8	15.5	6.6	328	4.1	2.2	-3.5
25	92	4.7	-4.7	0.2	103	2.8	-2.7	0.6	149	0.6	-0.3	0.5	281	4.9	4.8	-0.9	257	11.9	11.6	2.7	257	19.4	18.9	4.4	253	3.8	3.6	1.1
26	95	4.3	-4.3	0.4	98	3.0	-3.0	0.4	135	0.6	-0.4	0.4	248	3.2	3.0	1.2	260	13.7	13.5	2.5	252	18.5	17.6	5.6	253	8.0	7.7	2.3
27	105	5.6	-5.4	1.4	102	3.9	-3.8	0.8	249	0.9	0.8	0.3	262	4.1	4.1	0.6	254	14.1	13.6	3.9	261	13.2	13.0	2.0	265	7.8	7.8	0.7
28	95	6.1	-6.1	0.5	106	3.7	-3.6	1.0	307	0.5	0.4	-0.3	278	3.4	3.4	-0.5	257	12.6	12.3	2.8	250	14.5	13.6	5.0	294	3.9	3.6	-1.6
29	98	6.3	-6.2	0.9	114	3.7	-3.4	1.5	153	0.4	-0.2	0.4	270	3.3	3.3	0.0	261	13.4	13.3	2.0	257	15.3	14.9	3.5	227	4.1	3.0	2.8
30	99	6.8	-6.7	1.1	95	3.4	-3.4	0.3	246	1.2	1.1	0.5	275	4.8	4.8	-0.4	265	12.5	12.5	1.0	241	17.5	15.3	8.4	273	5.7	5.7	-0.3
31	106	4.6	-4.4	1.3	113	3.6	-3.3	1.4	360	0.5	0.0	-0.5	267	4.2	4.2	0.2	259	13.7	13.5	2.6	251	16.2	15.3	5.3	262	3.0	3.0	0.4

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	308	1.8	1.4	-1.1	290	3.3	3.1	-1.1	291	9.3	8.7	-3.4	279	21.9	21.6	-3.6	268	32.5	32.5	1.2	265	32.6	32.5	2.8	274	34.9	34.8	-2.3
2	317	2.2	1.5	-1.6	304	2.5	2.1	-1.4	294	8.7	8.0	-3.5	276	21.7	21.6	-2.1	261	35.9	35.4	5.7	256	36.5	35.5	8.6	255	27.8	26.9	7.1
3	297	1.1	1.0	-0.5	291	2.6	2.4	-0.9	288	7.9	7.5	-2.5	281	21.1	20.7	-4.1	272	36.4	36.4	-1.5	261	40.6	40.1	6.2	264	29.2	29.0	3.3
4	298	2.1	1.9	-1.0	295	4.4	4.0	-1.9	283	7.8	7.6	-1.7	275	19.9	19.8	-1.8	268	34.0	34.0	1.4	267	37.5	37.5	1.9	271	34.1	34.1	-0.7
5	277	3.3	3.3	-0.4	285	2.8	2.7	-0.7	272	7.6	7.6	-0.2	266	20.5	20.4	1.6	268	36.8	36.8	1.2	268	40.5	40.5	1.3	265	31.3	31.2	2.9
6	304	0.7	0.6	-0.4	304	3.6	3.0	-2.0	281	9.9	9.7	-1.9	271	20.9	20.9	-0.5	268	32.8	32.8	1.4	259	51.7	50.7	9.9	273	33.9	33.9	-1.8
7	130	0.8	-0.6	0.5	272	2.6	2.6	-0.1	275	7.1	7.1	-0.6	269	22.9	22.9	0.3	265	37.0	36.9	3.3	250	37.5	35.3	12.8	234	35.8	29.1	20.8
8	285	1.6	1.5	-0.4	295	2.3	2.1	-1.0	280	8.4	8.3	-1.4	265	21.3	21.2	1.8	264	35.4	35.2	3.5	265	41.9	41.7	4.0	284	30.9	29.9	-7.7
9	317	1.6	1.1	-1.2	296	3.7	3.3	-1.6	276	9.2	9.1	-1.0	271	21.6	21.6	-0.4	258	36.5	35.7	7.6	261	46.2	45.6	7.5	258	36.1	35.2	7.8
10	293	4.0	3.7	-1.6	287	6.3	6.0	-1.8	291	10.9	10.2	-3.9	276	20.4	20.3	-2.3	262	39.2	38.8	5.6	264	38.4	38.2	3.8	257	40.1	39.1	8.8
11	289	3.1	2.9	-1.0	288	5.5	5.2	-1.7	280	10.5	10.3	-1.8	270	22.3	22.3	0.0	255	38.7	37.5	9.7	270	40.8	40.8	-0.3	245	34.0	30.8	14.3
12	278	3.5	3.5	-0.5	280	5.4	5.3	-0.9	273	11.7	11.7	-0.7	272	21.8	21.8	-0.9	262	38.2	37.8	5.3	269	50.4	50.4	1.1	263	41.0	40.7	5.1
13	300	4.2	3.6	-2.1	292	5.1	4.7	-1.9	276	12.3	12.2	-1.2	268	21.8	21.8	0.7	262	39.2	38.8	5.6	266	42.1	42.0	2.9	271	21.4	21.4	-0.2
14	303	3.7	3.1	-2.0	287	5.1	4.9	-1.5	279	9.8	9.7	-1.5	274	23.8	23.8	-1.5	265	42.6	42.5	3.5	258	45.2	44.2	9.5	260	37.8	37.2	6.6
15	293	1.5	1.4	-0.6	277	5.1	5.1	-0.6	282	11.6	11.3	-2.4	270	21.9	21.9	0.1	257	38.3	37.3	8.8	258	45.3	44.3	9.5	270	30.3	30.3	-0.1
16	310	1.6	1.2	-1.0	288	3.5	3.3	-1.1	277	11.0	10.9	-1.4	270	22.7	22.7	0.1	263	41.1	40.8	4.9	268	43.6	43.6	1.3	265	30.6	30.5	2.6
17	289	4.6	4.4	-1.5	289	6.2	5.9	-2.0	284	12.8	12.4	-3.2	278	23.9	23.7	-3.3	272	37.3	37.3	-1.1	270	44.5	44.5	0.1	269	21.9	21.9	0.5
18	294	6.0	5.5	-2.4	285	6.2	6.0	-1.6	285	13.3	12.9	-3.4	280	25.1	24.7	-4.3	273	30.2	30.2	-1.4	266	42.9	42.8	2.8	281	36.0	35.3	-6.9
19	293	3.3	3.0	-1.3	295	3.8	3.5	-1.6	288	10.1	9.6	-3.2	278	21.7	21.5	-3.1	276	29.8	29.7	-2.9	264	45.3	45.1	4.7	277	30.1	29.9	-3.6
20	276	4.1	4.1	-0.4	282	5.0	4.9	-1.0	281	11.7	11.5	-2.3	275	21.6	21.5	-1.9	273	37.9	37.8	-2.0	270	44.2	44.2	0.0	260	28.6	28.2	4.9
21	291	3.6	3.4	-1.3	291	5.6	5.2	-2.0	281	9.4	9.2	-1.8	275	22.5	22.4	-2.1	268	37.0	37.0	1.3	264	44.5	44.2	4.8	271	37.9	37.9	-0.7
22	297	5.8	5.2	-2.6	288	5.4	5.1	-1.7	285	13.1	12.7	-3.4	275	25.2	25.1	-2.1	271	35.9	35.9	-0.8	271	44.4	44.4	-0.8	273	32.2	32.1	-1.8
23	294	5.6	5.1	-2.3	292	5.6	5.2	-2.1	286	11.1	10.7	-3.0	273	22.2	22.2	-1.1	264	39.3	39.1	4.1	255	43.8	42.4	11.0	268	17.2	17.2	0.6
24	291	7.2	6.7	-2.6	287	7.7	7.3	-2.3	285	12.4	12.0	-3.3	275	24.4	24.3	-2.2	269	38.9	38.9	0.9	240	28.8	24.9	14.5	275	32.4	32.3	-2.8
25	295	7.9	7.2	-3.3	290	7.9	7.4	-2.7	284	17.7	17.2	-4.2	276	24.5	24.4	-2.5	256	33.9	32.9	8.0	255	49.3	47.5	13.1	255	17.5	16.9	4.6
26	299	6.4	5.6	-3.1	295	5.7	5.2	-2.4	284	14.3	13.9	-3.5	277	24.2	24.0	-3.0	268	33.2	33.2	0.9	257	38.2	37.2	8.9	259	49.0	48.1	9.3
27	301	3.9	3.3	-2.0	288	4.0	3.8	-1.2	282	12.4	12.1	-2.5	268	25.9	25.9	0.7	265	41.1	40.9	3.9	254	43.5	41.7	12.3	265	35.0	34.9	2.8
28	304	0.7	0.6	-0.4	288	4.3	4.1	-1.3	287	10.2	9.8	-3.0	271	22.3	22.3	-0.4	255	37.9	36.7	9.5	269	44.7	44.7	1.0	269	33.2	33.2	0.8
29	276	3.8	3.8	-0.4	271	4.8	4.8	-0.1	273	11.3	11.3	-0.5	273	23.5	23.5	-1.3	275	37.3	37.2	-3.3	249	38.7	36.2	13.6	232	32.3	25.3	20.0
30	286	5.1	4.9	-1.4	289	7.1	6.7	-2.3	284	12.1	11.7	-3.0	280	24.0	23.7	-4.0	283	35.2	34.2	-8.2	266	40.7	40.6	2.6	261	47.8	47.2	7.3
31	306	3.1	2.5	-1.8	282	4.4	4.3	-0.9	277	9.7	9.6	-1.1	277	24.8	24.6	-2.9	267	36.9	36.8	2.0	266	37.8	37.7	2.4	262	31.0	30.7	4.4

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	347	1.3	0.3	-1.3	281	5.6	5.5	-1.1	281	10.4	10.2	-2.0	273	20.6	20.6	-1.2	271	35.6	35.6	-0.6	287	40.9	39.0	-12.2	286	28.3	27.2	-7.9
2	300	2.0	1.7	-1.0	285	5.3	5.1	-1.4	280	9.9	9.8	-1.7	277	21.0	20.9	-2.5	278	31.4	31.1	-4.3	283	33.4	32.5	-7.5	279	14.2	14.0	-2.2
3	292	2.4	2.2	-0.9	282	4.7	4.6	-1.0	278	11.3	11.2	-1.5	269	23.0	23.0	0.6	271	31.0	31.0	-0.7	266	40.7	40.6	2.9	270	30.6	30.6	-0.1
4	293	3.6	3.3	-1.4	291	5.7	5.3	-2.0	286	10.5	10.1	-2.9	275	22.4	22.3	-1.8	274	35.2	35.1	-2.7	276	40.6	40.4	-4.0	278	40.3	39.9	-5.4
5	297	2.8	2.5	-1.3	281	6.5	6.4	-1.3	282	12.5	12.2	-2.7	277	22.7	22.5	-2.8	279	34.4	34.0	-5.1	272	35.0	35.0	-1.2	288	18.0	17.1	-5.6
6	296	3.7	3.3	-1.6	270	5.4	5.4	0.0	277	11.8	11.7	-1.5	278	20.1	19.9	-2.8	278	32.4	32.1	-4.5	280	37.3	36.8	-6.3	271	25.2	25.2	-0.5
7	294	2.7	2.5	-1.1	281	4.4	4.3	-0.8	284	11.4	11.1	-2.8	281	17.4	17.1	-3.3	271	30.0	30.0	-0.5	267	51.9	51.8	2.3	261	31.1	30.7	5.0
8	291	3.1	2.9	-1.1	295	5.9	5.3	-2.5	288	11.4	10.9	-3.5	265	18.1	18.0	1.7	267	33.1	33.1	1.8	269	36.9	36.9	0.8	243	26.0	23.1	12.0
9	287	1.0	1.0	-0.3	274	4.5	4.5	-0.3	283	12.5	12.2	-2.9	275	21.6	21.5	-1.7	253	33.8	32.4	9.7	256	41.2	40.0	9.7	260	31.8	31.3	5.4
10	297	0.9	0.8	-0.4	288	4.5	4.3	-1.4	280	10.1	10.0	-1.7	278	20.0	19.8	-2.8	276	27.0	26.9	-2.6	258	39.9	39.0	8.2	264	32.9	32.7	3.6
11	319	2.3	1.5	-1.7	279	3.2	3.2	-0.5	276	8.3	8.3	-0.8	271	19.8	19.8	-0.3	274	32.8	32.7	-2.5	277	34.8	34.6	-4.1	245	25.0	22.7	10.4
12	302	3.4	2.9	-1.8	287	4.5	4.3	-1.3	289	9.5	9.0	-3.1	283	24.1	23.4	-5.6	277	39.2	38.9	-4.9	276	42.7	42.5	-4.3	257	29.3	28.6	6.5
13	294	4.8	4.4	-2.0	293	6.0	5.5	-2.3	284	11.1	10.8	-2.6	275	18.9	18.8	-1.8	262	36.6	36.3	4.9	278	45.4	44.9	-6.5	266	19.9	19.8	1.5
14	285	5.1	4.9	-1.3	287	5.6	5.4	-1.6	282	10.5	10.3	-2.1	270	23.3	23.3	-0.1	259	43.7	42.9	8.5	253	45.2	43.3	12.9	291	47.0	43.9	-16.8
15	299	3.5	3.1	-1.7	291	5.8	5.4	-2.1	289	12.0	11.4	-3.9	269	17.1	17.1	0.2	266	31.6	31.5	2.2	256	47.1	45.7	11.2	255	44.7	43.1	11.7
16	295	5.6	5.1	-2.4	284	7.5	7.3	-1.8	278	12.4	12.3	-1.7	270	20.7	20.7	-0.1	265	39.6	39.4	3.5	268	45.6	45.6	1.5	283	35.7	34.8	-7.9
17	296	8.0	7.2	-3.5	283	8.1	7.9	-1.8	276	12.9	12.8	-1.3	271	24.1	24.1	-0.4	271	44.8	44.8	-1.0	277	45.9	45.5	-5.8	274	41.4	41.3	-2.7
18	295	6.7	6.1	-2.8	287	6.1	5.8	-1.8	280	12.1	11.9	-2.0	268	24.4	24.4	1.0	270	49.4	49.4	-0.4	265	40.9	40.7	3.8	241	22.1	19.3	10.7
19	294	7.4	6.8	-3.0	290	10.8	10.1	-3.7	283	13.5	13.1	-3.1	275	22.2	22.1	-2.1	265	40.4	40.2	3.5	268	48.4	48.4	1.5	264	51.4	51.1	5.7
20	294	6.9	6.3	-2.8	290	9.2	8.7	-3.1	282	14.3	14.0	-3.1	273	22.3	22.3	-1.0	264	40.9	40.7	4.1	270	46.1	46.1	-0.3	260	46.6	45.9	7.8
21	279	4.6	4.5	-0.7	287	7.0	6.7	-2.0	272	10.6	10.6	-0.4	263	22.0	21.8	2.7	264	43.5	43.3	4.4	259	53.8	52.9	9.9	260	48.0	47.3	8.3
22	297	7.3	6.5	-3.3	286	8.0	7.7	-2.2	281	14.1	13.8	-2.7	272	22.3	22.3	-0.7	283	36.6	35.6	-8.4	282	38.8	38.0	-7.9	273	37.9	37.9	-1.7
23	300	8.7	7.6	-4.3	279	9.7	9.6	-1.6	279	14.9	14.7	-2.2	276	27.2	27.0	-3.0	263	45.3	45.0	5.2	257	40.8	39.7	9.3	263	35.0	34.8	4.1
24	286	4.0	3.8	-1.1	288	6.7	6.4	-2.1	281	12.2	12.0	-2.3	274	25.2	25.1	-1.9	277	37.8	37.5	-4.4	277	39.3	39.0	-4.5	277	48.0	47.6	-5.8
25	297	1.6	1.4	-0.7	280	6.3	6.2	-1.1	279	12.2	12.1	-1.9	273	26.0	26.0	-1.2	272	38.5	38.5	-1.6	249	29.4	27.5	10.4	284	10.0	9.7	-2.4
26	292	4.2	3.9	-1.6	285	8.0	7.7	-2.0	281	14.0	13.7	-2.7	272	23.2	23.2	-0.9	266	37.7	37.6	2.9	269	47.6	47.6	0.8	254	35.7	34.3	10.0
27	290	6.7	6.3	-2.3	288	7.1	6.8	-2.2	283	12.0	11.7	-2.8	276	23.7	23.6	-2.5	270	35.5	35.5	0.2	264	47.6	47.4	4.8	263	48.2	47.9	5.7
28	290	6.6	6.2	-2.2	282	7.4	7.2	-1.5	280	14.0	13.8	-2.4	275	24.0	23.9	-2.1	262	33.5	33.2	4.6	262	44.1	43.7	5.8	269	42.5	42.5	0.7
29	178	5.0	-0.2	5.0	301	7.1	6.1	-3.6	294	16.5	15.0	-6.8	285	31.2	30.1	-8.2	273	46.0	45.9	-2.4	—	—	—	—	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	299	4.9	4.3	-2.4	287	7.4	7.1	-2.2	283	13.6	13.3	-3.0	276	23.1	23.0	-2.5	269	30.1	30.1	0.4	258	38.1	37.3	7.8	262	40.2	39.8	5.8
2	290	4.4	4.1	-1.5	285	7.4	7.2	-1.9	289	12.8	12.1	-4.1	280	23.0	22.7	-3.8	274	33.6	33.5	-2.5	278	40.8	40.4	-5.6	265	43.8	43.6	3.8
3	294	3.2	2.9	-1.3	292	6.8	6.3	-2.5	290	13.0	12.2	-4.4	284	21.1	20.5	-5.1	284	36.8	35.8	-8.7	273	45.4	45.3	-2.3	278	47.0	46.5	-6.7
4	294	6.1	5.6	-2.5	295	7.3	6.6	-3.1	289	10.9	10.3	-3.5	282	22.8	22.3	-4.8	280	29.1	28.6	-5.2	272	35.8	35.8	-1.1	263	30.2	30.0	3.8
5	302	7.5	6.3	-4.0	293	7.3	6.7	-2.9	285	11.9	11.5	-3.1	278	20.7	20.5	-3.0	280	32.2	31.7	-5.6	283	39.6	38.5	-9.1	243	23.7	21.1	10.7
6	300	8.6	7.5	-4.3	290	10.4	9.8	-3.5	286	14.2	13.7	-3.9	280	22.3	22.0	-3.7	270	30.4	30.4	0.0	265	34.6	34.4	3.3	259	37.4	36.7	7.3
7	293	9.0	8.3	-3.6	290	9.6	9.0	-3.2	280	14.3	14.1	-2.4	278	21.4	21.2	-2.9	272	33.4	33.4	-1.1	273	38.8	38.7	-2.2	278	39.8	39.4	-5.3
8	292	11.6	10.7	-4.4	288	11.9	11.3	-3.7	285	15.8	15.2	-4.2	282	22.7	22.2	-4.8	271	30.4	30.4	-0.6	270	35.0	35.0	0.2	272	44.2	44.2	-1.5
9	294	10.7	9.8	-4.3	289	10.0	9.4	-3.3	282	14.2	13.9	-3.0	276	19.2	19.1	-2.1	265	28.4	28.3	2.7	267	38.0	37.9	2.0	271	34.6	34.6	-0.8
10	296	7.0	6.3	-3.1	289	9.6	9.1	-3.1	283	14.5	14.1	-3.2	280	20.5	20.2	-3.4	275	30.0	29.9	-2.7	268	41.1	41.1	1.4	258	35.1	34.4	7.0
11	297	6.9	6.2	-3.1	290	8.5	8.0	-2.9	284	12.6	12.2	-3.1	274	19.1	19.1	-1.3	261	30.3	29.9	4.7	277	33.5	33.2	-4.3	279	43.1	42.6	-6.8
12	306	3.7	3.0	-2.2	287	7.7	7.3	-2.3	287	13.7	13.1	-4.0	277	20.8	20.6	-2.5	277	33.5	33.2	-4.3	278	37.1	36.8	-5.0	265	26.8	26.7	2.2
13	310	6.9	5.3	-4.4	294	9.2	8.4	-3.7	280	13.9	13.7	-2.5	275	20.9	20.8	-1.7	271	31.3	31.3	-0.4	278	40.0	39.6	-5.8	279	29.8	29.5	-4.5
14	289	7.2	6.8	-2.4	284	10.1	9.8	-2.5	282	14.2	13.9	-2.9	279	17.9	17.7	-2.8	273	31.5	31.5	-1.6	268	40.3	40.3	1.7	270	20.2	20.2	0.0
15	296	8.6	7.7	-3.8	292	8.6	8.0	-3.2	280	15.2	15.0	-2.6	277	22.7	22.5	-2.9	281	33.7	33.1	-6.3	274	45.2	45.1	-3.4	266	27.4	27.3	2.0
16	291	10.9	10.2	-3.9	290	10.7	10.0	-3.7	281	15.1	14.8	-3.0	283	22.6	22.0	-5.1	275	33.0	32.9	-3.1	274	35.7	35.6	-2.3	272	35.2	35.2	-1.5
17	287	10.3	9.9	-3.0	291	10.5	9.8	-3.7	284	14.3	13.9	-3.5	279	21.9	21.7	-3.3	275	32.9	32.8	-2.7	268	40.5	40.5	1.5	277	40.8	40.5	-4.8
18	294	7.3	6.7	-3.0	291	9.3	8.7	-3.4	283	14.2	13.8	-3.3	274	20.8	20.7	-1.6	266	30.6	30.5	2.1	267	43.4	43.3	2.2	285	51.6	49.8	-13.4
19	301	8.2	7.1	-4.2	290	10.7	10.1	-3.6	283	15.0	14.6	-3.4	277	20.4	20.2	-2.5	275	33.4	33.3	-2.9	275	34.3	34.2	-2.8	275	30.5	30.4	-2.7
20	299	10.6	9.2	-5.2	288	11.4	10.8	-3.5	281	15.9	15.6	-3.1	276	20.9	20.8	-2.2	267	33.9	33.9	1.5	272	40.9	40.9	-1.5	268	26.3	26.3	1.0
21	295	8.6	7.8	-3.7	293	10.6	9.8	-4.1	287	15.2	14.5	-4.4	280	23.4	23.1	-4.0	274	31.1	31.0	-2.0	274	42.9	42.8	-2.8	294	22.6	20.6	-9.3
22	292	5.3	4.9	-2.0	285	8.3	8.0	-2.2	285	14.3	13.8	-3.6	278	21.1	20.9	-2.9	276	36.0	35.8	-4.0	277	40.8	40.5	-5.3	291	39.5	36.9	-14.2
23	293	6.3	5.8	-2.5	295	7.3	6.6	-3.1	277	13.2	13.1	-1.6	276	22.4	22.3	-2.2	273	29.4	29.4	-1.4	278	36.9	36.5	-5.3	265	9.4	9.4	0.8
24	306	7.4	6.0	-4.3	289	8.3	7.8	-2.7	274	12.9	12.9	-1.0	261	21.4	21.2	3.2	271	32.4	32.4	-0.4	273	38.6	38.6	-1.8	267	22.1	22.1	1.1
25	303	6.8	5.7	-3.7	297	8.5	7.6	-3.8	289	12.5	11.8	-4.1	285	14.7	14.2	-3.7	271	30.1	30.1	-0.4	266	30.0	29.9	1.9	256	31.1	30.2	7.4
26	300	4.0	3.5	-2.0	288	6.1	5.8	-1.9	273	11.3	11.3	-0.5	270	18.6	18.6	0.0	269	30.2	30.2	0.7	265	35.1	34.9	3.3	281	24.9	24.5	-4.7
27	321	3.3	2.1	-2.6	296	6.9	6.2	-3.0	283	11.7	11.4	-2.7	280	17.2	17.0	-2.9	273	24.5	24.5	-1.4	278	30.9	30.6	-4.1	293	34.2	31.6	-13.1
28	306	5.4	4.4	-3.2	292	5.7	5.3	-2.1	294	12.2	11.2	-4.9	290	17.0	16.0	-5.7	285	25.3	24.4	-6.6	276	31.5	31.3	-3.4	279	26.2	25.9	-3.9
29	252	1.3	1.2	0.4	287	4.8	4.6	-1.4	286	11.8	11.4	-3.2	288	17.7	16.8	-5.6	280	22.8	22.4	-4.1	287	28.5	27.3	-8.2	271	33.2	33.2	-0.4
30	332	1.7	0.8	-1.5	287	4.2	4.0	-1.2	290	13.7	12.9	-4.6	275	20.2	20.1	-1.9	279	29.8	29.4	-4.6	281	29.8	29.3	-5.5	271	29.8	29.8	-0.6
31	281	4.6	4.5	-0.9	291	8.5	7.9	-3.0	291	12.5	11.7	-4.4	282	20.2	19.8	-4.1	281	24.8	24.3	-4.7	273	30.8	30.8	-1.7	261	27.9	27.5	4.6

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	304	6.4	5.3	-3.6	292	9.7	9.0	-3.6	281	16.2	15.9	-3.1	276	21.8	21.7	-2.1	274	31.3	31.2	-2.3	262	30.6	30.3	4.1	261	28.1	27.8	4.4
2	303	8.0	6.7	-4.3	285	12.2	11.8	-3.1	279	16.7	16.5	-2.5	270	18.9	18.9	0.0	266	27.6	27.5	1.8	266	35.4	35.3	2.6	270	23.8	23.8	-0.2
3	297	5.4	4.8	-2.4	291	10.2	9.5	-3.6	284	13.1	12.7	-3.2	272	19.4	19.4	-0.6	267	30.9	30.9	1.4	266	29.2	29.1	2.0	272	38.6	38.6	-1.4
4	306	6.8	5.5	-4.0	293	9.6	8.8	-3.8	282	13.9	13.6	-3.0	274	19.5	19.4	-1.5	271	31.4	31.4	-0.3	263	43.5	43.2	5.5	271	30.0	30.0	-0.7
5	302	6.5	5.5	-3.5	292	10.9	10.1	-4.0	278	14.8	14.7	-2.0	274	21.0	20.9	-1.6	267	31.0	31.0	1.5	264	35.8	35.6	3.8	272	30.4	30.4	-1.2
6	300	7.6	6.6	-3.8	291	10.1	9.4	-3.7	284	15.4	15.0	-3.7	278	20.8	20.6	-3.0	272	28.9	28.9	-0.8	262	35.0	34.7	4.7	267	24.9	24.9	1.3
7	290	7.9	7.4	-2.7	287	9.7	9.3	-2.9	289	14.4	13.6	-4.7	282	19.9	19.5	-4.1	277	27.0	26.8	-3.3	269	32.7	32.7	0.4	252	27.7	26.4	8.4
8	293	6.1	5.6	-2.4	288	8.8	8.4	-2.7	289	15.6	14.8	-5.0	282	19.6	19.1	-4.2	265	28.4	28.3	2.6	258	36.5	35.7	7.4	246	36.4	33.2	15.0
9	328	1.9	1.0	-1.6	281	4.2	4.1	-0.8	284	13.0	12.6	-3.1	280	18.3	18.0	-3.1	272	25.7	25.7	-0.8	257	30.5	29.7	7.1	259	35.6	35.0	6.5
10	296	3.7	3.3	-1.6	291	7.6	7.1	-2.7	285	12.6	12.2	-3.3	276	18.3	18.2	-1.9	254	28.3	27.2	7.7	253	33.4	31.9	9.9	241	19.1	16.7	9.2
11	310	4.0	3.1	-2.6	288	8.0	7.6	-2.5	282	12.8	12.5	-2.6	275	17.3	17.2	-1.4	262	23.6	23.4	3.1	266	27.8	27.7	1.7	252	24.9	23.6	7.8
12	263	4.3	4.3	0.5	290	9.0	8.4	-3.1	289	13.7	12.9	-4.5	281	18.4	18.1	-3.5	272	22.0	22.0	-0.9	269	27.7	27.7	0.5	259	27.9	27.4	5.3
13	294	3.9	3.6	-1.6	298	8.2	7.2	-3.9	287	14.8	14.1	-4.4	282	17.9	17.5	-3.7	268	22.9	22.9	0.7	262	27.4	27.1	3.9	269	25.5	25.5	0.6
14	315	4.8	3.4	-3.4	293	8.8	8.1	-3.4	283	13.6	13.2	-3.1	278	19.4	19.2	-2.7	273	25.7	25.7	-1.3	265	29.8	29.7	2.4	259	31.5	30.9	6.0
15	300	6.8	5.9	-3.4	287	8.7	8.3	-2.5	279	12.0	11.8	-1.9	277	15.2	15.1	-1.9	265	24.7	24.6	2.1	255	32.2	31.1	8.3	261	17.9	17.7	2.9
16	286	5.9	5.7	-1.6	281	10.1	9.9	-1.9	282	12.9	12.6	-2.7	276	17.0	16.9	-1.9	265	25.8	25.7	2.4	262	36.0	35.6	5.2	253	23.1	22.1	6.8
17	282	5.1	5.0	-1.1	290	8.1	7.6	-2.7	283	11.5	11.2	-2.5	280	16.0	15.8	-2.8	268	24.1	24.1	0.9	264	27.6	27.5	2.7	249	17.4	16.3	6.2
18	293	4.3	4.0	-1.7	292	6.6	6.1	-2.5	288	12.0	11.4	-3.8	281	17.9	17.6	-3.5	276	26.9	26.8	-2.7	267	32.9	32.8	2.0	246	13.3	12.2	5.4
19	289	3.7	3.5	-1.2	297	7.7	6.9	-3.5	289	14.0	13.2	-4.6	282	16.7	16.3	-3.4	271	24.3	24.3	-0.4	264	29.1	28.9	3.1	261	20.5	20.2	3.3
20	324	3.4	2.0	-2.8	300	8.6	7.5	-4.3	288	12.8	12.2	-4.0	285	18.9	18.3	-4.9	273	22.1	22.1	-1.0	262	31.1	30.8	4.3	267	25.0	25.0	1.5
21	315	1.1	0.8	-0.8	299	6.0	5.3	-2.9	290	12.3	11.6	-4.2	283	14.1	13.7	-3.2	275	20.9	20.8	-1.8	262	26.0	25.7	3.6	263	18.6	18.4	2.4
22	98	0.7	-0.7	0.1	289	5.9	5.6	-1.9	286	10.5	10.1	-2.9	274	15.3	15.3	-1.1	260	19.4	19.1	3.4	255	26.7	25.8	6.8	257	24.3	23.7	5.5
23	275	1.1	1.1	-0.1	288	6.2	5.9	-1.9	286	11.4	11.0	-3.1	274	15.4	15.4	-1.1	262	19.8	19.6	2.9	262	25.7	25.5	3.4	265	20.2	20.1	1.8
24	333	1.6	0.7	-1.4	295	5.2	4.7	-2.2	284	13.9	13.5	-3.3	275	15.9	15.8	-1.4	267	19.8	19.8	1.1	266	26.5	26.4	1.8	269	19.8	19.8	0.4
25	300	1.4	1.2	-0.7	283	3.7	3.6	-0.8	290	13.1	12.3	-4.4	286	14.1	13.6	-3.9	267	16.8	16.8	0.9	267	23.8	23.8	1.4	267	15.5	15.5	0.7
26	86	1.4	-1.4	-0.1	265	2.1	2.1	0.2	286	10.6	10.2	-3.0	291	15.8	14.7	-5.7	273	20.0	20.0	-1.2	268	23.0	23.0	1.0	259	23.4	22.9	4.6
27	16	0.7	-0.2	-0.7	290	3.2	3.0	-1.1	283	11.6	11.3	-2.6	289	16.1	15.2	-5.2	280	20.1	19.8	-3.5	269	25.0	25.0	0.5	262	14.6	14.5	2.0
28	98	4.2	-4.2	0.6	333	2.2	1.0	-2.0	296	11.6	10.4	-5.1	286	15.3	14.7	-4.2	277	15.6	15.5	-2.0	275	21.5	21.4	-2.0	265	18.5	18.4	1.7
29	130	0.8	-0.6	0.5	289	3.4	3.2	-1.1	291	10.3	9.6	-3.7	286	14.1	13.5	-3.9	278	19.0	18.8	-2.8	266	24.0	23.9	1.7	266	16.4	16.4	1.2
30	129	2.7	-2.1	1.7	268	2.3	2.3	0.1	286	10.9	10.5	-3.0	290	14.0	13.1	-4.8	282	21.6	21.1	-4.5	272	26.1	26.1	-0.7	255	12.0	11.6	3.1

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	126	2.4	-1.9	1.4	286	1.5	1.4	-0.4	294	13.6	12.4	-5.5	290	16.0	15.1	-5.4	272	18.4	18.4	-0.7	264	27.9	27.7	3.1	241	15.0	13.2	7.2
2	145	1.9	-1.1	1.6	274	3.2	3.2	-0.2	294	11.0	10.0	-4.5	286	12.0	11.5	-3.3	265	18.7	18.6	1.5	258	25.9	25.4	5.3	259	18.1	17.7	3.6
3	126	1.4	-1.1	0.8	297	3.9	3.5	-1.8	287	12.1	11.6	-3.6	276	13.3	13.2	-1.3	261	16.2	16.0	2.5	247	23.9	22.0	9.4	243	15.4	13.7	7.0
4	360	0.1	0.0	-0.1	297	5.7	5.1	-2.6	295	12.8	11.6	-5.4	281	14.1	13.8	-2.8	265	16.9	16.8	1.6	259	25.2	24.7	4.9	249	13.8	12.9	5.0
5	63	0.7	-0.6	-0.3	288	5.2	5.0	-1.6	287	8.5	8.1	-2.5	285	11.4	11.0	-3.0	266	22.3	22.2	1.6	261	29.6	29.2	4.8	271	17.1	17.1	-0.4
6	322	1.6	1.0	-1.3	291	4.5	4.2	-1.6	292	12.7	11.8	-4.7	289	14.5	13.7	-4.6	273	20.2	20.2	-0.9	263	24.7	24.5	2.9	249	20.9	19.5	7.5
7	156	1.7	-0.7	1.6	252	2.0	1.9	0.6	288	9.8	9.3	-3.0	289	14.9	14.1	-4.9	274	17.4	17.4	-1.1	270	24.7	24.7	0.0	259	16.9	16.6	3.3
8	96	1.9	-1.9	0.2	309	4.0	3.1	-2.5	287	10.7	10.2	-3.1	283	11.9	11.6	-2.6	276	18.6	18.5	-1.9	265	27.2	27.1	2.2	272	18.8	18.8	-0.5
9	100	4.6	-4.5	0.8	287	3.0	2.9	-0.9	290	9.8	9.2	-3.4	274	13.2	13.2	-0.9	258	14.8	14.5	3.1	267	23.1	23.1	1.3	280	14.4	14.2	-2.6
10	248	1.1	1.0	0.4	297	5.1	4.6	-2.3	289	10.2	9.7	-3.3	280	12.8	12.6	-2.2	266	17.9	17.8	1.4	264	23.9	23.8	2.6	276	11.2	11.1	-1.1
11	34	2.2	-1.2	-1.8	301	3.9	3.3	-2.0	297	10.3	9.2	-4.7	283	13.1	12.8	-2.9	262	22.6	22.4	3.0	261	24.6	24.3	3.9	260	10.6	10.4	1.8
12	293	2.8	2.6	-1.1	299	6.0	5.3	-2.9	291	13.0	12.2	-4.6	282	13.9	13.6	-2.8	271	20.4	20.4	-0.3	261	19.6	19.4	3.0	255	12.8	12.3	3.4
13	180	0.3	0.0	0.3	281	3.6	3.5	-0.7	286	9.2	8.9	-2.5	284	12.9	12.5	-3.1	269	20.4	20.4	0.2	263	23.6	23.4	3.0	267	11.4	11.4	0.6
14	34	0.4	-0.2	-0.3	288	4.2	4.0	-1.3	294	10.9	10.0	-4.4	275	12.1	12.0	-1.1	266	18.5	18.5	1.2	262	23.0	22.8	3.1	240	17.3	14.9	8.7
15	38	1.8	-1.1	-1.4	263	3.1	3.1	0.4	289	10.2	9.6	-3.3	279	13.8	13.6	-2.1	264	19.5	19.4	2.0	265	22.5	22.4	2.1	266	12.8	12.8	1.0
16	104	2.1	-2.0	0.5	308	2.4	1.9	-1.5	294	11.7	10.7	-4.8	284	13.7	13.3	-3.2	268	18.8	18.8	0.6	265	21.2	21.1	1.7	267	11.8	11.8	0.7
17	121	3.9	-3.3	2.0	268	3.4	3.4	0.1	286	13.1	12.6	-3.7	290	12.1	11.4	-4.1	263	18.9	18.8	2.2	259	23.4	23.0	4.4	275	11.8	11.8	-1.0
18	79	1.6	-1.6	-0.3	249	1.7	1.6	0.6	293	11.6	10.6	-4.6	280	12.2	12.0	-2.2	270	17.8	17.8	-0.1	269	20.7	20.7	0.2	260	10.4	10.2	1.8
19	149	1.7	-0.9	1.5	304	1.4	1.2	-0.8	296	10.6	9.6	-4.6	289	13.5	12.8	-4.3	265	20.9	20.8	2.0	258	20.7	20.2	4.4	252	7.7	7.3	2.4
20	117	3.5	-3.1	1.6	278	1.4	1.4	-0.2	297	10.1	9.0	-4.6	285	12.7	12.3	-3.3	265	16.0	15.9	1.3	254	21.9	21.0	6.1	251	11.5	10.9	3.8
21	66	1.0	-0.9	-0.4	307	2.6	2.1	-1.6	290	10.5	9.9	-3.6	287	10.5	10.1	-3.0	263	16.3	16.2	2.0	244	19.5	17.5	8.6	252	10.8	10.3	3.3
22	110	2.0	-1.9	0.7	283	3.9	3.8	-0.9	291	9.8	9.2	-3.5	291	12.1	11.3	-4.4	266	14.6	14.6	1.1	265	16.9	16.8	1.5	235	8.6	7.1	4.9
23	108	3.8	-3.6	1.2	273	2.2	2.2	-0.1	290	9.4	8.8	-3.2	284	12.0	11.6	-2.9	272	12.1	12.1	-0.4	260	15.0	14.8	2.5	257	10.1	9.8	2.3
24	122	3.1	-2.6	1.6	270	3.0	3.0	0.0	293	10.6	9.7	-4.2	301	9.0	7.7	-4.6	278	12.4	12.3	-1.8	255	15.1	14.6	3.9	254	11.9	11.4	3.3
25	56	1.8	-1.5	-1.0	303	3.0	2.5	-1.6	294	11.0	10.1	-4.4	290	9.6	9.0	-3.3	265	12.7	12.7	1.1	253	15.1	14.4	4.5	243	10.7	9.6	4.8
26	53	2.5	-2.0	-1.5	330	1.4	0.7	-1.2	305	9.4	7.7	-5.4	304	10.7	8.9	-5.9	281	10.2	10.0	-1.9	263	13.5	13.4	1.6	226	11.7	8.4	8.1
27	114	2.4	-2.2	1.0	292	2.4	2.2	-0.9	289	8.7	8.2	-2.9	290	11.5	10.8	-4.0	276	13.9	13.8	-1.4	261	15.6	15.4	2.4	234	10.4	8.4	6.1
28	153	2.0	-0.9	1.8	281	4.3	4.2	-0.8	298	11.5	10.2	-5.4	290	11.4	10.7	-3.8	268	12.8	12.8	0.4	259	20.7	20.3	3.8	246	9.5	8.7	3.8
29	121	4.8	-4.1	2.5	240	2.0	1.7	1.0	294	10.2	9.3	-4.2	290	12.3	11.6	-4.2	264	15.4	15.3	1.6	238	20.1	17.1	10.5	230	11.9	9.2	7.6
30	246	1.2	1.1	0.5	294	3.2	2.9	-1.3	299	9.5	8.3	-4.6	284	13.5	13.1	-3.3	267	16.7	16.7	0.8	265	15.6	15.5	1.4	244	8.3	7.5	3.6
31	108	2.0	-1.9	0.6	263	1.7	1.7	0.2	297	10.0	8.9	-4.5	289	12.7	12.0	-4.1	252	14.5	13.8	4.5	241	19.2	16.7	9.4	236	7.6	6.3	4.3

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	343	1.7	0.5	-1.6	292	4.8	4.5	-1.8	291	9.6	9.0	-3.4	278	9.7	9.6	-1.4	251	12.7	12.0	4.2	248	18.3	16.9	6.9	234	9.1	7.3	5.4
2	270	1.1	1.1	0.0	286	2.6	2.5	-0.7	292	9.8	9.1	-3.6	282	11.2	10.9	-2.4	256	13.8	13.4	3.4	243	16.1	14.3	7.4	234	8.4	6.8	4.9
3	120	1.6	-1.4	0.8	263	1.6	1.6	0.2	296	7.5	6.7	-3.3	285	9.9	9.6	-2.5	257	15.1	14.7	3.4	249	16.8	15.6	6.1	213	8.0	4.4	6.7
4	94	2.8	-2.8	0.2	318	1.5	1.0	-1.1	298	7.6	6.7	-3.5	288	10.6	10.1	-3.3	255	14.4	13.9	3.6	248	15.8	14.7	5.9	239	9.4	8.0	4.9
5	106	3.5	-3.4	1.0	10	1.1	-0.2	-1.1	286	7.4	7.1	-2.1	276	10.7	10.6	-1.2	250	15.8	14.8	5.5	245	13.9	12.6	5.8	236	7.9	6.6	4.4
6	86	2.6	-2.6	-0.2	240	0.8	0.7	0.4	283	7.7	7.5	-1.8	286	7.7	7.4	-2.1	251	13.0	12.3	4.2	250	13.1	12.3	4.5	251	3.1	2.9	1.0
7	94	3.1	-3.1	0.2	270	2.0	2.0	0.0	290	6.3	5.9	-2.2	290	6.6	6.2	-2.3	269	10.4	10.4	0.1	250	12.6	11.8	4.4	231	3.2	2.5	2.0
8	110	3.5	-3.3	1.2	221	0.9	0.6	0.7	303	7.8	6.5	-4.3	278	7.5	7.4	-1.0	275	11.0	11.0	-0.9	261	10.0	9.9	1.6	246	1.2	1.1	0.5
9	64	2.8	-2.5	-1.2	250	1.2	1.1	0.4	294	6.4	5.8	-2.6	267	6.3	6.3	0.3	264	7.8	7.8	0.8	260	11.8	11.6	2.0	81	0.6	-0.6	-0.1
10	85	3.4	-3.4	-0.3	270	1.8	1.8	0.0	287	6.2	5.9	-1.8	267	5.6	5.6	0.3	275	6.7	6.7	-0.6	263	4.9	4.9	0.6	34	1.1	-0.6	-0.9
11	107	4.5	-4.3	1.3	113	3.4	-3.1	1.3	293	3.8	3.5	-1.5	293	4.0	3.7	-1.6	270	6.1	6.1	0.0	263	6.0	6.0	0.7	158	1.6	-0.6	1.5
12	107	3.4	-3.3	1.0	131	2.1	-1.6	1.4	309	3.6	2.8	-2.3	281	2.1	2.1	-0.4	260	5.2	5.1	0.9	227	5.2	3.8	3.6	143	2.0	-1.2	1.6
13	105	3.8	-3.7	1.0	231	0.6	0.5	0.4	284	5.5	5.3	-1.3	287	5.9	5.7	-1.7	254	4.6	4.4	1.3	204	6.2	2.5	5.7	25	1.7	-0.7	-1.5
14	120	5.4	-4.7	2.7	231	0.6	0.5	0.4	307	5.8	4.6	-3.5	295	4.4	4.0	-1.9	244	4.3	3.9	1.9	242	5.2	4.6	2.4	85	2.3	-2.3	-0.2
15	114	6.1	-5.6	2.5	99	1.2	-1.2	0.2	317	5.7	3.9	-4.2	283	4.5	4.4	-1.0	252	4.7	4.5	1.5	265	4.8	4.8	0.4	85	3.2	-3.2	-0.3
16	111	5.6	-5.2	2.0	157	0.8	-0.3	0.7	300	4.0	3.5	-2.0	211	1.2	0.6	1.0	245	2.6	2.4	1.1	247	2.1	1.9	0.8	81	4.5	-4.4	-0.7
17	117	4.2	-3.8	1.9	126	3.1	-2.5	1.8	360	1.1	0.0	-1.1	217	1.5	0.9	1.2	207	2.9	1.3	2.6	177	3.8	-0.2	3.8	86	5.9	-5.9	-0.4
18	96	3.9	-3.9	0.4	148	1.5	-0.8	1.3	298	3.4	3.0	-1.6	271	4.2	4.2	-0.1	243	3.9	3.5	1.8	231	3.3	2.6	2.1	90	3.2	-3.2	0.0
19	87	5.2	-5.2	-0.3	90	0.7	-0.7	0.0	297	2.8	2.5	-1.3	258	2.4	2.3	0.5	252	3.9	3.7	1.2	262	1.4	1.4	0.2	93	4.2	-4.2	0.2
20	113	4.6	-4.2	1.8	203	1.3	0.5	1.2	281	3.2	3.1	-0.6	250	2.3	2.2	0.8	216	3.9	2.3	3.2	234	4.1	3.3	2.4	88	5.0	-5.0	-0.2
21	123	3.0	-2.5	1.6	151	1.3	-0.6	1.1	294	2.7	2.5	-1.1	235	2.9	2.4	1.7	258	3.3	3.2	0.7	237	4.4	3.7	2.4	92	2.3	-2.3	0.1
22	97	3.1	-3.1	0.4	101	1.6	-1.6	0.3	299	2.9	2.5	-1.4	114	1.0	-0.9	0.4	94	1.4	-1.4	0.1	84	1.9	-1.9	-0.2	48	4.6	-3.4	-3.1
23	114	4.3	-3.9	1.7	117	0.9	-0.8	0.4	319	3.0	2.0	-2.3	103	0.9	-0.9	0.2	82	2.2	-2.2	-0.3	90	1.6	-1.6	0.0	70	8.3	-7.8	-2.8
24	106	2.5	-2.4	0.7	121	1.2	-1.0	0.6	311	3.7	2.8	-2.4	248	1.8	1.7	0.7	162	0.6	-0.2	0.6	133	1.6	-1.2	1.1	112	8.1	-7.5	3.0
25	124	0.4	-0.3	0.2	180	0.4	0.0	0.4	309	3.8	3.0	-2.4	256	2.1	2.0	0.5	153	0.2	-0.1	0.2	187	2.3	0.3	2.3	97	8.1	-8.0	1.0
26	94	2.8	-2.8	0.2	93	1.9	-1.9	0.1	297	1.1	1.0	-0.5	45	1.1	-0.8	-0.8	102	2.4	-2.3	0.5	117	5.9	-5.2	2.7	55	10.2	-8.3	-5.9
27	104	7.1	-6.9	1.7	123	3.7	-3.1	2.0	34	0.7	-0.4	-0.6	193	0.9	0.2	0.9	175	2.5	-0.2	2.5	160	2.0	-0.7	1.9	60	6.7	-5.8	-3.4
28	105	5.9	-5.7	1.5	117	5.1	-4.5	2.3	357	1.8	0.1	-1.8	143	2.0	-1.2	1.6	171	2.6	-0.4	2.6	156	2.4	-1.0	2.2	77	6.5	-6.3	-1.4
29	101	7.5	-7.4	1.4	95	4.2	-4.2	0.4	355	2.2	0.2	-2.2	323	1.5	0.9	-1.2	192	1.4	0.3	1.4	166	1.2	-0.3	1.2	53	8.0	-6.4	-4.8
30	103	3.5	-3.4	0.8	133	2.5	-1.8	1.7	311	2.3	1.7	-1.5	315	1.0	0.7	-0.7	153	0.9	-0.4	0.8	119	2.9	-2.5	1.4	65	7.5	-6.8	-3.2

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	160	1.5	-0.5	1.4	305	1.2	1.0	-0.7	307	3.4	2.7	-2.0	106	0.7	-0.7	0.2	157	1.5	-0.6	1.4	124	3.2	-2.7	1.8	69	6.9	-6.4	-2.5
2	357	1.8	0.1	-1.8	274	3.2	3.2	-0.2	300	5.0	4.3	-2.5	292	2.4	2.2	-0.9	129	2.6	-2.0	1.6	114	4.3	-3.9	1.7	63	6.4	-5.7	-2.9
3	148	3.4	-1.8	2.9	231	2.2	1.7	1.4	298	3.2	2.8	-1.5	325	2.1	1.2	-1.7	128	3.1	-2.4	1.9	93	4.3	-4.3	0.2	79	10.9	-10.7	-2.1
4	126	3.4	-2.8	2.0	259	2.0	2.0	0.4	304	3.4	2.8	-1.9	300	0.8	0.7	-0.4	133	1.6	-1.2	1.1	94	4.3	-4.3	0.3	65	9.8	-8.9	-4.2
5	107	3.4	-3.2	1.0	280	2.3	2.3	-0.4	294	5.6	5.1	-2.3	293	3.8	3.5	-1.5	315	0.4	0.3	-0.3	43	1.6	-1.1	-1.2	74	12.9	-12.4	-3.5
6	150	2.2	-1.1	1.9	225	0.1	0.1	0.1	320	2.6	1.7	-2.0	328	1.5	0.8	-1.3	106	4.3	-4.1	1.2	121	8.2	-7.0	4.2	67	16.0	-14.7	-6.3
7	113	3.4	-3.1	1.3	175	1.1	-0.1	1.1	268	3.2	3.2	0.1	175	2.2	-0.2	2.2	132	3.1	-2.3	2.1	95	3.8	-3.8	0.3	69	11.0	-10.3	-4.0
8	120	4.4	-3.8	2.2	117	2.8	-2.5	1.3	270	0.2	0.2	0.0	158	2.4	-0.9	2.2	107	5.6	-5.4	1.6	95	4.9	-4.9	0.4	64	10.2	-9.1	-4.5
9	81	1.3	-1.3	-0.2	139	2.0	-1.3	1.5	197	1.4	0.4	1.3	139	2.0	-1.3	1.5	103	1.7	-1.7	0.4	82	6.7	-6.6	-0.9	58	11.0	-9.3	-5.8
10	142	1.6	-1.0	1.3	177	2.0	-0.1	2.0	293	0.8	0.7	-0.3	45	0.6	-0.4	-0.4	102	2.4	-2.3	0.5	76	3.6	-3.5	-0.9	67	11.4	-10.5	-4.5
11	116	5.5	-4.9	2.4	116	3.9	-3.5	1.7	101	2.0	-2.0	0.4	126	2.2	-1.8	1.3	143	3.0	-1.8	2.4	115	1.7	-1.5	0.7	47	12.3	-9.0	-8.4
12	86	6.8	-6.8	-0.5	97	6.4	-6.3	0.8	87	4.5	-4.5	-0.2	122	4.6	-3.9	2.4	104	4.2	-4.1	1.0	85	4.8	-4.8	-0.4	73	13.3	-12.7	-4.0
13	120	3.8	-3.3	1.9	116	5.0	-4.5	2.2	108	2.5	-2.4	0.8	117	2.7	-2.4	1.2	95	5.8	-5.8	0.5	86	5.4	-5.4	-0.4	75	10.2	-9.8	-2.7
14	96	4.5	-4.5	0.5	127	3.0	-2.4	1.8	148	0.9	-0.5	0.8	135	1.3	-0.9	0.9	99	4.3	-4.2	0.7	53	3.0	-2.4	-1.8	74	11.9	-11.5	-3.2
15	106	5.2	-5.0	1.4	120	3.8	-3.3	1.9	116	2.5	-2.3	1.1	150	1.4	-0.7	1.2	104	4.5	-4.4	1.1	93	6.6	-6.6	0.4	69	10.7	-10.0	-3.9
16	100	5.3	-5.2	0.9	104	4.2	-4.1	1.0	93	3.7	-3.7	0.2	91	3.9	-3.9	0.1	95	6.4	-6.4	0.6	77	7.9	-7.7	-1.8	68	14.7	-13.6	-5.5
17	112	4.5	-4.2	1.7	109	3.9	-3.7	1.3	130	3.3	-2.5	2.1	23	0.8	-0.3	-0.7	84	7.1	-7.1	-0.7	85	8.6	-8.6	-0.8	78	15.3	-14.9	-3.3
18	103	4.5	-4.4	1.0	105	4.6	-4.4	1.2	111	2.5	-2.3	0.9	112	2.7	-2.5	1.0	96	4.0	-4.0	0.4	78	6.9	-6.8	-1.4	72	8.6	-8.2	-2.7
19	87	5.1	-5.1	-0.3	110	5.6	-5.3	1.9	99	5.0	-4.9	0.8	101	2.6	-2.6	0.5	85	5.3	-5.3	-0.5	67	9.6	-8.8	-3.8	67	12.1	-11.2	-4.7
20	101	3.3	-3.2	0.6	108	5.4	-5.1	1.7	103	4.0	-3.9	0.9	96	3.1	-3.1	0.3	88	4.9	-4.9	-0.2	70	6.9	-6.5	-2.4	64	14.4	-13.0	-6.3
21	95	3.7	-3.7	0.3	103	6.2	-6.0	1.4	106	4.3	-4.1	1.2	97	4.0	-4.0	0.5	71	5.9	-5.6	-1.9	74	7.4	-7.1	-2.0	66	13.5	-12.3	-5.5
22	116	3.2	-2.9	1.4	103	4.4	-4.3	1.0	95	4.2	-4.2	0.4	83	4.1	-4.1	-0.5	85	7.6	-7.6	-0.6	80	11.1	-10.9	-1.9	62	14.0	-12.4	-6.5
23	45	0.6	-0.4	-0.4	96	3.9	-3.9	0.4	81	4.6	-4.5	-0.7	84	4.5	-4.5	-0.5	85	4.9	-4.9	-0.4	77	8.7	-8.5	-1.9	77	15.6	-15.2	-3.6
24	104	0.8	-0.8	0.2	91	4.0	-4.0	0.1	102	3.9	-3.8	0.8	95	3.2	-3.2	0.3	92	6.7	-6.7	0.2	79	10.0	-9.8	-1.9	87	14.3	-14.3	-0.8
25	107	4.4	-4.2	1.3	126	5.2	-4.2	3.0	129	3.3	-2.6	2.1	160	1.5	-0.5	1.4	99	7.8	-7.7	1.2	75	13.9	-13.5	-3.5	86	15.2	-15.2	-1.0
26	102	2.9	-2.8	0.6	57	2.4	-2.0	-1.3	138	2.5	-1.7	1.9	146	3.0	-1.7	2.5	81	4.3	-4.2	-0.7	75	7.6	-7.3	-2.0	78	13.2	-12.9	-2.7
27	106	4.0	-3.8	1.1	119	2.9	-2.5	1.4	111	1.9	-1.8	0.7	87	3.6	-3.6	-0.2	86	7.7	-7.7	-0.6	89	9.9	-9.9	-0.1	86	16.0	-16.0	-1.0
28	93	5.9	-5.9	0.3	94	6.5	-6.5	0.5	88	5.1	-5.1	-0.2	94	4.6	-4.6	0.3	94	8.1	-8.1	0.6	77	9.5	-9.2	-2.2	77	15.4	-15.0	-3.4
29	105	6.6	-6.4	1.7	105	7.1	-6.9	1.8	100	7.0	-6.9	1.2	83	6.1	-6.1	-0.7	87	7.1	-7.1	-0.4	84	11.2	-11.1	-1.2	82	14.2	-14.1	-2.0
30	105	6.2	-6.0	1.6	109	4.0	-3.8	1.3	113	4.3	-4.0	1.7	104	4.9	-4.7	1.2	79	7.6	-7.5	-1.5	83	11.9	-11.8	-1.5	76	14.8	-14.4	-3.6
31	108	4.5	-4.3	1.4	109	4.6	-4.4	1.5	113	4.8	-4.4	1.9	87	1.9	-1.9	-0.1	81	6.7	-6.6	-1.1	60	8.2	-7.1	-4.1	72	14.4	-13.7	-4.5

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	112	3.5	-3.3	1.3	121	3.1	-2.7	1.6	135	1.3	-0.9	0.9	96	1.9	-1.9	0.2	45	5.9	-4.2	-4.2	79	8.6	-8.4	-1.7	65	14.2	-12.9	-5.9
2	107	5.3	-5.1	1.6	105	5.3	-5.1	1.4	122	3.6	-3.1	1.9	63	2.0	-1.8	-0.9	73	2.7	-2.6	-0.8	77	6.3	-6.1	-1.4	65	10.8	-9.8	-4.6
3	109	3.9	-3.7	1.3	115	4.3	-3.9	1.8	109	4.6	-4.3	1.5	75	3.4	-3.3	-0.9	96	4.7	-4.7	0.5	61	5.1	-4.5	-2.5	76	11.4	-11.0	-2.8
4	84	4.7	-4.7	-0.5	100	5.4	-5.3	0.9	89	5.0	-5.0	-0.1	87	5.3	-5.3	-0.3	110	4.1	-3.9	1.4	98	6.5	-6.4	0.9	68	12.9	-12.0	-4.8
5	93	3.6	-3.6	0.2	107	4.8	-4.6	1.4	96	4.6	-4.6	0.5	98	4.2	-4.2	0.6	92	6.3	-6.3	0.2	82	8.6	-8.5	-1.2	76	13.4	-13.0	-3.3
6	113	2.5	-2.3	1.0	101	4.9	-4.8	0.9	98	5.3	-5.3	0.7	99	6.3	-6.2	1.0	85	8.4	-8.4	-0.7	72	10.0	-9.5	-3.0	70	14.6	-13.7	-5.0
7	90	2.1	-2.1	0.0	102	5.2	-5.1	1.1	96	6.4	-6.4	0.7	108	7.6	-7.2	2.3	95	8.8	-8.8	0.7	93	6.6	-6.6	0.3	70	14.1	-13.2	-4.9
8	133	1.6	-1.2	1.1	99	5.9	-5.8	0.9	90	5.3	-5.3	0.0	99	5.8	-5.7	0.9	76	10.2	-9.9	-2.4	80	12.8	-12.6	-2.2	71	15.2	-14.4	-5.0
9	108	4.2	-4.0	1.3	99	5.4	-5.3	0.8	102	4.9	-4.8	1.0	93	4.1	-4.1	0.2	95	7.3	-7.3	0.6	80	10.5	-10.3	-1.9	78	16.2	-15.8	-3.5
10	95	4.2	-4.2	0.4	104	4.9	-4.8	1.2	99	4.6	-4.5	0.7	116	5.1	-4.6	2.2	96	5.5	-5.5	0.6	91	9.1	-9.1	0.1	81	12.8	-12.7	-1.9
11	107	4.2	-4.0	1.2	129	4.0	-3.1	2.5	105	2.7	-2.6	0.7	127	2.6	-2.1	1.6	93	6.3	-6.3	0.3	81	8.7	-8.6	-1.4	68	10.5	-9.7	-4.0
12	103	1.7	-1.7	0.4	70	1.2	-1.1	-0.4	135	0.6	-0.4	0.4	98	1.5	-1.5	0.2	93	5.2	-5.2	0.3	83	7.7	-7.6	-0.9	68	10.7	-9.9	-4.0
13	221	0.9	0.6	0.7	84	1.0	-1.0	-0.1	56	1.1	-0.9	-0.6	103	0.9	-0.9	0.2	110	5.6	-5.3	1.9	93	10.4	-10.4	0.6	84	14.5	-14.4	-1.4
14	221	1.1	0.7	0.8	99	3.1	-3.1	0.5	84	2.8	-2.8	-0.3	114	2.4	-2.2	1.0	135	3.0	-2.1	2.1	80	5.2	-5.1	-0.9	74	13.1	-12.6	-3.6
15	107	2.4	-2.3	0.7	99	5.2	-5.1	0.8	95	3.5	-3.5	0.3	101	3.3	-3.2	0.6	94	4.1	-4.1	0.3	82	8.0	-7.9	-1.1	80	13.5	-13.3	-2.3
16	98	4.3	-4.3	0.6	106	5.5	-5.3	1.5	103	5.7	-5.5	1.3	87	3.3	-3.3	-0.2	87	6.3	-6.3	-0.3	77	6.8	-6.6	-1.5	83	11.1	-11.0	-1.4
17	105	3.8	-3.7	1.0	103	5.7	-5.6	1.3	109	4.2	-4.0	1.4	92	2.5	-2.5	0.1	92	4.7	-4.7	0.2	86	7.0	-7.0	-0.5	74	12.4	-11.9	-3.5
18	93	5.6	-5.6	0.3	107	6.5	-6.2	1.9	99	4.6	-4.5	0.7	98	4.8	-4.7	0.7	100	6.6	-6.5	1.2	76	6.4	-6.2	-1.5	81	14.7	-14.5	-2.2
19	102	7.9	-7.7	1.6	107	7.9	-7.6	2.3	108	6.2	-5.9	1.9	98	4.3	-4.3	0.6	92	3.5	-3.5	0.1	69	8.4	-7.8	-3.0	70	13.4	-12.6	-4.7
20	106	6.9	-6.6	1.9	108	6.1	-5.8	1.9	111	4.8	-4.5	1.7	110	2.3	-2.2	0.8	94	4.7	-4.7	0.3	88	7.2	-7.2	-0.2	77	13.8	-13.4	-3.1
21	107	5.2	-5.0	1.5	110	5.6	-5.3	1.9	102	4.4	-4.3	0.9	108	2.8	-2.7	0.9	110	5.0	-4.7	1.7	93	3.7	-3.7	0.2	68	13.3	-12.3	-5.0
22	114	4.5	-4.1	1.8	108	4.9	-4.7	1.5	91	4.2	-4.2	0.1	95	2.1	-2.1	0.2	90	3.7	-3.7	0.0	113	4.3	-4.0	1.7	73	13.6	-13.0	-4.0
23	102	3.9	-3.8	0.8	103	7.0	-6.8	1.6	95	6.1	-6.1	0.5	88	2.9	-2.9	-0.1	104	3.7	-3.6	0.9	92	5.3	-5.3	0.2	86	9.2	-9.2	-0.7
24	108	3.5	-3.3	1.1	96	3.9	-3.9	0.4	75	2.3	-2.2	-0.6	110	1.2	-1.1	0.4	82	2.8	-2.8	-0.4	36	4.9	-2.9	-4.0	63	8.2	-7.3	-3.7
25	111	3.3	-3.1	1.2	123	1.7	-1.4	0.9	127	2.0	-1.6	1.2	150	2.0	-1.0	1.7	104	2.1	-2.0	0.5	90	2.3	-2.3	0.0	78	10.9	-10.7	-2.2
26	113	4.3	-4.0	1.7	180	0.9	0.0	0.9	144	1.4	-0.8	1.1	141	2.8	-1.8	2.2	87	1.8	-1.8	-0.1	90	6.1	-6.1	0.0	84	11.8	-11.7	-1.3
27	106	5.3	-5.1	1.5	103	2.2	-2.1	0.5	125	2.4	-2.0	1.4	111	2.5	-2.3	0.9	100	4.1	-4.0	0.7	76	5.0	-4.9	-1.2	77	11.6	-11.3	-2.6
28	100	4.8	-4.7	0.8	86	4.0	-4.0	-0.3	83	3.5	-3.5	-0.4	104	3.0	-2.9	0.7	97	4.6	-4.6	0.6	107	5.5	-5.3	1.6	88	10.7	-10.7	-0.3
29	97	3.1	-3.1	0.4	97	3.1	-3.1	0.4	86	4.0	-4.0	-0.3	100	2.9	-2.9	0.5	93	4.5	-4.5	0.2	84	4.1	-4.1	-0.4	58	9.9	-8.4	-5.2
30	95	6.0	-6.0	0.5	91	4.7	-4.7	0.1	92	3.1	-3.1	0.1	90	3.1	-3.1	0.0	99	5.0	-4.9	0.8	104	5.9	-5.7	1.4	72	9.1	-8.7	-2.8
31	89	6.4	-6.4	-0.1	100	4.6	-4.5	0.8	106	4.4	-4.2	1.2	88	2.9	-2.9	-0.1	109	4.6	-4.4	1.5	111	5.0	-4.7	1.8	87	9.2	-9.2	-0.5

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	99	7.4	-7.3	1.1	101	5.2	-5.1	1.0	103	4.6	-4.5	1.0	116	5.0	-4.5	2.2	104	4.9	-4.8	1.2	85	4.9	-4.9	-0.4	70	6.4	-6.0	-2.2
2	96	6.3	-6.3	0.7	111	3.9	-3.6	1.4	109	4.9	-4.6	1.6	113	5.1	-4.7	2.0	107	3.9	-3.7	1.1	75	4.8	-4.6	-1.2	83	8.1	-8.0	-1.0
3	100	8.0	-7.9	1.4	104	4.1	-4.0	1.0	109	4.3	-4.1	1.4	120	3.4	-2.9	1.7	121	5.4	-4.6	2.8	118	5.2	-4.6	2.4	76	10.1	-9.8	-2.4
4	102	7.2	-7.0	1.5	110	4.1	-3.9	1.4	124	2.5	-2.1	1.4	152	1.9	-0.9	1.7	113	2.1	-1.9	0.8	90	4.7	-4.7	0.0	80	8.3	-8.2	-1.4
5	103	7.8	-7.6	1.7	104	5.5	-5.3	1.3	108	3.5	-3.3	1.1	111	2.5	-2.3	0.9	96	2.8	-2.8	0.3	85	3.8	-3.8	-0.3	75	8.2	-7.9	-2.1
6	106	7.4	-7.1	2.0	131	3.5	-2.6	2.3	124	2.9	-2.4	1.6	126	1.4	-1.1	0.8	135	2.3	-1.6	1.6	129	2.7	-2.1	1.7	75	7.3	-7.1	-1.9
7	101	6.0	-5.9	1.1	98	5.3	-5.3	0.7	103	6.1	-5.9	1.4	115	4.1	-3.7	1.7	136	4.0	-2.8	2.9	122	3.2	-2.7	1.7	87	7.3	-7.3	-0.4
8	116	6.2	-5.6	2.7	107	5.6	-5.4	1.6	110	6.1	-5.7	2.1	135	4.0	-2.8	2.8	137	4.2	-2.9	3.1	119	6.4	-5.6	3.1	99	7.2	-7.1	1.1
9	104	6.3	-6.1	1.5	109	5.5	-5.2	1.8	113	3.9	-3.6	1.5	150	3.2	-1.6	2.8	135	4.1	-2.9	2.9	129	4.9	-3.8	3.1	123	7.3	-6.1	4.0
10	108	4.0	-3.8	1.2	115	4.3	-3.9	1.8	109	3.7	-3.5	1.2	150	1.6	-0.8	1.4	161	2.1	-0.7	2.0	134	4.7	-3.4	3.3	99	6.0	-5.9	0.9
11	86	2.9	-2.9	-0.2	106	3.7	-3.6	1.0	119	2.5	-2.2	1.2	160	3.0	-1.0	2.8	157	3.8	-1.5	3.5	142	2.9	-1.8	2.3	110	5.9	-5.6	2.0
12	101	2.6	-2.6	0.5	108	3.6	-3.4	1.1	110	2.7	-2.5	0.9	163	3.1	-0.9	3.0	194	3.3	0.8	3.2	187	3.9	0.5	3.9	81	6.7	-6.6	-1.0
13	103	1.8	-1.8	0.4	101	3.2	-3.1	0.6	117	2.5	-2.2	1.1	147	3.1	-1.7	2.6	172	2.1	-0.3	2.1	193	0.9	0.2	0.9	153	3.8	-1.7	3.4
14	89	4.3	-4.3	-0.1	109	3.7	-3.5	1.2	98	3.4	-3.4	0.5	153	2.0	-0.9	1.8	195	1.6	0.4	1.5	190	3.6	0.6	3.5	108	3.2	-3.0	1.0
15	88	6.8	-6.8	-0.2	91	4.5	-4.5	0.1	74	3.7	-3.6	-1.0	118	2.1	-1.9	1.0	214	1.1	0.6	0.9	180	0.6	0.0	0.6	227	1.8	1.3	1.2
16	93	3.7	-3.7	0.2	86	1.3	-1.3	-0.1	95	2.2	-2.2	0.2	203	2.8	1.1	2.6	250	3.2	3.0	1.1	253	2.1	2.0	0.6	237	1.7	1.4	0.9
17	88	2.9	-2.9	-0.1	111	3.1	-2.9	1.1	86	2.8	-2.8	-0.2	164	1.8	-0.5	1.7	234	3.7	3.0	2.2	256	6.2	6.0	1.5	279	3.2	3.2	-0.5
18	93	4.0	-4.0	0.2	101	1.6	-1.6	0.3	79	1.6	-1.6	-0.3	140	1.7	-1.1	1.3	222	3.8	2.5	2.8	256	4.5	4.4	1.1	273	2.0	2.0	-0.1
19	61	3.3	-2.9	-1.6	79	1.5	-1.5	-0.3	96	2.0	-2.0	0.2	238	1.3	1.1	0.7	256	6.8	6.6	1.6	258	7.6	7.4	1.6	276	5.6	5.6	-0.6
20	32	1.3	-0.7	-1.1	90	0.4	-0.4	0.0	111	0.9	-0.8	0.3	205	3.3	1.4	3.0	246	5.9	5.4	2.4	259	9.0	8.8	1.7	180	0.5	0.0	0.5
21	73	1.4	-1.3	-0.4	131	2.9	-2.2	1.9	99	1.8	-1.8	0.3	215	1.9	1.1	1.6	244	7.5	6.7	3.3	245	6.1	5.5	2.6	304	2.3	1.9	-1.3
22	53	0.5	-0.4	-0.3	76	1.2	-1.2	-0.3	98	0.7	-0.7	0.1	220	1.6	1.0	1.2	249	7.4	6.9	2.7	261	10.3	10.2	1.6	235	2.9	2.4	1.7
23	162	0.3	-0.1	0.3	96	1.9	-1.9	0.2	94	1.3	-1.3	0.1	209	2.5	1.2	2.2	255	7.7	7.4	2.0	262	11.7	11.6	1.6	238	2.8	2.4	1.5
24	78	1.4	-1.4	-0.3	63	0.9	-0.8	-0.4	149	1.2	-0.6	1.0	235	3.5	2.9	2.0	253	7.2	6.9	2.1	262	10.4	10.3	1.4	221	5.6	3.7	4.2
25	108	1.6	-1.5	0.5	63	0.4	-0.4	-0.2	263	0.8	0.8	0.1	253	3.4	3.2	1.0	249	8.5	8.0	3.0	248	10.5	9.8	3.9	313	2.1	1.5	-1.4
26	122	1.3	-1.1	0.7	90	0.4	-0.4	0.0	356	1.6	0.1	-1.6	270	3.1	3.1	0.0	250	7.8	7.3	2.7	244	13.0	11.7	5.6	251	4.2	4.0	1.4
27	61	1.3	-1.1	-0.6	56	1.1	-0.9	-0.6	300	2.2	1.9	-1.1	251	3.1	2.9	1.0	250	7.8	7.3	2.7	254	11.1	10.7	3.0	286	3.2	3.1	-0.9
28	290	1.2	1.1	-0.4	315	2.1	1.5	-1.5	284	2.5	2.4	-0.6	257	3.6	3.5	0.8	256	8.5	8.3	2.0	253	11.9	11.4	3.4	266	5.7	5.7	0.4
29	108	1.3	-1.2	0.4	238	0.9	0.8	0.5	272	2.8	2.8	-0.1	254	5.3	5.1	1.5	258	12.3	12.0	2.6	253	14.4	13.7	4.3	250	7.5	7.0	2.6
30	180	0.4	0.0	0.4	294	1.7	1.6	-0.7	308	2.3	1.8	-1.4	273	4.2	4.2	-0.2	261	11.8	11.6	1.9	253	11.3	10.8	3.4	269	7.2	7.2	0.1

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	326	0.4	0.2	-0.3	18	0.3	-0.1	-0.3	340	1.5	0.5	-1.4	264	5.3	5.3	0.6	251	11.8	11.1	3.9	254	16.3	15.7	4.5	245	8.6	7.8	3.7
2	76	0.8	-0.8	-0.2	18	0.6	-0.2	-0.6	319	1.1	0.7	-0.8	257	3.9	3.8	0.9	248	13.3	12.3	5.0	243	16.7	14.8	7.7	252	9.6	9.1	3.0
3	67	0.8	-0.7	-0.3	22	0.5	-0.2	-0.5	292	2.4	2.2	-0.9	257	3.9	3.8	0.9	250	15.0	14.1	5.2	247	19.7	18.1	7.7	273	10.5	10.5	-0.6
4	108	2.0	-1.9	0.6	18	0.3	-0.1	-0.3	261	0.6	0.6	0.1	254	5.6	5.4	1.5	257	16.0	15.6	3.7	257	18.9	18.4	4.2	264	8.4	8.4	0.9
5	105	2.8	-2.7	0.7	173	0.8	-0.1	0.8	243	1.8	1.6	0.8	259	4.2	4.1	0.8	259	13.1	12.8	2.6	250	17.5	16.4	6.1	257	9.8	9.6	2.2
6	81	1.2	-1.2	-0.2	305	1.6	1.3	-0.9	263	0.8	0.8	0.1	259	4.8	4.7	0.9	256	13.2	12.8	3.3	260	17.0	16.8	2.9	247	14.2	13.1	5.6
7	63	0.2	-0.2	-0.1	289	2.4	2.3	-0.8	270	1.8	1.8	0.0	262	6.3	6.2	0.9	252	14.6	13.9	4.5	248	17.5	16.3	6.5	257	8.5	8.3	1.9
8	276	2.0	2.0	-0.2	295	1.4	1.3	-0.6	299	1.3	1.1	-0.6	253	6.5	6.2	1.9	247	15.8	14.5	6.2	246	19.3	17.7	7.7	258	9.9	9.7	2.1
9	288	1.6	1.5	-0.5	321	0.6	0.4	-0.5	234	1.4	1.1	0.8	261	7.3	7.2	1.1	256	16.2	15.7	3.8	249	18.9	17.7	6.7	256	13.9	13.5	3.4
10	292	1.8	1.7	-0.7	303	1.7	1.4	-0.9	281	1.5	1.5	-0.3	277	8.6	8.5	-1.1	259	18.8	18.4	3.7	258	19.4	19.0	4.0	251	9.6	9.1	3.1
11	300	1.4	1.2	-0.7	264	1.0	1.0	0.1	282	3.5	3.4	-0.7	260	8.7	8.6	1.5	257	19.2	18.7	4.2	251	22.2	21.0	7.1	261	12.9	12.7	2.0
12	286	1.8	1.7	-0.5	317	2.1	1.4	-1.5	288	2.9	2.8	-0.9	256	11.3	10.9	2.8	256	22.7	22.0	5.6	250	25.4	23.9	8.7	269	11.2	11.2	0.2
13	306	3.9	3.2	-2.3	306	2.2	1.8	-1.3	297	3.8	3.4	-1.7	262	8.6	8.5	1.2	256	19.3	18.7	4.7	254	21.6	20.7	6.1	255	13.2	12.7	3.5
14	305	3.7	3.0	-2.1	300	3.4	3.0	-1.7	298	3.8	3.4	-1.8	265	10.0	10.0	0.9	252	19.7	18.8	6.0	244	26.3	23.5	11.7	251	10.7	10.1	3.4
15	304	2.5	2.1	-1.4	280	2.7	2.7	-0.5	291	3.6	3.4	-1.3	269	8.4	8.4	0.1	254	19.6	18.8	5.4	246	29.0	26.4	12.0	260	14.1	13.9	2.5
16	288	0.3	0.3	-0.1	298	1.7	1.5	-0.8	287	2.1	2.0	-0.6	271	9.2	9.2	-0.1	259	22.1	21.7	4.3	257	26.2	25.5	6.0	252	16.9	16.1	5.2
17	360	0.6	0.0	-0.6	298	2.4	2.1	-1.1	288	2.3	2.2	-0.7	272	8.6	8.6	-0.3	259	18.2	17.9	3.4	256	25.1	24.4	6.0	266	12.4	12.4	0.8
18	18	0.6	-0.2	-0.6	270	2.5	2.5	0.0	257	3.1	3.0	0.7	270	9.3	9.3	0.0	258	19.2	18.8	3.9	252	20.6	19.6	6.4	255	14.3	13.8	3.6
19	294	2.0	1.8	-0.8	306	2.2	1.8	-1.3	270	3.4	3.4	0.0	264	9.2	9.2	0.9	259	21.3	20.9	4.1	255	25.6	24.7	6.6	264	12.4	12.3	1.4
20	322	1.6	1.0	-1.3	293	2.6	2.4	-1.0	284	3.8	3.7	-0.9	275	10.8	10.8	-0.9	255	24.9	24.1	6.3	258	31.1	30.4	6.5	258	16.2	15.9	3.3
21	315	0.1	0.1	-0.1	279	2.6	2.6	-0.4	288	2.6	2.5	-0.8	275	12.0	12.0	-1.0	263	25.1	24.9	3.2	259	28.3	27.8	5.3	255	13.2	12.7	3.5
22	303	1.7	1.4	-0.9	301	2.7	2.3	-1.4	301	3.3	2.8	-1.7	277	10.2	10.1	-1.3	265	24.1	24.0	2.1	256	29.3	28.4	7.2	256	14.6	14.2	3.5
23	295	2.3	2.1	-1.0	282	2.4	2.3	-0.5	284	4.1	4.0	-1.0	268	9.1	9.1	0.3	257	24.7	24.1	5.4	253	28.6	27.3	8.6	248	13.5	12.5	5.1
24	297	2.0	1.8	-0.9	303	2.7	2.3	-1.5	282	3.4	3.3	-0.7	273	10.2	10.2	-0.6	269	19.7	19.7	0.5	258	29.5	28.9	6.0	257	14.6	14.2	3.4
25	319	2.0	1.3	-1.5	293	3.4	3.1	-1.3	272	5.0	5.0	-0.2	271	10.8	10.8	-0.2	264	24.2	24.1	2.6	265	31.3	31.2	2.9	259	23.0	22.6	4.4
26	311	2.8	2.1	-1.8	300	3.0	2.6	-1.5	300	3.4	2.9	-1.7	278	11.2	11.1	-1.6	264	27.1	27.0	2.6	264	31.2	31.0	3.5	260	17.2	17.0	2.9
27	294	2.2	2.0	-0.9	315	2.7	1.9	-1.9	305	4.0	3.3	-2.3	278	10.4	10.3	-1.4	271	27.4	27.4	-0.3	262	34.4	34.1	4.7	265	23.1	23.0	2.0
28	345	1.1	0.3	-1.1	312	2.4	1.8	-1.6	303	2.7	2.3	-1.5	270	9.8	9.8	0.0	260	27.3	26.9	4.9	254	33.1	31.8	9.1	251	11.9	11.3	3.8
29	101	1.0	-1.0	0.2	323	1.0	0.6	-0.8	300	4.3	3.7	-2.1	269	11.0	11.0	0.1	264	27.6	27.5	2.8	256	32.8	31.8	8.2	255	11.4	11.0	3.0
30	90	0.2	-0.2	0.0	323	1.5	0.9	-1.2	309	3.5	2.7	-2.2	274	11.0	11.0	-0.8	264	27.8	27.7	2.8	255	32.6	31.5	8.4	244	22.1	19.9	9.5
31	360	0.8	0.0	-0.8	336	1.2	0.5	-1.1	293	1.3	1.2	-0.5	276	11.5	11.4	-1.2	255	26.6	25.7	6.9	257	34.0	33.1	7.9	266	18.2	18.2	1.2

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	45	0.1	-0.1	-0.1	336	1.7	0.7	-1.6	300	2.0	1.7	-1.0	274	13.0	13.0	-1.0	261	28.0	27.6	4.5	251	31.6	29.8	10.5	261	18.4	18.2	3.0
2	311	1.8	1.4	-1.2	306	1.7	1.4	-1.0	284	2.1	2.0	-0.5	285	12.0	11.6	-3.2	270	28.5	28.5	-0.1	253	28.2	27.0	8.2	256	16.6	16.1	4.0
3	313	2.1	1.5	-1.4	300	2.0	1.7	-1.0	291	1.9	1.8	-0.7	271	11.6	11.6	-0.2	266	27.6	27.5	1.8	264	26.3	26.2	2.7	276	10.7	10.6	-1.1
4	311	2.1	1.6	-1.4	281	2.0	2.0	-0.4	281	2.5	2.5	-0.5	275	13.3	13.3	-1.1	266	27.6	27.5	2.1	260	34.4	33.8	6.2	260	19.2	18.9	3.2
5	291	2.6	2.4	-0.9	298	1.5	1.3	-0.7	297	4.2	3.8	-1.9	280	14.6	14.4	-2.5	267	28.6	28.6	1.4	263	34.9	34.6	4.4	261	21.7	21.4	3.3
6	279	1.8	1.8	-0.3	279	3.7	3.7	-0.6	284	5.0	4.9	-1.2	275	15.2	15.1	-1.4	270	34.1	34.1	-0.2	259	38.3	37.5	7.6	252	27.4	26.1	8.3
7	279	1.2	1.2	-0.2	291	2.5	2.3	-0.9	292	5.3	4.9	-2.0	277	13.8	13.7	-1.7	271	35.3	35.3	-0.6	259	37.3	36.6	7.0	255	19.6	18.9	5.1
8	298	1.5	1.3	-0.7	289	1.8	1.7	-0.6	291	5.0	4.7	-1.8	278	15.7	15.5	-2.3	263	30.6	30.4	3.7	262	34.8	34.5	4.8	262	21.3	21.1	2.9
9	300	2.2	1.9	-1.1	346	1.2	0.3	-1.2	298	3.4	3.0	-1.6	279	13.4	13.2	-2.1	271	32.4	32.4	-0.8	260	38.0	37.5	6.4	261	21.4	21.1	3.4
10	320	3.3	2.1	-2.5	318	2.5	1.7	-1.9	284	4.9	4.7	-1.2	276	12.5	12.4	-1.2	268	31.1	31.1	1.2	265	37.0	36.9	3.0	254	23.5	22.6	6.5
11	311	2.8	2.1	-1.8	307	1.5	1.2	-0.9	292	4.1	3.8	-1.5	283	14.1	13.7	-3.2	268	31.0	31.0	1.0	267	29.8	29.8	1.6	261	20.2	19.9	3.2
12	295	3.5	3.2	-1.5	309	2.2	1.7	-1.4	297	4.7	4.2	-2.1	286	14.1	13.6	-3.8	274	27.1	27.0	-2.1	268	32.8	32.8	1.4	264	19.5	19.4	2.0
13	305	3.9	3.2	-2.2	285	4.6	4.4	-1.2	291	4.4	4.1	-1.6	283	14.0	13.7	-3.1	271	26.8	26.8	-0.7	273	34.2	34.1	-2.0	268	27.3	27.3	0.8
14	293	2.1	1.9	-0.8	293	3.4	3.1	-1.3	286	5.8	5.6	-1.6	285	13.8	13.3	-3.6	274	30.5	30.4	-1.9	270	37.0	37.0	0.1	270	17.7	17.7	-0.1
15	309	1.4	1.1	-0.9	301	2.1	1.8	-1.1	291	5.3	4.9	-1.9	284	15.5	15.1	-3.7	271	28.4	28.4	-0.5	267	33.3	33.3	1.6	272	14.1	14.1	-0.5
16	355	1.1	0.1	-1.1	302	2.2	1.9	-1.2	290	5.5	5.2	-1.9	279	14.7	14.5	-2.4	274	27.7	27.6	-2.1	269	33.7	33.7	0.8	268	21.8	21.8	0.9
17	297	0.4	0.4	-0.2	300	2.0	1.7	-1.0	285	5.1	4.9	-1.3	277	14.4	14.3	-1.7	267	28.2	28.2	1.6	265	35.1	35.0	3.0	267	36.4	36.4	1.9
18	10	1.1	-0.2	-1.1	310	1.7	1.3	-1.1	286	4.6	4.4	-1.3	275	14.4	14.3	-1.3	263	30.9	30.7	3.7	261	40.9	40.3	6.7	265	25.0	24.9	2.2
19	287	1.7	1.6	-0.5	292	1.8	1.7	-0.7	285	3.8	3.7	-1.0	270	14.4	14.4	0.0	261	36.0	35.5	5.8	261	39.0	38.5	6.2	249	23.6	22.0	8.5
20	301	1.7	1.5	-0.9	288	2.5	2.4	-0.8	273	5.5	5.5	-0.3	263	16.0	15.9	2.0	261	36.0	35.6	5.6	261	49.9	49.3	7.4	252	18.2	17.4	5.5
21	299	3.5	3.1	-1.7	295	2.6	2.4	-1.1	286	6.3	6.1	-1.7	274	16.3	16.3	-1.2	265	33.5	33.4	2.7	261	46.6	46.0	7.6	272	33.0	33.0	-1.0
22	279	1.2	1.2	-0.2	276	2.8	2.8	-0.3	273	5.3	5.3	-0.3	268	16.5	16.5	0.7	253	34.7	33.1	10.3	250	41.9	39.4	14.3	253	24.0	23.0	7.0
23	321	1.9	1.2	-1.5	304	1.8	1.5	-1.0	294	4.3	3.9	-1.7	278	13.0	12.9	-1.7	263	30.5	30.3	3.7	250	34.0	32.0	11.5	263	36.0	35.7	4.5
24	292	4.2	3.9	-1.6	311	2.1	1.6	-1.4	298	6.4	5.6	-3.0	281	15.7	15.4	-3.1	267	29.8	29.8	1.5	262	32.6	32.2	4.8	261	23.8	23.5	3.8
25	293	4.1	3.8	-1.6	300	2.8	2.4	-1.4	283	8.3	8.1	-1.9	281	17.4	17.1	-3.4	263	28.8	28.6	3.7	251	35.9	34.0	11.4	261	27.1	26.7	4.4
26	308	2.4	1.9	-1.5	256	2.9	2.8	0.7	279	8.6	8.5	-1.4	274	18.9	18.9	-1.3	273	33.1	33.1	-1.6	267	37.0	36.9	2.2	278	22.2	22.0	-2.9
27	306	2.9	2.3	-1.7	289	4.0	3.8	-1.3	279	8.4	8.3	-1.3	268	22.1	22.1	0.8	271	35.2	35.2	-0.5	277	36.2	35.9	-4.6	272	15.0	15.0	-0.6
28	303	3.7	3.1	-2.0	289	3.6	3.4	-1.2	290	6.6	6.2	-2.2	275	20.5	20.4	-1.9	268	35.6	35.6	1.5	266	36.9	36.8	2.8	289	18.6	17.6	-5.9
29	307	3.0	2.4	-1.8	302	3.2	2.7	-1.7	295	7.2	6.5	-3.1	280	19.1	18.8	-3.2	266	32.6	32.5	2.1	265	37.5	37.4	3.3	273	30.2	30.2	-1.6
30	296	3.0	2.7	-1.3	307	3.4	2.7	-2.0	296	7.1	6.4	-3.1	275	18.2	18.1	-1.7	268	34.0	34.0	0.9	271	40.3	40.3	-0.5	276	21.9	21.8	-2.1

Daily Normals of Upper Air Winds (1971-2000)

GORAKHPUR **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	290	2.3	2.2	-0.8	301	2.3	2.0	-1.2	290	7.3	6.9	-2.5	277	19.1	19.0	-2.3	276	35.4	35.2	-3.4	270	38.0	38.0	0.0	265	25.8	25.7	2.4
2	303	2.4	2.0	-1.3	291	2.5	2.3	-0.9	296	8.2	7.4	-3.6	283	19.2	18.7	-4.4	273	35.7	35.6	-2.0	276	45.7	45.5	-4.4	272	23.9	23.9	-1.0
3	301	2.3	2.0	-1.2	294	1.7	1.6	-0.7	288	6.3	6.0	-1.9	275	17.5	17.4	-1.5	266	32.7	32.6	2.0	269	37.9	37.9	0.5	272	34.6	34.6	-1.3
4	310	2.3	1.8	-1.5	300	3.4	3.0	-1.7	295	6.3	5.7	-2.6	278	16.5	16.3	-2.3	271	32.8	32.8	-0.4	263	39.4	39.1	5.1	269	28.9	28.9	0.7
5	295	3.1	2.8	-1.3	296	5.0	4.5	-2.2	295	8.9	8.1	-3.7	277	19.3	19.2	-2.4	270	35.7	35.7	0.1	277	30.6	30.4	-3.7	262	38.6	38.2	5.7
6	322	1.6	1.0	-1.3	299	2.1	1.8	-1.0	288	8.0	7.6	-2.5	271	15.7	15.7	-0.4	271	32.2	32.2	-0.4	257	39.5	38.6	8.6	257	32.1	31.3	7.0
7	319	2.0	1.3	-1.5	291	2.2	2.1	-0.8	293	8.3	7.7	-3.2	281	19.5	19.2	-3.6	262	32.9	32.5	4.8	263	32.4	32.1	4.1	272	33.9	33.9	-1.2
8	305	3.5	2.9	-2.0	319	2.1	1.4	-1.6	292	7.8	7.2	-2.9	280	18.8	18.5	-3.4	271	33.9	33.9	-0.7	260	42.2	41.6	7.1	264	26.5	26.4	2.7
9	325	1.6	0.9	-1.3	280	2.2	2.2	-0.4	288	8.8	8.4	-2.7	277	20.1	19.9	-2.6	264	31.2	31.0	3.1	261	40.8	40.3	6.4	258	28.6	28.0	5.8
10	323	2.5	1.5	-2.0	294	4.5	4.1	-1.8	283	9.6	9.3	-2.2	267	17.6	17.6	1.0	255	33.1	32.0	8.3	262	41.4	40.9	6.1	244	31.6	28.3	14.0
11	305	3.9	3.2	-2.2	297	3.8	3.4	-1.7	292	8.4	7.8	-3.1	278	18.8	18.6	-2.5	266	35.0	34.9	2.6	269	42.4	42.4	1.0	266	29.7	29.6	1.9
12	288	3.9	3.7	-1.2	292	4.2	3.9	-1.6	288	10.9	10.4	-3.3	277	22.3	22.1	-2.9	267	38.2	38.2	1.8	265	35.0	34.9	2.9	261	23.5	23.2	3.6
13	289	3.6	3.4	-1.2	287	3.8	3.6	-1.1	286	8.7	8.4	-2.4	273	20.1	20.1	-1.1	271	35.0	35.0	-0.7	260	41.7	41.1	7.2	263	29.1	28.9	3.5
14	297	3.6	3.2	-1.6	277	3.4	3.4	-0.4	284	10.2	9.9	-2.4	276	21.8	21.7	-2.3	266	32.3	32.2	2.0	262	44.5	44.0	6.5	275	42.2	42.0	-3.6
15	295	4.3	3.9	-1.8	295	4.2	3.8	-1.8	286	10.4	10.0	-2.8	279	22.2	21.9	-3.6	272	35.7	35.7	-1.1	266	39.4	39.3	3.0	269	26.4	26.4	0.6
16	295	2.9	2.6	-1.2	295	6.3	5.7	-2.6	287	11.4	10.9	-3.4	287	19.5	18.7	-5.6	276	28.0	27.8	-3.0	269	35.1	35.1	0.6	268	27.2	27.2	0.9
17	300	1.4	1.2	-0.7	288	2.3	2.2	-0.7	286	8.9	8.6	-2.4	277	20.5	20.3	-2.5	269	31.2	31.2	0.7	264	35.4	35.2	4.0	268	25.6	25.6	1.1
18	335	1.4	0.6	-1.3	306	2.9	2.3	-1.7	298	8.1	7.1	-3.8	284	18.8	18.2	-4.6	278	28.9	28.6	-4.0	272	35.2	35.2	-1.5	273	26.5	26.5	-1.2
19	299	1.0	0.9	-0.5	292	2.7	2.5	-1.0	292	7.4	6.9	-2.8	283	17.5	17.1	-3.8	279	27.9	27.5	-4.5	269	41.1	41.1	1.0	270	22.1	22.1	0.1
20	283	2.2	2.1	-0.5	284	3.4	3.3	-0.8	292	7.2	6.7	-2.7	284	19.8	19.2	-4.8	269	27.7	27.7	0.6	270	35.4	35.4	-0.3	270	33.1	33.1	0.2
21	293	2.6	2.4	-1.0	295	3.5	3.2	-1.5	296	8.9	8.0	-3.9	282	19.6	19.2	-4.0	275	29.8	29.7	-2.4	265	32.1	32.0	2.6	274	36.7	36.6	-2.6
22	305	1.2	1.0	-0.7	305	2.4	2.0	-1.4	289	10.0	9.5	-3.2	285	20.6	19.9	-5.2	274	30.9	30.8	-2.4	274	37.6	37.5	-2.9	276	30.2	30.1	-2.9
23	311	2.9	2.2	-1.9	307	4.4	3.5	-2.6	285	9.0	8.7	-2.3	278	21.6	21.4	-3.1	278	31.1	30.8	-4.5	277	34.3	34.1	-4.1	266	27.7	27.6	1.9
24	322	2.8	1.7	-2.2	310	1.6	1.2	-1.0	291	6.7	6.3	-2.4	271	19.1	19.1	-0.2	261	35.9	35.5	5.4	258	36.2	35.4	7.6	262	26.4	26.2	3.5
25	324	1.7	1.0	-1.4	321	1.9	1.2	-1.5	299	6.4	5.6	-3.1	277	15.8	15.7	-2.0	271	33.1	33.1	-0.7	264	36.4	36.2	4.0	271	20.0	20.0	-0.5
26	310	1.6	1.2	-1.0	290	2.0	1.9	-0.7	298	7.8	6.9	-3.6	277	21.1	20.9	-2.6	274	36.7	36.6	-2.7	274	40.8	40.7	-3.0	268	29.2	29.2	1.1
27	283	2.8	2.7	-0.6	280	3.5	3.4	-0.6	287	9.4	9.0	-2.7	274	19.6	19.6	-1.2	270	34.3	34.3	0.0	270	36.3	36.3	0.1	261	31.7	31.3	4.7
28	308	2.4	1.9	-1.5	295	1.9	1.7	-0.8	274	6.8	6.8	-0.5	270	19.6	19.6	0.1	266	34.4	34.3	2.4	272	41.0	41.0	-1.1	295	25.5	23.1	-10.7
29	305	1.9	1.6	-1.1	292	3.5	3.3	-1.3	297	8.3	7.4	-3.7	285	20.9	20.2	-5.4	276	39.2	39.0	-4.0	273	38.1	38.0	-2.0	313	32.3	23.6	-22.0
30	298	1.9	1.7	-0.9	284	4.6	4.5	-1.1	287	11.2	10.7	-3.2	270	23.1	23.1	0.1	266	35.0	34.9	2.5	260	37.0	36.4	6.4	254	29.9	28.8	8.0
31	306	1.9	1.5	-1.1	289	3.9	3.7	-1.3	283	10.4	10.1	-2.3	268	20.6	20.6	0.8	265	32.9	32.8	2.7	254	38.7	37.2	10.6	265	26.0	25.9	2.4

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	67	3.8	-3.5	-1.5	87	2.2	-2.2	-0.1	280	5.0	4.9	-0.9	271	24.7	24.7	-0.3	272	42.5	42.5	-1.3	268	45.1	45.1	1.3	265	30.4	30.3	2.9
2	79	3.3	-3.2	-0.6	83	3.1	-3.1	-0.4	282	5.0	4.9	-1.0	276	24.4	24.3	-2.4	272	43.3	43.3	-1.5	269	47.9	47.9	0.7	268	31.9	31.9	1.3
3	92	3.3	-3.3	0.1	84	2.7	-2.7	-0.3	276	4.9	4.9	-0.5	272	21.7	21.7	-0.6	270	42.1	42.1	-0.3	263	49.0	48.7	5.8	270	33.4	33.4	-0.2
4	63	1.1	-1.0	-0.5	77	2.7	-2.6	-0.6	280	5.3	5.2	-0.9	277	21.4	21.2	-2.6	272	44.0	44.0	-1.4	269	47.1	47.1	1.0	268	29.5	29.5	1.1
5	83	4.1	-4.1	-0.5	80	4.1	-4.0	-0.7	278	6.5	6.4	-0.9	271	22.7	22.7	-0.4	276	38.1	37.9	-3.7	266	42.1	42.0	2.9	273	24.2	24.2	-1.2
6	84	1.9	-1.9	-0.2	82	1.5	-1.5	-0.2	280	4.7	4.6	-0.8	274	26.8	26.7	-1.9	270	44.3	44.3	0.3	262	48.3	47.8	6.9	269	28.9	28.9	0.4
7	84	1.8	-1.8	-0.2	81	1.8	-1.8	-0.3	280	3.5	3.4	-0.6	272	22.6	22.6	-0.9	267	44.9	44.8	2.6	264	48.0	47.8	4.7	261	30.8	30.4	5.0
8	75	3.0	-2.9	-0.8	90	1.8	-1.8	0.0	276	5.0	5.0	-0.5	271	24.0	24.0	-0.5	266	45.8	45.7	3.1	260	52.7	51.9	9.4	261	30.1	29.7	4.8
9	79	2.1	-2.1	-0.4	87	2.1	-2.1	-0.1	263	5.4	5.4	0.7	271	22.7	22.7	-0.3	267	45.6	45.5	2.3	263	48.3	47.9	5.9	264	28.1	28.0	2.7
10	84	1.0	-1.0	-0.1	75	2.0	-1.9	-0.5	272	7.6	7.6	-0.2	271	26.8	26.8	-0.7	270	46.2	46.2	0.2	264	49.0	48.7	5.5	267	30.6	30.6	1.5
11	82	2.1	-2.1	-0.3	68	1.8	-1.7	-0.7	275	6.9	6.9	-0.6	270	25.7	25.7	-0.1	266	47.8	47.7	3.3	257	49.2	47.9	11.3	258	24.4	23.9	5.1
12	113	0.8	-0.7	0.3	107	1.0	-1.0	0.3	274	8.0	8.0	-0.5	270	28.0	28.0	0.2	259	42.9	42.2	7.9	255	48.1	46.5	12.3	262	33.2	32.9	4.5
13	270	0.1	0.1	0.0	256	0.8	0.8	0.2	271	8.6	8.6	-0.1	270	24.7	24.7	-0.2	267	43.6	43.5	2.1	261	53.6	53.0	8.3	268	32.9	32.9	1.4
14	227	1.6	1.2	1.1	256	1.6	1.6	0.4	276	10.2	10.1	-1.1	272	26.4	26.4	-0.8	268	43.1	43.1	1.2	262	48.0	47.6	6.3	264	31.5	31.3	3.5
15	90	1.6	-1.6	0.0	58	0.9	-0.8	-0.5	277	9.2	9.1	-1.1	273	26.9	26.9	-1.3	270	46.4	46.4	-0.2	266	48.5	48.4	3.6	268	29.1	29.1	1.0
16	82	2.1	-2.1	-0.3	169	1.0	-0.2	1.0	272	9.0	9.0	-0.3	271	26.7	26.7	-0.3	270	46.7	46.7	0.4	266	49.3	49.2	3.7	268	29.0	29.0	1.1
17	252	0.9	0.9	0.3	260	1.7	1.7	0.3	270	9.6	9.6	0.0	272	25.6	25.6	-1.1	268	41.6	41.6	1.3	261	49.3	48.7	7.6	265	27.6	27.5	2.2
18	74	1.8	-1.7	-0.5	27	0.2	-0.1	-0.2	274	7.6	7.6	-0.5	274	23.2	23.2	-1.5	269	42.5	42.5	0.7	260	47.7	47.0	7.9	264	30.0	29.8	3.0
19	87	1.7	-1.7	-0.1	84	1.0	-1.0	-0.1	279	5.5	5.4	-0.9	272	25.8	25.8	-0.9	268	41.5	41.5	1.7	261	48.8	48.2	7.5	269	30.9	30.9	0.3
20	90	0.9	-0.9	0.0	90	1.5	-1.5	0.0	270	5.7	5.7	0.0	272	23.1	23.1	-0.9	266	42.6	42.5	2.8	263	54.6	54.2	6.5	267	29.6	29.6	1.6
21	27	0.2	-0.1	-0.2	180	0.1	0.0	0.1	279	7.5	7.4	-1.2	268	24.3	24.3	0.8	266	38.2	38.1	2.6	263	48.2	47.8	5.9	259	29.5	29.0	5.4
22	315	0.1	0.1	-0.1	59	0.6	-0.5	-0.3	271	7.6	7.6	-0.1	269	24.9	24.9	0.5	262	42.4	42.0	5.7	261	48.2	47.6	7.3	258	30.0	29.3	6.4
23	82	0.7	-0.7	-0.1	342	0.3	0.1	-0.3	279	9.3	9.2	-1.5	274	25.9	25.8	-1.9	266	45.2	45.1	2.9	259	47.2	46.3	9.3	263	27.8	27.6	3.4
24	171	0.6	-0.1	0.6	249	0.9	0.8	0.3	278	7.5	7.4	-1.1	277	25.7	25.5	-3.3	267	43.1	43.1	1.9	261	47.0	46.5	7.0	268	30.0	30.0	1.0
25	94	1.6	-1.6	0.1	80	1.7	-1.7	-0.3	278	6.0	5.9	-0.8	276	23.7	23.6	-2.4	268	41.5	41.5	1.1	261	43.4	42.9	6.8	276	29.4	29.2	-3.1
26	84	1.8	-1.8	-0.2	87	2.1	-2.1	-0.1	273	6.6	6.6	-0.4	271	21.0	21.0	-0.5	270	37.1	37.1	0.0	262	39.1	38.7	5.3	263	25.7	25.5	3.3
27	81	2.6	-2.6	-0.4	63	2.2	-2.0	-1.0	275	5.4	5.4	-0.5	271	23.9	23.9	-0.4	269	40.4	40.4	0.8	264	46.8	46.5	5.2	260	27.6	27.2	4.6
28	74	0.7	-0.7	-0.2	212	0.9	0.5	0.8	273	8.2	8.2	-0.4	270	26.0	26.0	-0.1	263	43.1	42.8	5.2	263	51.0	50.6	6.1	262	31.1	30.8	4.2
29	84	2.0	-2.0	-0.2	246	1.7	1.6	0.7	268	9.5	9.5	0.3	271	25.5	25.5	-0.6	267	42.7	42.6	2.5	258	48.7	47.7	9.9	268	32.7	32.7	0.9
30	249	0.9	0.8	0.3	268	3.3	3.3	0.1	274	10.9	10.9	-0.8	274	28.0	27.9	-1.9	271	47.1	47.1	-1.1	266	47.9	47.8	3.6	271	31.6	31.6	-0.5
31	217	0.5	0.3	0.4	253	2.4	2.3	0.7	271	9.4	9.4	-0.2	275	24.6	24.5	-2.3	269	46.0	46.0	0.8	264	48.9	48.6	5.3	266	31.8	31.7	2.1

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	78	1.9	-1.9	-0.4	270	1.4	1.4	0.0	266	8.9	8.9	0.6	268	25.5	25.5	0.7	263	40.6	40.3	5.3	255	44.8	43.3	11.4	264	32.0	31.8	3.1
2	93	2.0	-2.0	0.1	250	3.2	3.0	1.1	272	11.2	11.2	-0.4	269	28.1	28.1	0.5	267	44.6	44.5	2.7	263	45.2	44.8	5.7	265	26.9	26.8	2.3
3	83	0.8	-0.8	-0.1	263	2.5	2.5	0.3	278	10.3	10.2	-1.4	271	24.2	24.2	-0.4	266	41.7	41.6	3.2	262	49.5	49.0	7.3	262	36.3	36.0	5.0
4	279	0.6	0.6	-0.1	243	1.6	1.4	0.7	268	9.7	9.7	0.3	272	23.7	23.7	-0.9	268	43.4	43.4	1.8	264	47.6	47.3	5.1	268	33.7	33.7	1.4
5	114	1.2	-1.1	0.5	249	2.8	2.6	1.0	265	11.4	11.4	1.0	269	25.7	25.7	0.4	266	44.6	44.5	3.4	263	48.1	47.7	5.8	264	31.7	31.5	3.3
6	315	0.8	0.6	-0.6	256	3.2	3.1	0.8	273	11.6	11.6	-0.7	268	24.8	24.8	0.8	264	41.7	41.5	4.0	260	45.7	45.0	8.0	264	30.1	30.0	2.9
7	63	1.6	-1.4	-0.7	270	0.6	0.6	0.0	269	7.8	7.8	0.1	273	22.5	22.5	-1.2	273	37.8	37.8	-1.9	270	44.4	44.4	-0.1	268	31.3	31.3	1.3
8	72	1.9	-1.8	-0.6	225	0.8	0.6	0.6	267	8.1	8.1	0.4	269	22.5	22.5	0.4	266	41.5	41.4	2.8	259	52.9	51.9	10.0	266	30.6	30.5	2.0
9	86	1.3	-1.3	-0.1	246	2.2	2.0	0.9	274	9.0	9.0	-0.6	272	24.6	24.6	-1.0	266	35.9	35.8	2.5	261	49.0	48.4	7.8	262	33.6	33.3	4.4
10	94	1.5	-1.5	0.1	236	1.1	0.9	0.6	274	6.4	6.4	-0.4	274	21.2	21.1	-1.6	273	36.5	36.5	-1.6	265	45.0	44.9	3.6	267	31.0	31.0	1.4
11	87	1.8	-1.8	-0.1	262	1.4	1.4	0.2	270	8.8	8.8	0.0	277	24.0	23.8	-2.8	272	36.8	36.8	-1.1	270	44.1	44.1	0.2	273	27.9	27.8	-1.7
12	90	0.8	-0.8	0.0	261	2.5	2.5	0.4	272	9.4	9.4	-0.4	275	22.6	22.5	-2.1	273	37.7	37.7	-1.8	267	44.5	44.5	2.1	268	23.9	23.9	0.7
13	153	0.2	-0.1	0.2	273	2.0	2.0	-0.1	271	8.0	8.0	-0.2	276	21.8	21.7	-2.2	273	39.2	39.1	-2.2	268	44.7	44.7	1.6	267	25.9	25.9	1.5
14	225	0.3	0.2	0.2	260	2.7	2.7	0.5	274	10.6	10.6	-0.8	273	25.2	25.2	-1.4	270	43.2	43.2	0.0	268	42.2	42.2	1.5	269	28.2	28.2	0.3
15	283	0.9	0.9	-0.2	266	2.8	2.8	0.2	274	10.3	10.3	-0.7	265	23.6	23.5	2.1	264	40.2	40.0	4.4	260	47.1	46.3	8.4	263	28.6	28.4	3.7
16	196	1.8	0.5	1.7	264	3.7	3.7	0.4	271	12.5	12.5	-0.3	272	25.7	25.7	-1.0	262	37.8	37.4	5.3	258	47.1	46.1	9.7	260	31.9	31.4	5.6
17	251	2.4	2.3	0.8	253	4.5	4.3	1.3	273	13.2	13.2	-0.6	270	25.1	25.1	0.2	274	40.9	40.8	-2.8	266	44.8	44.7	2.9	263	27.8	27.6	3.2
18	256	3.0	2.9	0.7	262	6.3	6.2	0.9	269	14.7	14.7	0.3	268	26.1	26.1	0.7	264	45.6	45.3	4.8	256	45.1	43.8	10.9	265	28.4	28.3	2.6
19	267	3.8	3.8	0.2	265	5.2	5.2	0.5	269	12.8	12.8	0.2	271	26.2	26.2	-0.4	262	40.7	40.3	6.0	257	44.8	43.6	10.2	262	25.2	25.0	3.4
20	278	3.6	3.6	-0.5	269	4.5	4.5	0.1	269	13.3	13.3	0.2	268	25.9	25.9	0.9	261	43.3	42.8	6.7	258	42.0	41.1	8.8	261	28.9	28.6	4.4
21	252	1.9	1.8	0.6	250	4.1	3.9	1.4	271	11.9	11.9	-0.3	267	23.8	23.8	1.2	260	43.3	42.7	7.4	259	46.0	45.1	9.1	262	31.6	31.3	4.3
22	242	2.1	1.9	1.0	259	5.4	5.3	1.0	270	13.3	13.3	0.0	271	26.2	26.2	-0.3	259	43.8	43.1	8.0	259	48.2	47.4	8.8	266	26.0	25.9	1.8
23	252	2.5	2.4	0.8	261	3.9	3.9	0.6	269	10.9	10.9	0.1	267	23.1	23.1	1.1	268	42.6	42.6	1.6	262	46.5	46.0	6.5	265	24.1	24.0	1.9
24	243	0.2	0.2	0.1	259	2.6	2.6	0.5	263	10.8	10.7	1.3	274	25.0	24.9	-1.6	267	40.7	40.6	2.3	263	47.5	47.1	5.9	265	29.2	29.1	2.8
25	146	0.4	-0.2	0.3	248	3.8	3.5	1.4	267	11.7	11.7	0.7	274	23.8	23.8	-1.5	266	41.0	40.9	2.9	264	44.5	44.3	4.7	265	29.6	29.5	2.4
26	270	0.7	0.7	0.0	259	4.2	4.1	0.8	276	12.0	11.9	-1.2	276	23.2	23.1	-2.4	266	39.6	39.5	2.9	260	44.5	43.9	7.5	267	29.8	29.8	1.6
27	261	3.8	3.8	0.6	259	4.9	4.8	0.9	267	12.6	12.6	0.6	269	23.6	23.6	0.6	267	39.9	39.9	1.8	263	46.8	46.4	6.0	263	28.6	28.4	3.6
28	238	1.3	1.1	0.7	256	4.2	4.1	1.0	270	11.9	11.9	0.1	269	23.4	23.4	0.4	261	37.6	37.1	6.2	261	43.7	43.1	7.0	266	31.3	31.2	2.1
29	108	1.3	-1.2	0.4	242	3.0	2.6	1.4	270	13.0	13.0	-0.1	275	26.1	26.0	-2.5	277	44.4	44.1	-5.2	266	52.3	52.1	4.1	262	36.0	35.6	5.2

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	117	0.2	-0.2	0.1	259	4.1	4.0	0.8	273	10.7	10.7	-0.5	273	21.6	21.6	-1.2	266	37.6	37.5	2.9	266	45.0	44.9	3.3	272	26.1	26.1	-0.7
2	112	1.1	-1.0	0.4	258	4.0	3.9	0.8	262	10.0	9.9	1.4	268	20.4	20.4	0.8	259	38.1	37.4	7.2	253	46.8	44.9	13.3	263	28.5	28.3	3.4
3	83	0.8	-0.8	-0.1	265	2.5	2.5	0.2	267	9.7	9.7	0.5	274	20.2	20.1	-1.5	264	33.9	33.7	3.7	259	43.7	42.9	8.5	262	24.4	24.2	3.2
4	164	0.7	-0.2	0.7	243	3.3	2.9	1.5	263	8.7	8.6	1.0	270	21.0	21.0	-0.1	270	31.6	31.6	0.2	262	41.2	40.8	5.4	262	26.2	26.0	3.6
5	261	2.0	2.0	0.3	250	2.9	2.7	1.0	269	10.3	10.3	0.1	271	23.4	23.4	-0.5	264	36.7	36.5	3.9	259	44.5	43.6	8.7	259	32.8	32.2	6.5
6	281	1.6	1.6	-0.3	252	5.7	5.4	1.8	273	13.9	13.9	-0.8	267	23.1	23.1	1.4	264	37.0	36.8	3.6	260	44.3	43.6	7.6	269	30.6	30.6	0.4
7	254	2.5	2.4	0.7	256	6.8	6.6	1.7	269	13.4	13.4	0.3	271	21.9	21.9	-0.2	266	36.9	36.8	2.4	260	41.4	40.7	7.4	263	25.6	25.4	3.1
8	246	4.3	3.9	1.7	259	6.7	6.6	1.3	269	12.8	12.8	0.3	277	21.1	21.0	-2.5	268	33.1	33.1	1.1	264	40.3	40.1	4.2	263	25.2	25.0	3.0
9	257	1.8	1.8	0.4	257	5.8	5.7	1.3	270	12.9	12.9	-0.1	272	22.0	22.0	-0.7	270	34.6	34.6	0.3	263	45.8	45.5	5.6	266	26.7	26.6	1.7
10	249	1.9	1.8	0.7	257	6.2	6.0	1.4	268	13.9	13.9	0.5	276	24.5	24.4	-2.6	268	37.2	37.2	1.6	260	44.9	44.2	7.9	257	25.7	25.0	5.9
11	233	2.6	2.1	1.6	250	4.7	4.4	1.6	272	13.6	13.6	-0.5	276	23.9	23.8	-2.4	264	36.8	36.6	3.9	257	47.3	46.1	10.6	255	25.5	24.6	6.6
12	162	0.3	-0.1	0.3	259	7.0	6.9	1.4	265	14.7	14.7	1.2	270	24.0	24.0	0.1	258	37.4	36.6	7.9	253	45.0	43.0	13.1	255	27.1	26.2	6.8
13	256	2.5	2.4	0.6	260	9.4	9.2	1.7	268	16.5	16.5	0.5	271	24.7	24.7	-0.5	259	36.1	35.5	6.7	256	43.0	41.8	10.2	261	33.7	33.2	5.5
14	251	2.8	2.6	0.9	255	6.6	6.4	1.7	268	14.0	14.0	0.6	267	19.7	19.7	1.1	263	32.3	32.1	3.8	259	41.5	40.8	7.6	265	26.5	26.4	2.3
15	261	3.9	3.9	0.6	258	5.0	4.9	1.0	269	12.7	12.7	0.3	272	19.3	19.3	-0.6	267	32.3	32.3	1.5	259	35.9	35.2	7.1	265	24.3	24.2	2.3
16	266	4.1	4.1	0.3	256	5.3	5.1	1.3	272	12.5	12.5	-0.4	273	20.8	20.8	-1.1	275	33.3	33.2	-2.7	273	39.7	39.6	-2.4	276	23.7	23.6	-2.6
17	242	3.4	3.0	1.6	256	6.0	5.8	1.4	273	13.9	13.9	-0.8	281	20.9	20.5	-4.0	268	34.2	34.2	1.3	266	45.5	45.4	3.4	271	29.3	29.3	-0.3
18	281	1.0	1.0	-0.2	255	5.5	5.3	1.4	273	14.3	14.3	-0.7	277	19.5	19.3	-2.5	270	34.0	34.0	0.1	264	42.5	42.3	4.2	261	28.7	28.4	4.4
19	246	3.0	2.7	1.2	255	7.7	7.4	2.0	271	16.6	16.6	-0.4	272	22.0	22.0	-0.8	269	31.1	31.1	0.8	262	40.1	39.7	5.9	266	24.0	23.9	1.6
20	239	4.2	3.6	2.2	256	7.5	7.3	1.8	266	14.5	14.5	0.9	271	21.3	21.3	-0.5	264	32.1	31.9	3.1	264	39.5	39.3	4.2	268	22.0	22.0	0.9
21	246	6.4	5.9	2.6	258	8.4	8.2	1.7	265	14.0	13.9	1.2	274	19.9	19.9	-1.4	264	34.8	34.6	3.6	263	36.1	35.9	4.2	272	23.8	23.8	-0.8
22	249	2.6	2.4	0.9	261	6.1	6.0	1.0	267	13.1	13.1	0.7	272	21.1	21.1	-0.7	262	33.3	33.0	4.6	263	40.6	40.3	4.7	265	23.8	23.7	2.0
23	265	3.2	3.2	0.3	257	5.8	5.7	1.3	270	14.8	14.8	-0.1	276	21.7	21.6	-2.2	266	30.8	30.7	2.3	259	42.7	42.0	7.9	262	28.7	28.4	4.1
24	265	4.2	4.2	0.4	258	5.7	5.6	1.2	266	12.1	12.1	0.8	268	19.9	19.9	0.6	263	32.3	32.1	4.0	259	41.9	41.1	8.2	258	22.6	22.1	4.7
25	264	1.0	1.0	0.1	252	5.2	5.0	1.6	266	10.7	10.7	0.7	264	16.9	16.8	1.8	254	25.7	24.7	7.0	256	38.2	37.0	9.3	262	22.4	22.2	3.1
26	157	0.8	-0.3	0.7	256	5.5	5.3	1.3	268	12.6	12.6	0.4	267	17.1	17.1	0.9	262	27.8	27.5	3.9	256	41.9	40.6	10.4	261	20.7	20.5	3.2
27	45	0.6	-0.4	-0.4	248	4.6	4.3	1.7	270	12.1	12.1	0.1	268	16.1	16.1	0.5	263	27.6	27.4	3.4	257	38.8	37.9	8.5	259	20.3	19.9	3.8
28	18	0.3	-0.1	-0.3	249	4.7	4.4	1.7	263	10.6	10.5	1.2	271	15.1	15.1	-0.3	271	30.0	30.0	-0.5	268	39.7	39.7	1.2	268	21.0	21.0	0.6
29	87	2.1	-2.1	-0.1	263	4.8	4.8	0.6	271	10.3	10.3	-0.1	280	15.2	15.0	-2.6	272	25.0	25.0	-0.7	272	35.7	35.7	-1.4	273	20.5	20.5	-1.1
30	239	2.1	1.8	1.1	253	5.7	5.4	1.7	265	11.2	11.2	1.0	271	15.7	15.7	-0.2	263	27.4	27.2	3.2	260	37.6	37.0	6.7	273	23.2	23.2	-1.4
31	253	3.9	3.7	1.1	255	8.3	8.0	2.2	271	13.2	13.2	-0.3	279	16.4	16.2	-2.7	274	25.9	25.9	-1.6	271	40.5	40.5	-0.5	272	25.3	25.3	-0.8

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	242	2.4	2.1	1.1	256	6.9	6.7	1.7	266	14.4	14.4	0.9	273	18.0	18.0	-0.8	275	22.9	22.8	-1.9	271	35.6	35.6	-0.7	267	24.3	24.3	1.1
2	264	1.8	1.8	0.2	252	7.9	7.5	2.4	267	15.9	15.9	0.7	275	17.8	17.7	-1.4	265	25.6	25.5	2.1	273	34.3	34.3	-1.5	272	17.7	17.7	-0.7
3	221	0.9	0.6	0.7	255	6.7	6.5	1.8	270	14.2	14.2	0.0	277	19.2	19.1	-2.3	268	27.1	27.1	1.1	270	36.3	36.3	-0.1	273	21.8	21.8	-1.1
4	250	2.0	1.9	0.7	252	7.2	6.9	2.2	268	13.5	13.5	0.4	273	19.3	19.3	-1.0	266	28.9	28.8	2.0	268	37.6	37.6	1.1	270	22.4	22.4	-0.1
5	270	1.1	1.1	0.0	253	7.2	6.9	2.1	264	13.7	13.6	1.4	275	18.1	18.0	-1.7	262	26.5	26.2	3.7	265	39.4	39.3	3.3	264	23.6	23.5	2.5
6	287	1.0	1.0	-0.3	249	8.2	7.7	2.9	270	13.7	13.7	-0.1	275	19.2	19.1	-1.8	264	31.9	31.7	3.4	259	39.9	39.2	7.5	264	21.7	21.6	2.3
7	78	3.0	-2.9	-0.6	255	7.8	7.5	2.0	267	14.9	14.9	0.7	276	17.8	17.7	-2.0	266	26.3	26.2	2.0	264	35.3	35.1	3.4	270	21.0	21.0	-0.1
8	54	1.7	-1.4	-1.0	254	7.0	6.7	1.9	268	14.3	14.3	0.4	271	17.0	17.0	-0.4	260	25.2	24.8	4.2	270	37.5	37.5	0.1	266	23.8	23.7	1.6
9	48	1.2	-0.9	-0.8	258	6.1	6.0	1.3	270	13.3	13.3	-0.1	278	14.5	14.4	-2.0	270	25.2	25.2	0.1	272	39.8	39.8	-1.2	263	19.2	19.0	2.4
10	72	0.3	-0.3	-0.1	254	5.8	5.6	1.6	267	13.3	13.3	0.8	272	18.2	18.2	-0.7	268	27.7	27.7	1.2	265	38.1	38.0	3.2	265	20.5	20.4	1.7
11	297	0.4	0.4	-0.2	259	6.9	6.8	1.3	266	14.5	14.5	1.1	270	17.8	17.8	0.1	261	27.5	27.2	4.1	260	38.8	38.2	6.6	270	19.7	19.7	0.0
12	261	1.9	1.9	0.3	258	6.9	6.8	1.4	270	13.0	13.0	-0.1	277	17.2	17.1	-2.0	272	27.1	27.1	-0.9	267	36.5	36.5	1.6	270	21.7	21.7	0.0
13	307	2.5	2.0	-1.5	261	6.2	6.1	1.0	269	13.1	13.1	0.2	277	16.5	16.4	-1.9	280	25.0	24.6	-4.2	272	33.8	33.8	-1.1	277	17.9	17.8	-2.3
14	265	2.5	2.5	0.2	247	5.7	5.3	2.2	269	12.2	12.2	0.2	279	13.6	13.4	-2.1	271	26.2	26.2	-0.3	271	34.5	34.5	-0.7	268	22.7	22.7	0.8
15	275	2.5	2.5	-0.2	259	6.1	6.0	1.2	267	11.7	11.7	0.7	275	15.1	15.1	-1.2	262	27.1	26.8	3.9	263	34.0	33.8	4.1	266	22.4	22.4	1.4
16	247	3.0	2.8	1.2	252	7.1	6.7	2.2	266	13.0	13.0	0.8	268	16.8	16.8	0.5	263	29.9	29.7	3.5	258	40.2	39.3	8.4	268	17.0	17.0	0.6
17	186	0.9	0.1	0.9	251	6.8	6.4	2.2	268	12.9	12.9	0.5	268	15.2	15.2	0.6	262	26.5	26.3	3.6	258	33.4	32.7	7.0	262	18.5	18.3	2.5
18	240	1.6	1.4	0.8	252	6.0	5.7	1.8	269	13.4	13.4	0.3	272	15.6	15.6	-0.6	266	25.9	25.8	1.8	263	34.6	34.4	4.1	268	18.7	18.7	0.8
19	17	1.4	-0.4	-1.3	251	4.6	4.4	1.5	267	12.9	12.9	0.7	273	15.2	15.2	-0.7	266	25.7	25.6	2.0	260	32.4	31.9	5.9	277	13.8	13.7	-1.7
20	67	2.8	-2.6	-1.1	244	4.3	3.9	1.9	262	10.7	10.6	1.4	270	13.0	13.0	0.1	261	24.4	24.1	3.8	265	30.9	30.8	2.8	266	16.2	16.2	1.1
21	108	0.9	-0.9	0.3	255	5.0	4.8	1.3	267	11.2	11.2	0.5	279	13.7	13.5	-2.2	272	22.5	22.5	-0.9	262	31.9	31.6	4.5	253	15.2	14.5	4.4
22	111	1.4	-1.3	0.5	250	4.4	4.1	1.5	265	9.9	9.9	0.8	285	13.4	13.0	-3.4	272	19.0	19.0	-0.6	266	32.4	32.3	2.2	267	15.3	15.3	0.7
23	259	1.0	1.0	0.2	255	5.1	4.9	1.3	268	10.5	10.5	0.3	274	13.3	13.3	-1.0	256	20.3	19.7	4.9	258	31.8	31.1	6.5	269	15.6	15.6	0.2
24	241	1.0	0.9	0.5	246	6.4	5.9	2.6	275	12.0	11.9	-1.1	272	14.0	14.0	-0.6	256	21.7	21.0	5.3	258	30.4	29.7	6.4	263	17.3	17.2	2.1
25	352	1.4	0.2	-1.4	248	4.8	4.5	1.8	267	11.1	11.1	0.6	275	11.7	11.6	-1.1	253	20.8	19.9	6.2	254	28.6	27.5	7.9	261	15.4	15.2	2.5
26	107	1.7	-1.6	0.5	251	4.2	4.0	1.4	263	10.4	10.3	1.3	262	12.4	12.3	1.8	248	24.4	22.6	9.2	244	31.3	28.2	13.5	263	13.4	13.3	1.6
27	107	1.4	-1.3	0.4	246	4.9	4.5	2.0	267	12.2	12.2	0.7	274	12.1	12.1	-0.8	262	20.1	19.9	2.7	260	25.2	24.8	4.5	266	13.7	13.7	1.0
28	214	1.1	0.6	0.9	249	4.5	4.2	1.6	266	9.8	9.8	0.6	281	9.3	9.1	-1.8	270	15.1	15.1	0.1	261	24.3	24.0	4.0	276	15.1	15.0	-1.5
29	57	1.7	-1.4	-0.9	255	4.1	4.0	1.1	269	9.6	9.6	0.2	282	9.0	8.8	-1.9	263	19.4	19.3	2.2	260	27.0	26.6	4.8	275	13.7	13.6	-1.3
30	295	2.1	1.9	-0.9	271	4.6	4.6	-0.1	260	8.8	8.7	1.5	271	9.3	9.3	-0.1	266	15.8	15.8	1.1	261	22.7	22.4	3.4	272	14.1	14.1	-0.4

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	360	0.1	0.0	-0.1	247	4.6	4.2	1.8	267	8.9	8.9	0.4	270	11.9	11.9	0.0	264	18.7	18.6	1.9	260	26.4	26.0	4.6	268	7.8	7.8	0.3
2	360	0.1	0.0	-0.1	272	3.8	3.8	-0.1	268	8.5	8.5	0.3	270	10.9	10.9	0.0	259	20.6	20.2	4.1	261	28.2	27.9	4.4	265	12.1	12.1	1.0
3	98	1.4	-1.4	0.2	252	4.0	3.8	1.2	275	9.7	9.7	-0.9	271	9.6	9.6	-0.2	259	22.0	21.6	4.2	252	29.3	27.8	9.3	267	18.4	18.4	1.0
4	284	0.4	0.4	-0.1	251	4.6	4.4	1.5	271	8.4	8.4	-0.2	274	9.7	9.7	-0.7	263	21.2	21.0	2.6	259	28.3	27.7	5.6	260	10.5	10.3	1.8
5	235	1.2	1.0	0.7	249	4.2	3.9	1.5	266	9.6	9.6	0.6	272	9.4	9.4	-0.3	254	23.4	22.4	6.6	260	28.6	28.1	5.2	253	11.7	11.2	3.5
6	242	2.4	2.1	1.1	240	4.2	3.6	2.1	266	8.3	8.3	0.6	271	9.5	9.5	-0.2	257	20.6	20.1	4.5	252	28.7	27.3	8.7	260	16.3	16.1	2.7
7	90	0.5	-0.5	0.0	228	3.0	2.2	2.0	264	8.1	8.1	0.8	264	11.2	11.1	1.2	259	22.5	22.1	4.1	259	29.9	29.4	5.6	254	10.3	9.9	2.8
8	108	0.6	-0.6	0.2	233	2.1	1.7	1.3	267	8.1	8.1	0.4	271	9.7	9.7	-0.1	264	21.1	21.0	2.3	257	28.1	27.4	6.3	262	13.2	13.1	1.9
9	294	1.0	0.9	-0.4	239	4.4	3.8	2.3	258	7.3	7.1	1.5	272	10.0	10.0	-0.4	264	21.0	20.9	2.3	258	29.3	28.7	5.9	259	11.2	11.0	2.1
10	166	0.4	-0.1	0.4	242	3.0	2.6	1.4	272	7.7	7.7	-0.3	278	9.8	9.7	-1.4	263	20.7	20.6	2.4	260	25.9	25.5	4.6	275	11.5	11.5	-1.0
11	243	0.7	0.6	0.3	242	4.7	4.2	2.2	268	8.3	8.3	0.3	263	10.5	10.4	1.3	258	17.9	17.5	3.6	258	22.7	22.2	4.7	275	7.9	7.9	-0.7
12	260	1.1	1.1	0.2	253	3.7	3.5	1.1	269	8.9	8.9	0.2	266	10.7	10.7	0.8	258	19.3	18.9	4.0	251	21.2	20.0	7.0	272	9.8	9.8	-0.3
13	262	0.7	0.7	0.1	248	1.6	1.5	0.6	265	5.3	5.3	0.5	262	6.8	6.7	0.9	262	15.0	14.9	2.0	259	21.4	21.0	4.2	261	8.6	8.5	1.3
14	72	0.3	-0.3	-0.1	250	3.2	3.0	1.1	252	8.0	7.6	2.4	263	8.8	8.7	1.0	260	16.1	15.9	2.7	257	22.3	21.8	4.9	248	9.2	8.5	3.5
15	171	0.6	-0.1	0.6	227	3.3	2.4	2.2	270	6.7	6.7	0.0	265	9.0	9.0	0.8	258	16.4	16.0	3.5	251	20.2	19.1	6.5	262	6.0	5.9	0.8
16	297	1.3	1.2	-0.6	250	4.5	4.2	1.5	268	7.6	7.6	0.3	261	8.4	8.3	1.3	257	16.5	16.1	3.7	257	21.9	21.3	5.0	275	9.3	9.3	-0.8
17	4	1.3	-0.1	-1.3	246	4.5	4.1	1.8	267	7.6	7.6	0.4	255	8.2	7.9	2.1	257	16.3	15.9	3.6	255	20.2	19.5	5.4	266	6.8	6.8	0.5
18	122	1.5	-1.3	0.8	262	5.2	5.2	0.7	265	7.6	7.6	0.7	253	9.7	9.3	2.8	252	17.5	16.6	5.5	256	20.0	19.4	5.0	258	6.1	6.0	1.3
19	88	2.5	-2.5	-0.1	232	2.8	2.2	1.7	268	7.0	7.0	0.3	256	9.8	9.5	2.3	253	16.3	15.6	4.8	247	20.4	18.8	7.9	261	8.7	8.6	1.3
20	96	3.7	-3.7	0.4	243	0.7	0.6	0.3	267	7.4	7.4	0.4	254	7.5	7.2	2.1	252	17.2	16.3	5.4	253	20.6	19.7	5.9	263	9.3	9.2	1.1
21	41	0.9	-0.6	-0.7	251	2.1	2.0	0.7	259	5.6	5.5	1.1	263	8.9	8.8	1.1	261	17.4	17.2	2.8	248	21.9	20.3	8.2	260	7.8	7.7	1.4
22	277	0.8	0.8	-0.1	254	2.9	2.8	0.8	265	5.9	5.9	0.5	256	8.5	8.3	2.0	252	18.2	17.3	5.6	249	19.9	18.6	7.0	259	6.6	6.5	1.3
23	51	0.6	-0.5	-0.4	247	2.6	2.4	1.0	259	7.1	7.0	1.3	254	8.9	8.5	2.5	249	19.0	17.7	6.8	256	21.1	20.5	5.2	255	8.3	8.0	2.2
24	169	0.5	-0.1	0.5	237	1.7	1.4	0.9	263	5.5	5.5	0.7	259	7.0	6.9	1.3	253	13.5	12.9	4.0	243	16.8	14.9	7.7	262	4.1	4.1	0.6
25	127	0.5	-0.4	0.3	222	1.2	0.8	0.9	267	4.4	4.4	0.2	254	6.0	5.8	1.7	254	15.4	14.8	4.3	251	19.7	18.6	6.5	260	8.3	8.2	1.4
26	323	1.0	0.6	-0.8	241	2.1	1.8	1.0	253	3.1	3.0	0.9	248	6.8	6.3	2.5	251	13.7	12.9	4.5	246	20.1	18.4	8.2	246	4.8	4.4	2.0
27	217	1.0	0.6	0.8	240	2.4	2.1	1.2	258	3.8	3.7	0.8	250	5.8	5.4	2.0	244	11.5	10.4	5.0	244	14.8	13.4	6.4	253	5.5	5.3	1.6
28	66	1.0	-0.9	-0.4	247	3.6	3.3	1.4	257	5.7	5.6	1.3	262	7.6	7.5	1.1	253	12.6	12.1	3.6	248	15.9	14.7	6.0	280	3.9	3.8	-0.7
29	129	0.6	-0.5	0.4	261	3.2	3.2	0.5	262	6.5	6.4	0.9	245	6.8	6.2	2.9	249	9.9	9.2	3.6	249	16.2	15.2	5.7	228	3.1	2.3	2.1
30	126	0.9	-0.7	0.5	228	2.8	2.1	1.9	256	6.4	6.2	1.6	253	7.0	6.7	2.0	249	10.1	9.4	3.6	249	14.8	13.8	5.4	194	1.6	0.4	1.6
31	242	1.5	1.3	0.7	249	3.0	2.8	1.1	261	6.7	6.6	1.1	254	5.6	5.4	1.5	247	10.9	10.1	4.2	249	14.8	13.8	5.3	326	1.4	0.8	-1.2

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	240	0.8	0.7	0.4	244	4.1	3.7	1.8	266	6.3	6.3	0.4	264	7.3	7.3	0.8	254	9.1	8.8	2.5	252	13.9	13.2	4.2	252	4.1	3.9	1.3
2	225	2.0	1.4	1.4	238	2.5	2.1	1.3	266	6.5	6.5	0.4	262	6.3	6.2	0.9	243	7.4	6.6	3.4	251	10.7	10.1	3.4	280	1.1	1.1	-0.2
3	261	1.2	1.2	0.2	239	2.6	2.2	1.3	261	6.0	5.9	0.9	262	6.1	6.0	0.8	243	10.9	9.7	5.0	243	11.8	10.5	5.4	297	2.0	1.8	-0.9
4	270	0.2	0.2	0.0	233	2.5	2.0	1.5	250	3.7	3.5	1.3	234	6.5	5.3	3.8	240	9.3	8.1	4.6	244	12.2	10.9	5.4	335	1.9	0.8	-1.7
5	225	0.4	0.3	0.3	238	2.5	2.1	1.3	259	5.9	5.8	1.1	257	7.1	6.9	1.6	241	9.5	8.3	4.6	250	12.8	12.1	4.3	241	2.5	2.2	1.2
6	274	1.4	1.4	-0.1	230	2.5	1.9	1.6	252	5.4	5.1	1.7	252	6.2	5.9	1.9	248	8.3	7.7	3.1	252	10.9	10.4	3.4	48	2.7	-2.0	-1.8
7	113	1.5	-1.4	0.6	236	2.7	2.2	1.5	252	5.4	5.1	1.7	249	6.2	5.8	2.2	239	7.9	6.7	4.1	251	7.2	6.8	2.3	8	2.9	-0.4	-2.9
8	98	2.1	-2.1	0.3	205	2.1	0.9	1.9	251	4.9	4.6	1.6	247	4.9	4.5	1.9	240	7.9	6.8	4.0	261	9.0	8.9	1.4	27	3.7	-1.7	-3.3
9	306	0.9	0.7	-0.5	263	2.4	2.4	0.3	252	4.3	4.1	1.3	253	5.1	4.9	1.5	245	5.5	5.0	2.3	248	7.3	6.8	2.7	38	2.9	-1.8	-2.3
10	167	0.9	-0.2	0.9	237	3.3	2.8	1.8	261	3.8	3.8	0.6	228	3.8	2.8	2.5	226	6.5	4.7	4.5	242	5.7	5.0	2.7	51	3.6	-2.8	-2.3
11	180	0.7	0.0	0.7	225	1.1	0.8	0.8	238	2.8	2.4	1.5	232	4.1	3.2	2.5	243	3.6	3.2	1.6	251	5.2	4.9	1.7	41	5.5	-3.6	-4.1
12	153	0.2	-0.1	0.2	236	3.2	2.7	1.8	254	3.2	3.1	0.9	245	4.4	4.0	1.9	255	4.9	4.7	1.3	275	3.7	3.7	-0.3	70	7.4	-7.0	-2.5
13	231	1.3	1.0	0.8	242	2.7	2.4	1.3	241	4.1	3.6	2.0	244	4.6	4.1	2.0	258	2.9	2.8	0.6	257	3.2	3.1	0.7	48	5.2	-3.9	-3.5
14	255	2.0	1.9	0.5	224	3.2	2.2	2.3	250	4.4	4.1	1.5	227	5.6	4.1	3.8	244	3.0	2.7	1.3	247	4.0	3.7	1.6	45	4.8	-3.4	-3.4
15	319	0.9	0.6	-0.7	248	2.2	2.0	0.8	247	4.1	3.8	1.6	231	4.9	3.8	3.1	220	3.1	2.0	2.4	242	3.8	3.4	1.8	69	5.3	-5.0	-1.9
16	219	1.4	0.9	1.1	242	2.4	2.1	1.1	240	3.8	3.3	1.9	236	4.0	3.3	2.2	240	3.6	3.1	1.8	228	2.7	2.0	1.8	51	5.9	-4.6	-3.7
17	109	2.1	-2.0	0.7	209	2.3	1.1	2.0	227	3.5	2.6	2.4	228	3.6	2.7	2.4	212	3.4	1.8	2.9	243	4.2	3.7	1.9	64	4.6	-4.1	-2.0
18	39	1.4	-0.9	-1.1	208	1.5	0.7	1.3	221	3.3	2.2	2.5	224	4.3	3.0	3.1	231	2.7	2.1	1.7	244	3.2	2.9	1.4	66	7.6	-6.9	-3.1
19	324	0.9	0.5	-0.7	202	1.6	0.6	1.5	210	3.9	2.0	3.4	231	3.8	3.0	2.4	238	2.5	2.1	1.3	240	2.8	2.4	1.4	66	6.9	-6.3	-2.8
20	304	0.4	0.3	-0.2	183	1.9	0.1	1.9	211	2.7	1.4	2.3	222	4.2	2.8	3.1	219	2.7	1.7	2.1	204	2.2	0.9	2.0	43	6.9	-4.7	-5.1
21	208	1.7	0.8	1.5	233	3.1	2.5	1.9	228	4.3	3.2	2.9	223	4.1	2.8	3.0	242	1.9	1.7	0.9	312	1.3	1.0	-0.9	64	8.8	-7.9	-3.8
22	76	1.2	-1.2	-0.3	204	2.2	0.9	2.0	213	3.0	1.6	2.5	204	3.6	1.5	3.3	204	2.0	0.8	1.8	36	2.2	-1.3	-1.8	71	8.6	-8.1	-2.8
23	90	1.1	-1.1	0.0	223	2.3	1.6	1.7	224	3.7	2.6	2.7	208	3.8	1.8	3.4	198	2.0	0.6	1.9	28	1.5	-0.7	-1.3	63	9.4	-8.4	-4.3
24	69	0.9	-0.8	-0.3	240	2.0	1.7	1.0	217	3.1	1.9	2.5	199	3.4	1.1	3.2	217	2.0	1.2	1.6	321	0.6	0.4	-0.5	55	7.7	-6.3	-4.4
25	69	1.4	-1.3	-0.5	213	1.7	0.9	1.4	221	2.8	1.8	2.1	169	1.6	-0.3	1.6	124	1.1	-0.9	0.6	49	0.9	-0.7	-0.6	61	10.2	-8.9	-5.0
26	70	2.0	-1.9	-0.7	184	1.4	0.1	1.4	185	2.2	0.2	2.2	177	2.0	-0.1	2.0	138	1.3	-0.9	1.0	23	2.5	-1.0	-2.3	58	11.0	-9.3	-5.8
27	150	0.8	-0.4	0.7	228	2.4	1.8	1.6	174	2.9	-0.3	2.9	195	2.4	0.6	2.3	142	1.8	-1.1	1.4	62	1.7	-1.5	-0.8	71	13.3	-12.5	-4.4
28	270	0.2	0.2	0.0	227	2.6	1.9	1.8	215	3.5	2.0	2.9	203	2.8	1.1	2.6	117	1.6	-1.4	0.7	74	3.5	-3.4	-1.0	62	12.0	-10.6	-5.7
29	180	0.3	0.0	0.3	211	3.1	1.6	2.7	203	4.7	1.8	4.3	207	3.1	1.4	2.8	139	2.1	-1.4	1.6	82	3.0	-3.0	-0.4	62	10.7	-9.4	-5.1
30	283	2.2	2.1	-0.5	224	3.2	2.2	2.3	225	4.1	2.9	2.9	216	2.4	1.4	1.9	128	1.6	-1.3	1.0	60	3.0	-2.6	-1.5	67	15.3	-14.1	-5.9

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	198	0.3	0.1	0.3	218	3.4	2.1	2.7	213	4.5	2.5	3.8	229	0.9	0.7	0.6	191	0.5	0.1	0.5	34	1.1	-0.6	-0.9	62	13.7	-12.1	-6.5
2	86	1.3	-1.3	-0.1	234	3.6	2.9	2.1	233	3.6	2.9	2.2	195	2.3	0.6	2.2	70	1.5	-1.4	-0.5	35	4.5	-2.6	-3.7	61	13.2	-11.6	-6.4
3	187	0.8	0.1	0.8	236	4.7	3.9	2.6	241	4.8	4.2	2.3	222	3.6	2.4	2.7	160	1.5	-0.5	1.4	66	4.2	-3.8	-1.7	71	12.7	-12.0	-4.2
4	279	1.8	1.8	-0.3	251	4.3	4.1	1.4	229	4.8	3.6	3.1	241	3.5	3.1	1.7	156	1.0	-0.4	0.9	73	3.7	-3.5	-1.1	75	13.4	-12.9	-3.5
5	246	1.0	0.9	0.4	222	2.8	1.9	2.1	230	5.0	3.8	3.2	229	2.8	2.1	1.8	129	1.9	-1.5	1.2	44	2.9	-2.0	-2.1	81	14.3	-14.1	-2.2
6	211	0.6	0.3	0.5	216	3.2	1.9	2.6	213	3.7	2.0	3.1	178	2.5	-0.1	2.5	114	2.4	-2.2	1.0	69	6.0	-5.6	-2.2	67	16.3	-15.0	-6.3
7	315	0.3	0.2	-0.2	224	2.9	2.0	2.1	218	3.4	2.1	2.7	174	3.0	-0.3	3.0	82	4.8	-4.7	-0.7	72	7.3	-6.9	-2.3	87	14.4	-14.4	-0.8
8	255	2.4	2.3	0.6	214	2.3	1.3	1.9	209	3.8	1.8	3.3	200	2.7	0.9	2.5	106	1.8	-1.7	0.5	76	6.4	-6.2	-1.6	74	15.4	-14.8	-4.2
9	261	1.3	1.3	0.2	231	2.2	1.7	1.4	221	3.0	2.0	2.3	202	1.8	0.7	1.7	103	3.1	-3.0	0.7	77	4.7	-4.6	-1.1	77	15.0	-14.6	-3.4
10	60	0.8	-0.7	-0.4	200	2.0	0.7	1.9	220	3.3	2.1	2.5	184	1.6	0.1	1.6	76	3.3	-3.2	-0.8	69	4.2	-3.9	-1.5	70	14.5	-13.6	-5.0
11	135	0.3	-0.2	0.2	197	1.4	0.4	1.3	202	2.7	1.0	2.5	140	1.7	-1.1	1.3	115	3.1	-2.8	1.3	76	5.9	-5.7	-1.4	67	13.6	-12.5	-5.4
12	66	1.0	-0.9	-0.4	198	1.3	0.4	1.2	210	3.0	1.5	2.6	196	2.2	0.6	2.1	82	2.2	-2.2	-0.3	67	6.2	-5.7	-2.4	75	14.8	-14.3	-3.7
13	76	0.8	-0.8	-0.2	228	2.5	1.9	1.7	219	4.3	2.7	3.3	223	2.3	1.6	1.7	86	1.6	-1.6	-0.1	47	5.9	-4.3	-4.0	67	14.0	-12.9	-5.5
14	90	0.7	-0.7	0.0	225	1.7	1.2	1.2	203	3.8	1.5	3.5	252	1.3	1.2	0.4	93	2.0	-2.0	0.1	49	4.0	-3.0	-2.6	71	13.0	-12.3	-4.3
15	270	0.6	0.6	0.0	217	2.6	1.6	2.1	214	2.9	1.6	2.4	214	2.3	1.3	1.9	62	2.1	-1.9	-1.0	44	4.7	-3.3	-3.4	72	15.7	-14.9	-4.8
16	281	1.0	1.0	-0.2	211	2.9	1.5	2.5	226	2.8	2.0	1.9	185	1.1	0.1	1.1	81	3.2	-3.2	-0.5	63	7.8	-7.0	-3.5	67	17.4	-16.1	-6.7
17	273	1.8	1.8	-0.1	231	2.7	2.1	1.7	227	3.4	2.5	2.3	156	1.0	-0.4	0.9	92	3.2	-3.2	0.1	63	6.7	-6.0	-3.0	66	15.5	-14.2	-6.3
18	114	1.0	-0.9	0.4	229	1.8	1.4	1.2	217	3.6	2.2	2.9	221	1.1	0.7	0.8	85	2.3	-2.3	-0.2	56	6.8	-5.6	-3.8	69	16.6	-15.5	-6.0
19	94	1.5	-1.5	0.1	203	2.1	0.8	1.9	199	2.4	0.8	2.3	164	2.2	-0.6	2.1	66	4.3	-3.9	-1.7	55	9.1	-7.5	-5.2	65	16.4	-14.8	-7.0
20	80	1.7	-1.7	-0.3	238	0.9	0.8	0.5	190	1.7	0.3	1.7	170	1.1	-0.2	1.1	79	4.4	-4.3	-0.8	63	8.9	-7.9	-4.0	77	18.4	-17.9	-4.2
21	51	1.4	-1.1	-0.9	200	1.2	0.4	1.1	175	2.4	-0.2	2.4	141	2.1	-1.3	1.6	94	4.2	-4.2	0.3	72	9.6	-9.1	-3.0	73	19.9	-19.0	-5.9
22	360	0.5	0.0	-0.5	216	2.2	1.3	1.8	195	2.7	0.7	2.6	156	1.2	-0.5	1.1	81	4.9	-4.8	-0.8	60	9.5	-8.2	-4.8	69	17.3	-16.2	-6.1
23	300	0.8	0.7	-0.4	235	3.8	3.1	2.2	232	3.6	2.8	2.2	169	1.6	-0.3	1.6	93	5.9	-5.9	0.3	76	11.4	-11.1	-2.7	73	18.7	-17.9	-5.5
24	5	1.2	-0.1	-1.2	237	3.1	2.6	1.7	224	3.0	2.1	2.2	183	1.8	0.1	1.8	84	3.6	-3.6	-0.4	68	10.5	-9.8	-3.9	72	17.4	-16.6	-5.3
25	200	1.2	0.4	1.1	237	3.5	2.9	1.9	237	3.1	2.6	1.7	180	0.3	0.0	0.3	89	6.4	-6.4	-0.1	62	11.0	-9.7	-5.2	74	20.0	-19.3	-5.4
26	90	0.8	-0.8	0.0	237	4.2	3.5	2.3	231	3.2	2.5	2.0	207	1.3	0.6	1.2	87	5.0	-5.0	-0.3	63	10.2	-9.1	-4.6	70	18.7	-17.6	-6.3
27	88	2.8	-2.8	-0.1	221	2.8	1.8	2.1	212	3.1	1.6	2.6	174	2.7	-0.3	2.7	98	4.4	-4.4	0.6	67	8.6	-7.9	-3.4	66	19.2	-17.6	-7.7
28	191	0.5	0.1	0.5	212	2.2	1.2	1.9	213	3.0	1.6	2.5	180	2.5	0.0	2.5	87	5.2	-5.2	-0.3	78	11.0	-10.8	-2.2	75	17.7	-17.1	-4.7
29	249	0.9	0.8	0.3	232	2.8	2.2	1.7	218	2.8	1.7	2.2	174	2.0	-0.2	2.0	90	4.7	-4.7	0.0	80	10.0	-9.8	-1.8	74	18.7	-17.9	-5.3
30	45	0.1	-0.1	-0.1	245	2.9	2.6	1.2	221	2.1	1.4	1.6	95	1.1	-1.1	0.1	74	5.5	-5.3	-1.5	57	9.0	-7.5	-4.9	66	18.1	-16.6	-7.3
31	99	1.2	-1.2	0.2	196	1.9	0.5	1.8	164	1.8	-0.5	1.7	90	2.0	-2.0	0.0	74	4.7	-4.5	-1.3	47	8.9	-6.5	-6.1	69	19.4	-18.1	-7.1

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	90	1.2	-1.2	0.0	115	1.4	-1.3	0.6	135	1.6	-1.1	1.1	125	1.9	-1.6	1.1	76	3.8	-3.7	-0.9	60	8.5	-7.3	-4.3	69	18.6	-17.4	-6.6
2	126	0.9	-0.7	0.5	171	1.9	-0.3	1.9	119	2.1	-1.8	1.0	158	1.6	-0.6	1.5	78	2.9	-2.8	-0.6	53	6.9	-5.5	-4.2	63	18.7	-16.7	-8.5
3	216	1.4	0.8	1.1	148	0.9	-0.5	0.8	124	2.5	-2.1	1.4	143	2.6	-1.6	2.1	91	4.5	-4.5	0.1	64	6.4	-5.7	-2.8	76	14.4	-14.0	-3.5
4	261	1.8	1.8	0.3	180	1.8	0.0	1.8	175	2.3	-0.2	2.3	129	3.3	-2.6	2.1	98	2.7	-2.7	0.4	72	6.9	-6.6	-2.1	77	17.6	-17.1	-4.0
5	63	0.7	-0.6	-0.3	144	1.4	-0.8	1.1	150	2.2	-1.1	1.9	101	2.5	-2.5	0.5	88	4.9	-4.9	-0.2	67	9.5	-8.7	-3.7	71	18.8	-17.8	-6.1
6	82	2.2	-2.2	-0.3	162	1.6	-0.5	1.5	129	2.2	-1.7	1.4	114	3.5	-3.2	1.4	96	6.5	-6.5	0.7	82	10.3	-10.2	-1.5	74	18.8	-18.1	-5.1
7	270	0.7	0.7	0.0	141	0.6	-0.4	0.5	129	1.3	-1.0	0.8	110	3.0	-2.8	1.0	84	6.8	-6.8	-0.7	68	9.9	-9.2	-3.7	72	18.6	-17.7	-5.8
8	247	3.0	2.8	1.2	209	1.3	0.6	1.1	159	2.2	-0.8	2.1	135	1.6	-1.1	1.1	90	6.7	-6.7	0.0	71	11.5	-10.9	-3.8	72	18.2	-17.3	-5.6
9	330	1.6	0.8	-1.4	241	1.0	0.9	0.5	151	1.3	-0.6	1.1	101	2.1	-2.1	0.4	86	7.2	-7.2	-0.5	60	11.9	-10.3	-6.0	72	18.5	-17.6	-5.6
10	241	1.3	1.1	0.6	245	2.1	1.9	0.9	214	1.8	1.0	1.5	121	2.3	-2.0	1.2	67	6.2	-5.7	-2.4	64	11.7	-10.5	-5.1	74	18.7	-18.0	-5.0
11	252	0.9	0.9	0.3	204	1.2	0.5	1.1	200	2.0	0.7	1.9	169	1.6	-0.3	1.6	72	4.1	-3.9	-1.3	60	9.5	-8.2	-4.7	68	19.4	-18.0	-7.3
12	247	2.1	1.9	0.8	184	1.5	0.1	1.5	163	2.8	-0.8	2.7	144	2.6	-1.5	2.1	89	4.0	-4.0	-0.1	48	8.2	-6.1	-5.5	65	15.8	-14.4	-6.6
13	81	1.2	-1.2	-0.2	110	2.0	-1.9	0.7	137	2.5	-1.7	1.8	162	2.9	-0.9	2.8	110	2.7	-2.5	0.9	77	5.2	-5.1	-1.2	66	14.9	-13.6	-6.1
14	239	1.7	1.5	0.9	230	1.6	1.2	1.0	183	1.7	0.1	1.7	169	2.1	-0.4	2.1	98	3.5	-3.5	0.5	72	5.7	-5.4	-1.8	71	14.2	-13.4	-4.6
15	76	0.4	-0.4	-0.1	157	1.3	-0.5	1.2	165	1.6	-0.4	1.5	148	2.6	-1.4	2.2	103	3.5	-3.4	0.8	76	6.4	-6.2	-1.5	79	16.2	-15.9	-3.1
16	297	0.4	0.4	-0.2	186	1.0	0.1	1.0	153	1.6	-0.7	1.4	153	2.2	-1.0	2.0	94	2.6	-2.6	0.2	59	6.1	-5.2	-3.1	74	16.1	-15.5	-4.5
17	45	0.3	-0.2	-0.2	225	1.0	0.7	0.7	180	2.1	0.0	2.1	146	2.2	-1.2	1.8	101	4.1	-4.0	0.8	72	6.9	-6.6	-2.1	74	14.9	-14.3	-4.2
18	81	1.3	-1.3	-0.2	171	0.6	-0.1	0.6	183	1.7	0.1	1.7	128	1.6	-1.3	1.0	97	3.8	-3.8	0.5	78	6.1	-6.0	-1.3	72	13.5	-12.9	-4.1
19	135	0.8	-0.6	0.6	180	0.5	0.0	0.5	162	1.9	-0.6	1.8	131	1.8	-1.4	1.2	97	3.4	-3.4	0.4	63	7.6	-6.8	-3.4	76	14.5	-14.1	-3.5
20	90	0.9	-0.9	0.0	165	1.1	-0.3	1.1	212	1.3	0.7	1.1	162	2.5	-0.8	2.4	86	4.1	-4.1	-0.3	69	6.0	-5.6	-2.1	78	14.3	-14.0	-3.0
21	83	0.8	-0.8	-0.1	231	2.2	1.7	1.4	210	1.6	0.8	1.4	133	2.1	-1.5	1.4	86	3.2	-3.2	-0.2	61	6.8	-6.0	-3.3	77	14.0	-13.7	-3.1
22	346	0.4	0.1	-0.4	203	1.5	0.6	1.4	202	2.2	0.8	2.0	162	2.3	-0.7	2.2	85	3.2	-3.2	-0.3	69	5.6	-5.2	-2.0	71	13.2	-12.5	-4.2
23	264	1.0	1.0	0.1	223	1.9	1.3	1.4	196	2.2	0.6	2.1	197	2.1	0.6	2.0	93	2.0	-2.0	0.1	53	6.1	-4.9	-3.7	76	12.8	-12.4	-3.1
24	294	1.0	0.9	-0.4	243	3.4	3.0	1.5	241	2.3	2.0	1.1	225	0.7	0.5	0.5	78	2.9	-2.8	-0.6	68	5.4	-5.0	-2.0	74	11.4	-10.9	-3.2
25	101	1.0	-1.0	0.2	228	1.2	0.9	0.8	193	1.8	0.4	1.8	101	0.5	-0.5	0.1	95	2.5	-2.5	0.2	53	3.4	-2.7	-2.0	67	12.9	-11.8	-5.1
26	104	3.0	-2.9	0.7	121	2.1	-1.8	1.1	150	2.2	-1.1	1.9	137	1.8	-1.2	1.3	88	3.1	-3.1	-0.1	59	6.3	-5.4	-3.2	68	12.7	-11.8	-4.7
27	100	2.2	-2.2	0.4	171	1.3	-0.2	1.3	164	2.9	-0.8	2.8	148	1.9	-1.0	1.6	114	3.2	-2.9	1.3	79	6.0	-5.9	-1.2	78	11.7	-11.5	-2.4
28	67	0.8	-0.7	-0.3	174	0.9	-0.1	0.9	145	1.6	-0.9	1.3	152	2.1	-1.0	1.9	96	4.5	-4.5	0.5	78	6.2	-6.1	-1.3	71	11.2	-10.6	-3.6
29	60	2.0	-1.7	-1.0	159	0.9	-0.3	0.8	182	2.3	0.1	2.3	152	2.1	-1.0	1.9	95	4.8	-4.8	0.4	75	5.1	-4.9	-1.3	75	12.0	-11.6	-3.0
30	94	1.5	-1.5	0.1	227	2.1	1.5	1.4	209	1.8	0.9	1.6	161	1.8	-0.6	1.7	92	3.1	-3.1	0.1	68	5.7	-5.3	-2.1	76	12.8	-12.4	-3.2
31	70	2.9	-2.7	-1.0	127	0.5	-0.4	0.3	173	0.8	-0.1	0.8	156	1.7	-0.7	1.6	80	4.5	-4.4	-0.8	60	6.4	-5.5	-3.2	79	13.2	-12.9	-2.6

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	57	1.7	-1.4	-0.9	217	1.0	0.6	0.8	157	2.1	-0.8	1.9	120	2.0	-1.7	1.0	97	2.4	-2.4	0.3	68	6.2	-5.8	-2.3	67	11.1	-10.2	-4.3
2	11	0.5	-0.1	-0.5	231	1.9	1.5	1.2	196	1.9	0.5	1.8	195	2.0	0.5	1.9	104	2.5	-2.4	0.6	70	5.0	-4.7	-1.7	74	12.9	-12.4	-3.6
3	84	2.0	-2.0	-0.2	227	1.9	1.4	1.3	213	2.4	1.3	2.0	183	1.7	0.1	1.7	90	3.3	-3.3	0.0	70	4.0	-3.8	-1.4	68	13.6	-12.6	-5.2
4	117	1.3	-1.2	0.6	207	1.1	0.5	1.0	167	2.3	-0.5	2.2	177	2.0	-0.1	2.0	106	3.6	-3.5	1.0	69	5.5	-5.1	-2.0	72	10.8	-10.2	-3.4
5	15	1.1	-0.3	-1.1	235	1.6	1.3	0.9	225	3.1	2.2	2.2	190	1.7	0.3	1.7	122	2.5	-2.1	1.3	84	2.9	-2.9	-0.3	65	9.6	-8.7	-4.1
6	60	0.8	-0.7	-0.4	171	1.3	-0.2	1.3	194	2.1	0.5	2.0	180	2.5	0.0	2.5	126	1.9	-1.5	1.1	45	2.7	-1.9	-1.9	76	11.0	-10.7	-2.6
7	18	0.9	-0.3	-0.9	173	0.8	-0.1	0.8	182	2.4	0.1	2.4	180	1.4	0.0	1.4	113	2.3	-2.1	0.9	67	3.6	-3.3	-1.4	77	10.8	-10.5	-2.5
8	315	0.1	0.1	-0.1	221	0.9	0.6	0.7	184	1.4	0.1	1.4	183	1.9	0.1	1.9	117	3.7	-3.3	1.7	100	4.1	-4.0	0.7	79	9.9	-9.7	-1.9
9	236	0.4	0.3	0.2	202	1.6	0.6	1.5	191	1.6	0.3	1.6	183	2.2	0.1	2.2	112	2.7	-2.5	1.0	70	3.2	-3.0	-1.1	83	9.5	-9.4	-1.1
10	270	1.2	1.2	0.0	204	1.0	0.4	0.9	177	1.9	-0.1	1.9	185	2.4	0.2	2.4	96	1.8	-1.8	0.2	74	2.6	-2.5	-0.7	86	9.2	-9.2	-0.7
11	285	1.6	1.5	-0.4	233	1.5	1.2	0.9	194	2.1	0.5	2.0	206	2.5	1.1	2.3	169	1.5	-0.3	1.5	60	2.8	-2.4	-1.4	76	8.1	-7.8	-2.0
12	32	1.3	-0.7	-1.1	243	2.9	2.6	1.3	220	2.6	1.7	2.0	242	3.2	2.8	1.5	185	1.2	0.1	1.2	90	1.0	-1.0	0.0	80	5.5	-5.4	-1.0
13	80	1.7	-1.7	-0.3	240	3.2	2.8	1.6	238	2.8	2.4	1.5	238	3.8	3.2	2.0	160	1.5	-0.5	1.4	270	0.2	0.2	0.0	74	6.3	-6.1	-1.7
14	132	1.2	-0.9	0.8	239	2.9	2.5	1.5	234	3.1	2.5	1.8	228	3.8	2.8	2.5	207	2.0	0.9	1.8	255	1.1	1.1	0.3	80	6.1	-6.0	-1.1
15	252	0.6	0.6	0.2	233	2.5	2.0	1.5	235	3.5	2.9	2.0	243	3.4	3.0	1.5	228	2.7	2.0	1.8	236	2.3	1.9	1.3	74	4.0	-3.8	-1.1
16	72	0.6	-0.6	-0.2	227	2.5	1.8	1.7	224	3.3	2.3	2.4	236	2.9	2.4	1.6	263	2.4	2.4	0.3	268	3.6	3.6	0.1	47	3.5	-2.6	-2.4
17	138	1.2	-0.8	0.9	241	2.1	1.8	1.0	242	2.7	2.4	1.3	237	4.0	3.4	2.2	244	3.4	3.1	1.5	267	6.7	6.7	0.4	28	3.2	-1.5	-2.8
18	270	1.0	1.0	0.0	256	4.2	4.1	1.0	248	4.5	4.2	1.7	260	4.5	4.4	0.8	259	4.2	4.1	0.8	272	7.3	7.3	-0.3	32	4.9	-2.6	-4.2
19	240	1.6	1.4	0.8	247	2.8	2.6	1.1	238	3.1	2.6	1.6	263	3.4	3.4	0.4	265	4.3	4.3	0.4	287	7.5	7.2	-2.2	53	4.8	-3.8	-2.9
20	90	0.2	-0.2	0.0	232	1.6	1.3	1.0	240	3.0	2.6	1.5	252	3.6	3.4	1.1	270	4.7	4.7	0.0	272	6.6	6.6	-0.2	28	3.2	-1.5	-2.8
21	88	3.6	-3.6	-0.1	190	1.1	0.2	1.1	219	1.9	1.2	1.5	252	2.9	2.8	0.9	269	4.7	4.7	0.1	274	7.7	7.7	-0.5	47	2.5	-1.8	-1.7
22	90	0.9	-0.9	0.0	240	1.4	1.2	0.7	239	1.7	1.5	0.9	251	4.0	3.8	1.3	280	4.0	3.9	-0.7	283	7.7	7.5	-1.8	3	1.9	-0.1	-1.9
23	150	0.8	-0.4	0.7	221	2.1	1.4	1.6	234	2.7	2.2	1.6	256	3.6	3.5	0.9	258	4.7	4.6	1.0	280	6.9	6.8	-1.2	346	1.6	0.4	-1.6
24	95	1.1	-1.1	0.1	261	0.6	0.6	0.1	255	2.0	1.9	0.5	240	3.0	2.6	1.5	272	4.8	4.8	-0.2	286	9.4	9.0	-2.6	2	3.7	-0.1	-3.7
25	270	0.3	0.3	0.0	221	0.9	0.6	0.7	234	2.7	2.2	1.6	246	4.5	4.1	1.8	249	6.1	5.7	2.2	276	8.0	7.9	-0.9	349	1.6	0.3	-1.6
26	180	0.5	0.0	0.5	242	2.4	2.1	1.1	242	4.1	3.6	1.9	250	6.1	5.7	2.1	249	7.4	6.9	2.6	269	9.3	9.3	0.2	304	1.4	1.2	-0.8
27	90	0.2	-0.2	0.0	205	1.7	0.7	1.5	237	3.7	3.1	2.0	243	7.3	6.5	3.3	249	8.9	8.3	3.2	258	10.9	10.7	2.2	323	3.0	1.8	-2.4
28	97	3.5	-3.5	0.4	191	1.0	0.2	1.0	242	2.7	2.4	1.3	246	4.7	4.3	1.9	257	7.9	7.7	1.8	271	9.4	9.4	-0.1	253	1.4	1.3	0.4
29	77	2.2	-2.1	-0.5	219	1.9	1.2	1.5	242	3.0	2.6	1.4	242	5.7	5.0	2.7	261	7.4	7.3	1.2	278	7.6	7.5	-1.1	253	1.0	1.0	0.3
30	80	1.1	-1.1	-0.2	242	1.5	1.3	0.7	232	2.9	2.3	1.8	241	6.8	5.9	3.3	246	9.5	8.7	3.9	255	12.3	11.9	3.1	252	2.6	2.5	0.8

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	360	0.1	0.0	-0.1	236	1.4	1.2	0.8	231	3.6	2.8	2.3	249	6.6	6.1	2.4	250	9.3	8.7	3.2	262	11.4	11.3	1.5	260	2.3	2.3	0.4
2	103	1.8	-1.8	0.4	225	1.4	1.0	1.0	242	3.2	2.8	1.5	239	6.8	5.8	3.5	252	9.6	9.1	2.9	263	10.9	10.8	1.3	251	2.1	2.0	0.7
3	76	0.4	-0.4	-0.1	242	1.5	1.3	0.7	249	2.8	2.6	1.0	246	6.4	5.8	2.6	253	10.8	10.3	3.2	259	12.6	12.3	2.5	266	5.2	5.2	0.4
4	68	0.5	-0.5	-0.2	236	1.8	1.5	1.0	244	3.2	2.9	1.4	251	6.7	6.3	2.2	256	10.8	10.5	2.6	269	11.6	11.6	0.3	264	4.5	4.5	0.5
5	90	0.2	-0.2	0.0	235	1.6	1.3	0.9	250	2.9	2.7	1.0	250	7.2	6.7	2.5	252	14.2	13.5	4.5	256	13.0	12.6	3.1	266	3.2	3.2	0.2
6	90	0.2	-0.2	0.0	267	1.8	1.8	0.1	237	3.1	2.6	1.7	252	7.1	6.7	2.2	256	11.8	11.5	2.8	254	13.4	12.9	3.6	270	5.2	5.2	0.0
7	279	0.6	0.6	-0.1	245	2.1	1.9	0.9	244	3.2	2.9	1.4	252	7.8	7.4	2.4	256	10.9	10.6	2.7	261	12.8	12.6	2.0	290	2.9	2.7	-1.0
8	276	0.9	0.9	-0.1	237	1.7	1.4	0.9	237	2.7	2.3	1.5	250	8.1	7.6	2.8	255	12.3	11.9	3.1	255	12.7	12.3	3.2	258	5.2	5.1	1.1
9	257	2.3	2.2	0.5	236	1.4	1.2	0.8	247	3.4	3.1	1.3	255	9.1	8.8	2.4	253	15.3	14.6	4.5	253	16.4	15.7	4.7	255	6.0	5.8	1.6
10	135	0.6	-0.4	0.4	228	1.5	1.1	1.0	241	3.9	3.4	1.9	256	10.0	9.7	2.4	259	16.2	15.9	3.2	258	16.7	16.3	3.6	266	6.4	6.4	0.5
11	221	1.1	0.7	0.8	197	1.0	0.3	1.0	240	3.9	3.4	2.0	265	10.9	10.9	1.0	261	16.2	16.0	2.6	259	18.0	17.7	3.5	257	6.9	6.7	1.5
12	76	0.8	-0.8	-0.2	122	1.3	-1.1	0.7	229	3.3	2.5	2.2	261	10.3	10.2	1.7	261	17.1	16.9	2.7	260	17.8	17.5	3.0	270	7.2	7.2	0.0
13	86	1.3	-1.3	-0.1	173	0.8	-0.1	0.8	250	3.5	3.3	1.2	254	11.8	11.3	3.3	259	16.2	15.9	3.0	259	18.2	17.9	3.4	273	10.7	10.7	-0.5
14	180	0.3	0.0	0.3	159	1.4	-0.5	1.3	239	3.1	2.7	1.6	253	10.4	10.0	3.0	261	19.1	18.8	3.1	258	23.0	22.5	4.7	268	9.8	9.8	0.4
15	110	1.2	-1.1	0.4	69	1.4	-1.3	-0.5	243	3.0	2.7	1.4	245	9.1	8.2	3.9	255	18.1	17.5	4.6	254	20.5	19.8	5.5	264	10.3	10.3	1.0
16	75	2.7	-2.6	-0.7	60	0.8	-0.7	-0.4	258	4.8	4.7	1.0	252	10.1	9.6	3.2	258	18.1	17.7	3.9	262	22.2	22.0	3.2	265	12.0	11.9	1.1
17	78	1.9	-1.9	-0.4	277	0.8	0.8	-0.1	262	4.5	4.5	0.6	263	10.3	10.2	1.3	264	19.1	19.0	2.1	259	23.9	23.5	4.4	267	9.0	9.0	0.5
18	90	1.9	-1.9	0.0	191	0.5	0.1	0.5	250	3.8	3.6	1.3	262	10.3	10.2	1.4	260	20.6	20.3	3.4	260	24.2	23.9	4.1	276	10.2	10.1	-1.1
19	90	3.1	-3.1	0.0	143	1.0	-0.6	0.8	254	3.2	3.1	0.9	262	11.3	11.2	1.5	260	19.8	19.5	3.3	260	21.8	21.4	3.9	260	10.2	10.0	1.8
20	58	1.3	-1.1	-0.7	180	0.8	0.0	0.8	245	5.5	5.0	2.3	255	12.0	11.6	3.0	259	20.8	20.4	4.0	261	23.9	23.6	3.9	266	10.1	10.1	0.7
21	75	2.4	-2.3	-0.6	174	0.9	-0.1	0.9	254	4.3	4.1	1.2	256	14.0	13.6	3.4	256	23.4	22.7	5.6	256	23.1	22.4	5.7	260	9.8	9.7	1.7
22	93	2.0	-2.0	0.1	27	0.2	-0.1	-0.2	270	3.9	3.9	0.0	262	13.1	13.0	1.8	262	22.1	21.9	2.9	259	26.2	25.7	5.0	262	13.7	13.6	1.8
23	77	0.9	-0.9	-0.2	146	0.4	-0.2	0.3	257	4.0	3.9	0.9	263	12.9	12.8	1.6	262	23.4	23.2	3.4	260	28.2	27.8	5.0	263	14.8	14.7	1.7
24	61	2.9	-2.5	-1.4	84	1.0	-1.0	-0.1	254	4.0	3.8	1.1	262	12.2	12.1	1.7	261	22.8	22.5	3.4	263	27.7	27.5	3.2	260	12.9	12.7	2.2
25	78	3.5	-3.4	-0.7	90	0.2	-0.2	0.0	256	3.6	3.5	0.9	262	13.0	12.9	1.9	261	27.5	27.1	4.4	259	32.0	31.4	6.0	258	19.1	18.7	4.0
26	86	4.3	-4.3	-0.3	105	2.0	-1.9	0.5	254	4.6	4.4	1.3	260	13.5	13.3	2.4	260	26.8	26.4	4.8	259	30.2	29.6	5.9	264	17.6	17.5	1.8
27	97	3.3	-3.3	0.4	88	2.9	-2.9	-0.1	243	1.8	1.6	0.8	263	13.5	13.4	1.7	262	27.7	27.4	4.0	266	32.8	32.7	2.2	260	16.0	15.7	2.9
28	92	6.9	-6.9	0.3	93	4.0	-4.0	0.2	227	1.6	1.2	1.1	257	10.0	9.7	2.3	259	23.3	22.9	4.5	261	29.4	29.0	4.8	267	15.9	15.9	0.8
29	87	6.5	-6.5	-0.3	86	4.3	-4.3	-0.3	225	1.3	0.9	0.9	257	13.7	13.3	3.1	260	27.4	27.0	4.9	258	31.8	31.1	6.5	267	17.6	17.6	0.9
30	85	3.7	-3.7	-0.3	83	3.2	-3.2	-0.4	241	2.3	2.0	1.1	256	13.3	12.9	3.2	261	27.1	26.8	4.1	260	31.4	30.9	5.6	266	19.9	19.8	1.5
31	77	4.1	-4.0	-0.9	87	3.3	-3.3	-0.2	256	1.2	1.2	0.3	258	12.5	12.2	2.5	262	29.3	29.0	4.1	263	34.3	34.1	3.9	266	15.8	15.8	1.0

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	82	4.2	-4.2	-0.6	95	3.4	-3.4	0.3	236	1.8	1.5	1.0	261	13.7	13.5	2.1	259	28.5	27.9	5.6	261	33.9	33.5	5.3	271	16.9	16.9	-0.4
2	90	2.6	-2.6	0.0	90	1.8	-1.8	0.0	238	2.2	1.9	1.2	257	14.4	14.0	3.3	260	26.7	26.3	4.6	260	34.4	33.9	5.9	259	16.1	15.8	3.1
3	79	2.6	-2.6	-0.5	78	2.4	-2.3	-0.5	245	4.1	3.7	1.7	264	14.2	14.1	1.6	264	29.1	28.9	3.1	262	36.8	36.4	5.3	263	16.9	16.8	2.1
4	80	3.5	-3.4	-0.6	86	1.6	-1.6	-0.1	239	4.5	3.9	2.3	261	15.1	14.9	2.4	260	30.3	29.8	5.3	260	38.2	37.7	6.4	268	17.1	17.1	0.5
5	90	4.0	-4.0	0.0	92	2.9	-2.9	0.1	221	2.1	1.4	1.6	262	14.5	14.4	1.9	265	32.0	31.9	2.9	263	38.9	38.6	4.8	262	18.0	17.8	2.4
6	90	2.5	-2.5	0.0	97	2.4	-2.4	0.3	238	2.2	1.9	1.2	267	13.8	13.8	0.8	261	29.1	28.7	4.8	264	36.5	36.3	3.8	269	19.7	19.7	0.2
7	79	3.3	-3.2	-0.6	94	1.6	-1.6	0.1	247	2.1	1.9	0.8	269	15.4	15.4	0.3	268	30.9	30.9	1.2	266	34.9	34.8	2.3	271	20.6	20.6	-0.3
8	82	2.8	-2.8	-0.4	86	2.7	-2.7	-0.2	263	2.3	2.3	0.3	271	16.4	16.4	-0.3	270	31.3	31.3	0.1	266	35.7	35.6	2.8	268	18.0	18.0	0.7
9	76	4.1	-4.0	-1.0	88	3.7	-3.7	-0.1	243	0.7	0.6	0.3	264	13.2	13.1	1.4	263	30.7	30.5	3.5	262	36.6	36.3	4.9	267	19.4	19.4	0.9
10	84	3.9	-3.9	-0.4	90	2.3	-2.3	0.0	246	2.2	2.0	0.9	266	15.1	15.1	1.1	270	30.9	30.9	0.0	267	35.8	35.8	1.8	272	15.4	15.4	-0.6
11	84	3.0	-3.0	-0.3	88	2.6	-2.6	-0.1	257	2.7	2.6	0.6	266	13.8	13.8	1.0	266	31.3	31.2	2.0	266	36.4	36.3	2.5	271	15.0	15.0	-0.2
12	67	2.5	-2.3	-1.0	88	2.7	-2.7	-0.1	249	1.9	1.8	0.7	263	12.3	12.2	1.5	266	32.2	32.1	2.1	268	38.9	38.9	1.5	271	18.3	18.3	-0.3
13	85	2.4	-2.4	-0.2	65	1.9	-1.7	-0.8	285	2.0	1.9	-0.5	271	15.4	15.4	-0.3	271	30.3	30.3	-0.4	271	39.3	39.3	-0.4	275	19.4	19.3	-1.6
14	85	3.2	-3.2	-0.3	87	1.9	-1.9	-0.1	252	2.3	2.2	0.7	275	14.1	14.0	-1.3	279	28.9	28.6	-4.3	274	36.0	35.9	-2.3	282	23.3	22.8	-4.8
15	76	3.8	-3.7	-0.9	94	2.7	-2.7	0.2	240	2.0	1.7	1.0	274	15.3	15.3	-1.1	275	31.1	31.0	-2.5	271	39.3	39.3	-0.8	276	23.5	23.4	-2.6
16	81	2.4	-2.4	-0.4	83	2.5	-2.5	-0.3	255	2.0	1.9	0.5	276	15.5	15.4	-1.5	271	30.5	30.5	-0.5	274	37.7	37.6	-2.7	280	22.0	21.7	-3.8
17	76	3.2	-3.1	-0.8	83	2.3	-2.3	-0.3	261	1.3	1.3	0.2	273	17.5	17.5	-0.8	274	32.6	32.5	-2.0	265	39.8	39.7	3.4	274	18.3	18.2	-1.4
18	92	3.3	-3.3	0.1	87	3.5	-3.5	-0.2	263	2.4	2.4	0.3	266	17.1	17.1	1.1	265	33.7	33.6	2.9	254	42.6	41.0	11.4	261	23.2	22.9	3.7
19	88	2.4	-2.4	-0.1	90	2.5	-2.5	0.0	265	4.6	4.6	0.4	266	18.2	18.2	1.3	264	34.2	34.0	3.6	258	40.3	39.4	8.5	266	23.1	23.1	1.5
20	83	2.3	-2.3	-0.3	93	2.0	-2.0	0.1	263	4.7	4.7	0.6	264	17.9	17.8	2.0	260	34.3	33.7	6.2	254	37.6	36.2	10.2	263	21.5	21.3	2.7
21	67	1.5	-1.4	-0.6	75	1.1	-1.1	-0.3	260	2.8	2.8	0.5	269	18.9	18.9	0.3	256	34.0	32.9	8.5	253	39.0	37.3	11.3	261	22.4	22.1	3.5
22	90	3.3	-3.3	0.0	84	2.8	-2.8	-0.3	277	2.3	2.3	-0.3	268	16.8	16.8	0.5	260	32.8	32.3	5.5	254	39.1	37.6	10.7	266	25.0	24.9	1.8
23	82	3.6	-3.6	-0.5	86	3.2	-3.2	-0.2	278	3.0	3.0	-0.4	264	19.6	19.5	2.2	257	35.7	34.7	8.3	253	42.0	40.1	12.6	255	23.9	23.1	6.0
24	93	2.0	-2.0	0.1	87	1.7	-1.7	-0.1	278	6.3	6.2	-0.9	265	20.3	20.2	1.6	260	34.7	34.2	6.1	251	44.1	41.7	14.2	256	27.0	26.2	6.7
25	81	2.0	-2.0	-0.3	78	3.0	-2.9	-0.6	267	4.5	4.5	0.2	266	19.1	19.0	1.4	260	34.0	33.5	6.0	258	38.6	37.8	7.8	267	25.1	25.1	1.3
26	83	3.2	-3.2	-0.4	101	2.6	-2.6	0.5	281	3.7	3.6	-0.7	267	20.7	20.7	1.1	268	35.9	35.9	1.3	261	42.1	41.6	6.5	262	22.4	22.2	3.1
27	82	2.9	-2.9	-0.4	84	1.9	-1.9	-0.2	270	5.4	5.4	0.0	269	20.9	20.9	0.5	270	37.4	37.4	0.2	264	41.5	41.3	4.3	268	25.1	25.1	0.7
28	86	2.7	-2.7	-0.2	88	3.1	-3.1	-0.1	263	3.5	3.5	0.4	266	20.7	20.6	1.6	265	36.3	36.2	3.1	260	41.4	40.8	7.3	262	26.5	26.3	3.6
29	94	2.7	-2.7	0.2	83	3.1	-3.1	-0.4	265	4.9	4.9	0.4	266	20.7	20.6	1.5	262	36.3	36.0	4.9	259	44.0	43.1	8.7	270	23.1	23.1	0.1
30	78	3.0	-2.9	-0.6	93	4.0	-4.0	0.2	252	3.3	3.1	1.0	265	18.6	18.5	1.7	262	35.2	34.8	5.0	259	41.8	41.0	7.9	265	29.0	28.9	2.5

Daily Normals of Upper Air Winds (1971-2000)

GUWAHATI **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	88	3.0	-3.0	-0.1	88	3.3	-3.3	-0.1	268	3.4	3.4	0.1	270	16.3	16.3	-0.1	267	33.1	33.0	1.9	264	39.4	39.2	4.0	267	24.7	24.7	1.2
2	92	2.3	-2.3	0.1	92	3.1	-3.1	0.1	272	3.6	3.6	-0.1	274	18.8	18.8	-1.3	271	34.3	34.3	-0.5	264	40.3	40.1	4.3	268	21.7	21.7	0.8
3	92	5.9	-5.9	0.2	80	3.5	-3.4	-0.6	279	3.8	3.8	-0.6	273	16.5	16.5	-1.0	270	33.8	33.8	0.2	265	41.3	41.1	3.7	258	25.5	24.9	5.3
4	74	4.1	-3.9	-1.1	88	3.0	-3.0	-0.1	274	5.8	5.8	-0.4	271	19.3	19.3	-0.5	268	34.3	34.3	1.1	260	39.8	39.1	7.2	262	27.9	27.6	4.0
5	88	3.2	-3.2	-0.1	90	2.2	-2.2	0.0	280	5.1	5.0	-0.9	274	20.6	20.6	-1.3	268	36.6	36.6	1.0	264	44.7	44.5	4.3	263	27.9	27.7	3.2
6	85	3.8	-3.8	-0.3	92	2.3	-2.3	0.1	300	4.6	4.0	-2.3	271	19.7	19.7	-0.4	269	35.3	35.3	0.6	258	39.7	38.9	8.1	274	24.8	24.7	-1.7
7	85	4.9	-4.9	-0.4	92	2.7	-2.7	0.1	275	5.2	5.2	-0.5	272	19.2	19.2	-0.8	264	32.6	32.4	3.3	260	40.6	40.0	6.9	266	23.6	23.5	1.8
8	84	3.1	-3.1	-0.3	84	4.5	-4.5	-0.5	273	3.9	3.9	-0.2	267	21.0	21.0	1.0	269	35.3	35.3	0.7	264	44.8	44.6	4.4	267	28.4	28.3	1.7
9	83	3.1	-3.1	-0.4	84	3.9	-3.9	-0.4	285	3.4	3.3	-0.9	273	22.0	22.0	-1.0	266	34.4	34.3	2.6	261	39.5	39.0	6.0	271	22.4	22.4	-0.2
10	82	2.2	-2.2	-0.3	86	2.7	-2.7	-0.2	280	2.8	2.8	-0.5	269	20.7	20.7	0.5	266	38.6	38.5	3.0	267	44.4	44.4	2.1	264	28.8	28.6	3.1
11	93	2.2	-2.2	0.1	86	3.2	-3.2	-0.2	270	3.9	3.9	0.0	272	20.1	20.1	-0.6	272	40.2	40.2	-1.7	264	45.0	44.7	4.8	269	28.4	28.4	0.5
12	90	2.2	-2.2	0.0	86	2.9	-2.9	-0.2	274	4.5	4.5	-0.3	275	22.0	21.9	-1.8	270	41.7	41.7	0.3	264	48.9	48.7	4.7	267	31.5	31.5	1.5
13	92	2.5	-2.5	0.1	98	2.8	-2.8	0.4	291	4.2	3.9	-1.5	271	22.3	22.3	-0.4	270	39.1	39.1	-0.3	265	44.5	44.4	3.5	269	25.8	25.8	0.5
14	81	2.6	-2.6	-0.4	88	3.0	-3.0	-0.1	273	3.6	3.6	-0.2	269	22.7	22.7	0.3	265	38.7	38.5	3.5	262	49.3	48.8	6.9	263	29.9	29.7	3.7
15	80	1.7	-1.7	-0.3	83	2.4	-2.4	-0.3	276	3.7	3.7	-0.4	269	23.9	23.9	0.5	265	38.6	38.5	3.2	259	46.2	45.3	8.9	265	28.1	28.0	2.3
16	83	3.1	-3.1	-0.4	84	3.0	-3.0	-0.3	284	3.2	3.1	-0.8	275	21.5	21.4	-1.7	266	36.3	36.2	2.7	263	47.6	47.2	6.0	268	25.8	25.8	0.9
17	85	3.8	-3.8	-0.3	90	3.1	-3.1	0.0	281	4.3	4.2	-0.8	272	20.9	20.9	-0.6	273	38.0	37.9	-2.0	265	46.0	45.8	4.4	269	27.8	27.8	0.5
18	80	4.1	-4.0	-0.7	88	2.7	-2.7	-0.1	275	4.5	4.5	-0.4	275	17.7	17.6	-1.6	267	37.7	37.6	2.0	263	43.5	43.2	5.4	267	24.7	24.7	1.3
19	83	3.1	-3.1	-0.4	94	2.6	-2.6	0.2	269	4.5	4.5	0.1	273	20.7	20.7	-1.2	273	39.3	39.3	-1.8	265	46.8	46.6	4.1	266	30.8	30.7	2.1
20	88	2.6	-2.6	-0.1	79	2.6	-2.6	-0.5	281	3.2	3.1	-0.6	275	22.2	22.1	-1.8	271	36.5	36.5	-0.8	263	43.9	43.6	5.1	271	28.4	28.4	-0.4
21	76	4.0	-3.9	-1.0	91	4.0	-4.0	0.1	268	4.6	4.6	0.2	272	21.6	21.6	-0.7	272	36.6	36.6	-1.0	261	42.5	41.9	6.9	267	25.6	25.6	1.4
22	77	2.8	-2.7	-0.6	86	2.8	-2.8	-0.2	271	4.6	4.6	-0.1	274	20.6	20.5	-1.5	273	41.4	41.3	-2.4	267	48.7	48.6	2.4	269	22.1	22.1	0.2
23	87	3.8	-3.8	-0.2	90	2.9	-2.9	0.0	277	5.4	5.4	-0.7	273	22.1	22.1	-1.0	267	42.4	42.4	2.0	263	49.8	49.4	6.5	267	29.5	29.5	1.3
24	81	2.4	-2.4	-0.4	81	0.6	-0.6	-0.1	276	6.4	6.4	-0.7	276	22.5	22.4	-2.2	269	38.8	38.8	1.0	264	46.2	45.9	5.0	262	34.1	33.8	4.7
25	88	5.0	-5.0	-0.2	86	2.7	-2.7	-0.2	282	4.4	4.3	-0.9	272	21.3	21.3	-0.8	270	40.4	40.4	0.0	263	50.2	49.8	6.5	260	32.0	31.5	5.4
26	81	3.2	-3.2	-0.5	90	2.8	-2.8	0.0	275	4.3	4.3	-0.4	271	19.8	19.8	-0.2	268	41.0	41.0	1.7	266	46.7	46.6	3.0	268	29.7	29.7	1.1
27	75	2.4	-2.3	-0.6	84	3.1	-3.1	-0.3	271	5.6	5.6	-0.1	269	21.7	21.7	0.4	267	39.0	38.9	2.0	260	46.4	45.6	8.4	268	29.7	29.7	1.0
28	83	3.4	-3.4	-0.4	92	2.3	-2.3	0.1	277	4.8	4.8	-0.6	266	21.7	21.6	1.5	266	40.8	40.7	3.1	261	50.2	49.6	7.9	269	29.4	29.4	0.7
29	67	1.5	-1.4	-0.6	81	1.2	-1.2	-0.2	268	6.1	6.1	0.2	273	24.4	24.4	-1.2	268	39.8	39.8	1.7	263	43.6	43.3	5.1	265	26.7	26.6	2.3
30	80	2.3	-2.3	-0.4	78	2.5	-2.4	-0.5	279	6.5	6.4	-1.0	269	24.0	24.0	0.5	268	44.4	44.4	1.9	267	47.7	47.7	2.1	268	26.3	26.3	0.8
31	82	2.2	-2.2	-0.3	77	1.3	-1.3	-0.3	279	6.2	6.1	-1.0	272	22.7	22.7	-0.7	268	39.9	39.9	1.7	266	50.7	50.5	3.9	267	27.5	27.5	1.5

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	339	2.6	0.9	-2.4	291	4.4	4.1	-1.6	277	11.4	11.3	-1.3	265	21.1	21.0	1.8	266	29.9	29.8	2.1	252	44.0	41.8	13.8	263	41.0	40.7	4.7
2	289	1.8	1.7	-0.6	316	3.7	2.6	-2.7	288	9.6	9.1	-3.0	273	18.8	18.8	-1.1	258	44.9	43.8	9.7	254	45.9	44.0	13.0	257	38.0	37.0	8.5
3	225	1.4	1.0	1.0	276	4.4	4.4	-0.5	271	9.1	9.1	-0.1	271	20.5	20.5	-0.2	285	39.8	38.5	-10.0	289	44.5	42.2	-14.2	293	60.2	55.5	-23.4
4	342	2.5	0.8	-2.4	287	3.9	3.7	-1.1	274	8.6	8.6	-0.6	267	20.7	20.7	1.1	259	40.6	39.9	7.7	264	58.2	57.8	6.4	251	54.0	51.1	17.6
5	339	1.4	0.5	-1.3	273	3.7	3.7	-0.2	273	8.5	8.5	-0.5	272	20.3	20.3	-0.7	261	34.7	34.2	5.7	251	43.0	40.7	14.0	323	24.0	14.4	-19.2
6	34	1.4	-0.8	-1.2	264	7.1	7.1	0.7	265	9.7	9.7	0.8	270	18.9	18.9	0.1	266	41.1	41.0	3.1	275	31.6	31.5	-2.8	261	23.9	23.6	3.6
7	241	1.3	1.1	0.6	269	4.0	4.0	0.1	273	8.6	8.6	-0.4	278	17.5	17.3	-2.5	267	40.4	40.3	2.1	262	28.9	28.6	3.9	270	24.8	24.8	-0.1
8	97	0.8	-0.8	0.1	274	2.9	2.9	-0.2	275	6.5	6.5	-0.6	263	18.6	18.4	2.4	273	36.1	36.1	-1.7	263	46.3	46.0	5.5	—	—	—	—
9	278	0.7	0.7	-0.1	282	4.4	4.3	-0.9	273	7.9	7.9	-0.4	272	18.3	18.3	-0.7	269	34.2	34.2	0.8	264	48.7	48.4	5.5	259	32.2	31.6	6.0
10	329	1.7	0.9	-1.5	300	3.0	2.6	-1.5	287	7.7	7.4	-2.3	263	19.2	19.1	2.3	252	37.0	35.2	11.4	241	48.5	42.4	23.5	244	16.0	14.4	7.0
11	340	2.0	0.7	-1.9	291	3.6	3.4	-1.3	277	10.2	10.1	-1.2	272	22.1	22.1	-0.7	239	35.6	30.4	18.6	244	50.3	45.3	21.8	252	33.9	32.2	10.5
12	177	1.8	-0.1	1.8	274	3.0	3.0	-0.2	273	9.7	9.7	-0.5	275	22.6	22.5	-1.8	263	40.0	39.7	5.1	263	49.5	49.2	5.8	282	29.0	28.4	-6.0
13	315	3.0	2.1	-2.1	296	4.1	3.7	-1.8	283	9.3	9.1	-2.1	276	23.4	23.3	-2.3	272	43.4	43.4	-1.4	261	46.2	45.6	7.4	262	29.2	28.9	4.1
14	351	1.9	0.3	-1.9	289	4.9	4.6	-1.6	275	11.1	11.1	-1.0	273	24.0	24.0	-1.3	261	46.6	46.1	7.0	263	62.1	61.6	7.8	254	21.0	20.2	5.8
15	201	1.9	0.7	1.8	257	4.8	4.7	1.1	258	10.0	9.8	2.1	261	21.9	21.6	3.3	262	46.6	46.1	6.5	255	50.6	48.9	12.9	257	40.0	39.0	8.8
16	330	3.6	1.8	-3.1	291	3.9	3.6	-1.4	266	9.3	9.3	0.7	276	21.7	21.6	-2.4	266	45.5	45.4	2.8	270	46.7	46.7	0.2	272	40.7	40.7	-1.7
17	322	5.1	3.1	-4.0	296	6.4	5.7	-2.8	278	10.7	10.6	-1.5	272	20.5	20.5	-0.6	267	44.1	44.0	2.1	259	52.5	51.5	10.4	338	14.2	5.2	-13.2
18	326	3.2	1.8	-2.7	297	6.7	6.0	-3.0	276	8.6	8.6	-0.9	276	19.5	19.4	-2.0	276	33.2	33.0	-3.5	268	39.5	39.5	1.2	267	30.4	30.4	1.5
19	326	2.5	1.4	-2.1	298	5.3	4.7	-2.5	274	10.4	10.4	-0.7	276	23.2	23.1	-2.4	275	41.9	41.8	-3.4	268	42.2	42.2	1.7	261	24.3	24.0	4.0
20	337	3.6	1.4	-3.3	315	6.4	4.5	-4.5	281	10.4	10.2	-2.0	281	24.5	24.1	-4.5	277	41.1	40.8	-4.9	290	51.1	47.9	-17.8	265	27.0	26.9	2.4
21	332	2.6	1.2	-2.3	314	5.4	3.9	-3.8	280	11.6	11.4	-2.1	274	23.9	23.8	-1.7	265	40.9	40.8	3.5	263	43.9	43.6	5.0	272	52.3	52.3	-1.5
22	326	3.0	1.7	-2.5	305	4.7	3.8	-2.7	273	11.3	11.3	-0.6	276	24.6	24.5	-2.4	266	39.1	39.0	2.5	260	38.3	37.7	6.5	297	22.0	19.6	-10.0
23	318	3.0	2.0	-2.2	294	5.5	5.0	-2.2	281	10.9	10.7	-2.1	278	22.1	21.9	-3.0	273	42.5	42.4	-2.2	278	37.9	37.5	-5.6	270	19.4	19.4	0.1
24	308	5.5	4.3	-3.4	300	6.9	6.0	-3.4	282	12.3	12.0	-2.6	278	22.8	22.6	-3.0	269	31.7	31.7	0.8	265	39.8	39.7	3.3	255	25.7	24.8	6.7
25	323	3.8	2.3	-3.0	291	4.9	4.6	-1.8	278	10.5	10.4	-1.4	274	22.8	22.7	-1.6	273	35.7	35.6	-1.9	262	38.2	37.8	5.5	259	28.8	28.2	5.7
26	322	4.4	2.7	-3.5	295	6.3	5.7	-2.7	283	10.5	10.2	-2.4	269	21.4	21.4	0.2	260	34.7	34.2	5.9	257	37.0	36.1	8.2	252	32.6	31.1	9.9
27	347	2.2	0.5	-2.1	293	3.3	3.0	-1.3	273	10.4	10.4	-0.6	271	22.1	22.1	-0.2	273	35.2	35.2	-1.6	276	43.9	43.6	-4.7	262	22.4	22.2	3.0
28	326	3.0	1.7	-2.5	282	3.5	3.4	-0.7	271	9.8	9.8	-0.2	269	23.0	23.0	0.3	274	44.5	44.4	-3.3	263	33.7	33.5	4.1	265	39.0	38.9	3.4
29	332	3.8	1.8	-3.4	294	5.2	4.8	-2.1	280	11.7	11.5	-2.1	275	25.4	25.3	-2.0	274	38.2	38.1	-2.7	295	39.0	35.3	-16.5	—	—	—	—
30	320	5.0	3.2	-3.8	282	5.2	5.1	-1.1	282	9.9	9.7	-2.1	280	22.9	22.6	-3.9	276	34.3	34.1	-3.5	280	42.7	42.1	-7.4	262	51.6	51.1	7.2
31	3	1.7	-0.1	-1.7	297	3.6	3.2	-1.6	272	11.0	11.0	-0.4	277	22.6	22.4	-2.9	271	39.6	39.6	-1.0	277	42.3	42.0	-5.0	266	50.1	49.9	3.9

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	330	3.4	1.7	-3.0	285	5.3	5.1	-1.4	273	10.7	10.7	-0.6	271	28.2	28.2	-0.4	270	42.4	42.4	0.2	275	49.6	49.4	-4.1	296	41.1	36.9	-18.0
2	360	2.2	0.0	-2.2	286	4.5	4.3	-1.2	277	10.6	10.5	-1.3	280	24.2	23.9	-4.0	270	36.9	36.9	0.2	276	49.9	49.6	-5.3	253	52.0	49.7	15.2
3	5	3.2	-0.3	-3.2	314	6.0	4.3	-4.2	280	11.8	11.6	-2.0	275	20.9	20.8	-1.7	285	40.5	39.0	-10.8	279	53.3	52.6	-8.8	266	80.0	79.8	5.6
4	18	1.6	-0.5	-1.5	277	3.8	3.8	-0.5	284	8.9	8.6	-2.2	274	21.7	21.6	-1.5	277	36.5	36.2	-4.3	268	55.7	55.7	2.2	268	23.0	23.0	0.9
5	335	2.9	1.2	-2.6	297	5.6	5.0	-2.6	289	10.3	9.7	-3.4	278	21.7	21.5	-3.0	280	47.0	46.3	-8.1	276	47.5	47.3	-4.6	279	36.0	35.6	-5.6
6	333	3.0	1.4	-2.7	304	6.6	5.5	-3.7	284	10.9	10.6	-2.6	280	18.1	17.9	-3.0	278	35.7	35.3	-5.1	270	53.1	53.1	0.1	280	47.9	47.2	-8.2
7	349	2.5	0.5	-2.5	286	6.0	5.8	-1.7	282	10.8	10.6	-2.3	275	20.5	20.4	-1.8	271	39.7	39.7	-0.7	267	54.0	53.9	3.1	269	35.1	35.1	0.4
8	324	2.9	1.7	-2.3	304	5.4	4.5	-3.0	284	9.5	9.2	-2.3	284	25.3	24.5	-6.2	281	40.9	40.2	-7.8	278	44.5	44.1	-6.0	280	35.0	34.5	-6.1
9	343	3.4	1.0	-3.3	305	5.0	4.1	-2.9	277	10.7	10.6	-1.3	284	22.4	21.7	-5.4	280	38.9	38.3	-6.7	279	44.1	43.6	-6.9	289	43.0	40.5	-14.3
10	317	2.1	1.4	-1.5	280	4.5	4.4	-0.8	283	10.9	10.6	-2.4	276	24.4	24.3	-2.6	278	39.5	39.1	-5.8	271	46.8	46.8	-0.7	290	23.5	22.0	-8.2
11	288	1.6	1.5	-0.5	289	4.9	4.6	-1.6	288	10.1	9.6	-3.1	275	19.2	19.1	-1.7	270	40.4	40.4	-0.3	268	49.9	49.9	1.4	256	20.5	19.9	4.8
12	343	2.1	0.6	-2.0	302	5.1	4.3	-2.7	278	9.5	9.4	-1.3	278	23.3	23.1	-3.3	273	45.1	45.0	-2.6	267	61.2	61.1	2.8	272	19.0	19.0	-0.7
13	328	4.5	2.4	-3.8	294	4.6	4.2	-1.9	279	9.7	9.6	-1.6	269	20.8	20.8	0.5	268	42.3	42.3	1.5	257	41.3	40.2	9.6	253	60.3	57.7	17.6
14	308	4.8	3.8	-3.0	277	4.0	4.0	-0.5	267	8.6	8.6	0.5	259	20.5	20.1	3.8	275	38.1	38.0	-3.3	258	39.8	38.9	8.3	277	35.5	35.2	-4.3
15	309	3.3	2.6	-2.1	293	3.8	3.5	-1.5	271	11.1	11.1	-0.2	263	21.0	20.9	2.5	254	37.9	36.5	10.3	267	47.7	47.6	2.8	263	38.2	37.9	4.8
16	294	2.2	2.0	-0.9	275	4.6	4.6	-0.4	256	10.4	10.1	2.5	266	25.3	25.2	1.8	270	54.4	54.4	0.0	279	51.4	50.8	-7.7	264	39.0	38.8	4.1
17	294	4.6	4.2	-1.9	289	4.9	4.6	-1.6	268	9.8	9.8	0.4	268	24.5	24.5	1.0	267	42.5	42.4	2.2	264	50.5	50.3	4.9	255	30.7	29.6	8.0
18	327	2.4	1.3	-2.0	270	4.1	4.1	0.0	271	10.2	10.2	-0.1	271	24.8	24.8	-0.5	277	43.2	42.9	-4.9	268	50.4	50.4	1.9	347	23.0	5.2	-22.4
19	347	2.6	0.6	-2.5	304	5.3	4.4	-3.0	280	11.0	10.8	-1.9	274	23.5	23.4	-1.6	272	38.1	38.1	-1.5	270	43.9	43.9	0.1	—	—	—	—
20	61	1.8	-1.6	-0.9	278	4.4	4.4	-0.6	271	11.0	11.0	-0.1	276	24.1	24.0	-2.6	274	52.7	52.5	-4.1	264	52.0	51.8	5.0	263	24.7	24.5	3.2
21	90	0.1	-0.1	0.0	270	4.8	4.8	0.0	268	10.0	10.0	0.4	274	23.7	23.7	-1.5	282	39.6	38.7	-8.2	264	48.4	48.1	5.2	269	45.1	45.1	0.6
22	18	2.6	-0.8	-2.5	323	4.8	2.9	-3.8	280	10.9	10.7	-1.9	277	23.7	23.5	-2.8	285	40.9	39.5	-10.5	265	51.7	51.5	4.2	262	39.0	38.6	5.4
23	12	1.4	-0.3	-1.4	307	6.2	5.0	-3.7	291	12.7	11.8	-4.6	283	23.5	22.9	-5.4	280	42.5	41.8	-7.7	274	45.3	45.2	-3.0	261	38.6	38.1	6.2
24	11	2.5	-0.5	-2.5	267	4.0	4.0	0.2	279	11.7	11.6	-1.8	274	27.8	27.7	-1.9	287	42.0	40.1	-12.5	283	46.4	45.2	-10.4	258	16.7	16.4	3.4
25	309	3.2	2.5	-2.0	293	7.6	7.0	-2.9	276	11.0	10.9	-1.1	281	22.5	22.1	-4.4	293	42.4	39.1	-16.3	286	41.9	40.3	-11.5	279	39.1	38.7	-5.9
26	6	1.9	-0.2	-1.9	301	6.3	5.4	-3.2	284	11.8	11.5	-2.8	278	23.2	23.0	-3.4	286	45.7	43.9	-12.8	290	47.6	44.7	-16.5	287	27.6	26.4	-7.9
27	344	3.2	0.9	-3.1	298	6.2	5.5	-2.9	278	10.7	10.6	-1.5	275	21.7	21.6	-1.9	271	34.0	34.0	-0.5	277	35.0	34.7	-4.3	282	44.5	43.6	-9.0
28	310	2.6	2.0	-1.7	275	5.7	5.7	-0.5	274	12.3	12.3	-0.8	273	21.5	21.5	-1.1	271	40.0	40.0	-1.0	275	28.3	28.2	-2.4	284	35.2	34.1	-8.8
29	309	7.6	5.9	-4.8	305	7.2	5.9	-4.1	284	12.2	11.8	-2.9	261	20.9	20.6	3.3	268	44.4	44.4	1.2	273	59.4	59.3	-3.0	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	339	2.6	0.9	-2.4	299	4.6	4.0	-2.2	276	12.4	12.3	-1.2	267	24.3	24.3	1.1	271	37.1	37.1	-0.5	266	44.4	44.3	3.3	284	34.3	33.3	-8.3
2	334	4.6	2.0	-4.1	299	6.3	5.5	-3.1	279	10.5	10.4	-1.6	275	20.0	19.9	-1.9	270	37.0	37.0	0.1	268	49.3	49.3	1.3	262	45.4	44.9	6.4
3	341	3.7	1.2	-3.5	307	6.8	5.4	-4.1	286	10.1	9.7	-2.7	275	18.1	18.0	-1.7	269	34.0	34.0	0.3	265	41.2	41.1	3.5	266	29.0	28.9	1.8
4	340	2.7	0.9	-2.5	300	6.8	5.9	-3.4	289	11.4	10.8	-3.7	274	19.8	19.8	-1.3	271	33.5	33.5	-0.8	267	50.5	50.4	2.6	270	48.8	48.8	0.2
5	351	1.8	0.3	-1.8	296	4.9	4.4	-2.1	273	11.4	11.4	-0.5	267	21.8	21.8	1.0	268	36.3	36.3	1.3	266	49.0	48.9	3.2	267	39.4	39.3	2.3
6	328	2.8	1.5	-2.4	298	5.2	4.6	-2.4	276	11.3	11.2	-1.1	277	20.5	20.3	-2.5	273	35.2	35.1	-1.9	265	52.1	51.9	4.7	257	44.9	43.8	10.1
7	340	2.3	0.8	-2.2	293	4.6	4.2	-1.8	274	11.6	11.6	-0.9	272	21.1	21.1	-0.9	270	36.4	36.4	-0.1	272	44.9	44.9	-1.6	277	67.5	66.9	-8.6
8	320	3.9	2.5	-3.0	295	6.1	5.5	-2.6	278	12.9	12.8	-1.7	270	21.9	21.9	-0.1	272	35.0	35.0	-1.1	265	46.6	46.4	3.8	272	42.4	42.4	-1.5
9	324	5.1	3.0	-4.1	294	6.6	6.0	-2.7	283	9.2	9.0	-2.1	272	20.1	20.1	-0.7	272	29.3	29.3	-1.1	277	34.0	33.8	-4.1	263	36.1	35.8	4.4
10	6	0.9	-0.1	-0.9	284	5.4	5.2	-1.3	282	10.8	10.6	-2.3	272	17.9	17.9	-0.6	275	28.8	28.7	-2.6	271	39.7	39.7	-0.5	257	46.4	45.2	10.5
11	317	2.2	1.5	-1.6	270	3.9	3.9	0.0	275	9.6	9.6	-0.9	267	20.0	20.0	1.1	274	32.3	32.2	-2.1	268	48.0	48.0	1.7	278	34.1	33.8	-4.7
12	319	4.0	2.6	-3.0	278	5.5	5.4	-0.8	271	10.8	10.8	-0.1	263	18.9	18.8	2.3	273	34.8	34.7	-2.0	261	37.2	36.8	5.6	270	35.6	35.6	0.2
13	3	3.5	-0.2	-3.5	302	5.3	4.5	-2.8	282	11.7	11.4	-2.5	274	19.6	19.5	-1.5	278	27.0	26.8	-3.6	286	29.5	28.3	-8.2	278	31.7	31.4	-4.6
14	322	3.1	1.9	-2.4	300	6.2	5.4	-3.1	282	10.5	10.3	-2.1	278	17.8	17.6	-2.4	265	27.4	27.3	2.4	272	39.7	39.7	-1.3	204	12.2	4.9	11.2
15	324	2.4	1.4	-1.9	295	7.2	6.5	-3.1	280	12.9	12.7	-2.3	276	20.5	20.4	-2.0	272	29.0	29.0	-0.8	287	36.5	34.8	-10.9	280	30.9	30.4	-5.5
16	307	3.1	2.5	-1.9	288	6.7	6.4	-2.1	284	12.7	12.3	-3.1	275	22.3	22.2	-1.8	272	29.9	29.9	-1.0	275	54.9	54.7	-5.2	267	37.4	37.3	2.0
17	291	2.6	2.4	-0.9	281	5.7	5.6	-1.1	283	11.6	11.3	-2.6	272	21.0	21.0	-0.6	276	35.4	35.2	-4.0	284	41.1	39.9	-10.0	297	14.8	13.2	-6.7
18	322	4.3	2.7	-3.4	280	6.1	6.0	-1.1	270	12.0	12.0	0.0	270	22.0	22.0	0.0	268	33.4	33.4	0.9	275	43.7	43.5	-4.1	279	35.1	34.7	-5.4
19	342	2.8	0.9	-2.7	290	5.8	5.4	-2.0	272	13.1	13.1	-0.4	274	24.1	24.0	-1.6	273	35.0	34.9	-1.9	272	42.2	42.2	-1.4	281	20.4	20.0	-4.0
20	332	2.7	1.3	-2.4	281	6.6	6.5	-1.3	275	12.5	12.5	-1.1	269	21.7	21.7	0.3	273	31.6	31.6	-1.5	269	40.0	40.0	0.5	269	19.7	19.7	0.3
21	321	4.4	2.8	-3.4	288	7.3	6.9	-2.3	272	11.7	11.7	-0.4	271	18.8	18.8	-0.4	274	35.4	35.3	-2.2	265	41.6	41.4	3.8	262	33.2	32.9	4.4
22	18	2.0	-0.6	-1.9	281	6.2	6.1	-1.2	272	11.8	11.8	-0.5	264	20.6	20.5	2.2	275	34.3	34.2	-3.1	279	36.2	35.8	-5.4	—	—	—	—
23	338	3.5	1.3	-3.2	293	7.6	7.0	-2.9	279	12.1	12.0	-1.8	270	20.3	20.3	0.0	280	36.2	35.6	-6.3	281	38.4	37.7	-7.3	277	34.6	34.3	-4.4
24	314	4.0	2.9	-2.8	303	4.5	3.8	-2.5	277	11.8	11.7	-1.4	271	19.6	19.6	-0.3	272	40.1	40.1	-1.7	279	55.7	55.0	-8.7	267	26.8	26.8	1.4
25	290	4.7	4.4	-1.6	279	4.5	4.4	-0.7	269	10.1	10.1	0.2	269	19.3	19.3	0.3	271	28.8	28.8	-0.4	272	27.4	27.4	-0.9	272	28.0	28.0	-0.9
26	12	2.5	-0.5	-2.4	297	4.0	3.6	-1.8	265	9.9	9.9	0.8	274	18.6	18.6	-1.3	282	32.6	31.9	-6.7	289	34.9	33.1	-11.2	298	25.9	22.8	-12.2
27	348	3.0	0.6	-2.9	318	4.8	3.2	-3.6	293	9.5	8.8	-3.7	287	17.4	16.6	-5.2	291	34.8	32.5	-12.5	284	40.5	39.3	-9.7	262	21.2	21.0	2.9
28	13	2.3	-0.5	-2.2	306	5.2	4.2	-3.1	287	11.1	10.6	-3.2	288	18.8	17.9	-5.8	280	34.5	34.0	-5.9	276	50.1	49.8	-5.4	254	28.1	27.0	7.9
29	283	1.3	1.3	-0.3	279	5.3	5.2	-0.8	287	9.4	9.0	-2.7	264	19.5	19.4	1.9	273	34.9	34.9	-1.6	258	43.1	42.2	8.8	255	31.9	30.9	8.1
30	4	2.9	-0.2	-2.9	312	5.2	3.9	-3.5	279	11.2	11.1	-1.7	270	19.8	19.8	-0.1	270	34.6	34.6	-0.3	258	48.5	47.4	10.5	274	21.4	21.4	-1.4
31	1	4.3	-0.1	-4.3	302	5.2	4.4	-2.8	276	9.8	9.7	-1.0	265	17.2	17.1	1.5	265	30.7	30.6	2.7	266	42.0	41.9	2.6	256	35.9	34.8	8.9

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	8	2.1	-0.3	-2.1	309	4.1	3.2	-2.6	277	10.6	10.5	-1.2	271	17.1	17.1	-0.2	271	26.5	26.5	-0.3	270	36.6	36.6	-0.1	275	26.6	26.5	-2.3
2	342	3.9	1.2	-3.7	293	5.6	5.2	-2.2	273	11.8	11.8	-0.7	264	18.4	18.3	2.0	268	27.4	27.4	1.0	262	45.4	44.9	6.7	266	26.4	26.3	1.7
3	347	1.3	0.3	-1.3	298	4.0	3.5	-1.9	273	10.8	10.8	-0.6	271	18.8	18.8	-0.2	266	31.1	31.0	2.1	274	36.4	36.3	-2.7	263	33.6	33.4	4.0
4	52	3.9	-3.1	-2.4	317	2.6	1.8	-1.9	271	11.1	11.1	-0.1	272	16.9	16.9	-0.5	278	32.9	32.6	-4.6	268	30.2	30.2	1.0	264	26.1	26.0	2.7
5	24	2.2	-0.9	-2.0	304	3.2	2.7	-1.8	273	10.1	10.1	-0.6	277	17.8	17.7	-2.3	270	29.9	29.9	-0.2	269	42.4	42.4	1.1	268	33.4	33.4	1.1
6	307	2.6	2.1	-1.6	281	4.1	4.0	-0.8	281	11.1	10.9	-2.1	276	16.4	16.3	-1.7	276	27.9	27.8	-2.8	273	35.2	35.2	-1.7	263	23.7	23.5	2.9
7	320	5.1	3.3	-3.9	295	6.2	5.6	-2.6	286	10.6	10.2	-3.0	273	16.8	16.8	-0.8	274	33.6	33.5	-2.5	279	36.0	35.5	-5.9	266	29.6	29.5	2.2
8	358	3.5	0.1	-3.5	295	6.3	5.7	-2.7	282	10.4	10.2	-2.1	275	18.8	18.7	-1.7	274	32.7	32.6	-2.2	256	43.7	42.4	10.6	240	22.8	19.7	11.4
9	344	4.3	1.2	-4.1	303	5.5	4.6	-3.0	274	9.8	9.8	-0.7	271	16.6	16.6	-0.3	269	28.0	28.0	0.4	258	33.6	32.8	7.2	254	17.3	16.6	4.8
10	13	2.2	-0.5	-2.1	313	4.9	3.6	-3.3	282	11.8	11.5	-2.5	272	14.7	14.7	-0.5	264	30.7	30.6	3.0	255	39.6	38.3	10.1	281	21.1	20.7	-3.9
11	360	1.5	0.0	-1.5	283	2.7	2.6	-0.6	285	8.8	8.5	-2.3	283	16.0	15.6	-3.6	272	26.1	26.1	-1.0	278	34.5	34.2	-4.7	273	29.4	29.4	-1.7
12	319	1.1	0.7	-0.8	291	2.5	2.3	-0.9	275	8.4	8.4	-0.7	271	13.5	13.5	-0.3	273	28.2	28.2	-1.6	272	35.2	35.2	-1.5	269	31.0	31.0	0.7
13	37	1.0	-0.6	-0.8	307	3.4	2.7	-2.0	273	9.3	9.3	-0.5	274	14.7	14.7	-1.1	281	27.3	26.8	-5.2	272	30.7	30.7	-1.3	281	19.3	19.0	-3.6
14	318	2.4	1.6	-1.8	304	4.2	3.5	-2.4	275	9.2	9.2	-0.8	271	13.9	13.9	-0.2	267	18.4	18.4	1.1	263	36.3	36.0	4.7	251	24.0	22.6	8.0
15	86	1.3	-1.3	-0.1	279	3.8	3.8	-0.6	273	8.7	8.7	-0.4	265	17.0	16.9	1.5	263	29.6	29.4	3.7	275	32.8	32.7	-2.6	261	23.2	22.9	3.8
16	316	3.7	2.6	-2.7	309	3.6	2.8	-2.3	284	7.2	7.0	-1.7	274	12.7	12.7	-0.8	270	24.1	24.1	0.1	267	28.9	28.9	1.5	271	9.6	9.6	-0.2
17	336	1.7	0.7	-1.6	311	5.7	4.3	-3.8	291	11.1	10.4	-3.9	283	16.0	15.6	-3.7	280	28.3	27.8	-5.1	275	30.9	30.8	-2.6	266	27.2	27.1	2.0
18	297	1.8	1.6	-0.8	280	5.1	5.0	-0.9	277	9.3	9.2	-1.2	290	14.0	13.1	-4.8	285	22.9	22.1	-5.9	279	31.6	31.2	-4.9	281	20.7	20.3	-4.0
19	219	1.3	0.8	1.0	313	3.7	2.7	-2.5	291	8.4	7.8	-3.0	278	11.6	11.5	-1.7	272	24.3	24.3	-1.0	276	29.9	29.7	-3.3	280	16.0	15.7	-2.9
20	358	2.3	0.1	-2.3	315	4.5	3.2	-3.2	282	8.1	7.9	-1.7	278	11.5	11.4	-1.7	273	25.6	25.6	-1.4	283	29.5	28.7	-6.7	271	16.9	16.9	-0.4
21	329	3.1	1.6	-2.7	308	5.1	4.0	-3.1	278	8.8	8.7	-1.2	277	11.1	11.0	-1.3	277	20.3	20.1	-2.6	269	23.1	23.1	0.3	269	19.2	19.2	0.5
22	329	3.5	1.8	-3.0	306	4.4	3.6	-2.6	284	7.8	7.6	-1.9	265	11.2	11.2	1.0	272	25.3	25.3	-1.0	276	32.8	32.6	-3.5	278	28.2	27.9	-3.9
23	317	1.8	1.2	-1.3	295	3.8	3.5	-1.6	281	10.0	9.8	-1.9	270	12.7	12.7	0.1	267	25.2	25.2	1.2	271	32.7	32.7	-0.6	257	18.9	18.4	4.3
24	349	2.5	0.5	-2.5	311	5.3	4.0	-3.5	292	8.7	8.0	-3.3	282	10.9	10.7	-2.3	270	22.3	22.3	0.0	274	25.0	24.9	-1.9	268	16.8	16.8	0.5
25	324	2.7	1.6	-2.2	299	5.6	4.9	-2.7	288	8.2	7.8	-2.6	291	10.9	10.2	-3.9	280	17.8	17.5	-3.0	277	29.4	29.2	-3.4	279	22.2	22.0	-3.3
26	275	2.1	2.1	-0.2	302	4.0	3.4	-2.1	284	8.0	7.8	-1.9	286	10.9	10.5	-3.0	282	21.7	21.2	-4.5	285	31.1	30.0	-8.1	282	16.9	16.5	-3.5
27	258	1.4	1.4	0.3	295	5.4	4.9	-2.3	293	8.2	7.6	-3.2	288	9.6	9.1	-2.9	278	19.2	19.0	-2.6	276	29.3	29.1	-3.0	272	12.3	12.3	-0.4
28	302	3.1	2.6	-1.6	310	5.3	4.1	-3.4	296	7.9	7.1	-3.4	287	8.7	8.3	-2.5	286	18.7	18.0	-5.2	288	28.1	26.8	-8.6	250	14.8	13.9	5.0
29	277	3.5	3.5	-0.4	305	5.2	4.3	-3.0	298	9.8	8.7	-4.6	294	10.1	9.2	-4.1	277	14.3	14.2	-1.8	265	21.5	21.4	1.9	283	17.7	17.3	-3.9
30	285	5.6	5.4	-1.4	304	6.4	5.3	-3.6	295	8.7	7.9	-3.7	283	10.9	10.6	-2.5	269	18.9	18.9	0.2	256	29.9	29.0	7.1	235	13.8	11.3	8.0

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	291	6.2	5.8	-2.2	298	5.9	5.2	-2.8	286	6.5	6.2	-1.8	271	10.0	10.0	-0.1	260	18.1	17.9	3.0	249	28.4	26.5	10.1	255	14.4	13.9	3.7
2	297	5.5	4.9	-2.5	296	6.1	5.5	-2.7	274	6.7	6.7	-0.5	273	10.6	10.6	-0.6	262	22.9	22.7	3.3	260	23.5	23.1	4.2	255	8.4	8.1	2.2
3	326	4.7	2.6	-3.9	298	4.7	4.2	-2.2	283	7.3	7.1	-1.6	272	12.7	12.7	-0.5	264	22.7	22.6	2.5	261	30.9	30.5	5.1	275	21.3	21.2	-1.9
4	338	5.7	2.1	-5.3	318	5.0	3.3	-3.7	275	6.7	6.7	-0.6	270	10.5	10.5	0.0	261	21.3	21.1	3.2	258	36.6	35.8	7.6	272	21.4	21.4	-0.7
5	317	2.2	1.5	-1.6	308	4.7	3.7	-2.9	285	8.9	8.6	-2.3	280	9.7	9.5	-1.7	267	25.4	25.4	1.3	261	34.0	33.6	5.3	264	13.1	13.0	1.3
6	314	5.0	3.6	-3.5	305	6.7	5.5	-3.8	291	8.8	8.2	-3.1	278	9.2	9.1	-1.3	265	17.9	17.8	1.6	262	25.8	25.5	3.6	255	19.4	18.7	5.1
7	295	6.7	6.1	-2.8	310	7.0	5.3	-4.5	290	8.6	8.1	-2.9	283	8.2	8.0	-1.9	269	20.6	20.6	0.5	276	31.3	31.1	-3.4	255	18.5	17.9	4.8
8	288	6.3	6.0	-2.0	290	5.1	4.8	-1.7	279	8.0	7.9	-1.3	264	9.1	9.1	0.9	265	14.8	14.7	1.4	280	24.6	24.2	-4.3	260	11.6	11.4	2.1
9	303	3.0	2.5	-1.6	294	4.2	3.8	-1.7	281	6.2	6.1	-1.2	275	10.0	10.0	-0.8	261	18.3	18.1	2.8	265	26.1	26.0	2.2	276	28.4	28.2	-3.1
10	294	4.3	3.9	-1.7	281	5.7	5.6	-1.1	293	10.3	9.5	-4.0	284	8.5	8.3	-2.0	272	22.8	22.8	-0.9	266	23.7	23.7	1.5	268	11.0	11.0	0.4
11	114	1.2	-1.1	0.5	312	2.8	2.1	-1.9	295	8.0	7.2	-3.4	286	10.6	10.2	-3.0	278	20.3	20.1	-2.9	259	22.1	21.7	4.3	260	17.2	16.9	3.0
12	235	1.2	1.0	0.7	289	3.7	3.5	-1.2	298	8.2	7.2	-3.9	292	9.4	8.7	-3.5	283	19.0	18.5	-4.2	267	20.4	20.4	0.9	261	16.2	16.0	2.5
13	304	1.1	0.9	-0.6	295	4.1	3.7	-1.7	297	7.4	6.6	-3.4	292	9.6	8.9	-3.6	272	19.6	19.6	-0.8	255	26.7	25.8	7.0	268	13.8	13.8	0.5
14	340	3.0	1.0	-2.8	318	2.7	1.8	-2.0	293	7.3	6.7	-2.8	282	10.3	10.1	-2.2	265	20.4	20.3	1.7	256	29.2	28.3	7.0	268	17.5	17.5	0.6
15	286	2.5	2.4	-0.7	307	5.0	4.0	-3.0	297	8.6	7.7	-3.9	290	11.9	11.2	-4.1	277	22.3	22.1	-2.9	264	29.8	29.6	3.0	277	15.4	15.3	-2.0
16	298	5.4	4.8	-2.5	308	5.3	4.2	-3.3	292	8.9	8.3	-3.3	281	10.2	10.0	-2.0	262	22.8	22.6	3.1	257	26.4	25.7	5.9	263	7.9	7.8	1.0
17	277	5.0	5.0	-0.6	304	6.1	5.1	-3.4	300	6.7	5.8	-3.4	284	8.8	8.5	-2.1	272	23.2	23.2	-0.8	275	20.1	20.0	-1.8	249	7.5	7.0	2.7
18	239	3.1	2.7	1.6	293	5.7	5.3	-2.2	304	9.3	7.7	-5.2	295	11.4	10.3	-4.9	277	16.7	16.6	-1.9	259	24.2	23.7	4.7	234	8.6	6.9	5.1
19	277	5.2	5.2	-0.6	285	5.2	5.0	-1.3	298	8.3	7.3	-3.9	287	11.1	10.6	-3.2	282	17.4	17.0	-3.6	276	16.5	16.4	-1.7	266	15.5	15.5	1.2
20	273	6.2	6.2	-0.3	293	5.0	4.6	-2.0	295	6.7	6.1	-2.8	278	11.7	11.6	-1.7	279	18.9	18.7	-2.8	268	17.6	17.6	0.7	269	14.4	14.4	0.2
21	290	2.0	1.9	-0.7	295	4.7	4.2	-2.0	298	9.2	8.1	-4.3	276	9.2	9.1	-1.0	265	15.9	15.8	1.5	258	19.5	19.0	4.2	250	16.8	15.8	5.6
22	277	3.8	3.8	-0.5	292	5.0	4.6	-1.9	301	7.4	6.3	-3.8	283	7.8	7.6	-1.8	277	17.8	17.7	-2.1	262	22.4	22.2	3.2	250	13.6	12.8	4.7
23	279	4.3	4.2	-0.7	273	3.6	3.6	-0.2	289	7.1	6.7	-2.3	298	9.2	8.1	-4.3	265	15.7	15.6	1.4	248	17.5	16.2	6.6	228	8.2	6.1	5.5
24	280	7.8	7.7	-1.4	294	7.0	6.4	-2.9	298	10.1	8.9	-4.8	316	9.0	6.2	-6.5	290	13.7	12.9	-4.7	257	21.1	20.6	4.6	237	8.7	7.3	4.8
25	294	2.2	2.0	-0.9	293	5.3	4.9	-2.1	305	8.8	7.2	-5.0	297	10.7	9.5	-4.9	295	12.8	11.6	-5.3	269	16.2	16.2	0.4	232	5.5	4.3	3.4
26	287	5.3	5.1	-1.6	306	6.9	5.6	-4.0	310	9.0	6.9	-5.8	305	7.5	6.2	-4.3	280	12.7	12.5	-2.3	276	16.0	15.9	-1.8	278	7.6	7.5	-1.0
27	287	5.3	5.1	-1.6	297	7.2	6.4	-3.2	303	10.0	8.4	-5.4	307	8.8	7.0	-5.3	275	15.4	15.3	-1.3	263	17.7	17.6	2.1	274	7.8	7.8	-0.6
28	287	5.0	4.8	-1.5	300	7.3	6.3	-3.7	300	8.3	7.2	-4.2	292	9.8	9.1	-3.6	268	19.0	19.0	0.5	257	18.9	18.4	4.2	153	0.4	-0.2	0.4
29	311	4.6	3.5	-3.0	304	4.0	3.3	-2.2	273	5.9	5.9	-0.3	282	8.7	8.5	-1.8	266	18.2	18.1	1.4	283	13.9	13.5	-3.1	252	12.6	12.0	4.0
30	282	5.1	5.0	-1.1	291	6.0	5.6	-2.2	292	6.8	6.3	-2.6	295	10.2	9.3	-4.3	277	16.8	16.7	-2.1	281	12.8	12.6	-2.5	184	5.1	0.4	5.1
31	278	6.8	6.7	-1.0	300	6.7	5.8	-3.4	301	6.3	5.4	-3.2	273	8.5	8.5	-0.5	271	19.4	19.4	-0.3	248	18.9	17.5	7.2	228	10.0	7.4	6.7

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	281	8.4	8.2	-1.6	293	5.4	5.0	-2.1	282	6.6	6.5	-1.4	278	7.9	7.8	-1.1	246	17.3	15.8	7.1	239	26.8	22.9	13.9	264	4.7	4.7	0.5
2	296	5.8	5.2	-2.5	312	4.8	3.6	-3.2	302	6.2	5.2	-3.3	292	7.8	7.2	-2.9	268	13.9	13.9	0.6	238	14.9	12.7	7.8	202	3.8	1.4	3.5
3	306	6.1	4.9	-3.6	307	4.5	3.6	-2.7	296	6.7	6.0	-2.9	289	7.4	7.0	-2.4	263	15.0	14.9	1.8	239	21.7	18.6	11.2	218	12.7	7.8	10.0
4	309	2.8	2.2	-1.8	319	4.8	3.1	-3.6	300	6.6	5.7	-3.3	287	7.5	7.2	-2.2	256	17.4	16.9	4.3	245	23.3	21.1	9.8	229	5.8	4.4	3.8
5	354	2.7	0.3	-2.7	317	4.2	2.9	-3.1	307	6.5	5.2	-3.9	285	7.3	7.1	-1.9	269	12.8	12.8	0.2	258	15.4	15.1	3.1	191	6.5	1.2	6.4
6	296	4.3	3.9	-1.9	300	4.4	3.8	-2.2	301	6.1	5.2	-3.1	298	9.4	8.3	-4.4	275	15.0	15.0	-1.2	247	14.1	13.0	5.4	168	5.5	-1.1	5.4
7	286	7.7	7.4	-2.1	309	4.6	3.6	-2.9	310	5.2	4.0	-3.4	304	6.6	5.5	-3.7	271	9.0	9.0	-0.2	235	9.8	8.0	5.6	83	1.6	-1.6	-0.2
8	280	8.0	7.9	-1.4	290	6.1	5.7	-2.1	316	4.0	2.8	-2.9	311	6.5	4.9	-4.3	275	11.1	11.1	-0.9	244	11.8	10.6	5.2	156	2.4	-1.0	2.2
9	269	4.0	4.0	0.1	297	5.6	5.0	-2.5	326	6.0	3.4	-5.0	293	5.6	5.1	-2.2	280	9.5	9.3	-1.7	282	8.0	7.8	-1.7	65	2.1	-1.9	-0.9
10	251	5.2	4.9	1.7	295	6.1	5.5	-2.6	328	5.8	3.1	-4.9	314	5.9	4.3	-4.1	303	9.5	8.0	-5.2	292	7.6	7.1	-2.8	139	3.5	-2.3	2.6
11	303	2.7	2.3	-1.5	294	5.2	4.8	-2.1	319	4.5	3.0	-3.4	272	2.8	2.8	-0.1	280	6.4	6.3	-1.1	267	6.2	6.2	0.3	54	1.4	-1.1	-0.8
12	275	3.2	3.2	-0.3	311	5.2	3.9	-3.4	319	5.0	3.3	-3.8	281	3.8	3.7	-0.7	255	6.5	6.3	1.7	256	3.0	2.9	0.7	97	3.8	-3.8	0.5
13	297	3.8	3.4	-1.7	290	3.5	3.3	-1.2	318	5.0	3.3	-3.7	264	4.6	4.6	0.5	270	6.3	6.3	0.0	261	8.5	8.4	1.4	230	3.8	2.9	2.4
14	337	3.0	1.2	-2.8	297	2.9	2.6	-1.3	309	3.8	3.0	-2.4	267	5.6	5.6	0.3	251	5.8	5.5	1.9	264	8.3	8.3	0.8	34	1.4	-0.8	-1.2
15	289	4.6	4.3	-1.5	316	4.6	3.2	-3.3	326	4.7	2.6	-3.9	291	5.8	5.4	-2.1	262	3.6	3.6	0.5	265	4.8	4.8	0.4	70	4.7	-4.4	-1.6
16	302	3.2	2.7	-1.7	280	4.0	3.9	-0.7	333	4.0	1.8	-3.6	322	4.9	3.0	-3.9	259	3.1	3.0	0.6	264	4.5	4.5	0.5	109	6.2	-5.9	2.0
17	262	2.8	2.8	0.4	319	4.5	3.0	-3.4	351	6.4	1.0	-6.3	314	3.3	2.4	-2.3	284	3.6	3.5	-0.9	279	4.5	4.4	-0.7	330	5.1	2.5	-4.4
18	328	1.5	0.8	-1.3	299	4.1	3.6	-2.0	337	6.7	2.6	-6.2	276	2.8	2.8	-0.3	247	5.6	5.2	2.2	258	2.9	2.8	0.6	107	7.0	-6.7	2.1
19	304	2.9	2.4	-1.6	301	4.4	3.8	-2.3	341	3.9	1.3	-3.7	17	1.7	-0.5	-1.6	301	0.6	0.5	-0.3	286	2.2	2.1	-0.6	70	8.0	-7.5	-2.7
20	191	1.5	0.3	1.5	305	4.2	3.4	-2.4	348	4.9	1.0	-4.8	321	3.3	2.1	-2.6	315	2.5	1.8	-1.8	268	2.5	2.5	0.1	45	8.3	-5.9	-5.9
21	283	5.3	5.2	-1.2	312	6.6	4.9	-4.4	335	5.1	2.1	-4.6	272	2.3	2.3	-0.1	225	2.0	1.4	1.4	248	1.6	1.5	0.6	67	5.2	-4.8	-2.0
22	266	7.7	7.7	0.6	302	6.7	5.7	-3.5	336	4.8	2.0	-4.4	291	1.4	1.3	-0.5	194	1.6	0.4	1.6	159	5.1	-1.8	4.8	119	2.9	-2.5	1.4
23	274	7.5	7.5	-0.5	309	6.0	4.7	-3.8	345	4.3	1.1	-4.2	311	1.1	0.8	-0.7	124	2.2	-1.8	1.2	126	2.4	-1.9	1.4	84	8.8	-8.8	-0.9
24	268	6.9	6.9	0.2	311	6.5	4.9	-4.3	357	5.3	0.3	-5.3	323	2.0	1.2	-1.6	198	2.0	0.6	1.9	169	3.8	-0.7	3.7	75	9.1	-8.8	-2.3
25	255	6.7	6.5	1.7	293	4.3	4.0	-1.7	358	4.9	0.2	-4.9	326	1.4	0.8	-1.2	166	2.1	-0.5	2.0	192	2.4	0.5	2.3	71	9.9	-9.4	-3.2
26	265	5.8	5.8	0.5	310	5.1	3.9	-3.3	342	4.2	1.3	-4.0	350	1.7	0.3	-1.7	111	4.0	-3.7	1.4	139	3.2	-2.1	2.4	87	6.2	-6.2	-0.3
27	274	4.3	4.3	-0.3	321	4.6	2.9	-3.6	355	3.7	0.3	-3.7	20	1.5	-0.5	-1.4	59	2.1	-1.8	-1.1	135	0.7	-0.5	0.5	68	11.3	-10.5	-4.2
28	301	2.3	2.0	-1.2	317	5.7	3.9	-4.2	4	5.1	-0.4	-5.1	15	1.1	-0.3	-1.1	89	4.4	-4.4	-0.1	114	3.7	-3.4	1.5	74	13.5	-13.0	-3.8
29	257	4.6	4.5	1.0	300	4.8	4.1	-2.4	355	4.3	0.4	-4.3	18	0.9	-0.3	-0.9	83	3.8	-3.8	-0.5	87	6.8	-6.8	-0.3	63	12.9	-11.5	-5.9
30	286	3.2	3.1	-0.9	305	3.3	2.7	-1.9	355	2.3	0.2	-2.3	322	1.1	0.7	-0.9	126	3.1	-2.5	1.8	118	1.7	-1.5	0.8	72	11.3	-10.7	-3.5

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	256	4.1	4.0	1.0	277	4.7	4.7	-0.6	307	1.0	0.8	-0.6	151	1.0	-0.5	0.9	108	0.6	-0.6	0.2	81	1.8	-1.8	-0.3	54	10.4	-8.4	-6.2
2	255	4.3	4.2	1.1	287	4.4	4.2	-1.3	298	3.0	2.6	-1.4	257	0.9	0.9	0.2	143	2.1	-1.3	1.7	107	5.8	-5.5	1.7	68	9.5	-8.8	-3.5
3	278	3.4	3.4	-0.5	289	5.5	5.2	-1.8	348	1.9	0.4	-1.9	48	1.5	-1.1	-1.0	133	1.6	-1.2	1.1	71	4.0	-3.8	-1.3	66	13.9	-12.7	-5.7
4	277	3.5	3.5	-0.4	287	5.8	5.5	-1.7	312	2.4	1.8	-1.6	124	1.1	-0.9	0.6	119	1.0	-0.9	0.5	92	3.6	-3.6	0.1	67	12.5	-11.5	-4.9
5	280	4.6	4.5	-0.8	305	6.3	5.2	-3.6	325	2.4	1.4	-2.0	236	1.1	0.9	0.6	176	1.5	-0.1	1.5	108	3.9	-3.7	1.2	75	13.8	-13.3	-3.6
6	288	10.5	10.0	-3.3	303	8.6	7.2	-4.7	332	3.2	1.5	-2.8	27	0.4	-0.2	-0.4	82	1.5	-1.5	-0.2	79	4.2	-4.1	-0.8	76	21.0	-20.3	-5.2
7	286	8.5	8.2	-2.4	308	7.1	5.6	-4.3	348	3.3	0.7	-3.2	79	2.1	-2.1	-0.4	68	1.8	-1.7	-0.7	110	4.5	-4.2	1.5	72	16.6	-15.8	-5.0
8	270	8.2	8.2	0.0	304	6.8	5.6	-3.8	347	4.9	1.1	-4.8	27	0.4	-0.2	-0.4	87	4.2	-4.2	-0.2	86	6.5	-6.5	-0.4	72	15.1	-14.3	-4.7
9	263	5.2	5.2	0.6	305	3.8	3.1	-2.2	355	3.6	0.3	-3.6	30	2.4	-1.2	-2.1	93	3.9	-3.9	0.2	91	8.6	-8.6	0.1	58	17.7	-15.1	-9.3
10	264	5.6	5.6	0.6	303	5.5	4.6	-3.0	333	5.1	2.3	-4.5	337	1.3	0.5	-1.2	104	3.7	-3.6	0.9	77	5.7	-5.6	-1.3	61	17.7	-15.5	-8.5
11	280	3.5	3.4	-0.6	305	3.2	2.6	-1.8	335	3.3	1.4	-3.0	188	1.5	0.2	1.5	143	1.0	-0.6	0.8	112	3.5	-3.3	1.3	65	15.4	-13.9	-6.6
12	264	2.7	2.7	0.3	307	3.5	2.8	-2.1	16	1.5	-0.4	-1.4	144	2.4	-1.4	1.9	97	5.5	-5.5	0.7	84	5.6	-5.6	-0.6	72	19.7	-18.8	-6.0
13	284	2.1	2.0	-0.5	336	2.7	1.1	-2.5	18	2.3	-0.7	-2.2	122	3.1	-2.6	1.6	91	4.2	-4.2	0.1	87	6.8	-6.8	-0.4	70	20.3	-19.1	-6.9
14	294	3.4	3.1	-1.4	309	2.6	2.0	-1.6	52	1.1	-0.9	-0.7	92	2.7	-2.7	0.1	94	5.1	-5.1	0.4	84	10.3	-10.2	-1.1	79	19.4	-19.0	-3.8
15	117	0.9	-0.8	0.4	335	2.6	1.1	-2.4	2	3.2	-0.1	-3.2	132	1.3	-1.0	0.9	109	7.5	-7.1	2.5	89	9.0	-9.0	-0.2	110	17.4	-16.4	5.9
16	229	1.1	0.8	0.7	284	1.6	1.6	-0.4	95	2.1	-2.1	0.2	114	2.2	-2.0	0.9	102	5.1	-5.0	1.1	93	9.0	-9.0	0.5	82	18.1	-17.9	-2.5
17	251	2.4	2.3	0.8	272	2.5	2.5	-0.1	321	0.6	0.4	-0.5	99	3.0	-3.0	0.5	96	5.6	-5.6	0.6	92	8.2	-8.2	0.3	71	17.3	-16.4	-5.6
18	292	3.5	3.2	-1.3	298	1.9	1.7	-0.9	45	1.0	-0.7	-0.7	130	3.0	-2.3	1.9	96	5.6	-5.6	0.6	84	6.9	-6.9	-0.7	76	16.0	-15.5	-3.8
19	274	3.9	3.9	-0.3	283	3.6	3.5	-0.8	294	1.2	1.1	-0.5	60	0.8	-0.7	-0.4	115	7.1	-6.4	3.0	91	7.8	-7.8	0.1	73	18.7	-17.9	-5.4
20	143	1.0	-0.6	0.8	11	0.5	-0.1	-0.5	67	3.4	-3.1	-1.3	141	2.1	-1.3	1.6	94	5.9	-5.9	0.4	82	10.6	-10.5	-1.5	75	15.1	-14.6	-4.0
21	169	2.1	-0.4	2.1	315	0.6	0.4	-0.4	64	2.5	-2.3	-1.1	61	1.8	-1.6	-0.9	88	4.6	-4.6	-0.2	83	8.4	-8.3	-1.0	62	12.7	-11.2	-5.9
22	263	3.5	3.5	0.4	279	2.5	2.5	-0.4	352	0.7	0.1	-0.7	67	0.8	-0.7	-0.3	97	5.2	-5.2	0.6	88	10.7	-10.7	-0.4	73	17.0	-16.2	-5.1
23	294	3.5	3.2	-1.4	315	3.0	2.1	-2.1	11	1.5	-0.3	-1.5	126	0.9	-0.7	0.5	97	4.6	-4.6	0.6	93	9.0	-9.0	0.4	82	22.3	-22.1	-3.3
24	307	3.8	3.0	-2.3	323	2.0	1.2	-1.6	45	1.6	-1.1	-1.1	90	2.1	-2.1	0.0	81	6.0	-5.9	-0.9	93	10.0	-10.0	0.6	71	20.8	-19.7	-6.7
25	260	3.9	3.8	0.7	108	0.3	-0.3	0.1	108	2.2	-2.1	0.7	131	1.8	-1.4	1.2	88	5.2	-5.2	-0.2	93	11.3	-11.3	0.5	69	17.9	-16.7	-6.4
26	295	3.8	3.5	-1.6	306	2.9	2.3	-1.7	17	1.7	-0.5	-1.6	98	2.2	-2.2	0.3	88	7.3	-7.3	-0.2	97	9.5	-9.4	1.1	63	14.7	-13.1	-6.6
27	302	3.4	2.9	-1.8	322	2.9	1.8	-2.3	2	2.8	-0.1	-2.8	69	5.0	-4.7	-1.8	85	7.4	-7.4	-0.6	86	12.2	-12.2	-0.9	77	19.0	-18.5	-4.4
28	292	0.5	0.5	-0.2	324	0.9	0.5	-0.7	73	1.4	-1.3	-0.4	86	4.6	-4.6	-0.3	91	8.5	-8.5	0.2	85	13.5	-13.4	-1.2	78	26.0	-25.4	-5.5
29	69	3.0	-2.8	-1.1	16	1.5	-0.4	-1.4	34	2.9	-1.6	-2.4	98	5.8	-5.7	0.8	99	9.3	-9.2	1.4	103	12.9	-12.6	2.9	81	17.5	-17.3	-2.6
30	141	0.6	-0.4	0.5	281	2.1	2.1	-0.4	17	3.4	-1.0	-3.3	93	4.2	-4.2	0.2	109	7.7	-7.3	2.5	110	13.8	-13.0	4.7	79	21.2	-20.8	-4.2
31	205	2.1	0.9	1.9	274	1.3	1.3	-0.1	124	0.4	-0.3	0.2	101	2.5	-2.5	0.5	76	6.9	-6.7	-1.7	87	11.3	-11.3	-0.6	76	16.7	-16.2	-4.0

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	267	3.6	3.6	0.2	294	1.7	1.6	-0.7	42	1.2	-0.8	-0.9	66	3.4	-3.1	-1.4	80	6.6	-6.5	-1.2	79	10.2	-10.0	-2.0	71	15.7	-14.8	-5.1
2	252	4.5	4.3	1.4	22	1.1	-0.4	-1.0	67	4.6	-4.2	-1.8	96	8.0	-7.9	0.9	104	8.5	-8.3	2.0	70	15.9	-14.9	-5.5	85	22.7	-22.6	-2.0
3	289	5.8	5.5	-1.9	335	1.9	0.8	-1.7	56	2.2	-1.8	-1.2	225	0.6	0.4	0.4	96	4.7	-4.7	0.5	94	5.6	-5.6	0.4	75	19.7	-19.0	-5.2
4	297	5.7	5.1	-2.6	345	2.8	0.7	-2.7	61	2.3	-2.0	-1.1	117	3.7	-3.3	1.7	87	6.0	-6.0	-0.3	86	12.9	-12.9	-0.9	73	20.3	-19.4	-5.9
5	301	5.8	5.0	-3.0	9	3.7	-0.6	-3.7	45	3.0	-2.1	-2.1	97	3.3	-3.3	0.4	82	7.6	-7.5	-1.0	92	10.6	-10.6	0.4	78	19.2	-18.8	-4.0
6	305	6.7	5.5	-3.9	3	2.0	-0.1	-2.0	55	3.2	-2.6	-1.8	74	5.1	-4.9	-1.4	94	9.7	-9.7	0.6	85	12.0	-12.0	-1.0	74	24.5	-23.6	-6.6
7	307	5.6	4.5	-3.4	51	3.5	-2.7	-2.2	77	4.3	-4.2	-1.0	81	6.7	-6.6	-1.0	104	11.8	-11.4	2.9	102	14.0	-13.7	2.9	79	21.0	-20.6	-4.1
8	311	4.3	3.2	-2.8	40	3.4	-2.2	-2.6	65	4.4	-4.0	-1.9	70	4.0	-3.8	-1.4	92	8.1	-8.1	0.3	83	10.9	-10.8	-1.4	77	19.0	-18.5	-4.2
9	292	5.1	4.7	-1.9	23	2.8	-1.1	-2.6	48	4.0	-3.0	-2.7	83	3.8	-3.8	-0.5	111	7.9	-7.4	2.9	91	12.4	-12.4	0.2	74	16.9	-16.2	-4.7
10	243	1.6	1.4	0.7	60	2.8	-2.4	-1.4	62	3.6	-3.2	-1.7	93	2.1	-2.1	0.1	88	4.9	-4.9	-0.2	92	10.3	-10.3	0.3	66	13.9	-12.7	-5.7
11	285	4.1	4.0	-1.1	320	2.3	1.5	-1.8	65	1.9	-1.7	-0.8	68	3.7	-3.4	-1.4	77	7.0	-6.8	-1.6	74	10.1	-9.7	-2.7	80	13.3	-13.1	-2.4
12	285	4.8	4.6	-1.2	299	4.1	3.6	-2.0	333	0.4	0.2	-0.4	94	1.6	-1.6	0.1	94	4.7	-4.7	0.3	103	5.0	-4.9	1.1	83	12.6	-12.5	-1.6
13	277	5.6	5.6	-0.7	287	3.0	2.9	-0.9	326	1.1	0.6	-0.9	135	0.1	-0.1	0.1	87	1.8	-1.8	-0.1	94	4.9	-4.9	0.3	72	10.8	-10.2	-3.4
14	282	7.1	6.9	-1.5	316	3.9	2.7	-2.8	353	2.4	0.3	-2.4	146	0.7	-0.4	0.6	97	3.8	-3.8	0.5	95	6.4	-6.4	0.6	86	15.9	-15.9	-1.2
15	287	9.3	8.9	-2.7	328	4.9	2.6	-4.1	358	2.4	0.1	-2.4	51	2.7	-2.1	-1.7	102	6.6	-6.4	1.4	103	9.9	-9.7	2.2	76	22.1	-21.4	-5.5
16	286	9.6	9.2	-2.7	336	4.7	1.9	-4.3	23	3.6	-1.4	-3.3	92	2.7	-2.7	0.1	104	6.5	-6.3	1.6	103	7.9	-7.7	1.8	86	18.8	-18.8	-1.2
17	299	7.8	6.8	-3.8	339	4.2	1.5	-3.9	28	4.7	-2.2	-4.2	80	2.8	-2.8	-0.5	91	5.6	-5.6	0.1	97	7.5	-7.4	0.9	90	13.4	-13.4	0.1
18	327	4.6	2.5	-3.9	43	3.5	-2.4	-2.6	54	3.2	-2.6	-1.9	95	4.2	-4.2	0.4	95	8.0	-8.0	0.7	92	10.2	-10.2	0.3	71	15.1	-14.2	-5.0
19	333	2.2	1.0	-2.0	12	1.9	-0.4	-1.9	49	4.4	-3.3	-2.9	104	3.7	-3.6	0.9	111	4.5	-4.2	1.6	91	8.0	-8.0	0.1	85	20.6	-20.5	-1.9
20	311	3.0	2.3	-2.0	6	2.0	-0.2	-2.0	46	3.0	-2.2	-2.1	90	3.0	-3.0	0.0	111	5.3	-4.9	1.9	83	6.5	-6.5	-0.8	78	18.0	-17.6	-3.6
21	351	1.8	0.3	-1.8	10	2.2	-0.4	-2.2	30	2.0	-1.0	-1.7	63	2.7	-2.4	-1.2	127	4.3	-3.4	2.6	99	5.1	-5.0	0.8	84	14.4	-14.3	-1.4
22	7	1.7	-0.2	-1.7	2	2.9	-0.1	-2.9	40	3.3	-2.1	-2.5	59	3.9	-3.3	-2.0	110	3.0	-2.8	1.0	106	6.6	-6.4	1.8	73	15.6	-14.9	-4.5
23	317	2.5	1.7	-1.8	31	2.9	-1.5	-2.5	43	3.8	-2.6	-2.8	102	2.9	-2.8	0.6	105	4.1	-4.0	1.1	83	7.7	-7.6	-1.0	76	13.8	-13.4	-3.3
24	297	1.1	1.0	-0.5	82	2.2	-2.2	-0.3	69	2.5	-2.3	-0.9	119	3.9	-3.4	1.9	121	4.7	-4.0	2.4	134	5.8	-4.2	4.0	80	14.5	-14.3	-2.4
25	143	0.5	-0.3	0.4	328	3.6	1.9	-3.1	356	2.6	0.2	-2.6	122	2.2	-1.9	1.2	113	3.0	-2.8	1.2	108	6.3	-6.0	2.0	71	12.0	-11.3	-4.0
26	196	1.5	0.4	1.4	297	3.7	3.3	-1.7	351	1.2	0.2	-1.2	111	1.4	-1.3	0.5	136	2.9	-2.0	2.1	120	3.9	-3.4	2.0	69	8.1	-7.6	-2.9
27	212	0.9	0.5	0.8	326	2.2	1.2	-1.8	41	2.3	-1.5	-1.7	120	2.8	-2.4	1.4	99	3.3	-3.3	0.5	108	5.6	-5.3	1.7	91	10.1	-10.1	0.2
28	287	1.7	1.6	-0.5	3	3.7	-0.2	-3.7	38	1.8	-1.1	-1.4	97	0.8	-0.8	0.1	111	3.6	-3.4	1.3	113	5.4	-5.0	2.1	79	11.2	-11.0	-2.2
29	305	2.8	2.3	-1.6	347	2.8	0.6	-2.7	26	2.8	-1.2	-2.5	94	1.4	-1.4	0.1	107	4.1	-3.9	1.2	116	8.0	-7.2	3.5	77	12.5	-12.2	-2.9
30	355	1.1	0.1	-1.1	358	3.7	0.1	-3.7	9	2.0	-0.3	-2.0	171	1.3	-0.2	1.3	116	3.4	-3.1	1.5	90	3.4	-3.4	0.0	59	9.6	-8.2	-5.0
31	304	1.1	0.9	-0.6	12	5.1	-1.1	-5.0	18	3.9	-1.2	-3.7	90	1.2	-1.2	0.0	107	3.9	-3.7	1.1	131	5.7	-4.3	3.7	85	7.9	-7.9	-0.7

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	328	4.0	2.1	-3.4	1	5.2	-0.1	-5.2	12	5.5	-1.1	-5.4	61	2.6	-2.3	-1.3	83	3.9	-3.9	-0.5	111	4.8	-4.5	1.7	70	9.6	-9.0	-3.3
2	350	5.1	0.9	-5.0	352	4.2	0.6	-4.2	2	3.3	-0.1	-3.3	66	1.7	-1.6	-0.7	48	3.1	-2.3	-2.1	88	2.5	-2.5	-0.1	79	7.8	-7.7	-1.5
3	10	3.4	-0.6	-3.3	359	4.3	0.1	-4.3	24	4.3	-1.7	-3.9	101	3.3	-3.2	0.6	118	4.3	-3.8	2.0	85	3.5	-3.5	-0.3	84	11.1	-11.0	-1.2
4	302	1.3	1.1	-0.7	327	3.8	2.1	-3.2	28	3.0	-1.4	-2.6	106	1.8	-1.7	0.5	90	0.1	-0.1	0.0	138	4.3	-2.9	3.2	93	11.8	-11.8	0.6
5	360	1.7	0.0	-1.7	355	4.4	0.4	-4.4	54	3.7	-3.0	-2.2	145	1.2	-0.7	1.0	197	3.4	1.0	3.2	146	1.4	-0.8	1.2	83	9.2	-9.1	-1.1
6	319	0.9	0.6	-0.7	339	3.1	1.1	-2.9	27	3.3	-1.5	-2.9	113	2.8	-2.6	1.1	117	3.0	-2.7	1.4	100	3.5	-3.4	0.6	84	11.2	-11.1	-1.2
7	35	1.2	-0.7	-1.0	343	3.4	1.0	-3.2	43	3.3	-2.2	-2.4	107	3.8	-3.6	1.1	106	1.9	-1.8	0.5	144	2.7	-1.6	2.2	86	11.4	-11.4	-0.7
8	337	0.8	0.3	-0.7	339	3.3	1.2	-3.1	23	3.0	-1.2	-2.8	143	1.5	-0.9	1.2	138	1.3	-0.9	1.0	185	1.2	0.1	1.2	87	12.7	-12.7	-0.7
9	156	1.2	-0.5	1.1	329	2.3	1.2	-2.0	30	2.8	-1.4	-2.4	96	1.0	-1.0	0.1	217	0.5	0.3	0.4	189	3.7	0.6	3.7	78	10.8	-10.6	-2.2
10	24	1.7	-0.7	-1.6	350	4.6	0.8	-4.5	356	2.7	0.2	-2.7	145	2.1	-1.2	1.7	143	0.5	-0.3	0.4	225	4.0	2.8	2.8	61	9.6	-8.4	-4.6
11	268	2.9	2.9	0.1	329	3.9	2.0	-3.3	340	3.0	1.0	-2.8	14	0.4	-0.1	-0.4	247	3.0	2.8	1.2	218	2.9	1.8	2.3	69	3.3	-3.1	-1.2
12	291	5.0	4.7	-1.8	304	4.3	3.6	-2.4	308	2.3	1.8	-1.4	225	2.0	1.4	1.4	243	1.6	1.4	0.7	168	1.9	-0.4	1.9	85	5.0	-5.0	-0.4
13	309	3.2	2.5	-2.0	342	2.5	0.8	-2.4	12	2.9	-0.6	-2.8	329	0.6	0.3	-0.5	251	3.4	3.2	1.1	189	3.9	0.6	3.9	60	5.3	-4.6	-2.7
14	345	2.8	0.7	-2.7	342	3.9	1.2	-3.7	19	3.9	-1.3	-3.7	259	1.0	1.0	0.2	268	3.1	3.1	0.1	246	4.9	4.5	2.0	56	3.2	-2.7	-1.8
15	325	2.9	1.7	-2.4	334	4.3	1.9	-3.9	346	5.6	1.3	-5.4	248	2.9	2.7	1.1	256	1.2	1.2	0.3	237	3.1	2.6	1.7	76	3.4	-3.3	-0.8
16	355	2.1	0.2	-2.1	4	4.2	-0.3	-4.2	19	5.8	-1.9	-5.5	342	1.6	0.5	-1.5	242	3.0	2.6	1.4	217	4.6	2.8	3.7	73	2.7	-2.6	-0.8
17	358	2.4	0.1	-2.4	12	3.9	-0.8	-3.8	31	5.2	-2.7	-4.5	339	1.7	0.6	-1.6	243	2.5	2.2	1.1	235	3.9	3.2	2.2	63	3.9	-3.5	-1.8
18	350	3.4	0.6	-3.3	346	3.4	0.8	-3.3	353	4.0	0.5	-4.0	237	1.7	1.4	0.9	250	6.7	6.3	2.3	236	7.7	6.4	4.3	42	3.0	-2.0	-2.2
19	326	3.4	1.9	-2.8	359	4.0	0.1	-4.0	354	4.0	0.4	-4.0	243	3.3	2.9	1.5	268	7.3	7.3	0.3	245	6.8	6.2	2.9	80	1.7	-1.7	-0.3
20	310	3.9	3.0	-2.5	358	3.6	0.1	-3.6	358	3.7	0.1	-3.7	243	4.9	4.4	2.2	254	7.6	7.3	2.1	234	9.4	7.6	5.6	143	2.6	-1.6	2.1
21	308	4.4	3.5	-2.7	349	3.6	0.7	-3.5	2	3.7	-0.1	-3.7	237	2.7	2.3	1.5	241	9.1	8.0	4.4	233	10.7	8.5	6.5	198	1.3	0.4	1.2
22	317	5.4	3.7	-4.0	348	3.8	0.8	-3.7	3	4.3	-0.2	-4.3	252	1.9	1.8	0.6	245	7.9	7.2	3.3	237	10.8	9.1	5.9	294	2.4	2.2	-1.0
23	315	3.1	2.2	-2.2	331	2.5	1.2	-2.2	354	5.4	0.6	-5.4	241	3.7	3.2	1.8	241	9.2	8.1	4.4	241	13.4	11.7	6.5	224	3.0	2.1	2.2
24	308	4.6	3.6	-2.8	337	3.0	1.2	-2.8	2	3.2	-0.1	-3.2	235	4.7	3.8	2.7	257	11.6	11.3	2.6	257	14.4	14.0	3.3	330	2.2	1.1	-1.9
25	318	3.8	2.5	-2.8	323	3.6	2.2	-2.9	309	2.2	1.7	-1.4	290	3.0	2.8	-1.0	272	8.7	8.7	-0.3	252	12.8	12.2	3.9	74	5.3	-5.1	-1.5
26	316	3.0	2.1	-2.2	332	3.2	1.5	-2.8	333	3.6	1.6	-3.2	277	3.5	3.5	-0.4	263	11.9	11.8	1.4	259	12.6	12.4	2.5	191	2.1	0.4	2.1
27	302	3.1	2.6	-1.6	347	3.7	0.8	-3.6	344	5.9	1.6	-5.7	296	3.0	2.7	-1.3	261	9.2	9.1	1.5	256	12.2	11.8	3.0	139	2.1	-1.4	1.6
28	153	0.2	-0.1	0.2	338	3.1	1.2	-2.9	333	4.0	1.8	-3.6	266	3.9	3.9	0.3	262	11.0	10.9	1.6	257	12.1	11.8	2.7	257	1.3	1.3	0.3
29	355	1.2	0.1	-1.2	322	3.4	2.1	-2.7	332	6.4	3.0	-5.6	274	5.4	5.4	-0.4	251	15.2	14.4	5.0	252	16.6	15.8	5.1	171	1.2	-0.2	1.2
30	303	2.7	2.3	-1.5	323	5.1	3.1	-4.1	328	5.8	3.1	-4.9	283	7.3	7.1	-1.6	270	15.1	15.1	0.1	255	17.3	16.7	4.5	260	8.9	8.8	1.5

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	283	2.3	2.2	-0.5	342	4.3	1.3	-4.1	326	5.8	3.2	-4.8	281	5.6	5.5	-1.1	261	12.2	12.0	2.0	246	14.8	13.5	6.1	274	6.5	6.5	-0.5
2	314	2.9	2.1	-2.0	342	4.1	1.3	-3.9	339	5.3	1.9	-4.9	279	4.7	4.6	-0.7	259	13.5	13.3	2.5	249	14.2	13.3	5.1	274	4.3	4.3	-0.3
3	292	0.5	0.5	-0.2	337	3.6	1.4	-3.3	346	6.2	1.5	-6.0	282	4.9	4.8	-1.0	263	14.6	14.5	1.9	261	22.0	21.7	3.6	254	9.2	8.9	2.5
4	315	2.4	1.7	-1.7	334	3.4	1.5	-3.1	352	6.4	0.9	-6.3	278	4.5	4.5	-0.6	269	13.9	13.9	0.2	255	18.7	18.1	4.8	264	8.4	8.4	0.9
5	291	0.9	0.8	-0.3	330	1.6	0.8	-1.4	327	5.5	3.0	-4.6	271	4.5	4.5	-0.1	258	16.7	16.4	3.4	250	19.1	18.0	6.5	229	6.9	5.2	4.5
6	54	1.4	-1.1	-0.8	360	1.1	0.0	-1.1	328	4.5	2.4	-3.8	282	5.5	5.4	-1.1	255	13.6	13.1	3.5	255	18.8	18.1	5.0	280	4.7	4.6	-0.8
7	18	0.9	-0.3	-0.9	344	2.5	0.7	-2.4	338	4.8	1.8	-4.5	280	5.3	5.2	-0.9	266	14.2	14.2	1.0	271	16.8	16.8	-0.2	261	7.4	7.3	1.2
8	45	0.7	-0.5	-0.5	328	2.5	1.3	-2.1	323	3.8	2.3	-3.0	284	5.7	5.5	-1.4	273	14.3	14.3	-0.7	256	16.9	16.4	4.2	269	7.3	7.3	0.1
9	53	1.5	-1.2	-0.9	339	2.5	0.9	-2.3	326	5.8	3.2	-4.8	298	8.0	7.1	-3.7	275	16.8	16.7	-1.6	268	19.2	19.2	0.7	261	9.0	8.9	1.4
10	106	1.8	-1.7	0.5	333	2.9	1.3	-2.6	327	4.9	2.7	-4.1	279	7.9	7.8	-1.2	264	15.1	15.0	1.6	263	19.5	19.4	2.3	281	8.7	8.6	-1.6
11	270	0.3	0.3	0.0	315	3.4	2.4	-2.4	313	4.8	3.5	-3.3	268	9.7	9.7	0.3	263	20.9	20.7	2.6	262	22.0	21.8	3.2	270	13.9	13.9	0.0
12	49	0.9	-0.7	-0.6	320	4.0	2.6	-3.1	312	5.9	4.4	-4.0	280	10.3	10.1	-1.8	267	23.4	23.4	1.4	264	26.1	26.0	2.7	277	13.9	13.8	-1.8
13	360	1.3	0.0	-1.3	328	4.0	2.1	-3.4	321	6.7	4.2	-5.2	276	7.8	7.8	-0.8	254	18.8	18.1	5.2	257	28.0	27.2	6.5	234	3.9	3.2	2.3
14	322	1.6	1.0	-1.3	306	4.8	3.9	-2.8	321	5.5	3.5	-4.3	268	9.9	9.9	0.3	255	20.9	20.2	5.5	256	22.2	21.5	5.5	233	6.3	5.0	3.8
15	341	2.8	0.9	-2.6	312	4.5	3.3	-3.0	314	5.7	4.1	-4.0	272	7.1	7.1	-0.2	265	22.4	22.3	2.0	270	23.9	23.9	0.1	242	10.8	9.6	5.0
16	30	2.4	-1.2	-2.1	324	3.9	2.3	-3.2	321	4.4	2.8	-3.4	271	8.1	8.1	-0.2	255	18.4	17.8	4.8	251	26.8	25.4	8.7	271	14.9	14.9	-0.2
17	349	1.6	0.3	-1.6	315	3.1	2.2	-2.2	323	4.6	2.8	-3.7	272	9.2	9.2	-0.4	263	20.8	20.6	2.5	255	25.0	24.2	6.3	265	16.4	16.3	1.4
18	119	1.3	-1.1	0.6	317	5.4	3.7	-4.0	309	6.3	4.9	-4.0	274	10.7	10.7	-0.8	258	19.8	19.4	4.0	248	24.6	22.9	9.1	251	10.2	9.6	3.3
19	304	0.7	0.6	-0.4	325	3.9	2.2	-3.2	305	5.1	4.2	-2.9	265	11.4	11.4	1.0	260	25.4	25.0	4.5	251	29.8	28.2	9.5	238	13.5	11.4	7.2
20	267	1.9	1.9	0.1	307	3.5	2.8	-2.1	299	5.2	4.6	-2.5	270	13.1	13.1	0.1	259	24.9	24.4	4.9	259	29.6	29.0	5.9	245	25.5	23.1	10.7
21	342	2.0	0.6	-1.9	328	4.6	2.4	-3.9	312	5.9	4.4	-3.9	285	10.1	9.8	-2.6	271	25.5	25.5	-0.4	264	29.5	29.3	3.3	288	15.2	14.5	-4.6
22	335	1.7	0.7	-1.5	325	3.9	2.2	-3.2	318	5.8	3.9	-4.3	282	10.3	10.1	-2.1	272	22.6	22.6	-0.6	260	27.1	26.7	4.5	258	14.0	13.7	3.0
23	311	2.1	1.6	-1.4	327	4.0	2.2	-3.4	314	5.6	4.0	-3.9	269	8.2	8.2	0.1	260	22.1	21.8	3.8	250	26.1	24.5	8.9	240	15.3	13.3	7.6
24	307	1.5	1.2	-0.9	324	3.6	2.1	-2.9	307	5.1	4.1	-3.1	281	9.1	8.9	-1.8	268	23.0	23.0	0.9	265	26.6	26.5	2.1	264	14.8	14.7	1.6
25	304	1.4	1.2	-0.8	323	4.6	2.8	-3.7	319	6.7	4.4	-5.0	278	13.0	12.9	-1.9	271	26.8	26.8	-0.5	265	36.9	36.8	3.0	255	16.7	16.2	4.2
26	352	2.8	0.4	-2.8	327	4.6	2.5	-3.9	322	5.4	3.3	-4.3	277	12.1	12.0	-1.4	267	26.2	26.2	1.6	270	34.3	34.3	0.2	263	18.2	18.1	2.2
27	324	2.2	1.3	-1.8	313	3.4	2.5	-2.3	318	5.2	3.5	-3.9	272	11.1	11.1	-0.3	261	26.1	25.8	4.2	262	31.1	30.8	4.2	257	17.5	17.0	4.0
28	21	1.7	-0.6	-1.6	326	3.7	2.1	-3.1	319	5.5	3.6	-4.2	274	8.1	8.1	-0.5	261	24.3	24.0	3.6	259	32.5	31.9	6.1	253	20.0	19.2	5.7
29	42	1.3	-0.9	-1.0	336	3.2	1.3	-2.9	332	5.0	2.3	-4.4	290	8.9	8.4	-3.0	260	24.8	24.4	4.5	258	32.0	31.3	6.5	256	17.7	17.2	4.2
30	27	0.7	-0.3	-0.6	353	3.1	0.4	-3.1	313	5.3	3.9	-3.6	290	8.9	8.4	-3.0	268	23.1	23.1	0.9	250	37.4	35.2	12.5	261	19.1	18.8	3.1
31	9	2.0	-0.3	-2.0	349	2.5	0.5	-2.5	319	5.8	3.8	-4.4	273	10.6	10.6	-0.5	263	26.1	25.9	3.2	252	38.8	37.0	11.8	259	21.5	21.1	4.1

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	54	2.6	-2.1	-1.5	332	3.0	1.4	-2.6	302	5.1	4.3	-2.7	286	10.8	10.4	-2.9	269	26.1	26.1	0.6	276	37.2	37.0	-3.6	274	20.0	20.0	-1.3
2	36	2.4	-1.4	-1.9	354	2.0	0.2	-2.0	320	5.4	3.5	-4.1	294	13.1	11.9	-5.4	277	25.2	25.0	-3.2	260	31.1	30.6	5.4	272	21.2	21.2	-0.8
3	360	0.5	0.0	-0.5	338	3.1	1.2	-2.9	323	5.9	3.5	-4.7	292	11.6	10.7	-4.4	274	25.8	25.7	-1.8	266	32.7	32.6	2.4	275	18.6	18.5	-1.7
4	112	1.1	-1.0	0.4	325	3.3	1.9	-2.7	312	5.9	4.4	-3.9	278	11.8	11.7	-1.6	271	27.9	27.9	-0.3	258	39.9	39.0	8.5	275	27.6	27.5	-2.6
5	324	0.9	0.5	-0.7	335	4.3	1.8	-3.9	306	6.1	4.9	-3.6	278	13.1	13.0	-1.8	281	28.9	28.4	-5.6	262	44.4	44.0	5.8	279	28.6	28.3	-4.3
6	18	0.9	-0.3	-0.9	339	5.1	1.8	-4.8	306	5.2	4.2	-3.0	278	15.4	15.3	-2.1	274	31.2	31.1	-2.4	264	37.0	36.8	3.6	252	20.7	19.7	6.4
7	293	0.8	0.7	-0.3	326	3.7	2.1	-3.1	304	5.3	4.4	-3.0	286	13.9	13.4	-3.8	278	27.4	27.1	-3.9	267	29.9	29.9	1.4	281	24.5	24.0	-4.8
8	328	1.5	0.8	-1.3	322	3.3	2.0	-2.6	320	5.5	3.5	-4.2	280	12.1	11.9	-2.0	258	25.4	24.8	5.3	268	42.4	42.4	1.3	288	11.8	11.2	-3.6
9	347	1.7	0.4	-1.7	330	2.4	1.2	-2.1	288	5.4	5.1	-1.7	271	13.5	13.5	-0.2	269	28.4	28.4	0.7	270	27.3	27.3	0.2	279	18.6	18.4	-3.0
10	354	1.0	0.1	-1.0	313	3.3	2.4	-2.2	311	6.0	4.5	-3.9	286	11.6	11.2	-3.2	269	27.3	27.3	0.5	275	42.5	42.3	-3.7	281	24.5	24.1	-4.5
11	321	1.3	0.8	-1.0	306	2.7	2.2	-1.6	306	5.8	4.7	-3.4	296	12.1	10.9	-5.3	283	27.0	26.3	-6.1	267	31.6	31.5	1.8	261	19.2	19.0	2.9
12	329	1.2	0.6	-1.0	353	2.3	0.3	-2.3	303	5.0	4.2	-2.7	289	11.4	10.8	-3.7	277	24.2	24.0	-2.9	270	32.2	32.2	-0.2	282	14.5	14.2	-2.9
13	319	2.9	1.9	-2.2	316	3.9	2.7	-2.8	321	6.6	4.2	-5.1	298	12.6	11.1	-6.0	274	25.4	25.3	-1.9	268	30.7	30.7	1.1	289	21.2	20.0	-6.9
14	335	2.1	0.9	-1.9	332	4.4	2.1	-3.9	317	6.2	4.2	-4.5	287	11.6	11.1	-3.3	269	24.3	24.3	0.4	264	40.3	40.1	4.1	279	19.0	18.8	-3.0
15	10	2.8	-0.5	-2.8	329	5.1	2.6	-4.4	313	6.9	5.1	-4.7	289	11.9	11.2	-3.9	273	25.3	25.3	-1.5	263	39.9	39.6	5.1	272	21.8	21.8	-0.7
16	37	1.5	-0.9	-1.2	329	3.1	1.6	-2.7	316	4.7	3.3	-3.4	265	9.7	9.7	0.9	269	26.0	26.0	0.6	263	34.7	34.4	4.2	277	21.0	20.8	-2.6
17	29	1.3	-0.6	-1.1	333	3.3	1.5	-2.9	293	4.7	4.3	-1.8	270	11.6	11.6	-0.1	260	30.4	30.0	5.2	256	39.5	38.4	9.4	236	17.9	14.9	10.0
18	25	1.7	-0.7	-1.5	325	2.8	1.6	-2.3	291	5.6	5.2	-2.0	256	15.2	14.7	3.8	255	29.7	28.7	7.7	254	43.7	42.1	11.7	256	15.5	15.0	3.8
19	14	1.2	-0.3	-1.2	323	3.9	2.3	-3.1	299	5.7	5.0	-2.8	275	12.2	12.2	-1.0	269	33.4	33.4	0.5	268	37.5	37.5	1.2	258	24.6	24.1	5.0
20	74	1.5	-1.4	-0.4	322	3.4	2.1	-2.7	295	5.7	5.2	-2.4	276	15.2	15.1	-1.7	259	34.4	33.8	6.6	259	36.7	36.1	6.8	284	13.0	12.6	-3.1
21	5	1.2	-0.1	-1.2	308	2.8	2.2	-1.7	301	5.4	4.6	-2.8	269	13.5	13.5	0.3	250	27.8	26.2	9.4	252	42.5	40.4	13.1	262	26.4	26.1	3.8
22	97	1.6	-1.6	0.2	300	2.2	1.9	-1.1	269	5.1	5.1	0.1	261	14.4	14.2	2.3	255	31.8	30.8	8.1	253	35.8	34.3	10.2	282	18.3	17.9	-3.8
23	43	2.1	-1.4	-1.5	303	2.7	2.3	-1.5	283	6.8	6.6	-1.5	279	12.7	12.6	-1.9	271	26.8	26.8	-0.3	261	34.6	34.2	5.3	240	18.5	16.0	9.3
24	333	3.7	1.7	-3.3	335	4.4	1.9	-4.0	297	6.5	5.8	-3.0	278	13.0	12.9	-1.9	274	25.0	24.9	-1.6	262	31.6	31.3	4.5	260	32.2	31.7	5.8
25	324	5.1	3.0	-4.1	308	3.7	2.9	-2.3	289	6.5	6.2	-2.1	274	15.4	15.4	-1.2	267	33.1	33.1	1.7	270	28.0	28.0	-0.1	266	26.4	26.3	1.7
26	322	3.3	2.0	-2.6	303	3.8	3.2	-2.1	279	7.4	7.3	-1.2	270	18.9	18.9	-0.1	268	26.7	26.7	0.8	275	33.0	32.9	-2.6	273	22.0	22.0	-1.0
27	317	2.6	1.8	-1.9	306	3.7	3.0	-2.2	288	8.0	7.6	-2.5	276	17.5	17.4	-1.7	270	33.7	33.7	0.0	273	34.4	34.3	-2.0	271	32.6	32.6	-0.7
28	352	2.2	0.3	-2.2	323	3.0	1.8	-2.4	299	7.7	6.8	-3.7	275	17.7	17.6	-1.4	267	35.9	35.8	2.1	261	39.8	39.3	6.2	272	22.5	22.5	-0.7
29	356	1.5	0.1	-1.5	330	3.8	1.9	-3.3	289	7.6	7.2	-2.5	280	18.0	17.7	-3.0	259	29.6	29.0	5.8	268	40.4	40.4	1.7	272	30.0	30.0	-1.0
30	334	2.5	1.1	-2.3	319	2.9	1.9	-2.2	295	7.4	6.7	-3.1	281	18.6	18.2	-3.7	265	34.2	34.1	3.2	281	44.9	44.1	-8.7	298	56.8	50.4	-26.3

Daily Normals of Upper Air Winds (1971-2000)

GWALIOR **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	323	4.4	2.6	-3.5	310	5.4	4.1	-3.5	290	8.1	7.6	-2.8	272	18.7	18.7	-0.7	277	36.0	35.7	-4.6	267	40.8	40.8	2.0	264	35.2	35.0	3.6
2	328	3.6	1.9	-3.0	319	3.7	2.4	-2.8	293	6.7	6.2	-2.6	274	17.4	17.4	-1.1	265	28.7	28.6	2.4	265	36.8	36.7	2.9	263	31.0	30.8	3.8
3	45	1.3	-0.9	-0.9	334	3.2	1.4	-2.9	281	5.8	5.7	-1.1	264	15.1	15.0	1.6	259	31.4	30.8	6.0	250	42.3	39.6	14.8	254	26.4	25.4	7.1
4	51	0.6	-0.5	-0.4	321	4.8	3.0	-3.7	281	5.9	5.8	-1.1	270	14.8	14.8	-0.1	264	35.8	35.6	4.0	264	38.8	38.6	3.9	262	43.0	42.6	6.0
5	343	3.4	1.0	-3.2	322	5.0	3.1	-3.9	298	5.9	5.2	-2.8	265	14.1	14.0	1.2	263	31.4	31.2	3.9	253	39.4	37.8	11.2	261	31.6	31.2	5.2
6	7	2.4	-0.3	-2.4	312	5.1	3.8	-3.4	293	7.0	6.5	-2.7	275	13.3	13.2	-1.2	268	25.5	25.5	1.1	253	37.3	35.7	10.9	260	25.6	25.2	4.3
7	27	2.0	-0.9	-1.8	309	4.4	3.4	-2.8	281	6.9	6.8	-1.3	275	16.4	16.3	-1.3	261	25.9	25.6	3.9	258	26.2	25.6	5.4	252	24.0	22.9	7.3
8	333	3.9	1.8	-3.5	319	5.2	3.4	-3.9	292	6.1	5.6	-2.3	275	16.5	16.4	-1.5	278	31.7	31.4	-4.4	278	37.4	37.1	-4.9	267	31.6	31.5	1.9
9	333	3.0	1.4	-2.7	316	3.9	2.7	-2.8	292	7.0	6.5	-2.6	259	14.8	14.5	2.9	263	27.8	27.6	3.5	259	33.9	33.2	6.7	258	18.2	17.8	3.8
10	307	3.4	2.7	-2.0	326	4.0	2.2	-3.3	306	6.8	5.5	-4.0	279	15.6	15.4	-2.4	263	33.6	33.3	4.2	252	47.8	45.4	14.8	254	33.4	32.1	9.2
11	327	3.1	1.7	-2.6	303	2.4	2.0	-1.3	293	4.9	4.5	-1.9	272	16.6	16.6	-0.6	265	30.8	30.7	2.5	256	36.3	35.2	8.8	264	29.7	29.5	3.1
12	333	3.5	1.6	-3.1	323	3.4	2.0	-2.7	283	8.0	7.8	-1.8	273	20.1	20.1	-1.1	273	33.5	33.5	-1.8	262	26.2	25.9	3.8	276	35.5	35.3	-3.9
13	331	2.6	1.3	-2.3	301	4.5	3.9	-2.3	264	7.7	7.7	0.8	275	23.4	23.3	-1.9	269	44.3	44.3	0.7	270	61.7	61.7	-0.1	269	46.0	46.0	0.5
14	323	4.4	2.6	-3.5	289	5.0	4.7	-1.6	283	10.7	10.4	-2.4	266	19.8	19.7	1.5	262	33.0	32.6	4.8	272	36.7	36.7	-1.3	259	31.3	30.7	6.0
15	311	4.5	3.4	-3.0	315	3.7	2.6	-2.6	285	9.9	9.6	-2.6	281	19.6	19.3	-3.6	270	41.9	41.9	-0.2	274	43.8	43.7	-3.0	269	17.9	17.9	0.2
16	329	1.2	0.6	-1.0	310	3.8	2.9	-2.4	286	8.2	7.9	-2.3	276	21.1	21.0	-2.2	273	40.2	40.1	-2.1	262	48.1	47.6	7.1	260	40.4	39.8	6.7
17	9	1.9	-0.3	-1.9	315	3.5	2.5	-2.5	294	7.8	7.1	-3.2	276	18.6	18.5	-2.1	267	33.9	33.9	1.7	259	42.1	41.3	8.2	261	32.1	31.7	4.9
18	322	2.4	1.5	-1.9	302	3.6	3.0	-1.9	280	10.2	10.1	-1.7	285	20.6	19.9	-5.5	273	38.0	38.0	-1.8	270	49.3	49.3	0.0	289	30.0	28.3	-9.9
19	322	2.4	1.5	-1.9	318	4.8	3.2	-3.6	285	8.7	8.4	-2.3	272	18.2	18.2	-0.7	262	33.9	33.6	4.7	259	51.2	50.3	9.5	270	26.2	26.2	-0.2
20	319	2.0	1.3	-1.5	306	3.9	3.2	-2.3	285	8.4	8.1	-2.1	270	21.4	21.4	-0.1	267	39.1	39.0	2.3	262	54.2	53.7	7.3	265	27.0	26.9	2.3
21	324	2.2	1.3	-1.8	292	3.2	3.0	-1.2	293	8.0	7.4	-3.1	274	19.5	19.5	-1.3	269	43.6	43.6	0.7	262	54.1	53.5	7.9	250	20.0	18.8	6.8
22	349	2.1	0.4	-2.1	301	4.2	3.6	-2.2	271	9.5	9.5	-0.1	272	18.6	18.6	-0.8	275	44.7	44.5	-4.2	263	47.7	47.4	5.5	235	31.2	25.5	17.9
23	18	2.2	-0.7	-2.1	308	3.3	2.6	-2.0	283	8.2	8.0	-1.8	275	19.3	19.2	-1.8	267	43.6	43.5	2.3	254	56.7	54.6	15.4	269	34.5	34.5	0.4
24	339	2.5	0.9	-2.3	297	4.2	3.8	-1.9	286	6.9	6.6	-1.9	273	15.8	15.8	-0.9	262	40.5	40.1	5.7	253	52.5	50.3	15.1	261	38.3	37.9	5.8
25	326	1.1	0.6	-0.9	306	2.2	1.8	-1.3	278	7.3	7.2	-1.0	271	19.3	19.3	-0.2	268	42.5	42.5	1.7	270	40.6	40.6	-0.3	285	50.0	48.3	-12.9
26	339	1.4	0.5	-1.3	288	2.0	1.9	-0.6	270	8.9	8.9	0.0	267	19.1	19.1	1.1	276	32.6	32.4	-3.6	267	46.1	46.0	2.6	260	26.9	26.5	4.5
27	61	1.3	-1.1	-0.6	279	1.8	1.8	-0.3	284	5.7	5.5	-1.4	273	19.8	19.8	-1.1	259	29.5	29.0	5.6	259	40.6	39.9	7.5	251	17.5	16.5	5.7
28	34	0.4	-0.2	-0.3	286	2.6	2.5	-0.7	288	7.9	7.5	-2.5	279	19.6	19.3	-3.2	269	36.4	36.4	0.4	251	48.4	45.8	15.5	253	41.2	39.4	12.0
29	9	0.6	-0.1	-0.6	284	4.4	4.3	-1.1	283	9.0	8.8	-2.1	274	22.4	22.3	-1.5	282	30.2	29.5	-6.4	270	32.0	32.0	0.2	270	32.7	32.7	0.1
30	346	2.9	0.7	-2.8	288	5.4	5.1	-1.7	267	10.1	10.1	0.6	275	20.9	20.8	-2.0	276	45.0	44.7	-5.0	253	49.9	47.7	14.8	281	38.0	37.3	-7.3
31	344	2.9	0.8	-2.8	304	4.5	3.7	-2.5	278	10.5	10.4	-1.5	281	21.0	20.6	-4.1	263	41.4	41.1	4.7	262	57.2	56.6	8.2	252	33.4	31.8	10.3

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	118	4.3	-3.8	2.0	110	2.3	-2.2	0.8	300	2.8	2.4	-1.4	277	9.7	9.6	-1.1	266	19.2	19.2	1.3	258	22.8	22.3	4.7	266	7.3	7.3	0.5
2	110	4.6	-4.3	1.6	90	2.5	-2.5	0.0	287	3.0	2.9	-0.9	269	10.3	10.3	0.1	266	19.5	19.5	1.2	255	23.1	22.4	5.8	250	7.3	6.9	2.5
3	108	4.0	-3.8	1.2	56	1.8	-1.5	-1.0	303	3.1	2.6	-1.7	280	9.6	9.4	-1.7	269	20.0	20.0	0.4	254	21.7	20.9	5.9	275	9.2	9.2	-0.8
4	97	4.1	-4.1	0.5	62	3.0	-2.6	-1.4	338	2.2	0.8	-2.0	273	8.3	8.3	-0.4	265	17.6	17.5	1.6	256	20.5	19.9	4.9	264	10.3	10.2	1.1
5	110	4.6	-4.3	1.6	66	1.7	-1.6	-0.7	339	1.9	0.7	-1.8	277	8.3	8.2	-1.0	263	19.6	19.5	2.4	256	22.2	21.5	5.4	260	11.3	11.1	1.9
6	113	4.0	-3.7	1.6	60	2.2	-1.9	-1.1	317	1.6	1.1	-1.2	273	7.8	7.8	-0.4	262	17.5	17.3	2.5	254	21.6	20.7	6.1	260	12.8	12.6	2.2
7	137	3.7	-2.5	2.7	97	2.5	-2.5	0.3	297	1.6	1.4	-0.7	273	9.4	9.4	-0.5	262	21.4	21.2	2.8	258	23.5	23.0	4.8	266	12.4	12.4	0.8
8	131	4.3	-3.2	2.8	110	3.0	-2.8	1.0	274	1.3	1.3	-0.1	264	8.8	8.8	0.9	266	21.9	21.8	1.5	255	23.9	23.1	6.2	263	12.4	12.3	1.6
9	103	3.1	-3.0	0.7	97	1.7	-1.7	0.2	256	2.1	2.0	0.5	271	10.6	10.6	-0.1	264	20.0	19.9	2.2	262	21.2	21.0	2.8	265	11.0	11.0	1.0
10	103	4.3	-4.2	1.0	92	2.4	-2.4	0.1	273	1.8	1.8	-0.1	267	10.1	10.1	0.5	263	20.0	19.9	2.3	256	18.2	17.6	4.5	258	11.5	11.3	2.3
11	118	4.7	-4.1	2.2	99	1.9	-1.9	0.3	266	1.4	1.4	0.1	264	12.5	12.4	1.4	262	20.6	20.4	2.8	251	22.4	21.2	7.2	274	11.2	11.2	-0.7
12	144	3.9	-2.3	3.2	119	1.0	-0.9	0.5	262	2.7	2.7	0.4	274	11.0	11.0	-0.8	262	22.0	21.8	3.2	247	24.8	22.9	9.6	266	10.5	10.5	0.7
13	121	4.2	-3.6	2.2	90	0.2	-0.2	0.0	267	3.7	3.7	0.2	274	10.0	10.0	-0.7	261	21.1	20.8	3.4	252	23.1	22.0	7.1	269	10.8	10.8	0.2
14	119	3.8	-3.3	1.8	90	1.6	-1.6	0.0	290	2.7	2.5	-0.9	271	9.5	9.5	-0.1	265	22.5	22.4	2.1	256	24.1	23.3	6.0	252	11.5	11.0	3.5
15	126	4.2	-3.4	2.5	100	1.7	-1.7	0.3	275	3.6	3.6	-0.3	268	11.8	11.8	0.4	263	24.1	23.9	2.9	256	26.5	25.8	6.2	267	11.2	11.2	0.6
16	137	2.5	-1.7	1.8	78	1.4	-1.4	-0.3	269	4.0	4.0	0.1	265	9.7	9.7	0.9	262	21.7	21.5	3.0	251	23.3	22.1	7.5	259	11.0	10.8	2.1
17	123	4.2	-3.5	2.3	88	2.5	-2.5	-0.1	275	2.5	2.5	-0.2	268	10.3	10.3	0.4	263	22.2	22.0	2.8	253	24.5	23.4	7.2	258	10.7	10.5	2.3
18	109	4.2	-4.0	1.4	75	2.8	-2.7	-0.7	287	2.4	2.3	-0.7	274	10.2	10.2	-0.7	262	20.6	20.4	2.9	252	21.6	20.6	6.5	257	7.1	6.9	1.6
19	124	4.0	-3.3	2.2	85	1.1	-1.1	-0.1	298	4.0	3.5	-1.9	282	9.5	9.3	-2.0	265	20.8	20.7	1.8	259	20.6	20.2	3.8	258	8.6	8.4	1.8
20	140	3.3	-2.1	2.5	129	0.6	-0.5	0.4	296	3.7	3.3	-1.6	292	10.8	10.0	-4.1	266	21.4	21.4	1.4	254	21.2	20.4	5.7	263	12.4	12.3	1.5
21	129	2.2	-1.7	1.4	122	1.5	-1.3	0.8	296	3.9	3.5	-1.7	272	9.9	9.9	-0.3	267	21.1	21.1	1.1	254	24.7	23.7	6.8	259	11.9	11.7	2.2
22	113	3.4	-3.1	1.3	100	1.7	-1.7	0.3	306	4.7	3.8	-2.8	287	9.3	8.9	-2.8	264	19.7	19.6	2.1	256	21.1	20.4	5.2	263	9.6	9.5	1.2
23	131	3.2	-2.4	2.1	118	1.7	-1.5	0.8	326	4.2	2.4	-3.5	274	7.7	7.7	-0.5	264	20.3	20.2	2.0	257	21.4	20.8	4.9	273	11.2	11.2	-0.5
24	112	4.8	-4.4	1.8	71	2.1	-2.0	-0.7	333	3.6	1.6	-3.2	276	9.2	9.2	-0.9	265	19.8	19.7	1.6	258	20.4	19.9	4.3	261	8.3	8.2	1.3
25	114	3.7	-3.4	1.5	70	3.2	-3.0	-1.1	317	3.3	2.2	-2.4	284	8.1	7.9	-1.9	276	18.9	18.8	-1.9	260	20.5	20.2	3.7	270	7.9	7.9	0.0
26	107	3.8	-3.6	1.1	72	3.2	-3.0	-1.0	345	2.7	0.7	-2.6	295	7.0	6.3	-3.0	269	17.2	17.2	0.2	256	19.2	18.6	4.8	246	7.6	6.9	3.1
27	113	4.4	-4.1	1.7	66	3.4	-3.1	-1.4	353	2.5	0.3	-2.5	280	9.6	9.4	-1.7	269	17.9	17.9	0.3	256	21.2	20.5	5.3	266	10.1	10.1	0.7
28	121	4.1	-3.5	2.1	78	2.4	-2.3	-0.5	346	3.2	0.8	-3.1	280	10.0	9.8	-1.8	266	19.2	19.1	1.4	253	21.2	20.2	6.3	267	9.0	9.0	0.5
29	113	3.8	-3.5	1.5	56	2.5	-2.1	-1.4	330	2.8	1.4	-2.4	282	9.5	9.3	-2.0	276	17.4	17.3	-1.7	260	19.3	19.0	3.3	260	9.9	9.8	1.7
30	134	4.2	-3.0	2.9	100	2.3	-2.3	0.4	307	4.0	3.2	-2.4	286	9.8	9.4	-2.7	268	19.5	19.5	0.6	263	21.5	21.3	2.8	274	10.1	10.1	-0.7
31	142	4.1	-2.5	3.2	84	1.8	-1.8	-0.2	304	3.2	2.7	-1.8	285	9.9	9.6	-2.5	268	21.0	21.0	0.9	263	22.5	22.3	2.9	274	13.0	13.0	-0.8

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	148	4.5	-2.4	3.8	180	1.1	0.0	1.1	296	5.3	4.8	-2.3	279	11.4	11.3	-1.7	272	22.4	22.4	-0.6	263	22.9	22.7	2.7	262	9.5	9.4	1.4
2	122	3.9	-3.3	2.1	117	0.9	-0.8	0.4	293	3.9	3.6	-1.5	278	10.7	10.6	-1.5	270	22.7	22.7	-0.1	252	21.7	20.7	6.6	267	10.9	10.9	0.6
3	128	4.2	-3.3	2.6	126	2.2	-1.8	1.3	292	4.2	3.9	-1.6	279	10.9	10.8	-1.7	271	22.9	22.9	-0.4	260	24.0	23.6	4.2	268	16.5	16.5	0.6
4	126	4.9	-4.0	2.9	143	2.5	-1.5	2.0	301	4.4	3.8	-2.3	275	11.6	11.5	-1.1	273	20.7	20.7	-1.1	264	21.4	21.3	2.4	275	13.4	13.4	-1.1
5	123	5.3	-4.4	2.9	141	2.1	-1.3	1.6	294	4.3	3.9	-1.7	276	12.4	12.3	-1.2	268	21.8	21.8	0.9	263	21.6	21.5	2.5	264	10.8	10.7	1.2
6	133	5.0	-3.6	3.4	152	1.5	-0.7	1.3	288	4.7	4.5	-1.5	276	12.6	12.5	-1.3	263	24.2	24.0	3.1	263	24.9	24.7	3.0	268	12.2	12.2	0.5
7	133	4.0	-2.9	2.7	117	2.0	-1.8	0.9	292	4.3	4.0	-1.6	287	11.0	10.5	-3.3	271	21.3	21.3	-0.4	266	24.4	24.4	1.5	278	9.8	9.7	-1.3
8	135	3.7	-2.6	2.6	139	2.0	-1.3	1.5	304	4.7	3.9	-2.6	288	10.5	10.0	-3.2	263	20.7	20.5	2.6	263	22.4	22.2	2.7	271	9.7	9.7	-0.1
9	130	2.6	-2.0	1.7	78	1.4	-1.4	-0.3	308	4.3	3.4	-2.7	284	11.0	10.7	-2.7	267	22.5	22.5	1.3	267	23.2	23.2	1.3	278	11.0	10.9	-1.5
10	121	4.5	-3.9	2.3	138	1.3	-0.9	1.0	305	4.0	3.3	-2.3	290	11.4	10.7	-3.9	276	18.6	18.5	-2.0	268	23.1	23.1	0.7	287	8.0	7.7	-2.3
11	113	3.9	-3.6	1.5	129	2.2	-1.7	1.4	313	4.9	3.6	-3.3	287	9.9	9.5	-2.9	275	17.9	17.8	-1.5	268	20.7	20.7	0.7	259	12.0	11.8	2.2
12	100	3.6	-3.5	0.6	113	0.8	-0.7	0.3	295	2.6	2.4	-1.1	282	9.0	8.8	-1.8	275	18.5	18.4	-1.6	262	18.8	18.6	2.7	254	8.4	8.1	2.3
13	105	4.1	-4.0	1.1	133	1.8	-1.3	1.2	293	2.1	1.9	-0.8	280	9.0	8.9	-1.6	274	19.3	19.3	-1.3	262	22.3	22.1	3.2	263	11.0	10.9	1.4
14	133	4.0	-2.9	2.7	151	2.1	-1.0	1.8	284	2.9	2.8	-0.7	266	9.7	9.7	0.6	262	20.3	20.1	3.0	259	22.7	22.3	4.3	261	12.0	11.8	1.9
15	135	5.1	-3.6	3.6	171	2.0	-0.3	2.0	278	4.3	4.3	-0.6	270	11.7	11.7	0.1	266	24.0	24.0	1.5	259	23.5	23.1	4.5	250	8.8	8.3	3.0
16	159	3.4	-1.2	3.2	172	1.4	-0.2	1.4	268	4.9	4.9	0.2	271	13.1	13.1	-0.3	262	20.9	20.7	2.8	259	22.1	21.7	4.3	254	9.7	9.3	2.7
17	177	1.8	-0.1	1.8	166	1.2	-0.3	1.2	256	5.0	4.9	1.2	266	13.2	13.2	0.9	259	20.7	20.3	3.9	250	21.6	20.3	7.5	267	10.2	10.2	0.6
18	158	1.1	-0.4	1.0	162	2.0	-0.6	1.9	270	4.7	4.7	0.0	269	12.8	12.8	0.3	259	20.8	20.4	3.8	257	22.8	22.2	5.3	253	7.7	7.4	2.2
19	131	1.8	-1.4	1.2	158	2.2	-0.8	2.0	274	5.3	5.3	-0.4	275	12.4	12.4	-1.1	265	20.2	20.1	1.8	257	21.0	20.5	4.6	253	10.9	10.4	3.1
20	138	1.5	-1.0	1.1	131	1.1	-0.8	0.7	281	5.4	5.3	-1.0	275	13.0	12.9	-1.2	265	19.7	19.6	1.7	254	19.4	18.6	5.5	268	11.9	11.9	0.4
21	147	2.4	-1.3	2.0	121	1.2	-1.0	0.6	292	4.8	4.5	-1.8	279	11.0	10.9	-1.7	263	18.5	18.4	2.3	260	20.9	20.6	3.5	280	11.8	11.6	-2.1
22	104	1.2	-1.2	0.3	79	1.6	-1.6	-0.3	288	5.2	5.0	-1.6	276	10.2	10.2	-1.0	262	19.5	19.3	2.8	260	20.3	20.0	3.7	275	11.5	11.5	-1.0
23	108	4.0	-3.8	1.2	111	2.8	-2.6	1.0	302	3.6	3.1	-1.9	280	8.6	8.5	-1.5	267	17.3	17.3	0.8	261	20.0	19.7	3.2	271	11.9	11.9	-0.2
24	118	5.0	-4.4	2.3	135	2.1	-1.5	1.5	291	3.1	2.9	-1.1	272	9.2	9.2	-0.4	268	18.3	18.3	0.7	266	20.8	20.7	1.5	271	10.9	10.9	-0.2
25	126	4.9	-4.0	2.9	113	2.3	-2.1	0.9	303	3.7	3.1	-2.0	275	8.6	8.6	-0.8	259	17.7	17.4	3.4	260	19.7	19.4	3.3	261	10.8	10.7	1.6
26	128	4.7	-3.7	2.9	94	1.4	-1.4	0.1	315	4.4	3.1	-3.1	286	9.3	9.0	-2.5	269	19.4	19.4	0.5	266	20.2	20.2	1.3	277	9.4	9.3	-1.1
27	143	3.0	-1.8	2.4	128	1.1	-0.9	0.7	323	4.6	2.8	-3.7	281	7.8	7.7	-1.5	262	20.3	20.1	2.7	262	21.1	20.9	2.8	271	7.8	7.8	-0.1
28	139	3.8	-2.5	2.9	152	1.5	-0.7	1.3	312	3.9	2.9	-2.6	276	10.0	10.0	-1.0	266	20.9	20.9	1.3	263	19.8	19.6	2.5	273	8.4	8.4	-0.4
29	103	3.6	-3.5	0.8	97	1.7	-1.7	0.2	8	1.4	-0.2	-1.4	274	6.1	6.1	-0.4	261	12.3	12.1	2.0	238	20.3	17.3	10.7	254	12.6	12.1	3.5

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	136	3.7	-2.6	2.7	153	1.1	-0.5	1.0	316	3.0	2.1	-2.2	276	7.7	7.7	-0.8	271	20.5	20.5	-0.5	258	21.5	21.0	4.5	263	10.5	10.4	1.3
2	140	4.5	-2.9	3.4	87	1.9	-1.9	-0.1	295	2.6	2.4	-1.1	276	8.9	8.9	-0.9	269	19.0	19.0	0.3	262	21.5	21.3	3.0	261	12.5	12.3	2.0
3	124	3.2	-2.7	1.8	80	1.7	-1.7	-0.3	318	3.1	2.1	-2.3	283	9.8	9.5	-2.2	265	19.5	19.4	1.6	260	19.7	19.4	3.5	253	11.9	11.4	3.5
4	140	3.5	-2.3	2.7	103	2.6	-2.5	0.6	320	2.3	1.5	-1.8	278	5.8	5.7	-0.8	276	16.5	16.4	-1.8	256	17.2	16.7	4.2	258	9.9	9.7	2.0
5	159	4.0	-1.4	3.7	135	1.6	-1.1	1.1	320	3.1	2.0	-2.4	288	7.1	6.7	-2.2	265	17.2	17.1	1.5	259	20.4	20.0	3.8	267	7.4	7.4	0.4
6	165	3.1	-0.8	3.0	171	2.4	-0.4	2.4	300	2.0	1.7	-1.0	271	8.6	8.6	-0.2	261	18.2	18.0	2.7	257	21.5	20.9	4.9	267	10.4	10.4	0.5
7	177	2.0	-0.1	2.0	142	1.8	-1.1	1.4	316	2.9	2.0	-2.1	278	8.4	8.3	-1.1	269	18.6	18.6	0.2	259	19.7	19.3	3.9	269	10.2	10.2	0.2
8	126	3.1	-2.5	1.8	152	2.6	-1.2	2.3	320	3.5	2.3	-2.7	276	9.1	9.1	-0.9	266	19.4	19.4	1.2	262	21.1	20.9	2.9	263	10.6	10.5	1.2
9	153	3.4	-1.5	3.0	152	1.7	-0.8	1.5	301	2.9	2.5	-1.5	277	8.7	8.6	-1.1	264	20.4	20.3	2.3	262	21.0	20.8	3.1	274	12.2	12.2	-0.8
10	152	3.6	-1.7	3.2	147	2.4	-1.3	2.0	320	2.5	1.6	-1.9	270	9.5	9.5	0.0	262	20.7	20.5	2.7	258	23.0	22.5	4.7	265	14.1	14.0	1.2
11	158	4.3	-1.6	4.0	172	2.8	-0.4	2.8	306	3.4	2.8	-2.0	262	9.9	9.8	1.3	268	19.7	19.7	0.6	259	21.3	20.9	3.9	269	11.2	11.2	0.2
12	157	3.9	-1.5	3.6	190	1.7	0.3	1.7	311	4.3	3.2	-2.8	277	10.5	10.4	-1.2	265	21.0	20.9	2.0	260	23.0	22.7	3.9	266	11.6	11.6	0.9
13	180	1.6	0.0	1.6	149	1.2	-0.6	1.0	304	3.4	2.8	-1.9	286	9.2	8.8	-2.6	268	20.0	20.0	0.7	263	21.8	21.7	2.5	264	13.3	13.2	1.5
14	160	1.2	-0.4	1.1	123	2.7	-2.3	1.5	325	3.5	2.0	-2.9	289	8.3	7.8	-2.7	277	20.1	19.9	-2.6	268	21.9	21.9	0.9	255	6.8	6.6	1.8
15	132	3.6	-2.7	2.4	120	3.2	-2.8	1.6	326	3.6	2.0	-3.0	289	6.4	6.0	-2.1	275	15.3	15.2	-1.4	266	17.7	17.7	1.2	263	9.1	9.0	1.1
16	162	2.9	-0.9	2.8	154	2.5	-1.1	2.3	330	3.4	1.7	-3.0	291	5.9	5.5	-2.1	266	14.2	14.2	1.0	260	19.0	18.7	3.2	258	7.4	7.2	1.5
17	146	4.1	-2.3	3.4	162	3.2	-1.0	3.0	311	3.2	2.4	-2.1	274	6.3	6.3	-0.4	264	17.2	17.1	1.7	255	19.1	18.5	4.8	262	8.4	8.3	1.1
18	190	2.9	0.5	2.9	180	2.8	0.0	2.8	311	2.9	2.2	-1.9	279	7.6	7.5	-1.2	263	17.4	17.3	2.2	249	20.0	18.7	7.2	253	7.5	7.2	2.2
19	138	3.1	-2.1	2.3	174	1.8	-0.2	1.8	303	3.1	2.6	-1.7	285	8.2	7.9	-2.1	262	16.5	16.3	2.3	255	19.3	18.7	4.9	262	8.2	8.1	1.1
20	150	2.4	-1.2	2.1	177	1.8	-0.1	1.8	316	3.5	2.4	-2.5	290	6.5	6.1	-2.2	264	16.4	16.3	1.8	258	19.2	18.8	3.9	271	9.9	9.9	-0.1
21	161	2.8	-0.9	2.6	163	1.7	-0.5	1.6	305	3.2	2.6	-1.8	288	6.2	5.9	-1.9	268	16.2	16.2	0.6	257	19.7	19.2	4.3	271	8.7	8.7	-0.2
22	171	3.1	-0.5	3.1	177	3.6	-0.2	3.6	297	2.2	2.0	-1.0	282	7.6	7.4	-1.6	272	16.8	16.8	-0.5	260	18.1	17.8	3.1	271	8.6	8.6	-0.1
23	161	3.9	-1.3	3.7	178	3.0	-0.1	3.0	316	2.8	1.9	-2.0	294	7.2	6.6	-3.0	266	17.3	17.3	1.3	257	19.3	18.8	4.2	254	8.4	8.1	2.3
24	162	3.6	-1.1	3.4	199	1.8	0.6	1.7	294	2.0	1.8	-0.8	280	7.0	6.9	-1.2	268	17.0	17.0	0.6	255	21.9	21.1	5.8	262	7.5	7.4	1.0
25	169	1.0	-0.2	1.0	185	1.2	0.1	1.2	295	2.3	2.1	-1.0	289	8.5	8.0	-2.8	267	18.0	18.0	1.1	261	23.0	22.7	3.4	264	10.8	10.7	1.1
26	128	4.1	-3.2	2.5	153	2.2	-1.0	2.0	307	2.1	1.7	-1.3	290	6.1	5.7	-2.1	267	18.5	18.5	1.0	259	23.9	23.5	4.5	275	12.1	12.1	-1.1
27	186	0.9	0.1	0.9	172	2.1	-0.3	2.1	326	2.9	1.6	-2.4	311	5.8	4.4	-3.8	268	18.1	18.1	0.5	260	21.5	21.2	3.6	274	9.2	9.2	-0.7
28	180	1.2	0.0	1.2	133	1.9	-1.4	1.3	344	3.2	0.9	-3.1	299	5.1	4.5	-2.5	272	15.7	15.7	-0.5	262	19.3	19.1	2.7	275	6.8	6.8	-0.6
29	157	2.5	-1.0	2.3	169	1.5	-0.3	1.5	358	3.2	0.1	-3.2	310	6.5	5.0	-4.2	278	14.9	14.8	-2.1	263	18.5	18.4	2.1	274	7.9	7.9	-0.5
30	178	3.3	-0.1	3.3	202	0.5	0.2	0.5	344	3.3	0.9	-3.2	303	5.0	4.2	-2.7	265	12.3	12.3	1.0	266	18.7	18.7	1.2	275	7.3	7.3	-0.6
31	159	3.1	-1.1	2.9	205	1.4	0.6	1.3	353	2.5	0.3	-2.5	281	3.2	3.1	-0.6	260	15.2	15.0	2.7	255	18.5	17.9	4.8	275	9.4	9.4	-0.9

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	122	3.9	-3.3	2.1	117	0.9	-0.8	0.4	351	1.8	0.3	-1.8	301	4.4	3.8	-2.3	264	14.7	14.6	1.6	257	18.0	17.6	4.0	258	7.1	6.9	1.5
2	151	5.0	-2.4	4.4	174	2.8	-0.3	2.8	342	3.3	1.0	-3.1	264	4.0	4.0	0.4	262	14.8	14.7	2.0	256	18.7	18.2	4.5	276	4.7	4.7	-0.5
3	140	4.5	-2.9	3.5	168	2.5	-0.5	2.4	339	1.7	0.6	-1.6	256	4.5	4.4	1.1	260	15.4	15.2	2.6	251	18.0	17.0	5.8	254	3.5	3.4	1.0
4	149	4.3	-2.2	3.7	171	3.1	-0.5	3.1	350	1.1	0.2	-1.1	269	5.5	5.5	0.1	263	17.7	17.5	2.3	254	19.8	19.1	5.3	259	4.7	4.6	0.9
5	145	4.5	-2.6	3.7	178	2.9	-0.1	2.9	10	1.7	-0.3	-1.7	262	5.6	5.5	0.8	264	17.0	16.9	1.7	256	19.4	18.8	4.7	256	6.1	5.9	1.5
6	149	5.8	-3.0	5.0	176	3.2	-0.2	3.2	37	1.5	-0.9	-1.2	280	4.8	4.7	-0.8	266	16.7	16.7	1.2	264	18.3	18.2	2.0	243	4.6	4.1	2.1
7	160	3.5	-1.2	3.3	142	2.4	-1.5	1.9	360	2.2	0.0	-2.2	308	3.7	2.9	-2.3	277	14.7	14.6	-1.7	262	16.1	15.9	2.3	252	4.8	4.6	1.5
8	182	3.2	0.1	3.2	214	0.7	0.4	0.6	302	1.3	1.1	-0.7	296	5.7	5.1	-2.5	276	14.3	14.2	-1.4	263	16.5	16.4	2.0	278	5.7	5.6	-0.8
9	175	3.6	-0.3	3.6	223	1.9	1.3	1.4	344	1.8	0.5	-1.7	283	5.3	5.2	-1.2	271	16.5	16.5	-0.4	259	18.8	18.5	3.5	266	8.4	8.4	0.6
10	155	4.5	-1.9	4.1	197	2.1	0.6	2.0	306	1.4	1.1	-0.8	297	5.9	5.2	-2.7	264	14.4	14.3	1.4	254	19.2	18.5	5.3	257	6.8	6.6	1.5
11	157	4.1	-1.6	3.8	180	2.9	0.0	2.9	324	2.2	1.3	-1.8	297	5.1	4.6	-2.3	270	14.6	14.6	0.1	260	20.1	19.8	3.6	267	7.0	7.0	0.4
12	189	3.6	0.6	3.6	196	3.7	1.0	3.6	360	1.6	0.0	-1.6	293	4.7	4.3	-1.8	279	13.4	13.2	-2.0	263	15.8	15.7	1.9	241	3.7	3.2	1.8
13	208	4.4	2.1	3.9	198	1.9	0.6	1.8	15	2.7	-0.7	-2.6	290	3.5	3.3	-1.2	268	12.6	12.6	0.4	254	14.4	13.8	4.0	260	5.1	5.0	0.9
14	204	2.0	0.8	1.8	217	3.5	2.1	2.8	8	2.2	-0.3	-2.2	288	3.2	3.0	-1.0	264	12.5	12.4	1.2	247	17.2	15.9	6.6	268	3.8	3.8	0.1
15	177	3.4	-0.2	3.4	200	3.0	1.0	2.8	58	1.3	-1.1	-0.7	290	5.4	5.1	-1.9	253	15.2	14.6	4.4	256	20.3	19.7	4.9	260	7.5	7.4	1.3
16	148	1.3	-0.7	1.1	242	2.7	2.4	1.3	35	1.6	-0.9	-1.3	271	4.7	4.7	-0.1	257	15.1	14.7	3.3	249	18.4	17.2	6.6	265	9.7	9.7	0.9
17	178	3.8	-0.1	3.8	214	2.2	1.2	1.8	350	2.3	0.4	-2.3	288	3.9	3.7	-1.2	260	13.9	13.7	2.3	247	19.7	18.2	7.6	257	7.5	7.3	1.7
18	189	3.2	0.5	3.2	191	2.5	0.5	2.5	13	3.1	-0.7	-3.0	319	4.6	3.0	-3.5	257	14.5	14.1	3.3	248	18.8	17.4	7.1	263	3.3	3.3	0.4
19	180	0.8	0.0	0.8	200	2.3	0.8	2.2	20	3.3	-1.1	-3.1	297	3.7	3.3	-1.7	255	15.2	14.7	3.9	237	20.4	17.0	11.2	225	4.9	3.5	3.5
20	178	2.3	-0.1	2.3	171	2.0	-0.3	2.0	11	4.6	-0.9	-4.5	299	3.1	2.7	-1.5	261	14.9	14.7	2.4	247	20.4	18.8	7.8	230	4.2	3.2	2.7
21	183	4.2	0.2	4.2	203	2.5	1.0	2.3	33	3.1	-1.7	-2.6	308	2.8	2.2	-1.7	255	13.6	13.1	3.6	242	19.8	17.4	9.4	241	6.0	5.3	2.9
22	227	2.3	1.7	1.6	220	3.0	1.9	2.3	357	1.9	0.1	-1.9	302	3.4	2.9	-1.8	256	13.6	13.2	3.2	247	18.2	16.8	7.1	261	3.7	3.7	0.6
23	188	0.7	0.1	0.7	211	1.2	0.6	1.0	28	2.4	-1.1	-2.1	311	3.7	2.8	-2.4	265	13.4	13.4	1.1	252	17.0	16.2	5.2	276	3.0	3.0	-0.3
24	217	3.5	2.1	2.8	233	2.5	2.0	1.5	24	2.2	-0.9	-2.0	282	3.5	3.4	-0.7	256	14.9	14.5	3.6	247	19.7	18.2	7.6	272	2.4	2.4	-0.1
25	214	2.7	1.5	2.2	243	2.9	2.6	1.3	31	2.6	-1.3	-2.2	313	3.7	2.7	-2.5	266	13.6	13.6	1.0	250	17.0	16.0	5.7	280	2.9	2.9	-0.5
26	203	3.0	1.2	2.8	230	2.6	2.0	1.7	29	2.5	-1.2	-2.2	330	3.4	1.7	-3.0	267	13.0	13.0	0.7	244	15.4	13.9	6.7	220	1.6	1.0	1.2
27	232	3.6	2.8	2.2	231	3.2	2.5	2.0	20	3.3	-1.1	-3.1	339	3.1	1.1	-2.9	275	10.8	10.8	-0.9	254	13.1	12.6	3.7	63	0.7	-0.6	-0.3
28	262	1.5	1.5	0.2	243	1.8	1.6	0.8	24	3.5	-1.4	-3.2	338	3.2	1.2	-3.0	280	10.6	10.4	-1.8	245	13.6	12.3	5.7	50	1.6	-1.2	-1.0
29	240	2.0	1.7	1.0	260	2.7	2.7	0.5	23	3.3	-1.3	-3.0	347	4.6	1.0	-4.5	282	11.4	11.1	-2.4	252	15.0	14.3	4.6	230	0.8	0.6	0.5
30	322	3.3	2.0	-2.6	258	1.9	1.9	0.4	39	1.9	-1.2	-1.5	343	4.5	1.3	-4.3	282	10.3	10.1	-2.1	254	12.8	12.3	3.5	169	0.5	-0.1	0.5

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	222	4.0	2.7	3.0	266	2.7	2.7	0.2	20	2.7	-0.9	-2.5	335	4.0	1.7	-3.6	276	9.0	9.0	-0.9	247	11.5	10.6	4.5	129	2.1	-1.6	1.3
2	319	0.9	0.6	-0.7	279	3.1	3.1	-0.5	34	2.7	-1.5	-2.2	331	3.3	1.6	-2.9	267	8.9	8.9	0.4	249	12.6	11.8	4.5	169	2.5	-0.5	2.5
3	219	2.8	1.8	2.2	284	1.6	1.6	-0.4	337	1.5	0.6	-1.4	329	3.5	1.8	-3.0	276	9.0	9.0	-0.9	254	12.7	12.2	3.5	166	3.3	-0.8	3.2
4	270	2.6	2.6	0.0	249	2.8	2.6	1.0	11	2.6	-0.5	-2.6	330	2.0	1.0	-1.7	264	10.4	10.3	1.1	248	11.0	10.2	4.2	189	2.5	0.4	2.5
5	207	3.3	1.5	2.9	250	3.8	3.6	1.3	21	3.0	-1.1	-2.8	7	1.6	-0.2	-1.6	262	8.0	7.9	1.1	250	11.3	10.6	3.8	115	2.3	-2.1	1.0
6	157	2.5	-1.0	2.3	232	3.1	2.4	1.9	30	3.2	-1.6	-2.8	339	3.6	1.3	-3.4	275	7.5	7.5	-0.6	259	10.4	10.2	2.0	137	3.3	-2.2	2.4
7	207	3.0	1.4	2.7	248	3.5	3.2	1.3	30	3.0	-1.5	-2.6	9	2.6	-0.4	-2.6	272	7.0	7.0	-0.2	238	10.9	9.3	5.7	113	5.6	-5.1	2.2
8	267	2.2	2.2	0.1	272	3.0	3.0	-0.1	37	3.5	-2.1	-2.8	14	2.9	-0.7	-2.8	249	7.9	7.4	2.9	240	10.3	9.0	5.1	92	3.4	-3.4	0.1
9	241	1.8	1.6	0.9	296	3.0	2.7	-1.3	28	3.6	-1.7	-3.2	1	4.4	-0.1	-4.4	277	5.2	5.2	-0.6	244	7.7	6.9	3.4	113	3.3	-3.0	1.3
10	274	2.9	2.9	-0.2	296	3.9	3.5	-1.7	17	4.5	-1.3	-4.3	353	3.1	0.4	-3.1	267	5.5	5.5	0.3	230	6.9	5.3	4.4	111	7.5	-7.0	2.7
11	273	3.9	3.9	-0.2	280	4.2	4.1	-0.7	8	2.9	-0.4	-2.9	320	3.0	1.9	-2.3	261	6.7	6.6	1.0	229	7.5	5.7	4.9	127	6.0	-4.8	3.6
12	290	4.1	3.9	-1.4	266	3.1	3.1	0.2	21	4.0	-1.4	-3.7	352	2.8	0.4	-2.8	260	5.2	5.1	0.9	226	6.0	4.3	4.2	94	7.2	-7.2	0.5
13	264	3.8	3.8	0.4	273	3.5	3.5	-0.2	34	5.0	-2.8	-4.1	36	3.7	-2.2	-3.0	237	4.5	3.8	2.5	236	8.7	7.2	4.9	120	5.2	-4.5	2.6
14	268	2.3	2.3	0.1	291	3.1	2.9	-1.1	16	3.2	-0.9	-3.1	14	2.9	-0.7	-2.8	258	3.4	3.3	0.7	224	5.7	3.9	4.1	103	7.0	-6.8	1.6
15	239	4.9	4.2	2.5	289	4.3	4.1	-1.4	19	3.6	-1.2	-3.4	25	3.1	-1.3	-2.8	250	1.2	1.1	0.4	182	3.6	0.1	3.6	99	8.3	-8.2	1.3
16	242	5.2	4.6	2.4	280	3.6	3.5	-0.6	27	3.4	-1.5	-3.0	7	3.4	-0.4	-3.4	270	3.0	3.0	0.0	216	3.6	2.1	2.9	98	7.4	-7.3	1.0
17	255	4.8	4.6	1.2	282	4.3	4.2	-0.9	27	3.5	-1.6	-3.1	10	3.9	-0.7	-3.8	271	4.2	4.2	-0.1	219	4.0	2.5	3.1	101	7.3	-7.2	1.4
18	292	6.9	6.4	-2.6	300	6.0	5.2	-3.0	12	3.0	-0.6	-2.9	340	3.7	1.3	-3.5	288	3.2	3.0	-1.0	211	4.2	2.2	3.6	104	6.5	-6.3	1.6
19	287	3.4	3.3	-1.0	316	6.4	4.5	-4.6	9	3.1	-0.5	-3.1	355	4.5	0.4	-4.5	267	3.8	3.8	0.2	198	3.8	1.2	3.6	86	8.1	-8.1	-0.5
20	251	4.9	4.6	1.6	301	6.8	5.8	-3.5	357	2.0	0.1	-2.0	23	4.3	-1.7	-4.0	30	0.8	-0.4	-0.7	182	5.2	0.2	5.2	119	7.6	-6.6	3.7
21	268	6.6	6.6	0.2	303	6.7	5.6	-3.7	15	2.0	-0.5	-1.9	22	4.0	-1.5	-3.7	253	2.8	2.7	0.8	205	5.7	2.4	5.2	101	6.3	-6.2	1.2
22	273	5.5	5.5	-0.3	298	6.0	5.3	-2.8	22	3.7	-1.4	-3.4	17	3.9	-1.1	-3.7	252	2.6	2.5	0.8	194	6.2	1.5	6.0	98	9.1	-9.0	1.3
23	278	7.1	7.0	-1.0	303	7.0	5.9	-3.8	12	3.8	-0.8	-3.7	18	2.5	-0.8	-2.4	273	3.7	3.7	-0.2	183	5.7	0.3	5.7	105	9.7	-9.4	2.5
24	283	5.9	5.8	-1.3	302	6.2	5.3	-3.3	14	3.6	-0.9	-3.5	15	3.5	-0.9	-3.4	277	1.6	1.6	-0.2	157	3.9	-1.5	3.6	104	11.7	-11.4	2.8
25	281	6.7	6.6	-1.3	314	7.9	5.7	-5.5	22	2.9	-1.1	-2.7	41	4.9	-3.2	-3.7	238	1.3	1.1	0.7	163	3.4	-1.0	3.2	99	10.7	-10.6	1.7
26	280	5.2	5.1	-0.9	321	5.9	3.7	-4.6	12	3.8	-0.8	-3.7	24	5.4	-2.2	-4.9	153	0.9	-0.4	0.8	169	3.8	-0.7	3.7	100	12.5	-12.3	2.1
27	271	4.9	4.9	-0.1	317	6.7	4.5	-4.9	28	3.4	-1.6	-3.0	40	3.5	-2.3	-2.7	97	1.6	-1.6	0.2	170	3.4	-0.6	3.3	104	12.8	-12.4	3.0
28	265	5.2	5.2	0.5	299	7.4	6.5	-3.6	21	3.1	-1.1	-2.9	29	2.3	-1.1	-2.0	198	0.3	0.1	0.3	145	4.2	-2.4	3.4	105	11.2	-10.8	2.9
29	261	7.4	7.3	1.2	298	7.6	6.7	-3.6	6	2.8	-0.3	-2.8	22	2.4	-0.9	-2.2	180	1.3	0.0	1.3	151	3.3	-1.6	2.9	100	15.2	-15.0	2.7
30	278	8.1	8.0	-1.1	296	7.1	6.4	-3.1	39	1.9	-1.2	-1.5	21	1.7	-0.6	-1.6	186	1.0	0.1	1.0	161	3.9	-1.3	3.7	103	14.7	-14.3	3.3
31	288	7.1	6.7	-2.2	288	6.0	5.7	-1.8	5	1.2	-0.1	-1.2	343	1.0	0.3	-1.0	142	1.8	-1.1	1.4	127	5.5	-4.4	3.3	102	14.6	-14.3	3.1

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	291	7.3	6.8	-2.6	294	7.9	7.2	-3.2	45	1.6	-1.1	-1.1	40	0.8	-0.5	-0.6	137	2.6	-1.8	1.9	133	6.4	-4.7	4.4	99	17.8	-17.6	2.8
2	276	4.8	4.8	-0.5	300	5.2	4.5	-2.6	36	2.2	-1.3	-1.8	43	2.1	-1.4	-1.5	101	2.0	-2.0	0.4	118	6.4	-5.6	3.0	98	15.8	-15.7	2.1
3	268	6.4	6.4	0.2	296	7.6	6.9	-3.3	21	1.9	-0.7	-1.8	45	1.7	-1.2	-1.2	113	3.0	-2.8	1.2	112	6.8	-6.3	2.6	102	18.4	-18.0	3.9
4	268	7.0	7.0	0.3	292	8.1	7.5	-3.1	37	2.1	-1.3	-1.7	69	2.8	-2.6	-1.0	87	1.7	-1.7	-0.1	115	6.6	-6.0	2.8	97	17.3	-17.2	2.1
5	250	5.4	5.1	1.9	288	6.6	6.3	-2.1	28	2.4	-1.1	-2.1	81	0.6	-0.6	-0.1	85	2.1	-2.1	-0.2	110	5.3	-5.0	1.8	91	16.6	-16.6	0.4
6	257	6.6	6.4	1.5	279	7.4	7.3	-1.2	49	0.9	-0.7	-0.6	324	0.9	0.5	-0.7	81	2.0	-2.0	-0.3	101	8.1	-8.0	1.5	92	19.2	-19.2	0.7
7	256	5.0	4.9	1.2	290	8.3	7.8	-2.8	180	0.2	0.0	0.2	263	0.8	0.8	0.1	82	3.5	-3.5	-0.5	97	9.6	-9.5	1.2	96	19.0	-18.9	1.9
8	268	7.0	7.0	0.2	282	8.9	8.7	-1.9	258	1.4	1.4	0.3	8	0.7	-0.1	-0.7	89	4.6	-4.6	-0.1	100	7.6	-7.5	1.3	91	19.3	-19.3	0.3
9	257	8.3	8.1	1.8	282	10.0	9.8	-2.1	270	1.8	1.8	0.0	326	1.1	0.6	-0.9	83	3.8	-3.8	-0.5	93	7.8	-7.8	0.4	85	17.6	-17.5	-1.6
10	256	7.2	7.0	1.7	286	9.4	9.0	-2.6	308	2.3	1.8	-1.4	339	1.9	0.7	-1.8	85	5.6	-5.6	-0.5	93	10.3	-10.3	0.5	88	22.2	-22.2	-0.7
11	264	7.2	7.2	0.7	290	10.1	9.5	-3.4	27	2.2	-1.0	-2.0	332	1.9	0.9	-1.7	82	6.0	-5.9	-0.8	88	10.7	-10.7	-0.4	91	21.4	-21.4	0.3
12	263	7.0	6.9	0.9	289	9.0	8.5	-2.9	342	2.0	0.6	-1.9	299	1.3	1.1	-0.6	81	4.6	-4.5	-0.7	80	10.5	-10.3	-1.9	88	23.3	-23.3	-0.8
13	264	7.4	7.4	0.8	288	9.9	9.4	-3.1	307	2.5	2.0	-1.5	307	1.5	1.2	-0.9	77	6.8	-6.6	-1.5	89	11.2	-11.2	-0.1	92	22.8	-22.8	0.6
14	282	7.0	6.8	-1.5	295	9.4	8.5	-3.9	322	2.8	1.7	-2.2	10	2.3	-0.4	-2.3	79	7.3	-7.2	-1.4	89	12.5	-12.5	-0.3	90	23.6	-23.6	0.1
15	259	7.6	7.4	1.5	284	10.3	10.0	-2.5	306	3.1	2.5	-1.8	257	1.3	1.3	0.3	72	6.2	-5.9	-1.9	80	12.5	-12.3	-2.1	92	24.8	-24.8	0.8
16	264	9.6	9.5	1.0	275	10.4	10.4	-0.9	264	3.6	3.6	0.4	270	1.2	1.2	0.0	76	5.7	-5.5	-1.4	85	12.9	-12.8	-1.2	93	24.9	-24.9	1.2
17	265	8.7	8.7	0.8	280	11.1	10.9	-2.0	294	4.6	4.2	-1.9	291	4.2	3.9	-1.5	70	5.3	-5.0	-1.8	85	14.4	-14.3	-1.3	91	23.1	-23.1	0.5
18	265	9.6	9.6	0.9	278	13.2	13.1	-1.8	283	7.9	7.7	-1.8	279	4.3	4.2	-0.7	71	6.0	-5.7	-2.0	79	15.2	-14.9	-3.0	90	23.2	-23.2	-0.2
19	260	11.5	11.3	2.0	276	14.0	13.9	-1.4	284	7.3	7.1	-1.8	281	3.8	3.7	-0.7	75	4.8	-4.6	-1.2	79	14.1	-13.8	-2.7	85	24.1	-24.0	-1.9
20	259	9.9	9.7	1.8	286	13.2	12.7	-3.6	277	6.2	6.1	-0.8	283	4.1	4.0	-0.9	88	5.2	-5.2	-0.2	83	12.8	-12.7	-1.6	88	25.3	-25.3	-0.8
21	265	8.7	8.7	0.8	288	13.0	12.3	-4.1	297	6.6	5.9	-3.0	309	2.8	2.2	-1.8	70	6.3	-5.9	-2.2	86	15.2	-15.2	-1.0	88	24.4	-24.4	-0.7
22	264	10.0	9.9	1.1	287	13.4	12.8	-3.8	289	6.9	6.5	-2.2	283	4.0	3.9	-0.9	82	9.1	-9.0	-1.2	83	18.9	-18.8	-2.3	97	29.4	-29.2	3.4
23	269	10.4	10.4	0.1	285	12.7	12.3	-3.2	287	6.9	6.6	-2.0	285	4.1	4.0	-1.1	80	7.2	-7.1	-1.2	78	17.6	-17.2	-3.5	93	28.9	-28.9	1.3
24	268	10.1	10.1	0.3	281	12.4	12.2	-2.4	285	6.4	6.2	-1.7	279	3.9	3.9	-0.6	79	6.0	-5.9	-1.1	85	16.9	-16.8	-1.6	93	28.5	-28.5	1.5
25	264	10.3	10.3	1.0	286	11.0	10.6	-3.0	278	6.9	6.8	-1.0	283	5.1	5.0	-1.2	69	6.0	-5.6	-2.1	77	15.0	-14.6	-3.5	88	29.5	-29.5	-1.2
26	265	9.7	9.7	0.8	282	13.1	12.8	-2.8	290	6.6	6.2	-2.3	285	3.8	3.7	-1.0	81	6.1	-6.0	-1.0	84	17.2	-17.1	-1.9	87	27.3	-27.3	-1.4
27	270	8.5	8.5	0.0	276	12.7	12.6	-1.4	282	6.9	6.8	-1.4	279	2.4	2.4	-0.4	73	7.6	-7.3	-2.2	78	18.6	-18.2	-3.8	90	27.7	-27.7	-0.2
28	271	8.9	8.9	-0.2	274	13.5	13.5	-1.0	287	7.5	7.2	-2.2	281	3.3	3.2	-0.6	83	8.8	-8.7	-1.0	79	19.4	-19.0	-3.7	85	31.7	-31.6	-3.0
29	263	8.6	8.5	1.1	280	13.2	13.0	-2.2	278	6.6	6.5	-0.9	289	1.8	1.7	-0.6	83	9.6	-9.5	-1.2	84	21.3	-21.2	-2.2	84	31.5	-31.3	-3.3
30	267	8.2	8.2	0.4	280	12.7	12.5	-2.3	278	7.5	7.4	-1.0	279	2.5	2.5	-0.4	83	8.8	-8.7	-1.0	79	19.2	-18.8	-3.8	93	30.9	-30.9	1.5

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	266	8.0	8.0	0.6	278	13.1	13.0	-1.8	273	6.8	6.8	-0.4	274	2.8	2.8	-0.2	82	8.7	-8.6	-1.2	86	19.4	-19.3	-1.4	88	30.6	-30.6	-1.3
2	263	8.8	8.7	1.0	281	12.1	11.9	-2.4	278	7.0	6.9	-1.0	288	4.0	3.8	-1.2	81	7.4	-7.3	-1.1	81	19.1	-18.8	-3.1	91	29.1	-29.1	0.4
3	269	9.6	9.6	0.1	283	14.2	13.8	-3.2	276	7.3	7.3	-0.8	297	3.6	3.2	-1.6	79	7.9	-7.8	-1.5	82	18.7	-18.5	-2.6	84	31.9	-31.7	-3.1
4	276	8.7	8.7	-0.9	283	12.9	12.5	-3.0	285	7.2	6.9	-1.9	291	2.6	2.4	-0.9	80	7.8	-7.7	-1.4	84	20.4	-20.3	-2.2	87	32.4	-32.3	-1.9
5	267	8.0	8.0	0.4	284	11.8	11.5	-2.8	278	8.9	8.8	-1.2	279	3.8	3.8	-0.6	78	8.7	-8.5	-1.8	83	19.4	-19.3	-2.4	88	31.7	-31.7	-1.1
6	264	8.2	8.2	0.8	279	12.3	12.1	-2.0	287	7.6	7.3	-2.2	282	3.3	3.2	-0.7	86	10.7	-10.7	-0.7	79	20.4	-20.0	-3.8	85	28.7	-28.6	-2.3
7	263	7.7	7.6	1.0	282	12.4	12.1	-2.5	277	7.6	7.5	-0.9	311	2.3	1.7	-1.5	84	7.5	-7.5	-0.8	85	19.6	-19.5	-1.7	89	31.3	-31.3	-0.7
8	261	8.0	7.9	1.3	279	13.0	12.8	-2.0	276	7.8	7.8	-0.8	265	3.3	3.3	0.3	89	7.7	-7.7	-0.2	84	18.8	-18.7	-2.1	86	33.1	-33.0	-2.3
9	256	8.1	7.9	1.9	277	13.0	12.9	-1.6	274	8.1	8.1	-0.6	268	3.4	3.4	0.1	87	7.6	-7.6	-0.4	81	21.7	-21.4	-3.3	86	32.6	-32.5	-2.5
10	257	8.3	8.1	1.9	278	12.3	12.2	-1.8	281	7.5	7.4	-1.4	302	3.2	2.7	-1.7	86	9.6	-9.6	-0.7	82	20.3	-20.1	-2.7	84	31.6	-31.4	-3.3
11	250	9.5	8.9	3.3	280	12.8	12.6	-2.2	285	9.5	9.2	-2.5	288	2.8	2.7	-0.9	80	9.0	-8.9	-1.5	75	20.2	-19.5	-5.3	87	33.5	-33.4	-2.0
12	258	9.6	9.4	2.0	281	12.6	12.4	-2.3	284	7.6	7.4	-1.8	304	1.4	1.2	-0.8	84	7.2	-7.2	-0.8	78	21.5	-21.0	-4.4	88	30.1	-30.1	-1.1
13	261	10.3	10.2	1.7	280	12.6	12.4	-2.1	282	8.9	8.7	-1.9	276	2.8	2.8	-0.3	80	7.4	-7.3	-1.3	82	21.1	-20.9	-3.1	88	31.1	-31.1	-0.9
14	262	9.4	9.3	1.3	276	12.8	12.7	-1.4	277	8.2	8.1	-1.0	268	3.0	3.0	0.1	94	7.9	-7.9	0.5	76	21.0	-20.4	-4.9	84	31.0	-30.8	-3.4
15	268	8.2	8.2	0.3	279	13.5	13.3	-2.1	279	7.8	7.7	-1.2	276	3.6	3.6	-0.4	91	8.2	-8.2	0.2	83	19.7	-19.5	-2.5	88	31.0	-31.0	-1.3
16	261	10.0	9.9	1.5	280	13.8	13.6	-2.4	279	8.8	8.7	-1.4	286	3.6	3.5	-1.0	88	9.6	-9.6	-0.4	82	20.8	-20.6	-2.9	86	29.4	-29.3	-2.0
17	257	9.3	9.1	2.1	282	14.1	13.8	-3.0	279	7.9	7.8	-1.3	314	2.8	2.0	-1.9	88	10.1	-10.1	-0.4	79	19.6	-19.2	-3.9	85	32.9	-32.8	-3.1
18	255	8.8	8.5	2.3	279	12.2	12.1	-1.9	276	7.9	7.9	-0.8	283	2.2	2.1	-0.5	87	9.5	-9.5	-0.5	80	21.3	-21.0	-3.8	90	33.8	-33.8	0.2
19	254	9.0	8.6	2.5	277	14.0	13.9	-1.8	281	9.2	9.0	-1.7	287	3.4	3.3	-1.0	96	9.2	-9.2	0.9	79	20.2	-19.8	-3.8	84	32.6	-32.4	-3.2
20	259	9.6	9.4	1.9	281	13.1	12.9	-2.4	283	8.3	8.1	-1.9	281	3.6	3.5	-0.7	86	9.1	-9.1	-0.6	81	20.9	-20.7	-3.1	88	31.8	-31.8	-1.3
21	253	9.5	9.1	2.8	279	11.7	11.5	-1.9	282	7.3	7.1	-1.5	281	3.1	3.0	-0.6	81	9.7	-9.6	-1.6	83	21.8	-21.6	-2.8	86	32.8	-32.7	-2.4
22	260	9.5	9.3	1.7	282	11.4	11.2	-2.3	278	8.1	8.0	-1.1	279	3.6	3.6	-0.6	88	8.9	-8.9	-0.3	83	21.9	-21.7	-2.6	87	32.5	-32.5	-1.5
23	263	8.4	8.3	1.0	283	11.4	11.1	-2.5	293	8.0	7.4	-3.1	268	2.3	2.3	0.1	84	9.9	-9.8	-1.0	85	21.5	-21.4	-1.9	87	33.7	-33.6	-2.0
24	261	9.8	9.7	1.6	278	12.5	12.4	-1.8	279	9.2	9.1	-1.4	298	2.6	2.3	-1.2	90	9.9	-9.9	0.0	80	20.7	-20.4	-3.6	83	32.5	-32.3	-3.9
25	264	9.8	9.7	1.0	280	11.6	11.4	-2.1	280	8.2	8.1	-1.5	270	2.6	2.6	0.0	90	8.8	-8.8	0.0	83	20.9	-20.7	-2.7	87	32.6	-32.6	-1.8
26	264	10.9	10.8	1.1	282	12.5	12.2	-2.7	279	8.0	7.9	-1.3	277	2.5	2.5	-0.3	78	8.5	-8.3	-1.7	76	19.7	-19.1	-4.9	87	30.0	-30.0	-1.7
27	264	10.1	10.0	1.1	284	13.2	12.8	-3.1	285	8.8	8.5	-2.2	285	3.1	3.0	-0.8	82	7.6	-7.5	-1.1	81	19.1	-18.9	-2.9	87	28.6	-28.6	-1.4
28	270	9.0	9.0	0.0	288	11.4	10.8	-3.5	291	8.3	7.7	-3.0	293	3.0	2.8	-1.2	92	8.3	-8.3	0.3	78	21.9	-21.5	-4.4	88	31.3	-31.3	-1.3
29	263	10.1	10.0	1.3	284	12.9	12.5	-3.2	289	8.0	7.6	-2.6	285	4.1	4.0	-1.1	86	7.0	-7.0	-0.5	79	19.3	-18.9	-3.8	87	32.2	-32.2	-1.6
30	260	10.1	9.9	1.8	281	13.2	13.0	-2.5	285	8.8	8.5	-2.2	309	3.3	2.6	-2.1	76	8.0	-7.8	-1.9	82	18.7	-18.5	-2.5	85	34.5	-34.4	-2.9
31	267	9.4	9.4	0.5	285	13.3	12.9	-3.4	285	9.0	8.7	-2.4	303	3.0	2.5	-1.6	82	9.6	-9.5	-1.3	84	19.9	-19.8	-2.1	86	31.8	-31.7	-2.0

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	268	9.1	9.1	0.3	286	12.7	12.2	-3.6	286	7.5	7.2	-2.0	336	2.7	1.1	-2.5	82	10.2	-10.1	-1.5	80	21.4	-21.1	-3.6	84	29.9	-29.7	-3.1
2	264	9.8	9.7	1.1	288	11.7	11.1	-3.7	290	7.1	6.7	-2.4	315	2.5	1.8	-1.8	76	8.4	-8.2	-2.0	82	20.1	-19.9	-2.7	85	34.8	-34.6	-3.3
3	264	8.2	8.2	0.8	288	12.7	12.1	-4.0	286	7.5	7.2	-2.1	278	2.7	2.7	-0.4	87	8.8	-8.8	-0.4	79	20.6	-20.2	-4.1	88	29.5	-29.5	-1.1
4	261	7.5	7.4	1.2	285	11.6	11.2	-3.0	285	8.8	8.5	-2.2	280	4.8	4.7	-0.8	89	6.2	-6.2	-0.1	83	18.1	-18.0	-2.3	85	29.5	-29.4	-2.7
5	259	8.3	8.1	1.6	282	12.2	11.9	-2.6	282	8.1	7.9	-1.7	279	3.8	3.8	-0.6	91	8.2	-8.2	0.2	85	19.9	-19.8	-1.9	84	27.5	-27.3	-2.9
6	262	7.9	7.8	1.1	284	12.8	12.4	-3.2	288	8.6	8.2	-2.7	280	2.7	2.7	-0.5	81	8.5	-8.4	-1.4	82	17.6	-17.4	-2.5	87	28.4	-28.4	-1.6
7	267	8.4	8.4	0.4	289	13.5	12.8	-4.3	284	10.1	9.8	-2.4	292	4.5	4.2	-1.7	73	7.9	-7.6	-2.3	78	21.0	-20.5	-4.5	87	31.1	-31.1	-1.6
8	266	9.1	9.1	0.6	286	13.5	13.0	-3.7	290	9.6	9.0	-3.3	298	5.2	4.6	-2.4	69	7.5	-7.0	-2.7	77	17.6	-17.2	-3.9	87	30.9	-30.9	-1.6
9	276	8.4	8.4	-0.9	286	13.3	12.8	-3.7	287	9.0	8.6	-2.7	302	3.6	3.1	-1.9	85	7.4	-7.4	-0.6	79	19.7	-19.4	-3.7	89	30.8	-30.8	-0.3
10	275	9.0	9.0	-0.8	283	12.5	12.2	-2.8	280	9.4	9.2	-1.7	282	4.4	4.3	-0.9	87	7.9	-7.9	-0.4	84	19.9	-19.8	-2.2	86	30.6	-30.5	-2.2
11	267	8.2	8.2	0.5	282	12.9	12.6	-2.6	281	8.6	8.4	-1.6	302	2.6	2.2	-1.4	83	9.0	-8.9	-1.1	86	19.0	-18.9	-1.4	88	29.1	-29.1	-0.9
12	258	8.9	8.7	1.8	284	14.0	13.6	-3.4	285	9.0	8.7	-2.4	285	2.8	2.7	-0.7	83	8.9	-8.8	-1.1	83	20.0	-19.9	-2.3	79	29.8	-29.2	-5.9
13	262	9.8	9.7	1.3	289	13.8	13.0	-4.5	291	9.2	8.6	-3.3	311	3.7	2.8	-2.4	79	9.5	-9.3	-1.8	81	20.7	-20.5	-3.1	86	27.0	-26.9	-1.7
14	274	9.2	9.2	-0.6	290	15.3	14.3	-5.3	290	10.4	9.8	-3.5	315	4.2	3.0	-3.0	85	8.4	-8.4	-0.8	83	19.9	-19.7	-2.5	88	29.6	-29.6	-1.1
15	274	8.6	8.6	-0.6	289	11.2	10.6	-3.7	292	6.8	6.3	-2.6	335	2.9	1.2	-2.6	87	8.7	-8.7	-0.4	85	20.6	-20.5	-1.7	88	29.6	-29.6	-1.0
16	283	8.8	8.6	-2.0	290	12.3	11.6	-4.2	290	8.1	7.6	-2.8	293	3.8	3.5	-1.5	90	10.3	-10.3	0.0	82	19.1	-18.9	-2.5	85	31.1	-31.0	-2.5
17	274	7.7	7.7	-0.6	287	11.8	11.3	-3.4	286	7.7	7.4	-2.1	292	3.5	3.3	-1.3	93	8.5	-8.5	0.5	83	18.9	-18.7	-2.4	89	28.7	-28.7	-0.3
18	268	6.8	6.8	0.2	287	11.1	10.6	-3.3	286	7.9	7.6	-2.2	285	1.6	1.5	-0.4	90	6.1	-6.1	0.0	82	18.9	-18.7	-2.5	90	28.4	-28.4	0.2
19	272	8.5	8.5	-0.3	288	12.2	11.6	-3.8	289	7.7	7.3	-2.5	310	2.5	1.9	-1.6	86	7.8	-7.8	-0.5	84	17.7	-17.6	-2.0	83	30.4	-30.2	-3.6
20	277	7.5	7.4	-0.9	291	10.6	9.9	-3.8	287	7.0	6.7	-2.0	307	1.0	0.8	-0.6	86	8.2	-8.2	-0.6	82	20.5	-20.3	-3.0	86	32.1	-32.0	-2.1
21	269	7.1	7.1	0.1	292	11.3	10.5	-4.2	296	7.7	6.9	-3.4	297	2.8	2.5	-1.3	84	7.4	-7.4	-0.8	86	19.6	-19.6	-1.2	91	29.6	-29.6	0.5
22	280	6.2	6.1	-1.1	291	11.5	10.7	-4.2	297	7.0	6.2	-3.2	282	2.9	2.8	-0.6	83	7.5	-7.4	-0.9	87	19.2	-19.2	-0.9	85	28.3	-28.2	-2.4
23	273	6.5	6.5	-0.3	290	11.0	10.4	-3.7	289	6.5	6.2	-2.1	252	2.3	2.2	0.7	99	7.6	-7.5	1.2	88	19.7	-19.7	-0.8	90	29.7	-29.7	-0.2
24	257	4.9	4.8	1.1	290	8.8	8.3	-3.0	291	6.2	5.8	-2.2	246	1.7	1.6	0.7	99	9.2	-9.1	1.4	89	19.2	-19.2	-0.3	84	28.4	-28.2	-3.0
25	253	5.6	5.4	1.6	288	9.8	9.3	-3.1	283	5.5	5.4	-1.2	268	2.8	2.8	0.1	90	8.0	-8.0	0.0	89	18.5	-18.5	-0.4	87	27.2	-27.2	-1.6
26	260	7.9	7.8	1.4	290	10.6	10.0	-3.6	284	6.2	6.0	-1.5	300	3.4	2.9	-1.7	81	8.4	-8.3	-1.3	83	19.0	-18.8	-2.4	90	27.4	-27.4	-0.1
27	262	9.1	9.0	1.3	293	11.1	10.2	-4.3	287	7.9	7.6	-2.3	320	2.6	1.7	-2.0	85	7.3	-7.3	-0.6	86	18.8	-18.8	-1.3	96	26.5	-26.4	2.6
28	275	8.0	8.0	-0.7	295	11.2	10.2	-4.7	291	6.9	6.4	-2.5	301	3.7	3.2	-1.9	81	6.5	-6.4	-1.0	82	16.8	-16.7	-2.2	91	26.4	-26.4	0.5
29	275	8.1	8.1	-0.7	288	11.4	10.8	-3.6	293	7.2	6.6	-2.8	298	3.2	2.8	-1.5	95	6.9	-6.9	0.6	82	18.2	-18.0	-2.6	90	29.2	-29.2	-0.2
30	274	8.3	8.3	-0.6	287	10.8	10.3	-3.2	285	7.4	7.2	-1.9	281	3.2	3.1	-0.6	95	7.0	-7.0	0.6	84	18.2	-18.1	-2.0	92	28.4	-28.4	1.0
31	278	7.3	7.2	-1.0	284	10.3	10.0	-2.5	287	6.4	6.1	-1.9	284	0.4	0.4	-0.1	92	9.0	-9.0	0.3	90	20.4	-20.4	0.0	92	26.8	-26.8	0.9

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	275	7.6	7.6	-0.7	288	9.2	8.8	-2.8	282	6.3	6.2	-1.3	342	1.6	0.5	-1.5	92	7.1	-7.1	0.2	86	17.1	-17.1	-1.3	87	25.1	-25.1	-1.5
2	267	8.7	8.7	0.4	292	9.2	8.5	-3.4	279	5.7	5.6	-0.9	282	1.9	1.9	-0.4	90	6.2	-6.2	0.0	78	14.8	-14.5	-3.0	91	22.0	-22.0	0.2
3	272	10.1	10.1	-0.3	289	9.1	8.6	-3.0	279	5.9	5.8	-0.9	268	2.7	2.7	0.1	88	6.9	-6.9	-0.2	83	17.0	-16.9	-2.0	92	24.9	-24.9	0.8
4	284	7.6	7.4	-1.8	290	9.6	9.0	-3.3	280	5.9	5.8	-1.0	302	2.6	2.2	-1.4	82	6.1	-6.0	-0.8	86	17.8	-17.8	-1.3	91	22.5	-22.5	0.3
5	279	5.8	5.7	-0.9	294	8.7	8.0	-3.5	280	5.8	5.7	-1.0	302	3.6	3.1	-1.9	78	5.2	-5.1	-1.1	86	17.5	-17.5	-1.2	89	25.2	-25.2	-0.4
6	258	6.7	6.6	1.4	287	8.8	8.4	-2.6	276	5.4	5.4	-0.6	294	2.4	2.2	-1.0	89	6.3	-6.3	-0.1	85	15.1	-15.0	-1.4	89	23.1	-23.1	-0.4
7	264	6.5	6.5	0.7	298	6.7	5.9	-3.1	290	5.0	4.7	-1.7	287	3.4	3.2	-1.0	91	5.7	-5.7	0.1	86	15.6	-15.6	-1.1	91	26.0	-26.0	0.6
8	266	6.2	6.2	0.4	301	8.2	7.1	-4.2	306	4.4	3.6	-2.6	293	2.3	2.1	-0.9	81	7.1	-7.0	-1.1	89	15.9	-15.9	-0.2	90	24.0	-24.0	0.1
9	273	8.1	8.1	-0.4	311	6.7	5.0	-4.4	313	3.8	2.8	-2.6	45	1.4	-1.0	-1.0	84	7.6	-7.6	-0.8	89	15.6	-15.6	-0.4	95	21.8	-21.7	1.8
10	279	6.0	5.9	-0.9	310	7.1	5.4	-4.6	312	3.9	2.9	-2.6	14	1.2	-0.3	-1.2	79	7.4	-7.3	-1.4	89	15.4	-15.4	-0.3	96	21.3	-21.2	2.4
11	264	3.9	3.9	0.4	314	4.6	3.3	-3.2	329	3.3	1.7	-2.8	48	1.2	-0.9	-0.8	94	4.6	-4.6	0.3	90	14.6	-14.6	0.0	95	21.7	-21.6	1.8
12	281	4.1	4.0	-0.8	308	5.5	4.3	-3.4	304	2.9	2.4	-1.6	90	0.4	-0.4	0.0	100	7.2	-7.1	1.2	90	15.8	-15.8	0.0	93	22.4	-22.4	1.0
13	292	3.2	3.0	-1.2	302	4.5	3.8	-2.4	291	2.5	2.3	-0.9	8	0.7	-0.1	-0.7	100	7.7	-7.6	1.4	96	14.1	-14.0	1.4	92	21.2	-21.2	0.9
14	263	5.2	5.2	0.6	284	4.0	3.9	-1.0	301	2.3	2.0	-1.2	35	1.2	-0.7	-1.0	85	5.6	-5.6	-0.5	93	12.7	-12.7	0.6	94	18.8	-18.8	1.3
15	265	4.6	4.6	0.4	299	3.7	3.2	-1.8	320	1.6	1.0	-1.2	49	0.9	-0.7	-0.6	92	6.1	-6.1	0.2	92	11.9	-11.9	0.5	95	18.6	-18.5	1.7
16	267	4.0	4.0	0.2	314	3.6	2.6	-2.5	334	2.5	1.1	-2.3	86	1.5	-1.5	-0.1	100	5.4	-5.3	0.9	94	11.4	-11.4	0.8	91	17.3	-17.3	0.4
17	266	4.9	4.9	0.3	322	2.3	1.4	-1.8	360	1.9	0.0	-1.9	65	1.4	-1.3	-0.6	103	6.3	-6.1	1.4	99	11.0	-10.9	1.7	93	18.0	-18.0	1.0
18	268	5.9	5.9	0.2	331	2.9	1.4	-2.5	356	3.0	0.2	-3.0	47	2.2	-1.6	-1.5	102	4.3	-4.2	0.9	96	11.4	-11.3	1.2	95	17.7	-17.6	1.4
19	283	5.1	5.0	-1.2	327	2.7	1.5	-2.3	18	2.3	-0.7	-2.2	90	1.4	-1.4	0.0	91	5.9	-5.9	0.1	96	11.1	-11.0	1.2	95	18.8	-18.7	1.5
20	309	4.3	3.3	-2.7	325	1.6	0.9	-1.3	14	2.1	-0.5	-2.0	98	2.8	-2.8	0.4	105	6.0	-5.8	1.5	99	10.4	-10.3	1.6	94	18.5	-18.5	1.3
21	333	3.5	1.6	-3.1	320	2.5	1.6	-1.9	355	2.2	0.2	-2.2	83	2.4	-2.4	-0.3	109	6.8	-6.4	2.2	105	10.8	-10.4	2.8	98	18.0	-17.8	2.5
22	302	2.5	2.1	-1.3	316	2.8	1.9	-2.0	356	1.4	0.1	-1.4	67	2.5	-2.3	-1.0	99	6.2	-6.1	1.0	102	12.0	-11.7	2.5	98	17.3	-17.1	2.3
23	225	0.6	0.4	0.4	335	1.7	0.7	-1.5	18	1.6	-0.5	-1.5	79	2.1	-2.1	-0.4	93	6.2	-6.2	0.3	94	10.5	-10.5	0.8	94	18.1	-18.0	1.4
24	315	0.4	0.3	-0.3	337	2.5	1.0	-2.3	30	2.2	-1.1	-1.9	94	2.6	-2.6	0.2	97	5.6	-5.6	0.7	96	10.1	-10.0	1.1	94	18.0	-18.0	1.2
25	237	1.7	1.4	0.9	333	1.8	0.8	-1.6	9	1.8	-0.3	-1.8	95	1.1	-1.1	0.1	94	5.5	-5.5	0.4	97	10.4	-10.3	1.2	93	14.1	-14.1	0.8
26	257	2.6	2.5	0.6	14	0.4	-0.1	-0.4	14	1.6	-0.4	-1.6	104	1.2	-1.2	0.3	93	4.2	-4.2	0.2	93	8.7	-8.7	0.4	94	15.9	-15.9	1.0
27	230	1.6	1.2	1.0	333	0.2	0.1	-0.2	22	1.6	-0.6	-1.5	207	0.2	0.1	0.2	102	4.0	-3.9	0.8	106	8.7	-8.4	2.4	94	13.9	-13.9	1.0
28	184	1.5	0.1	1.5	353	0.8	0.1	-0.8	45	2.1	-1.5	-1.5	108	1.6	-1.5	0.5	110	5.8	-5.4	2.0	97	8.5	-8.4	1.0	91	15.3	-15.3	0.2
29	106	1.9	-1.8	0.5	7	0.8	-0.1	-0.8	25	1.4	-0.6	-1.3	68	2.4	-2.2	-0.9	100	3.9	-3.8	0.7	105	9.0	-8.7	2.4	97	14.7	-14.6	1.9
30	87	2.1	-2.1	-0.1	18	2.3	-0.7	-2.2	31	3.9	-2.0	-3.3	74	1.9	-1.8	-0.5	100	4.0	-3.9	0.7	109	7.9	-7.5	2.6	96	13.2	-13.1	1.3

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	96	1.8	-1.8	0.2	18	2.6	-0.8	-2.5	38	3.4	-2.1	-2.7	76	3.4	-3.3	-0.8	101	5.4	-5.3	1.0	109	8.2	-7.7	2.7	98	16.3	-16.1	2.4
2	128	1.8	-1.4	1.1	17	3.1	-0.9	-3.0	30	4.0	-2.0	-3.5	81	4.5	-4.4	-0.7	113	3.3	-3.0	1.3	112	7.0	-6.5	2.6	97	12.3	-12.2	1.4
3	151	1.3	-0.6	1.1	34	1.8	-1.0	-1.5	15	2.4	-0.6	-2.3	85	2.5	-2.5	-0.2	135	4.0	-2.8	2.8	117	6.7	-6.0	3.0	104	12.2	-11.8	3.0
4	210	0.8	0.4	0.7	8	2.8	-0.4	-2.8	23	3.4	-1.3	-3.1	63	1.1	-1.0	-0.5	98	2.7	-2.7	0.4	120	7.2	-6.2	3.6	97	12.2	-12.1	1.5
5	328	0.9	0.5	-0.8	17	3.1	-0.9	-3.0	20	3.3	-1.1	-3.1	72	2.9	-2.8	-0.9	121	2.9	-2.5	1.5	121	6.8	-5.8	3.5	99	11.2	-11.1	1.8
6	270	0.7	0.7	0.0	28	1.7	-0.8	-1.5	11	1.6	-0.3	-1.6	124	1.1	-0.9	0.6	131	3.7	-2.8	2.4	113	7.8	-7.2	3.0	94	12.1	-12.1	0.8
7	74	1.8	-1.7	-0.5	6	1.9	-0.2	-1.9	15	2.7	-0.7	-2.6	72	1.6	-1.5	-0.5	141	2.8	-1.8	2.2	128	7.3	-5.8	4.5	92	11.3	-11.3	0.3
8	71	2.8	-2.6	-0.9	39	2.7	-1.7	-2.1	20	3.2	-1.1	-3.0	85	1.2	-1.2	-0.1	142	3.1	-1.9	2.4	125	6.7	-5.5	3.9	101	9.2	-9.0	1.8
9	68	2.9	-2.7	-1.1	45	2.1	-1.5	-1.5	30	3.4	-1.7	-3.0	112	0.5	-0.5	0.2	149	2.7	-1.4	2.3	134	5.9	-4.3	4.1	93	7.5	-7.5	0.4
10	103	3.6	-3.5	0.8	53	3.0	-2.4	-1.8	29	1.8	-0.9	-1.6	110	1.5	-1.4	0.5	121	2.3	-2.0	1.2	141	5.3	-3.3	4.1	102	8.4	-8.2	1.8
11	117	3.5	-3.1	1.6	45	3.1	-2.2	-2.2	20	3.0	-1.0	-2.8	69	2.2	-2.1	-0.8	130	2.6	-2.0	1.7	132	4.5	-3.3	3.0	97	9.0	-8.9	1.1
12	108	0.9	-0.9	0.3	42	2.7	-1.8	-2.0	32	1.9	-1.0	-1.6	70	3.3	-3.1	-1.1	123	2.4	-2.0	1.3	142	3.4	-2.1	2.7	113	7.6	-7.0	2.9
13	94	1.3	-1.3	0.1	33	2.7	-1.5	-2.3	30	3.4	-1.7	-2.9	72	2.6	-2.5	-0.8	140	1.6	-1.0	1.2	146	5.3	-3.0	4.4	104	7.8	-7.6	1.9
14	90	0.1	-0.1	0.0	46	3.5	-2.5	-2.4	35	4.4	-2.5	-3.6	73	2.4	-2.3	-0.7	122	0.9	-0.8	0.5	164	4.6	-1.3	4.4	96	8.0	-8.0	0.8
15	23	1.5	-0.6	-1.4	50	3.8	-2.9	-2.4	38	3.9	-2.4	-3.1	32	2.2	-1.2	-1.9	172	0.7	-0.1	0.7	168	5.3	-1.1	5.2	110	6.8	-6.4	2.3
16	49	3.2	-2.4	-2.1	40	4.5	-2.9	-3.4	23	3.4	-1.3	-3.1	50	3.0	-2.3	-1.9	117	2.8	-2.5	1.3	148	6.0	-3.2	5.1	89	7.4	-7.4	-0.1
17	28	1.7	-0.8	-1.5	58	2.6	-2.2	-1.4	31	2.3	-1.2	-2.0	52	1.6	-1.3	-1.0	182	2.7	0.1	2.7	167	4.8	-1.1	4.7	111	8.0	-7.5	2.9
18	98	1.5	-1.5	0.2	60	3.6	-3.1	-1.8	45	2.1	-1.5	-1.5	82	2.1	-2.1	-0.3	167	0.9	-0.2	0.9	152	5.7	-2.7	5.0	101	8.9	-8.7	1.7
19	59	2.1	-1.8	-1.1	65	4.3	-3.9	-1.8	55	2.1	-1.7	-1.2	135	1.3	-0.9	0.9	199	1.8	0.6	1.7	199	6.9	2.3	6.5	108	7.2	-6.9	2.2
20	87	1.8	-1.8	-0.1	53	3.8	-3.0	-2.3	56	1.8	-1.5	-1.0	131	0.9	-0.7	0.6	227	1.8	1.3	1.2	191	3.6	0.7	3.5	108	6.1	-5.8	1.9
21	56	2.7	-2.2	-1.5	55	3.9	-3.2	-2.2	18	2.6	-0.8	-2.5	105	1.1	-1.1	0.3	233	1.5	1.2	0.9	198	4.0	1.2	3.8	102	6.1	-6.0	1.3
22	104	3.4	-3.3	0.8	73	4.2	-4.0	-1.2	46	2.8	-2.0	-1.9	117	0.2	-0.2	0.1	231	1.9	1.5	1.2	211	4.4	2.3	3.8	105	3.9	-3.8	1.0
23	108	1.9	-1.8	0.6	68	3.7	-3.4	-1.4	29	2.6	-1.3	-2.3	45	0.8	-0.6	-0.6	259	2.0	2.0	0.4	206	4.1	1.8	3.7	126	4.6	-3.7	2.7
24	113	3.4	-3.1	1.3	80	4.0	-3.9	-0.7	60	1.4	-1.2	-0.7	86	1.3	-1.3	-0.1	243	2.0	1.8	0.9	203	4.8	1.9	4.4	134	4.3	-3.1	3.0
25	127	3.4	-2.7	2.0	92	3.1	-3.1	0.1	59	1.2	-1.0	-0.6	169	0.5	-0.1	0.5	235	3.2	2.6	1.8	232	5.4	4.3	3.3	131	4.6	-3.5	3.0
26	106	2.5	-2.4	0.7	87	3.8	-3.8	-0.2	69	2.2	-2.1	-0.8	90	0.5	-0.5	0.0	262	4.1	4.1	0.6	218	6.5	4.0	5.1	153	1.8	-0.8	1.6
27	88	3.0	-3.0	-0.1	71	4.6	-4.3	-1.5	37	2.5	-1.5	-2.0	357	2.0	0.1	-2.0	239	4.3	3.7	2.2	222	8.9	5.9	6.6	127	3.1	-2.5	1.9
28	81	2.4	-2.4	-0.4	74	4.8	-4.6	-1.3	61	2.6	-2.3	-1.3	243	0.2	0.2	0.1	231	4.9	3.8	3.1	205	8.0	3.4	7.2	93	3.5	-3.5	0.2
29	55	3.7	-3.0	-2.1	63	4.2	-3.8	-1.9	39	2.6	-1.6	-2.0	13	1.3	-0.3	-1.3	249	3.9	3.6	1.4	224	6.4	4.4	4.6	116	3.4	-3.1	1.5
30	45	2.5	-1.8	-1.8	69	4.7	-4.4	-1.7	52	3.3	-2.6	-2.0	24	1.2	-0.5	-1.1	247	5.9	5.4	2.3	211	8.4	4.3	7.2	134	3.0	-2.2	2.1
31	59	3.3	-2.8	-1.7	65	5.2	-4.7	-2.2	61	3.5	-3.1	-1.7	72	0.9	-0.9	-0.3	242	7.8	6.9	3.7	210	9.4	4.7	8.1	113	2.8	-2.6	1.1

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	61	5.4	-4.7	-2.6	69	4.7	-4.4	-1.7	81	3.0	-3.0	-0.5	34	0.7	-0.4	-0.6	243	5.5	4.9	2.5	214	8.8	4.9	7.3	75	2.4	-2.3	-0.6
2	63	4.8	-4.3	-2.2	68	6.1	-5.7	-2.3	68	3.2	-3.0	-1.2	37	3.8	-2.3	-3.0	251	5.0	4.7	1.6	214	8.1	4.6	6.7	112	2.7	-2.5	1.0
3	58	5.1	-4.3	-2.7	66	5.6	-5.1	-2.3	79	3.2	-3.1	-0.6	50	2.6	-2.0	-1.7	247	3.0	2.8	1.2	203	8.6	3.4	7.9	83	3.8	-3.8	-0.5
4	54	4.4	-3.6	-2.6	78	4.8	-4.7	-1.0	95	2.4	-2.4	0.2	59	2.1	-1.8	-1.1	246	4.6	4.2	1.9	216	10.0	5.9	8.1	153	3.5	-1.6	3.1
5	72	5.2	-5.0	-1.6	65	5.3	-4.8	-2.2	44	3.0	-2.1	-2.2	33	3.1	-1.7	-2.6	255	4.6	4.4	1.2	212	10.5	5.6	8.9	124	2.7	-2.2	1.5
6	63	4.6	-4.1	-2.1	62	5.2	-4.6	-2.4	50	2.5	-1.9	-1.6	23	2.3	-0.9	-2.1	261	4.7	4.6	0.7	233	8.3	6.6	5.0	214	1.1	0.6	0.9
7	76	4.1	-4.0	-1.0	72	5.7	-5.4	-1.8	56	3.2	-2.7	-1.8	25	1.9	-0.8	-1.7	260	5.6	5.5	1.0	221	7.6	5.0	5.7	110	2.7	-2.5	0.9
8	101	5.2	-5.1	1.0	77	5.1	-5.0	-1.2	64	3.2	-2.9	-1.4	41	1.1	-0.7	-0.8	262	5.2	5.2	0.7	217	8.6	5.2	6.9	252	0.6	0.6	0.2
9	102	4.4	-4.3	0.9	70	4.6	-4.3	-1.6	52	3.1	-2.4	-1.9	54	0.9	-0.7	-0.5	263	5.0	5.0	0.6	224	8.1	5.6	5.8	140	0.8	-0.5	0.6
10	114	3.6	-3.3	1.5	68	3.8	-3.5	-1.4	52	3.1	-2.4	-1.9	306	0.9	0.7	-0.5	262	5.2	5.2	0.7	232	6.8	5.4	4.2	90	2.4	-2.4	0.0
11	124	4.7	-3.9	2.6	71	3.9	-3.7	-1.3	63	3.1	-2.8	-1.4	354	2.0	0.2	-2.0	256	6.2	6.0	1.5	233	9.2	7.3	5.6	116	3.0	-2.7	1.3
12	104	3.2	-3.1	0.8	80	4.5	-4.4	-0.8	48	2.4	-1.8	-1.6	16	3.2	-0.9	-3.1	267	6.3	6.3	0.3	223	10.1	6.9	7.4	135	0.3	-0.2	0.2
13	95	3.5	-3.5	0.3	84	4.9	-4.9	-0.5	59	2.3	-2.0	-1.2	36	2.2	-1.3	-1.8	260	6.2	6.1	1.1	229	10.0	7.5	6.6	255	2.0	1.9	0.5
14	93	3.9	-3.9	0.2	75	5.3	-5.1	-1.4	63	2.5	-2.2	-1.1	48	2.8	-2.1	-1.9	247	6.7	6.2	2.6	226	11.2	8.0	7.8	294	1.0	0.9	-0.4
15	77	5.5	-5.4	-1.2	72	5.2	-5.0	-1.6	57	4.4	-3.7	-2.4	40	2.3	-1.5	-1.8	251	7.6	7.2	2.5	231	9.6	7.4	6.1	249	0.9	0.8	0.3
16	90	4.7	-4.7	0.0	71	4.6	-4.3	-1.5	64	3.4	-3.1	-1.5	83	0.8	-0.8	-0.1	246	6.8	6.2	2.7	229	10.4	7.8	6.9	222	1.3	0.9	1.0
17	91	5.0	-5.0	0.1	71	3.6	-3.4	-1.2	65	3.1	-2.8	-1.3	113	0.8	-0.7	0.3	249	7.7	7.2	2.8	224	12.1	8.4	8.7	205	1.9	0.8	1.7
18	96	5.3	-5.3	0.6	71	3.7	-3.5	-1.2	47	1.8	-1.3	-1.2	279	1.3	1.3	-0.2	250	9.7	9.1	3.3	229	14.0	10.6	9.2	266	1.6	1.6	0.1
19	91	4.7	-4.7	0.1	74	4.3	-4.1	-1.2	40	2.5	-1.6	-1.9	284	3.0	2.9	-0.7	247	10.0	9.2	4.0	223	15.5	10.5	11.4	226	4.0	2.9	2.8
20	111	2.6	-2.4	0.9	66	4.3	-3.9	-1.7	26	2.5	-1.1	-2.3	312	3.0	2.2	-2.0	245	11.9	10.8	5.1	228	15.0	11.2	10.0	218	4.2	2.6	3.3
21	96	4.0	-4.0	0.4	74	3.2	-3.1	-0.9	39	1.9	-1.2	-1.5	262	2.2	2.2	0.3	244	11.6	10.4	5.1	227	16.8	12.2	11.5	228	1.5	1.1	1.0
22	110	4.5	-4.2	1.5	78	4.2	-4.1	-0.9	67	3.0	-2.8	-1.2	272	2.7	2.7	-0.1	247	12.7	11.7	5.0	233	16.3	13.1	9.7	237	6.6	5.5	3.6
23	98	4.9	-4.8	0.7	82	4.4	-4.4	-0.6	83	1.7	-1.7	-0.2	257	3.7	3.6	0.8	258	11.7	11.4	2.5	226	17.1	12.4	11.8	238	4.9	4.2	2.6
24	78	4.3	-4.2	-0.9	71	4.3	-4.1	-1.4	47	1.8	-1.3	-1.2	293	2.8	2.6	-1.1	262	10.8	10.7	1.5	232	15.8	12.4	9.8	245	2.9	2.6	1.2
25	79	4.4	-4.3	-0.8	50	4.3	-3.3	-2.8	61	2.3	-2.0	-1.1	330	3.2	1.6	-2.8	265	10.6	10.6	0.9	244	14.8	13.4	6.4	265	3.8	3.8	0.3
26	66	3.2	-2.9	-1.3	65	3.8	-3.5	-1.6	62	1.7	-1.5	-0.8	293	2.1	1.9	-0.8	263	10.8	10.7	1.3	240	14.5	12.5	7.3	252	4.3	4.1	1.3
27	93	3.8	-3.8	0.2	64	4.8	-4.3	-2.1	55	2.1	-1.7	-1.2	318	2.4	1.6	-1.8	259	8.7	8.6	1.6	234	13.9	11.3	8.1	268	5.1	5.1	0.2
28	96	3.7	-3.7	0.4	65	4.2	-3.8	-1.8	47	1.6	-1.2	-1.1	272	2.8	2.8	-0.1	262	10.3	10.2	1.5	234	15.0	12.1	8.9	242	3.2	2.8	1.5
29	94	4.1	-4.1	0.3	63	3.8	-3.4	-1.7	40	1.6	-1.0	-1.2	298	4.3	3.8	-2.0	256	12.1	11.7	2.9	240	17.8	15.5	8.8	245	2.6	2.4	1.1
30	96	3.6	-3.6	0.4	70	3.3	-3.1	-1.1	45	1.6	-1.1	-1.1	295	3.5	3.2	-1.5	261	11.4	11.3	1.7	235	17.0	14.0	9.7	252	4.7	4.5	1.5

Daily Normals of Upper Air Winds (1971-2000)

HYDERABAD **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	94	4.6	-4.6	0.3	78	3.8	-3.7	-0.8	41	0.9	-0.6	-0.7	305	2.9	2.4	-1.7	266	12.2	12.2	0.9	238	16.2	13.8	8.5	240	5.2	4.5	2.6
2	91	4.7	-4.7	0.1	81	4.6	-4.5	-0.7	76	0.8	-0.8	-0.2	290	2.0	1.9	-0.7	252	12.3	11.7	3.9	234	18.2	14.6	10.8	252	1.9	1.8	0.6
3	91	4.2	-4.2	0.1	88	3.6	-3.6	-0.1	86	1.5	-1.5	-0.1	282	3.3	3.2	-0.7	259	10.9	10.7	2.1	234	16.5	13.4	9.6	255	6.7	6.5	1.8
4	90	3.9	-3.9	0.0	79	4.1	-4.0	-0.8	45	1.4	-1.0	-1.0	298	2.1	1.9	-1.0	261	10.4	10.3	1.7	237	17.5	14.7	9.5	261	5.3	5.2	0.8
5	83	4.7	-4.7	-0.6	61	4.5	-3.9	-2.2	53	2.1	-1.7	-1.3	306	2.7	2.2	-1.6	251	11.8	11.1	3.9	233	14.5	11.5	8.8	272	5.0	5.0	-0.2
6	90	4.5	-4.5	0.0	60	5.1	-4.4	-2.5	45	2.8	-2.0	-2.0	301	2.9	2.5	-1.5	262	11.2	11.1	1.5	239	16.4	14.0	8.5	259	5.4	5.3	1.0
7	85	5.4	-5.4	-0.5	63	4.2	-3.8	-1.9	47	2.1	-1.5	-1.4	303	2.4	2.0	-1.3	258	12.4	12.1	2.5	245	16.3	14.7	7.0	245	6.6	6.0	2.8
8	91	4.7	-4.7	0.1	62	3.6	-3.2	-1.7	41	2.1	-1.4	-1.6	302	2.5	2.1	-1.3	262	13.5	13.4	1.9	240	19.2	16.6	9.7	252	7.1	6.7	2.2
9	78	4.4	-4.3	-0.9	70	3.7	-3.5	-1.3	27	1.3	-0.6	-1.2	248	3.8	3.5	1.4	256	12.7	12.3	3.0	235	17.9	14.7	10.3	259	6.1	6.0	1.2
10	80	3.6	-3.5	-0.6	75	3.1	-3.0	-0.8	27	0.9	-0.4	-0.8	276	5.8	5.8	-0.6	263	15.0	14.9	1.9	245	18.9	17.2	7.9	240	6.4	5.6	3.2
11	74	4.5	-4.3	-1.2	65	3.3	-3.0	-1.4	45	0.3	-0.2	-0.2	283	3.9	3.8	-0.9	253	12.2	11.7	3.6	239	16.7	14.3	8.7	233	6.5	5.2	3.9
12	94	4.5	-4.5	0.3	86	3.9	-3.9	-0.3	18	0.6	-0.2	-0.6	282	3.3	3.2	-0.7	256	13.2	12.8	3.1	243	17.4	15.6	7.8	255	6.5	6.3	1.7
13	96	4.1	-4.1	0.4	82	3.5	-3.5	-0.5	153	0.4	-0.2	0.4	284	4.4	4.3	-1.1	247	12.9	11.8	5.1	236	19.7	16.4	10.9	268	6.4	6.4	0.2
14	89	4.2	-4.2	-0.1	81	3.1	-3.1	-0.5	6	0.9	-0.1	-0.9	273	5.4	5.4	-0.3	258	13.3	13.0	2.8	240	19.1	16.6	9.5	268	7.5	7.5	0.2
15	81	3.9	-3.9	-0.6	72	3.2	-3.0	-1.0	17	1.4	-0.4	-1.3	281	5.8	5.7	-1.1	261	13.9	13.7	2.1	251	18.8	17.8	6.1	270	4.4	4.4	0.0
16	93	4.5	-4.5	0.2	84	3.6	-3.6	-0.4	58	1.5	-1.3	-0.8	289	3.6	3.4	-1.2	263	15.7	15.6	2.0	252	19.4	18.4	6.0	261	6.5	6.4	1.0
17	110	5.1	-4.8	1.7	79	3.3	-3.2	-0.6	29	2.6	-1.3	-2.3	263	5.1	5.1	0.6	265	15.9	15.8	1.3	238	20.4	17.3	10.8	249	7.1	6.6	2.5
18	104	3.8	-3.7	0.9	73	3.1	-3.0	-0.9	43	1.6	-1.1	-1.2	273	5.8	5.8	-0.3	265	17.3	17.2	1.6	246	21.2	19.4	8.5	258	9.9	9.7	2.1
19	96	4.4	-4.4	0.5	69	3.3	-3.1	-1.2	12	1.9	-0.4	-1.9	269	4.9	4.9	0.1	270	16.8	16.8	0.0	253	22.4	21.4	6.7	264	8.2	8.2	0.9
20	109	4.0	-3.8	1.3	81	3.1	-3.1	-0.5	12	1.4	-0.3	-1.4	272	5.9	5.9	-0.2	261	14.8	14.6	2.4	245	22.0	20.0	9.2	262	11.4	11.3	1.6
21	113	4.1	-3.8	1.6	85	3.3	-3.3	-0.3	17	1.7	-0.5	-1.6	278	4.3	4.3	-0.6	259	16.3	16.0	3.0	249	20.5	19.2	7.3	259	10.3	10.1	2.0
22	106	3.5	-3.4	1.0	85	3.6	-3.6	-0.3	29	1.0	-0.5	-0.9	268	5.1	5.1	0.2	264	16.3	16.2	1.8	256	22.2	21.5	5.5	270	12.1	12.1	0.1
23	119	3.3	-2.9	1.6	75	3.0	-2.9	-0.8	319	0.9	0.6	-0.7	268	6.3	6.3	0.2	269	19.6	19.6	0.5	253	22.7	21.7	6.8	269	9.2	9.2	0.1
24	91	4.0	-4.0	0.1	90	2.7	-2.7	0.0	297	1.1	1.0	-0.5	255	7.3	7.0	1.9	267	20.2	20.2	1.0	250	23.2	21.8	7.9	259	10.9	10.7	2.0
25	106	3.2	-3.1	0.9	81	2.0	-2.0	-0.3	292	1.6	1.5	-0.6	279	7.5	7.4	-1.2	262	18.2	18.0	2.6	253	22.5	21.6	6.4	267	10.9	10.9	0.6
26	105	4.3	-4.2	1.1	90	2.5	-2.5	0.0	270	1.2	1.2	0.0	268	6.6	6.6	0.2	260	20.0	19.7	3.5	253	23.2	22.1	6.9	259	15.0	14.7	2.9
27	116	4.3	-3.9	1.9	105	3.0	-2.9	0.8	304	2.2	1.8	-1.2	274	6.7	6.7	-0.5	268	19.6	19.6	0.7	262	22.4	22.2	3.2	273	12.9	12.9	-0.7
28	112	5.0	-4.6	1.9	95	3.3	-3.3	0.3	318	1.5	1.0	-1.1	258	7.0	6.8	1.5	262	18.5	18.3	2.7	251	22.8	21.6	7.4	263	9.5	9.4	1.1
29	118	5.4	-4.8	2.5	81	2.5	-2.5	-0.4	262	1.4	1.4	0.2	280	7.7	7.6	-1.4	263	18.0	17.9	2.3	256	21.7	21.1	5.1	263	7.5	7.4	0.9
30	113	4.6	-4.2	1.8	98	1.4	-1.4	0.2	287	2.1	2.0	-0.6	279	9.1	9.0	-1.5	271	17.7	17.7	-0.4	251	21.3	20.1	7.0	265	11.1	11.1	0.9
31	120	4.0	-3.5	2.0	99	1.8	-1.8	0.3	290	1.2	1.1	-0.4	272	8.0	8.0	-0.3	264	17.4	17.3	1.7	253	20.5	19.6	5.9	260	10.9	10.7	1.8

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	62	2.4	-2.1	-1.1	329	1.7	0.9	-1.5	305	3.9	3.2	-2.2	285	13.5	13.0	-3.6	276	25.2	25.1	-2.7	278	26.6	26.3	-3.8	260	10.0	9.9	1.7
2	58	2.6	-2.2	-1.4	323	2.1	1.3	-1.7	309	4.9	3.8	-3.1	288	13.7	13.0	-4.2	281	25.8	25.3	-5.0	290	27.5	25.9	-9.2	297	12.5	11.1	-5.7
3	79	0.5	-0.5	-0.1	330	1.6	0.8	-1.4	314	5.4	3.9	-3.8	283	16.2	15.8	-3.7	277	29.6	29.4	-3.6	268	28.3	28.3	1.2	289	21.0	19.9	-6.8
4	21	2.2	-0.8	-2.1	9	2.5	-0.4	-2.5	327	5.0	2.7	-4.2	299	12.6	11.0	-6.2	278	22.6	22.4	-3.0	275	24.6	24.5	-2.2	287	18.7	17.9	-5.4
5	35	1.9	-1.1	-1.6	9	1.8	-0.3	-1.8	304	3.4	2.8	-1.9	280	11.2	11.0	-2.0	276	24.4	24.3	-2.6	258	27.8	27.2	5.9	291	18.3	17.1	-6.6
6	360	0.4	0.0	-0.4	9	1.8	-0.3	-1.8	325	4.5	2.6	-3.7	283	12.4	12.1	-2.7	271	22.7	22.7	-0.4	264	25.8	25.7	2.6	275	13.8	13.7	-1.3
7	51	1.3	-1.0	-0.8	20	1.2	-0.4	-1.1	283	3.1	3.0	-0.7	280	12.2	12.0	-2.2	267	23.9	23.9	1.3	269	27.2	27.2	0.3	246	14.5	13.2	6.0
8	107	1.4	-1.3	0.4	360	0.4	0.0	-0.4	257	5.4	5.3	1.2	269	13.4	13.4	0.3	276	24.1	24.0	-2.6	274	28.5	28.4	-2.0	277	19.7	19.6	-2.3
9	103	0.9	-0.9	0.2	307	1.0	0.8	-0.6	280	5.1	5.0	-0.9	272	13.9	13.9	-0.6	273	23.1	23.1	-1.1	271	21.6	21.6	-0.3	262	22.7	22.5	3.0
10	144	0.9	-0.5	0.7	315	1.3	0.9	-0.9	292	4.2	3.9	-1.6	273	13.1	13.1	-0.6	267	24.8	24.8	1.5	266	23.0	22.9	1.6	270	14.8	14.8	-0.1
11	90	0.3	-0.3	0.0	14	0.4	-0.1	-0.4	295	4.1	3.7	-1.7	265	15.0	14.9	1.3	273	22.1	22.1	-1.0	258	25.8	25.2	5.4	318	7.3	4.9	-5.4
12	270	0.6	0.6	0.0	292	0.5	0.5	-0.2	274	4.9	4.9	-0.3	268	15.0	15.0	0.4	266	24.1	24.0	1.8	261	25.3	25.0	4.0	247	9.0	8.3	3.5
13	217	0.5	0.3	0.4	331	1.3	0.6	-1.1	298	6.2	5.5	-2.9	273	15.0	15.0	-0.8	270	27.3	27.3	0.1	255	23.9	23.1	6.3	277	10.8	10.7	-1.3
14	99	0.6	-0.6	0.1	270	0.4	0.4	0.0	290	5.4	5.1	-1.9	278	12.9	12.8	-1.7	275	24.9	24.8	-2.1	275	20.1	20.0	-1.8	271	8.7	8.7	-0.2
15	148	0.9	-0.5	0.8	276	1.8	1.8	-0.2	295	5.4	4.9	-2.3	283	13.0	12.7	-2.9	271	24.6	24.6	-0.3	271	23.2	23.2	-0.4	286	4.8	4.6	-1.3
16	247	0.8	0.7	0.3	305	1.9	1.6	-1.1	284	6.1	5.9	-1.5	280	14.2	14.0	-2.4	276	25.2	25.1	-2.7	279	28.8	28.5	-4.4	293	11.6	10.7	-4.5
17	17	1.4	-0.4	-1.3	330	2.0	1.0	-1.7	298	5.5	4.8	-2.6	278	13.1	13.0	-1.8	277	23.7	23.5	-2.8	269	22.5	22.5	0.2	271	12.7	12.7	-0.2
18	83	0.8	-0.8	-0.1	312	2.4	1.8	-1.6	301	5.2	4.5	-2.7	283	12.9	12.6	-2.8	272	24.3	24.3	-0.7	263	25.5	25.3	3.0	268	14.1	14.1	0.6
19	27	1.1	-0.5	-1.0	330	2.2	1.1	-1.9	309	7.0	5.4	-4.4	291	12.9	12.0	-4.6	279	26.0	25.7	-4.0	274	21.8	21.7	-1.5	254	8.4	8.1	2.3
20	184	1.4	0.1	1.4	281	1.5	1.5	-0.3	319	7.4	4.9	-5.6	290	15.2	14.2	-5.3	277	22.9	22.7	-2.9	264	20.7	20.6	2.0	258	14.3	14.0	3.0
21	59	0.6	-0.5	-0.3	314	3.0	2.2	-2.1	329	7.4	3.8	-6.4	289	12.4	11.7	-4.0	270	23.5	23.5	-0.2	256	22.4	21.7	5.4	273	8.7	8.7	-0.5
22	90	0.4	-0.4	0.0	328	0.9	0.5	-0.8	321	6.5	4.1	-5.1	286	12.8	12.3	-3.6	268	23.8	23.8	0.7	268	33.0	33.0	1.4	247	8.6	7.9	3.3
23	326	0.4	0.2	-0.3	317	2.2	1.5	-1.6	312	6.1	4.5	-4.1	288	12.6	12.0	-3.8	282	26.9	26.3	-5.5	272	24.3	24.3	-1.0	241	13.3	11.7	6.4
24	27	1.8	-0.8	-1.6	337	2.3	0.9	-2.1	325	6.2	3.6	-5.1	289	11.4	10.8	-3.7	275	20.1	20.0	-1.8	265	20.9	20.8	2.0	238	4.7	4.0	2.5
25	62	2.7	-2.4	-1.3	342	2.3	0.7	-2.2	321	5.6	3.5	-4.4	289	11.5	10.9	-3.8	273	20.4	20.4	-0.9	262	22.7	22.5	3.1	268	10.4	10.4	0.3
26	37	1.5	-0.9	-1.2	14	2.5	-0.6	-2.4	331	5.5	2.7	-4.8	287	10.4	9.9	-3.1	273	21.2	21.2	-1.0	265	22.7	22.6	1.8	253	9.1	8.7	2.6
27	42	1.3	-0.9	-1.0	12	2.5	-0.5	-2.4	332	5.2	2.4	-4.6	289	10.6	10.0	-3.4	280	20.6	20.3	-3.7	263	21.5	21.3	2.8	274	12.3	12.3	-0.9
28	124	0.7	-0.6	0.4	38	1.6	-1.0	-1.3	333	5.1	2.3	-4.5	290	11.0	10.3	-3.8	280	21.1	20.8	-3.5	264	23.2	23.1	2.4	278	9.9	9.8	-1.4
29	360	0.1	0.0	-0.1	13	2.3	-0.5	-2.2	332	6.0	2.8	-5.3	292	13.7	12.7	-5.1	279	22.8	22.5	-3.6	270	23.2	23.2	0.2	283	13.4	13.0	-3.1
30	32	0.9	-0.5	-0.8	349	1.5	0.3	-1.5	318	6.2	4.2	-4.6	294	14.1	12.9	-5.8	280	26.8	26.4	-4.5	271	27.3	27.3	-0.5	278	13.7	13.6	-1.8
31	79	0.5	-0.5	-0.1	317	1.9	1.3	-1.4	314	6.9	4.9	-4.8	293	13.9	12.8	-5.4	281	23.7	23.3	-4.5	274	25.3	25.2	-1.6	273	17.2	17.2	-0.8

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	197	1.4	0.4	1.3	290	2.0	1.9	-0.7	301	6.8	5.8	-3.5	282	14.1	13.8	-2.9	279	26.5	26.2	-4.0	272	26.1	26.1	-1.1	272	16.5	16.5	-0.6
2	158	0.5	-0.2	0.5	325	1.2	0.7	-1.0	313	7.1	5.2	-4.9	287	12.6	12.0	-3.7	274	21.9	21.8	-1.7	263	27.5	27.3	3.2	287	7.0	6.7	-2.1
3	167	0.9	-0.2	0.9	318	1.2	0.8	-0.9	310	6.7	5.1	-4.3	284	12.8	12.4	-3.2	280	24.9	24.5	-4.3	267	27.1	27.1	1.3	279	16.2	16.0	-2.4
4	146	1.1	-0.6	0.9	324	1.4	0.8	-1.1	318	6.4	4.3	-4.7	295	13.8	12.5	-5.8	275	22.6	22.5	-2.0	279	23.7	23.4	-3.6	301	12.8	11.0	-6.5
5	107	1.0	-1.0	0.3	321	1.4	0.9	-1.1	319	5.7	3.7	-4.3	287	12.8	12.2	-3.8	285	25.4	24.6	-6.4	271	25.1	25.1	-0.6	280	11.8	11.6	-2.0
6	180	0.2	0.0	0.2	292	2.2	2.0	-0.8	321	5.8	3.7	-4.5	288	12.5	11.9	-3.9	270	25.3	25.3	-0.1	270	24.7	24.7	-0.1	296	14.2	12.7	-6.3
7	90	1.1	-1.1	0.0	354	0.9	0.1	-0.9	317	5.9	4.0	-4.3	289	11.6	11.0	-3.7	278	22.2	22.0	-3.2	273	26.9	26.9	-1.3	264	10.1	10.0	1.1
8	243	0.2	0.2	0.1	276	1.9	1.9	-0.2	292	5.7	5.3	-2.1	287	13.1	12.5	-3.8	281	22.5	22.1	-4.3	274	25.9	25.9	-1.6	292	15.2	14.1	-5.6
9	290	2.9	2.7	-1.0	295	2.6	2.4	-1.1	300	6.6	5.7	-3.3	292	14.2	13.2	-5.3	274	24.3	24.2	-1.6	272	26.3	26.3	-1.1	256	13.3	12.9	3.2
10	262	0.7	0.7	0.1	260	2.2	2.2	0.4	304	6.5	5.4	-3.6	284	13.3	12.9	-3.3	282	23.9	23.4	-5.0	268	24.2	24.2	0.8	280	12.0	11.8	-2.0
11	60	1.4	-1.2	-0.7	306	0.9	0.7	-0.5	311	6.3	4.8	-4.1	293	11.6	10.7	-4.5	279	21.8	21.5	-3.5	276	20.1	20.0	-2.1	255	7.6	7.3	2.0
12	34	0.4	-0.2	-0.3	281	1.5	1.5	-0.3	313	6.3	4.6	-4.3	288	11.3	10.7	-3.5	279	18.2	18.0	-2.8	279	24.8	24.5	-4.0	277	7.8	7.7	-0.9
13	27	1.8	-0.8	-1.6	312	1.2	0.9	-0.8	298	5.4	4.8	-2.5	280	11.1	10.9	-1.9	266	24.1	24.1	1.5	263	19.4	19.3	2.2	256	11.4	11.0	2.8
14	76	0.4	-0.4	-0.1	248	1.1	1.0	0.4	294	5.6	5.1	-2.3	281	11.6	11.4	-2.3	274	24.2	24.1	-1.7	274	22.8	22.7	-1.7	272	13.6	13.6	-0.4
15	68	1.6	-1.5	-0.6	266	2.6	2.6	0.2	293	5.8	5.3	-2.3	278	14.2	14.1	-2.0	270	28.7	28.7	0.0	265	28.5	28.4	2.3	261	11.2	11.1	1.8
16	204	3.0	1.2	2.7	261	2.0	2.0	0.3	298	7.6	6.7	-3.5	282	14.3	14.0	-2.9	279	23.3	23.0	-3.8	279	24.5	24.2	-3.7	264	13.1	13.0	1.4
17	249	1.7	1.6	0.6	257	2.6	2.5	0.6	298	7.4	6.5	-3.5	280	17.4	17.2	-2.9	272	23.9	23.9	-0.9	256	24.3	23.6	5.9	260	8.2	8.1	1.5
18	227	1.9	1.4	1.3	254	2.9	2.8	0.8	291	6.6	6.2	-2.4	276	16.0	15.9	-1.6	273	24.2	24.2	-1.3	263	22.3	22.1	2.7	257	11.1	10.8	2.5
19	246	2.0	1.8	0.8	281	2.5	2.5	-0.5	285	8.6	8.3	-2.3	279	14.6	14.4	-2.3	276	22.5	22.4	-2.4	259	24.6	24.2	4.6	274	11.3	11.3	-0.7
20	220	3.3	2.1	2.5	259	1.6	1.6	0.3	295	8.1	7.4	-3.4	280	15.1	14.9	-2.7	277	23.4	23.2	-2.7	270	23.7	23.7	-0.1	272	17.5	17.5	-0.7
21	227	1.8	1.3	1.2	262	1.4	1.4	0.2	292	7.7	7.1	-2.9	279	15.9	15.7	-2.6	277	22.2	22.0	-2.6	253	22.8	21.9	6.5	274	11.5	11.5	-0.9
22	245	1.7	1.5	0.7	288	2.6	2.5	-0.8	292	6.8	6.3	-2.5	286	16.1	15.5	-4.5	278	25.0	24.8	-3.5	277	23.4	23.2	-2.8	297	11.1	9.9	-5.0
23	209	1.0	0.5	0.9	306	0.9	0.7	-0.5	306	4.9	4.0	-2.9	287	14.8	14.2	-4.3	278	26.3	26.0	-3.7	268	24.8	24.8	0.9	277	14.3	14.2	-1.8
24	212	0.9	0.5	0.8	285	1.1	1.1	-0.3	305	5.8	4.8	-3.3	283	13.8	13.4	-3.1	278	23.4	23.2	-3.2	271	27.6	27.6	-0.5	258	10.7	10.4	2.3
25	159	0.9	-0.3	0.8	279	1.3	1.3	-0.2	317	5.2	3.5	-3.8	284	10.5	10.2	-2.5	274	23.2	23.1	-1.7	276	25.5	25.4	-2.6	267	15.6	15.6	0.7
26	189	1.2	0.2	1.2	286	1.9	1.8	-0.5	311	6.0	4.5	-3.9	290	12.7	11.9	-4.3	277	24.1	23.9	-3.0	279	24.0	23.7	-3.9	267	14.1	14.1	0.8
27	196	1.5	0.4	1.4	312	1.5	1.1	-1.0	313	6.5	4.8	-4.4	287	12.3	11.8	-3.6	276	24.5	24.4	-2.5	273	24.1	24.1	-1.2	283	13.0	12.7	-3.0
28	223	1.6	1.1	1.2	281	1.6	1.6	-0.3	310	6.2	4.7	-4.0	288	12.5	11.9	-3.9	275	26.6	26.5	-2.3	273	23.2	23.2	-1.3	297	16.1	14.4	-7.3
29	306	1.4	1.1	-0.8	310	3.0	2.3	-1.9	322	4.7	2.9	-3.7	328	15.0	7.9	-12.7	263	16.5	16.4	2.1	271	21.6	21.6	-0.3	322	12.0	7.4	-9.5

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	248	2.2	2.0	0.8	270	2.5	2.5	0.0	308	4.8	3.8	-3.0	285	12.6	12.2	-3.3	280	24.4	24.0	-4.3	270	24.3	24.3	0.1	270	12.7	12.7	0.0
2	344	1.5	0.4	-1.4	315	1.6	1.1	-1.1	305	7.2	5.9	-4.1	285	14.1	13.6	-3.6	273	24.2	24.2	-1.4	267	26.0	26.0	1.4	266	15.7	15.7	1.0
3	143	1.0	-0.6	0.8	324	1.4	0.8	-1.1	313	7.1	5.2	-4.8	279	12.3	12.1	-2.0	277	21.3	21.1	-2.6	262	21.3	21.1	2.9	267	8.2	8.2	0.5
4	243	0.7	0.6	0.3	324	2.7	1.6	-2.2	320	6.7	4.3	-5.2	295	9.6	8.7	-4.0	286	19.5	18.7	-5.4	261	22.6	22.3	3.4	269	7.4	7.4	0.1
5	213	2.0	1.1	1.7	322	1.1	0.7	-0.9	319	6.6	4.3	-5.0	284	10.1	9.8	-2.5	277	19.0	18.9	-2.3	271	20.3	20.3	-0.2	263	12.1	12.0	1.4
6	210	3.0	1.5	2.6	280	2.3	2.3	-0.4	311	6.7	5.1	-4.4	285	12.5	12.1	-3.2	271	19.9	19.9	-0.4	270	25.0	25.0	-0.2	265	11.3	11.3	1.0
7	201	1.9	0.7	1.8	243	1.3	1.2	0.6	327	6.3	3.4	-5.3	281	11.7	11.5	-2.3	276	20.8	20.7	-2.2	266	23.3	23.3	1.5	255	12.0	11.6	3.1
8	342	0.3	0.1	-0.3	290	1.5	1.4	-0.5	310	4.5	3.4	-2.9	286	10.4	10.0	-2.9	271	22.0	22.0	-0.5	266	25.0	24.9	1.8	279	12.1	12.0	-1.8
9	218	3.7	2.3	2.9	308	1.6	1.3	-1.0	318	4.2	2.8	-3.1	280	9.4	9.2	-1.7	275	21.7	21.6	-1.9	273	25.9	25.9	-1.3	260	12.5	12.3	2.2
10	211	2.3	1.2	2.0	275	2.1	2.1	-0.2	307	5.0	4.0	-3.0	282	9.7	9.5	-2.1	276	19.0	18.9	-2.1	263	20.9	20.7	2.6	275	12.5	12.5	-1.0
11	220	3.1	2.0	2.4	257	1.7	1.7	0.4	307	5.3	4.2	-3.2	276	11.6	11.5	-1.3	270	21.9	21.9	0.1	267	22.7	22.7	1.3	264	12.0	11.9	1.3
12	242	3.2	2.8	1.5	265	3.7	3.7	0.3	317	5.6	3.8	-4.1	284	13.7	13.3	-3.2	275	21.5	21.4	-1.9	268	26.7	26.7	1.1	274	13.9	13.9	-1.0
13	226	4.5	3.2	3.1	280	2.3	2.3	-0.4	314	5.9	4.3	-4.1	289	12.3	11.6	-4.1	269	23.2	23.2	0.3	270	26.2	26.2	0.2	264	14.0	13.9	1.5
14	221	2.0	1.3	1.5	297	2.5	2.2	-1.1	307	5.9	4.7	-3.6	291	10.9	10.2	-3.9	272	22.0	22.0	-0.7	273	25.1	25.1	-1.1	278	10.5	10.4	-1.4
15	212	2.5	1.3	2.1	291	1.7	1.6	-0.6	314	5.5	4.0	-3.8	296	9.5	8.5	-4.2	282	20.0	19.6	-4.0	283	22.8	22.2	-5.2	266	10.2	10.2	0.8
16	223	1.6	1.1	1.2	298	1.5	1.3	-0.7	317	5.7	3.9	-4.2	301	11.1	9.5	-5.7	283	18.9	18.4	-4.2	278	23.6	23.4	-3.4	259	12.2	12.0	2.3
17	189	0.6	0.1	0.6	274	1.3	1.3	-0.1	310	5.9	4.5	-3.8	290	9.5	8.9	-3.2	275	19.1	19.0	-1.6	275	23.5	23.4	-2.2	265	8.4	8.4	0.7
18	246	1.0	0.9	0.4	279	1.8	1.8	-0.3	314	6.1	4.4	-4.2	286	10.1	9.7	-2.8	276	18.7	18.6	-2.1	261	23.1	22.8	3.8	269	9.4	9.4	0.1
19	275	2.5	2.5	-0.2	278	2.2	2.2	-0.3	313	6.7	4.9	-4.5	287	11.3	10.8	-3.4	276	18.5	18.4	-1.8	266	22.1	22.0	1.7	271	8.8	8.8	-0.1
20	220	1.7	1.1	1.3	297	2.2	2.0	-1.0	314	5.7	4.1	-4.0	295	9.2	8.3	-3.9	276	18.7	18.6	-2.1	267	23.5	23.5	1.1	279	8.5	8.4	-1.4
21	231	3.8	3.0	2.4	275	2.3	2.3	-0.2	311	5.7	4.3	-3.8	302	9.7	8.3	-5.1	279	18.0	17.8	-2.8	275	20.1	20.0	-1.7	177	5.0	-0.3	5.0
22	235	2.1	1.7	1.2	276	2.0	2.0	-0.2	305	5.9	4.8	-3.4	285	8.4	8.1	-2.1	288	18.8	17.8	-5.9	275	21.4	21.3	-1.7	283	12.0	11.7	-2.7
23	216	3.6	2.1	2.9	273	1.7	1.7	-0.1	293	6.1	5.6	-2.4	285	10.7	10.3	-2.8	280	19.9	19.6	-3.3	257	25.3	24.6	5.7	281	9.0	8.8	-1.7
24	225	3.1	2.2	2.2	262	2.1	2.1	0.3	303	5.7	4.8	-3.1	301	9.0	7.7	-4.6	279	18.4	18.2	-3.0	263	24.2	24.0	2.8	268	8.9	8.9	0.3
25	228	1.3	1.0	0.9	315	2.3	1.6	-1.6	297	5.1	4.5	-2.3	291	10.1	9.4	-3.7	268	20.3	20.3	0.6	261	26.2	25.9	4.1	261	14.4	14.2	2.3
26	242	3.4	3.0	1.6	285	3.1	3.0	-0.8	294	6.0	5.5	-2.4	279	9.5	9.4	-1.5	273	19.4	19.4	-1.1	273	28.4	28.4	-1.5	278	11.9	11.8	-1.6
27	228	3.1	2.3	2.1	281	2.6	2.6	-0.5	306	5.2	4.2	-3.1	290	8.9	8.4	-3.0	278	19.4	19.2	-2.8	273	23.6	23.6	-1.3	284	11.9	11.5	-2.9
28	222	1.5	1.0	1.1	317	1.8	1.2	-1.3	313	4.9	3.6	-3.3	293	6.9	6.4	-2.7	283	17.2	16.7	-4.0	276	22.0	21.9	-2.4	264	7.2	7.2	0.7
29	207	3.5	1.6	3.1	245	1.9	1.7	0.8	330	5.0	2.5	-4.3	304	7.8	6.5	-4.4	288	16.8	15.9	-5.3	274	20.7	20.6	-1.5	296	8.1	7.3	-3.5
30	215	4.2	2.4	3.4	270	2.3	2.3	0.0	321	5.7	3.6	-4.4	306	7.8	6.3	-4.6	297	15.1	13.5	-6.8	283	18.9	18.4	-4.4	306	3.4	2.8	-2.0
31	223	2.5	1.7	1.8	303	2.4	2.0	-1.3	317	4.8	3.3	-3.5	292	5.7	5.3	-2.1	277	17.2	17.1	-2.1	279	19.5	19.2	-3.2	281	11.2	11.0	-2.2

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	225	2.4	1.7	1.7	264	2.0	2.0	0.2	307	4.6	3.7	-2.8	299	8.1	7.1	-4.0	271	16.9	16.9	-0.4	267	19.5	19.5	1.1	288	5.8	5.5	-1.8
2	213	4.5	2.5	3.8	252	3.5	3.3	1.1	327	4.3	2.3	-3.6	279	7.3	7.2	-1.2	267	17.6	17.6	0.9	261	19.9	19.6	3.2	261	8.4	8.3	1.3
3	213	4.3	2.3	3.6	254	3.2	3.1	0.9	316	3.7	2.6	-2.7	284	7.4	7.2	-1.8	268	19.0	19.0	0.5	261	20.9	20.6	3.4	250	7.7	7.3	2.6
4	232	4.1	3.2	2.5	253	4.1	3.9	1.2	306	3.2	2.6	-1.9	275	9.4	9.4	-0.8	270	20.2	20.2	0.1	266	24.0	23.9	1.7	256	9.1	8.8	2.2
5	224	4.0	2.8	2.9	275	3.2	3.2	-0.3	325	2.9	1.7	-2.4	275	8.7	8.7	-0.8	273	21.4	21.4	-1.0	266	20.3	20.2	1.5	267	7.8	7.8	0.4
6	233	2.6	2.1	1.6	295	2.1	1.9	-0.9	310	4.0	3.1	-2.6	289	8.3	7.9	-2.7	277	17.7	17.6	-2.1	268	21.7	21.7	0.9	266	8.4	8.4	0.6
7	225	4.8	3.4	3.4	285	2.8	2.7	-0.7	325	4.7	2.7	-3.8	312	7.2	5.3	-4.8	284	16.1	15.6	-3.8	262	17.5	17.3	2.5	281	5.7	5.6	-1.1
8	235	3.5	2.9	2.0	272	3.1	3.1	-0.1	331	5.5	2.7	-4.8	297	7.8	7.0	-3.5	288	17.3	16.5	-5.3	265	19.1	19.0	1.6	280	9.1	9.0	-1.6
9	215	2.1	1.2	1.7	281	3.8	3.7	-0.7	315	4.7	3.3	-3.3	290	8.1	7.6	-2.7	278	19.9	19.7	-2.9	259	22.8	22.4	4.5	261	13.3	13.1	2.1
10	222	3.1	2.1	2.3	270	3.0	3.0	0.0	317	3.7	2.5	-2.7	299	6.8	5.9	-3.3	277	16.7	16.6	-1.9	268	18.9	18.9	0.6	273	6.6	6.6	-0.4
11	218	4.3	2.7	3.4	276	4.1	4.1	-0.4	311	4.1	3.1	-2.7	289	7.5	7.1	-2.5	271	16.7	16.7	-0.2	260	21.4	21.1	3.8	258	5.9	5.8	1.2
12	225	3.8	2.7	2.7	279	3.9	3.9	-0.6	312	4.3	3.2	-2.9	300	8.2	7.1	-4.1	288	17.0	16.2	-5.2	270	17.5	17.5	-0.1	262	4.3	4.3	0.6
13	227	4.9	3.6	3.3	267	4.5	4.5	0.2	325	3.9	2.2	-3.2	303	7.2	6.0	-3.9	272	15.0	15.0	-0.6	268	19.2	19.2	0.8	300	7.0	6.1	-3.5
14	233	4.8	3.8	2.9	270	3.4	3.4	0.0	339	4.7	1.7	-4.4	297	5.5	4.9	-2.5	270	17.4	17.4	0.0	261	22.1	21.8	3.4	255	9.7	9.4	2.5
15	229	2.8	2.1	1.8	276	2.7	2.7	-0.3	328	2.6	1.4	-2.2	289	6.7	6.3	-2.2	266	17.7	17.7	1.1	260	26.0	25.6	4.5	259	10.5	10.3	2.0
16	220	3.5	2.3	2.7	261	3.6	3.6	0.6	339	2.8	1.0	-2.6	280	5.4	5.3	-0.9	264	16.5	16.4	1.8	260	20.7	20.4	3.6	250	8.3	7.8	2.9
17	219	3.8	2.4	3.0	254	4.8	4.6	1.3	331	3.8	1.8	-3.3	288	7.9	7.5	-2.5	268	16.3	16.3	0.7	257	22.7	22.1	5.0	282	9.4	9.2	-2.0
18	215	4.2	2.4	3.4	256	3.6	3.5	0.9	325	3.5	2.0	-2.9	299	6.4	5.6	-3.1	259	16.1	15.8	3.1	260	20.0	19.7	3.3	214	3.0	1.7	2.5
19	222	3.8	2.5	2.8	263	3.1	3.1	0.4	342	3.8	1.2	-3.6	304	5.5	4.6	-3.1	255	15.8	15.2	4.2	253	18.6	17.8	5.5	301	2.9	2.5	-1.5
20	224	4.2	2.9	3.0	274	4.3	4.3	-0.3	336	3.5	1.4	-3.2	298	5.5	4.8	-2.6	270	14.7	14.7	0.1	252	22.3	21.2	7.0	253	5.6	5.4	1.6
21	227	5.0	3.6	3.4	268	5.1	5.1	0.2	340	4.7	1.6	-4.4	303	6.0	5.0	-3.3	262	16.0	15.9	2.1	252	23.3	22.2	7.2	232	4.6	3.6	2.8
22	219	5.8	3.6	4.5	275	4.7	4.7	-0.4	341	3.7	1.2	-3.5	293	4.3	4.0	-1.7	257	15.8	15.4	3.5	254	23.6	22.7	6.4	238	6.2	5.3	3.3
23	234	4.6	3.7	2.7	290	3.3	3.1	-1.1	335	3.5	1.5	-3.2	310	5.3	4.1	-3.4	278	17.4	17.2	-2.3	264	20.6	20.5	2.1	251	4.2	4.0	1.4
24	227	5.2	3.8	3.6	256	4.9	4.7	1.2	341	4.2	1.4	-4.0	282	7.0	6.8	-1.5	267	16.5	16.5	0.8	261	19.8	19.6	3.1	222	2.4	1.6	1.8
25	228	2.8	2.1	1.9	245	4.7	4.2	2.0	329	4.1	2.1	-3.5	304	7.2	6.0	-4.0	278	16.8	16.6	-2.3	263	16.5	16.4	2.0	262	8.5	8.4	1.2
26	235	5.5	4.5	3.1	265	4.4	4.4	0.4	355	4.6	0.4	-4.6	307	5.9	4.7	-3.5	269	17.3	17.3	0.2	252	18.5	17.6	5.6	189	3.0	0.5	3.0
27	217	4.1	2.5	3.3	264	4.9	4.9	0.5	357	4.3	0.2	-4.3	334	5.3	2.3	-4.8	276	14.7	14.6	-1.5	258	19.7	19.3	4.0	271	4.9	4.9	-0.1
28	242	3.8	3.4	1.8	272	4.8	4.8	-0.2	358	5.0	0.2	-5.0	332	5.9	2.8	-5.2	282	14.1	13.8	-3.0	260	16.2	15.9	2.9	308	3.4	2.7	-2.1
29	223	5.4	3.7	4.0	277	5.1	5.1	-0.6	339	5.3	1.9	-5.0	320	5.4	3.5	-4.1	285	12.0	11.6	-3.1	262	14.8	14.7	2.1	151	1.3	-0.6	1.1
30	232	3.9	3.1	2.4	273	5.3	5.3	-0.3	339	5.0	1.8	-4.7	333	7.0	3.2	-6.2	290	15.4	14.5	-5.2	264	11.6	11.5	1.3	69	1.7	-1.6	-0.6

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	252	5.2	4.9	1.6	265	3.5	3.5	0.3	342	3.8	1.2	-3.6	338	4.1	1.5	-3.8	293	9.9	9.1	-3.9	263	12.3	12.2	1.4	102	2.9	-2.8	0.6
2	233	4.3	3.4	2.6	275	3.7	3.7	-0.3	356	3.9	0.3	-3.9	319	4.5	3.0	-3.4	277	10.3	10.2	-1.3	254	12.6	12.1	3.5	157	3.8	-1.5	3.5
3	224	6.4	4.4	4.6	267	4.4	4.4	0.2	332	4.4	2.1	-3.9	318	4.6	3.1	-3.4	277	10.9	10.8	-1.4	268	11.2	11.2	0.4	153	4.2	-1.9	3.7
4	223	4.8	3.3	3.5	267	3.5	3.5	0.2	339	4.0	1.4	-3.7	313	5.2	3.8	-3.6	278	8.2	8.1	-1.2	261	10.4	10.3	1.7	247	2.8	2.6	1.1
5	219	4.4	2.8	3.4	277	4.7	4.7	-0.6	334	4.1	1.8	-3.7	307	5.0	4.0	-3.0	276	11.5	11.4	-1.1	261	13.2	13.0	2.1	183	2.2	0.1	2.2
6	246	1.7	1.6	0.7	280	4.0	3.9	-0.7	340	4.6	1.6	-4.3	305	4.0	3.3	-2.3	261	13.8	13.6	2.1	257	13.7	13.4	3.0	163	2.7	-0.8	2.6
7	233	4.6	3.7	2.8	274	5.3	5.3	-0.4	353	4.8	0.6	-4.8	305	3.7	3.0	-2.1	263	11.6	11.5	1.4	254	12.2	11.7	3.4	156	5.2	-2.1	4.8
8	249	5.0	4.7	1.8	260	4.8	4.7	0.8	11	3.7	-0.7	-3.6	306	2.6	2.1	-1.5	274	11.2	11.2	-0.7	243	13.8	12.3	6.3	134	3.3	-2.4	2.3
9	231	3.6	2.8	2.3	253	4.1	3.9	1.2	346	2.5	0.6	-2.4	323	3.1	1.9	-2.5	276	8.5	8.5	-0.9	258	10.2	10.0	2.2	108	2.3	-2.2	0.7
10	218	2.8	1.7	2.2	270	3.3	3.3	0.0	335	4.2	1.8	-3.8	300	3.6	3.1	-1.8	271	8.3	8.3	-0.1	249	11.6	10.8	4.1	54	4.4	-3.6	-2.6
11	242	4.5	4.0	2.1	266	4.0	4.0	0.3	298	2.7	2.4	-1.3	281	5.9	5.8	-1.1	261	11.7	11.5	1.9	243	12.2	10.8	5.6	232	3.3	2.6	2.0
12	239	4.5	3.9	2.3	261	4.4	4.3	0.7	325	4.2	2.4	-3.4	309	3.6	2.8	-2.3	261	11.1	11.0	1.7	243	12.3	11.0	5.6	115	5.4	-4.9	2.3
13	230	3.3	2.5	2.1	286	7.2	6.9	-2.0	348	3.5	0.7	-3.4	351	5.1	0.8	-5.0	277	9.8	9.7	-1.2	248	10.3	9.5	3.9	169	2.6	-0.5	2.6
14	247	4.8	4.4	1.9	283	4.5	4.4	-1.0	6	5.5	-0.6	-5.5	347	5.2	1.2	-5.1	272	7.1	7.1	-0.3	265	9.8	9.8	0.9	123	4.0	-3.4	2.2
15	232	4.8	3.8	3.0	263	3.8	3.8	0.5	1	5.2	-0.1	-5.2	356	4.4	0.3	-4.4	268	8.0	8.0	0.3	258	7.7	7.5	1.6	112	5.6	-5.2	2.1
16	221	4.3	2.8	3.2	268	4.6	4.6	0.2	337	5.2	2.0	-4.8	336	5.1	2.1	-4.7	265	6.3	6.3	0.5	240	7.3	6.3	3.6	100	7.5	-7.4	1.3
17	229	5.0	3.8	3.3	274	4.3	4.3	-0.3	348	5.3	1.1	-5.2	346	5.0	1.2	-4.9	273	7.9	7.9	-0.4	253	7.6	7.3	2.2	115	9.8	-8.9	4.1
18	241	5.0	4.4	2.4	278	5.8	5.7	-0.8	345	6.6	1.7	-6.4	338	6.1	2.3	-5.6	272	5.9	5.9	-0.2	245	7.0	6.3	3.0	106	7.5	-7.2	2.0
19	249	5.0	4.7	1.8	285	5.4	5.2	-1.4	341	6.2	2.0	-5.9	337	4.4	1.7	-4.1	297	5.4	4.8	-2.4	229	5.5	4.2	3.6	99	9.4	-9.3	1.4
20	264	4.9	4.9	0.5	294	4.8	4.4	-2.0	345	5.0	1.3	-4.8	325	3.8	2.2	-3.1	263	5.1	5.1	0.6	226	8.5	6.1	5.9	115	8.2	-7.4	3.5
21	246	4.2	3.8	1.7	281	4.6	4.5	-0.9	329	4.4	2.3	-3.8	334	3.4	1.5	-3.1	259	5.6	5.5	1.1	222	7.4	4.9	5.5	105	6.0	-5.8	1.5
22	246	3.5	3.2	1.4	293	4.3	4.0	-1.7	348	4.7	1.0	-4.6	352	2.9	0.4	-2.9	260	5.7	5.6	1.0	226	4.6	3.3	3.2	115	7.3	-6.6	3.1
23	249	4.0	3.7	1.4	285	4.7	4.5	-1.2	348	5.2	1.1	-5.1	360	3.5	0.0	-3.5	248	3.8	3.5	1.4	207	4.5	2.0	4.0	116	9.3	-8.3	4.1
24	225	4.5	3.2	3.2	276	4.5	4.5	-0.5	341	4.6	1.5	-4.4	356	5.4	0.4	-5.4	280	4.7	4.6	-0.8	210	4.8	2.4	4.1	106	7.8	-7.5	2.1
25	221	6.2	4.1	4.7	265	5.5	5.5	0.5	1	5.2	-0.1	-5.2	12	4.5	-0.9	-4.4	265	2.5	2.5	0.2	217	5.5	3.3	4.4	113	8.6	-7.9	3.3
26	220	4.5	2.9	3.5	271	4.8	4.8	-0.1	346	4.6	1.1	-4.5	20	5.3	-1.8	-5.0	276	1.0	1.0	-0.1	176	4.3	-0.3	4.3	118	11.5	-10.1	5.4
27	227	5.4	4.0	3.7	273	5.9	5.9	-0.3	352	4.8	0.7	-4.7	14	3.2	-0.8	-3.1	349	1.0	0.2	-1.0	145	3.2	-1.8	2.6	123	17.7	-14.9	9.6
28	229	5.7	4.3	3.8	272	6.9	6.9	-0.2	352	5.7	0.8	-5.6	360	2.4	0.0	-2.4	298	1.5	1.3	-0.7	174	4.4	-0.5	4.4	106	11.0	-10.6	3.1
29	227	6.0	4.4	4.1	280	5.5	5.4	-1.0	356	4.5	0.3	-4.5	16	3.7	-1.0	-3.6	254	1.9	1.8	0.5	179	4.5	-0.1	4.5	106	11.4	-10.9	3.2
30	244	4.6	4.1	2.0	274	6.5	6.5	-0.5	353	4.2	0.5	-4.2	6	2.9	-0.3	-2.9	270	1.9	1.9	0.0	182	4.9	0.2	4.9	113	10.8	-9.9	4.2
31	242	4.7	4.2	2.2	274	5.6	5.6	-0.4	360	2.1	0.0	-2.1	8	2.2	-0.3	-2.2	168	2.4	-0.5	2.3	176	5.7	-0.4	5.7	117	11.4	-10.2	5.1

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	246	4.4	4.0	1.8	282	3.8	3.7	-0.8	332	3.0	1.4	-2.6	4	2.6	-0.2	-2.6	203	3.3	1.3	3.0	169	7.1	-1.3	7.0	110	10.9	-10.2	3.8
2	268	5.0	5.0	0.2	283	4.9	4.8	-1.1	348	4.4	0.9	-4.3	9	2.5	-0.4	-2.5	168	1.9	-0.4	1.9	159	4.8	-1.7	4.5	109	12.8	-12.1	4.2
3	236	5.0	4.1	2.8	278	5.7	5.6	-0.8	346	3.8	0.9	-3.7	12	2.5	-0.5	-2.4	149	3.1	-1.6	2.7	153	5.7	-2.6	5.1	112	15.2	-14.1	5.7
4	227	3.5	2.6	2.4	266	4.7	4.7	0.3	357	3.8	0.2	-3.8	18	1.3	-0.4	-1.2	176	1.5	-0.1	1.5	151	4.1	-2.0	3.6	108	15.5	-14.7	4.9
5	226	3.6	2.6	2.5	268	4.7	4.7	0.2	18	2.9	-0.9	-2.8	45	1.3	-0.9	-0.9	171	1.9	-0.3	1.9	145	6.2	-3.6	5.1	110	14.0	-13.1	4.8
6	228	4.2	3.1	2.8	266	5.3	5.3	0.4	11	2.5	-0.5	-2.5	356	1.4	0.1	-1.4	114	3.0	-2.7	1.2	120	8.0	-6.9	4.0	103	16.4	-16.0	3.7
7	220	5.0	3.2	3.8	257	4.8	4.7	1.1	340	2.3	0.8	-2.2	54	0.9	-0.7	-0.5	111	2.8	-2.6	1.0	102	7.1	-6.9	1.5	106	15.8	-15.2	4.3
8	252	4.0	3.8	1.2	270	6.4	6.4	0.0	353	3.4	0.4	-3.4	38	2.3	-1.4	-1.8	88	3.2	-3.2	-0.1	98	7.9	-7.8	1.1	89	17.6	-17.6	-0.2
9	241	3.3	2.9	1.6	265	7.0	7.0	0.6	15	3.1	-0.8	-3.0	57	1.7	-1.4	-0.9	79	4.8	-4.7	-0.9	82	6.4	-6.3	-0.9	91	21.2	-21.2	0.3
10	243	5.9	5.2	2.7	274	8.9	8.9	-0.7	329	3.1	1.6	-2.7	360	2.6	0.0	-2.6	91	4.9	-4.9	0.1	97	9.9	-9.8	1.2	90	19.6	-19.6	-0.1
11	233	5.9	4.7	3.5	280	8.0	7.9	-1.4	351	3.6	0.6	-3.6	21	3.0	-1.1	-2.8	82	4.3	-4.3	-0.6	99	10.0	-9.9	1.5	96	19.9	-19.8	2.0
12	220	5.6	3.6	4.3	274	7.7	7.7	-0.5	330	3.6	1.8	-3.1	50	3.3	-2.5	-2.1	110	3.3	-3.1	1.1	97	9.4	-9.3	1.2	104	17.8	-17.3	4.3
13	224	3.2	2.2	2.3	282	6.3	6.2	-1.3	324	5.2	3.0	-4.2	39	3.3	-2.1	-2.6	89	5.2	-5.2	-0.1	87	9.9	-9.9	-0.5	92	20.0	-20.0	0.8
14	253	2.4	2.3	0.7	293	6.2	5.7	-2.4	32	3.8	-2.0	-3.2	67	5.9	-5.4	-2.3	99	6.6	-6.5	1.0	97	10.5	-10.4	1.2	100	19.6	-19.3	3.3
15	239	4.3	3.7	2.2	277	7.0	6.9	-0.9	347	2.8	0.6	-2.7	55	2.4	-2.0	-1.4	90	6.2	-6.2	0.0	88	9.5	-9.5	-0.4	100	20.3	-20.0	3.6
16	236	4.3	3.6	2.4	269	8.2	8.2	0.1	330	2.2	1.1	-1.9	75	1.6	-1.5	-0.4	82	7.5	-7.4	-1.0	89	13.7	-13.7	-0.2	86	22.8	-22.8	-1.4
17	228	3.0	2.2	2.0	275	7.9	7.9	-0.7	309	3.5	2.7	-2.2	24	2.2	-0.9	-2.0	111	5.8	-5.4	2.1	91	10.0	-10.0	0.1	104	18.8	-18.3	4.4
18	235	5.7	4.7	3.3	272	12.4	12.4	-0.4	275	8.8	8.8	-0.7	277	4.2	4.2	-0.5	105	5.5	-5.3	1.4	91	13.0	-13.0	0.3	92	20.8	-20.8	0.6
19	224	6.5	4.5	4.7	273	10.5	10.5	-0.6	286	8.6	8.3	-2.4	291	2.5	2.3	-0.9	75	4.3	-4.2	-1.1	85	9.8	-9.8	-0.9	92	22.4	-22.4	0.6
20	221	6.1	4.0	4.6	271	10.3	10.3	-0.1	290	6.4	6.0	-2.2	286	5.6	5.4	-1.5	83	2.6	-2.6	-0.3	94	12.5	-12.5	0.8	95	22.5	-22.4	2.0
21	244	6.4	5.7	2.8	293	9.6	8.8	-3.8	302	7.6	6.5	-4.0	302	4.9	4.1	-2.6	79	5.3	-5.2	-1.0	92	14.8	-14.8	0.6	98	24.9	-24.7	3.3
22	254	6.3	6.1	1.7	282	9.5	9.3	-1.9	315	6.8	4.8	-4.8	336	1.7	0.7	-1.6	94	5.5	-5.5	0.4	90	13.4	-13.4	0.1	102	22.7	-22.2	4.8
23	236	6.8	5.6	3.8	282	9.3	9.1	-1.9	298	6.7	5.9	-3.1	282	3.0	2.9	-0.6	108	6.8	-6.5	2.1	88	14.4	-14.4	-0.6	104	24.0	-23.3	5.6
24	239	6.3	5.4	3.2	285	11.0	10.6	-2.8	311	8.1	6.1	-5.3	310	3.4	2.6	-2.2	105	5.5	-5.3	1.4	94	14.7	-14.7	1.1	101	25.7	-25.2	5.1
25	235	5.5	4.5	3.1	286	9.9	9.5	-2.8	319	8.1	5.3	-6.1	324	2.7	1.6	-2.2	89	5.8	-5.8	-0.1	89	15.3	-15.3	-0.4	102	26.2	-25.6	5.5
26	243	5.9	5.2	2.7	281	10.2	10.0	-1.9	306	7.4	6.0	-4.3	341	2.1	0.7	-2.0	77	5.5	-5.4	-1.2	89	15.9	-15.9	-0.4	90	31.0	-31.0	0.2
27	240	5.6	4.8	2.8	276	9.6	9.5	-1.0	297	7.9	7.0	-3.6	311	3.2	2.4	-2.1	105	8.7	-8.4	2.2	92	16.5	-16.5	0.5	96	27.8	-27.7	2.7
28	233	5.3	4.2	3.2	278	9.0	8.9	-1.3	290	7.5	7.0	-2.6	90	0.8	-0.8	0.0	109	7.5	-7.1	2.4	98	17.3	-17.1	2.4	86	28.2	-28.1	-2.0
29	232	5.5	4.3	3.4	272	10.0	10.0	-0.3	282	6.0	5.9	-1.3	270	0.3	0.3	0.0	99	9.2	-9.1	1.5	89	16.8	-16.8	-0.3	92	29.9	-29.9	1.0
30	230	5.1	3.9	3.3	276	8.2	8.2	-0.9	296	4.9	4.4	-2.1	349	1.0	0.2	-1.0	98	7.6	-7.5	1.0	90	15.5	-15.5	-0.1	99	29.2	-28.9	4.5

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	240	5.4	4.7	2.7	279	8.2	8.1	-1.3	297	4.2	3.8	-1.9	259	1.6	1.6	0.3	79	6.7	-6.6	-1.3	91	17.6	-17.6	0.4	95	26.1	-26.0	2.5
2	235	4.9	4.0	2.8	276	8.5	8.5	-0.9	299	4.1	3.6	-2.0	318	1.3	0.9	-1.0	95	7.2	-7.2	0.6	90	18.2	-18.2	-0.1	95	28.0	-27.9	2.2
3	219	4.0	2.5	3.1	273	8.7	8.7	-0.4	303	5.1	4.3	-2.8	270	2.0	2.0	0.0	108	7.1	-6.8	2.2	92	19.1	-19.1	0.7	91	32.3	-32.3	0.6
4	235	3.9	3.2	2.2	276	9.2	9.1	-1.0	294	5.1	4.7	-2.1	302	0.9	0.8	-0.5	115	7.2	-6.5	3.0	94	18.7	-18.7	1.3	87	30.6	-30.6	-1.7
5	225	4.0	2.8	2.8	269	8.8	8.8	0.1	293	6.1	5.6	-2.4	324	1.4	0.8	-1.1	96	8.3	-8.3	0.9	93	18.4	-18.4	0.9	93	33.3	-33.3	1.8
6	235	4.7	3.9	2.7	278	9.6	9.5	-1.4	293	6.3	5.8	-2.5	264	1.0	1.0	0.1	89	8.5	-8.5	-0.2	82	17.1	-16.9	-2.5	90	30.5	-30.5	0.0
7	235	4.5	3.7	2.6	282	8.9	8.7	-1.8	292	5.4	5.0	-2.0	330	1.6	0.8	-1.4	91	8.9	-8.9	0.2	92	19.9	-19.9	0.8	96	27.4	-27.3	2.8
8	253	6.1	5.8	1.8	271	10.2	10.2	-0.1	291	7.6	7.1	-2.7	281	0.5	0.5	-0.1	102	9.3	-9.1	1.9	91	17.3	-17.3	0.3	86	33.5	-33.4	-2.6
9	239	6.6	5.7	3.4	276	8.9	8.9	-0.9	290	6.6	6.2	-2.3	13	0.9	-0.2	-0.9	94	7.8	-7.8	0.6	90	17.1	-17.1	0.1	96	30.4	-30.2	3.2
10	235	6.0	4.9	3.4	284	8.1	7.9	-1.9	289	5.2	4.9	-1.7	7	1.6	-0.2	-1.6	95	8.7	-8.7	0.7	91	21.2	-21.2	0.3	85	34.0	-33.9	-3.1
11	239	5.8	5.0	3.0	285	8.6	8.3	-2.3	309	5.1	4.0	-3.2	342	0.6	0.2	-0.6	98	7.9	-7.8	1.1	84	19.4	-19.3	-2.0	89	29.8	-29.8	-0.6
12	234	5.2	4.2	3.1	275	8.1	8.1	-0.7	290	5.6	5.3	-1.9	241	1.0	0.9	0.5	98	9.3	-9.2	1.3	91	17.7	-17.7	0.4	87	30.5	-30.5	-1.6
13	242	6.7	5.9	3.1	277	9.6	9.5	-1.2	293	6.5	6.0	-2.6	135	0.3	-0.2	0.2	97	8.8	-8.7	1.0	89	19.1	-19.1	-0.2	91	29.2	-29.2	0.6
14	245	5.5	5.0	2.3	275	8.6	8.6	-0.8	289	5.8	5.5	-1.9	41	0.9	-0.6	-0.7	104	10.9	-10.6	2.7	84	21.1	-21.0	-2.1	92	30.4	-30.4	1.1
15	241	5.1	4.5	2.5	282	8.2	8.0	-1.7	301	6.9	5.9	-3.5	68	1.6	-1.5	-0.6	100	8.5	-8.4	1.5	86	17.2	-17.2	-1.3	90	30.2	-30.2	0.2
16	241	5.5	4.8	2.7	285	8.5	8.2	-2.2	296	5.7	5.1	-2.5	96	1.9	-1.9	0.2	98	11.6	-11.5	1.7	94	20.2	-20.2	1.3	99	27.3	-26.9	4.4
17	234	4.8	3.9	2.8	281	8.8	8.6	-1.7	282	5.4	5.3	-1.1	87	2.0	-2.0	-0.1	99	11.3	-11.2	1.8	89	20.6	-20.6	-0.2	84	33.8	-33.6	-3.4
18	231	5.0	3.9	3.2	280	8.8	8.7	-1.5	294	5.5	5.0	-2.2	45	0.3	-0.2	-0.2	95	7.7	-7.7	0.7	89	19.5	-19.5	-0.5	83	32.4	-32.2	-4.0
19	241	4.6	4.0	2.2	276	10.4	10.3	-1.1	287	7.0	6.7	-2.0	210	0.8	0.4	0.7	96	8.6	-8.6	0.9	86	19.5	-19.5	-1.3	87	27.4	-27.4	-1.5
20	237	6.2	5.2	3.4	283	11.1	10.8	-2.5	290	7.8	7.3	-2.7	320	3.0	1.9	-2.3	98	10.4	-10.3	1.4	85	18.5	-18.4	-1.7	92	32.0	-32.0	1.0
21	241	6.4	5.6	3.1	285	9.8	9.5	-2.5	298	8.0	7.1	-3.7	270	1.6	1.6	0.0	99	7.0	-6.9	1.1	90	14.1	-14.1	0.0	88	31.7	-31.7	-0.9
22	251	5.9	5.6	1.9	283	9.2	9.0	-2.1	299	6.8	5.9	-3.3	328	1.3	0.7	-1.1	96	9.6	-9.5	1.0	82	20.4	-20.2	-2.7	87	24.1	-24.1	-1.1
23	243	5.3	4.7	2.4	280	8.8	8.7	-1.5	296	6.4	5.7	-2.8	315	1.3	0.9	-0.9	102	8.9	-8.7	1.8	86	16.6	-16.6	-1.1	91	24.3	-24.3	0.4
24	234	5.3	4.3	3.1	268	10.0	10.0	0.3	274	7.5	7.5	-0.5	219	3.8	2.4	3.0	99	8.1	-8.0	1.2	81	17.5	-17.3	-2.8	82	29.0	-28.8	-3.8
25	247	5.1	4.7	2.0	275	9.2	9.2	-0.8	283	7.4	7.2	-1.7	225	0.8	0.6	0.6	100	6.7	-6.6	1.2	91	15.9	-15.9	0.3	92	25.7	-25.7	0.7
26	259	6.0	5.9	1.2	286	11.2	10.8	-3.0	290	8.8	8.3	-3.0	317	4.0	2.7	-2.9	80	7.4	-7.3	-1.3	91	16.7	-16.7	0.4	92	32.8	-32.8	1.3
27	246	5.7	5.2	2.3	288	9.9	9.4	-3.1	284	7.6	7.4	-1.9	295	2.9	2.6	-1.2	88	7.0	-7.0	-0.2	95	18.3	-18.2	1.6	92	28.8	-28.8	0.9
28	266	5.3	5.3	0.4	297	10.1	9.0	-4.5	287	9.4	9.0	-2.8	286	1.9	1.8	-0.5	98	6.1	-6.0	0.8	74	16.7	-16.0	-4.7	88	27.9	-27.9	-0.9
29	246	4.2	3.8	1.7	287	10.2	9.8	-3.0	283	7.7	7.5	-1.8	282	4.2	4.1	-0.9	97	8.4	-8.3	1.0	95	19.1	-19.0	1.7	97	29.8	-29.6	3.6
30	241	4.5	3.9	2.2	282	8.9	8.7	-1.9	281	6.6	6.5	-1.3	250	3.0	2.8	1.0	88	7.3	-7.3	-0.3	90	17.5	-17.5	0.1	92	31.1	-31.1	1.3
31	251	4.6	4.4	1.5	285	8.3	8.0	-2.1	291	6.7	6.3	-2.4	268	2.3	2.3	0.1	91	7.8	-7.8	0.1	96	18.1	-18.0	1.9	90	32.7	-32.7	-0.2

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	258	4.7	4.6	1.0	291	9.8	9.2	-3.5	307	4.8	3.8	-2.9	45	1.3	-0.9	-0.9	104	10.6	-10.3	2.6	93	17.3	-17.3	1.0	93	31.3	-31.3	1.4
2	244	4.9	4.4	2.1	283	8.4	8.2	-1.9	284	6.9	6.7	-1.7	342	1.3	0.4	-1.2	109	6.8	-6.4	2.2	94	13.7	-13.7	0.9	91	27.7	-27.7	0.3
3	240	4.4	3.8	2.2	290	8.5	8.0	-2.9	295	6.2	5.6	-2.6	252	1.9	1.8	0.6	109	9.4	-8.9	3.0	88	18.8	-18.8	-0.8	91	28.6	-28.6	0.4
4	239	5.1	4.4	2.6	283	8.3	8.1	-1.8	300	6.2	5.4	-3.1	291	3.4	3.2	-1.2	99	7.8	-7.7	1.2	90	15.4	-15.4	-0.1	100	26.6	-26.2	4.6
5	250	5.9	5.5	2.0	291	8.7	8.1	-3.1	304	7.0	5.8	-3.9	6	1.8	-0.2	-1.8	81	6.9	-6.8	-1.1	84	15.9	-15.8	-1.7	92	26.2	-26.2	0.7
6	251	5.7	5.4	1.9	292	9.2	8.6	-3.4	308	6.1	4.8	-3.8	340	2.0	0.7	-1.9	83	6.7	-6.7	-0.8	84	15.3	-15.2	-1.6	88	26.2	-26.2	-0.8
7	249	5.1	4.8	1.8	281	8.4	8.2	-1.6	295	5.5	5.0	-2.3	360	0.9	0.0	-0.9	94	6.1	-6.1	0.4	89	14.7	-14.7	-0.3	96	26.8	-26.6	3.0
8	265	6.4	6.4	0.6	292	8.0	7.4	-3.0	299	5.5	4.8	-2.7	130	1.7	-1.3	1.1	96	10.7	-10.6	1.1	91	19.6	-19.6	0.4	96	28.7	-28.5	3.0
9	263	4.3	4.3	0.5	288	7.9	7.5	-2.5	292	5.7	5.3	-2.1	146	1.4	-0.8	1.2	113	8.7	-8.0	3.4	91	18.5	-18.5	0.3	90	27.0	-27.0	0.1
10	259	2.5	2.5	0.5	291	6.0	5.6	-2.1	275	3.5	3.5	-0.3	141	1.3	-0.8	1.0	106	9.0	-8.6	2.5	92	18.8	-18.8	0.6	94	28.3	-28.2	1.8
11	236	6.0	5.0	3.4	283	6.9	6.7	-1.5	282	4.7	4.6	-1.0	153	0.2	-0.1	0.2	104	9.2	-8.9	2.3	93	21.6	-21.6	1.0	91	25.9	-25.9	0.5
12	243	6.3	5.6	2.8	288	8.0	7.6	-2.5	310	6.1	4.7	-3.9	35	1.2	-0.7	-1.0	102	8.8	-8.6	1.9	92	19.4	-19.4	0.6	97	28.8	-28.6	3.3
13	233	5.8	4.6	3.5	298	7.8	6.9	-3.7	317	6.0	4.1	-4.4	6	1.0	-0.1	-1.0	97	6.7	-6.7	0.8	92	16.8	-16.8	0.6	90	25.7	-25.7	0.1
14	259	5.3	5.2	1.0	296	8.5	7.6	-3.7	309	5.1	4.0	-3.2	30	2.8	-1.4	-2.4	97	9.5	-9.4	1.1	93	16.1	-16.1	0.9	103	29.4	-28.6	6.6
15	251	5.0	4.7	1.6	299	8.2	7.2	-4.0	305	5.5	4.5	-3.1	347	4.0	0.9	-3.9	99	9.1	-9.0	1.5	89	17.8	-17.8	-0.3	91	28.9	-28.9	0.7
16	254	6.1	5.9	1.7	288	9.6	9.1	-2.9	293	6.5	6.0	-2.5	240	0.8	0.7	0.4	93	10.9	-10.9	0.5	81	19.3	-19.1	-3.1	96	28.1	-27.9	3.0
17	258	5.6	5.5	1.2	288	8.1	7.7	-2.5	295	6.1	5.5	-2.6	47	2.2	-1.6	-1.5	106	6.6	-6.4	1.8	91	17.7	-17.7	0.3	85	31.4	-31.3	-2.6
18	257	5.7	5.6	1.3	284	9.2	8.9	-2.3	287	6.2	5.9	-1.8	349	1.6	0.3	-1.6	88	7.0	-7.0	-0.2	94	18.7	-18.7	1.3	94	26.8	-26.7	1.7
19	245	5.4	4.9	2.3	278	9.4	9.3	-1.3	294	6.8	6.2	-2.8	305	1.2	1.0	-0.7	107	7.5	-7.2	2.2	93	18.1	-18.1	0.9	96	26.2	-26.0	2.9
20	245	7.2	6.5	3.1	274	7.5	7.5	-0.5	290	5.4	5.1	-1.9	90	1.7	-1.7	0.0	92	10.5	-10.5	0.4	91	17.3	-17.3	0.3	94	27.3	-27.2	2.1
21	269	4.5	4.5	0.1	302	7.5	6.3	-4.0	322	5.2	3.2	-4.1	66	2.4	-2.2	-1.0	99	10.5	-10.4	1.6	96	21.9	-21.8	2.2	93	37.2	-37.1	2.2
22	266	3.2	3.2	0.2	300	7.0	6.1	-3.5	321	4.6	2.9	-3.6	90	1.4	-1.4	0.0	100	9.2	-9.1	1.6	92	20.5	-20.5	0.7	94	25.6	-25.5	1.8
23	253	2.1	2.0	0.6	305	6.1	5.0	-3.5	314	3.7	2.7	-2.6	270	0.4	0.4	0.0	108	9.5	-9.0	3.0	83	19.5	-19.4	-2.3	90	31.9	-31.9	0.1
24	234	1.4	1.1	0.8	286	7.1	6.8	-2.0	276	3.7	3.7	-0.4	184	1.4	0.1	1.4	112	7.3	-6.8	2.7	91	18.3	-18.3	0.3	79	20.2	-19.8	-3.8
25	276	2.0	2.0	-0.2	302	7.4	6.3	-3.9	287	5.2	5.0	-1.5	259	1.6	1.6	0.3	94	7.9	-7.9	0.6	95	18.7	-18.6	1.5	95	25.3	-25.2	2.4
26	279	3.6	3.6	-0.6	294	7.3	6.7	-3.0	298	4.7	4.1	-2.2	352	1.4	0.2	-1.4	94	9.2	-9.2	0.7	91	18.3	-18.3	0.2	94	29.4	-29.3	1.9
27	259	3.3	3.2	0.6	297	7.2	6.4	-3.2	314	6.2	4.4	-4.3	328	2.5	1.3	-2.1	106	8.1	-7.8	2.2	96	16.3	-16.2	1.7	103	23.8	-23.2	5.5
28	257	4.5	4.4	1.0	297	7.4	6.6	-3.3	315	5.4	3.8	-3.8	352	1.4	0.2	-1.4	98	8.6	-8.5	1.2	92	16.5	-16.5	0.5	100	23.7	-23.3	4.1
29	258	4.7	4.6	1.0	302	8.8	7.4	-4.7	306	6.0	4.9	-3.5	49	1.1	-0.8	-0.7	91	8.1	-8.1	0.1	99	18.2	-18.0	2.8	96	25.1	-25.0	2.7
30	266	4.5	4.5	0.3	302	7.4	6.3	-3.9	301	5.8	5.0	-3.0	94	1.4	-1.4	0.1	108	9.6	-9.1	2.9	102	18.4	-18.0	3.7	96	25.7	-25.5	2.9
31	265	4.7	4.7	0.4	293	7.3	6.7	-2.9	294	5.5	5.0	-2.2	66	2.0	-1.8	-0.8	99	8.9	-8.8	1.4	100	17.9	-17.6	3.2	95	25.0	-24.9	2.3

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	274	3.1	3.1	-0.2	291	6.1	5.7	-2.2	301	4.9	4.2	-2.5	80	1.1	-1.1	-0.2	104	8.1	-7.9	2.0	103	18.6	-18.1	4.1	103	25.6	-25.0	5.7
2	240	5.1	4.4	2.5	286	5.9	5.7	-1.6	308	4.7	3.7	-2.9	27	0.4	-0.2	-0.4	97	8.1	-8.0	1.0	92	16.6	-16.6	0.6	98	24.8	-24.6	3.5
3	256	4.4	4.3	1.1	293	6.9	6.3	-2.7	302	5.7	4.8	-3.0	104	0.4	-0.4	0.1	105	8.6	-8.3	2.2	93	18.0	-18.0	1.1	101	28.4	-27.9	5.3
4	264	4.8	4.8	0.5	296	6.7	6.0	-2.9	300	4.0	3.5	-2.0	225	1.1	0.8	0.8	102	7.8	-7.6	1.6	91	16.5	-16.5	0.4	98	26.1	-25.8	3.7
5	243	4.2	3.7	1.9	292	7.0	6.5	-2.6	293	5.4	5.0	-2.1	317	1.8	1.2	-1.3	104	7.9	-7.7	1.9	97	16.6	-16.5	2.0	97	24.4	-24.2	3.1
6	233	4.8	3.8	2.9	285	6.7	6.5	-1.7	286	5.8	5.6	-1.6	265	1.2	1.2	0.1	109	5.0	-4.7	1.6	92	14.5	-14.5	0.5	98	23.2	-23.0	3.1
7	255	5.6	5.4	1.4	295	6.8	6.1	-2.9	298	4.1	3.6	-1.9	322	1.1	0.7	-0.9	100	7.6	-7.5	1.3	97	14.5	-14.4	1.8	96	18.1	-18.0	1.9
8	248	3.7	3.4	1.4	313	5.0	3.6	-3.4	315	3.7	2.6	-2.6	85	1.2	-1.2	-0.1	108	7.3	-6.9	2.3	93	13.1	-13.1	0.6	102	22.3	-21.8	4.8
9	256	3.4	3.3	0.8	320	5.4	3.5	-4.1	328	3.2	1.7	-2.7	86	1.5	-1.5	-0.1	101	7.4	-7.3	1.4	101	14.2	-13.9	2.8	105	20.2	-19.5	5.3
10	259	3.3	3.2	0.6	331	4.5	2.2	-3.9	349	3.3	0.6	-3.2	72	1.3	-1.2	-0.4	101	6.1	-6.0	1.2	95	15.0	-15.0	1.2	100	23.2	-22.9	3.9
11	247	2.8	2.6	1.1	307	3.0	2.4	-1.8	333	2.0	0.9	-1.8	147	1.7	-0.9	1.4	109	6.9	-6.5	2.3	94	12.9	-12.9	0.9	101	18.0	-17.7	3.3
12	251	2.8	2.6	0.9	268	3.4	3.4	0.1	295	2.9	2.6	-1.2	222	1.2	0.8	0.9	125	5.1	-4.2	2.9	88	12.7	-12.7	-0.5	105	19.0	-18.4	4.8
13	249	3.6	3.4	1.3	296	4.3	3.9	-1.9	303	3.5	2.9	-1.9	231	0.6	0.5	0.4	105	5.4	-5.2	1.4	102	13.2	-12.9	2.8	107	17.1	-16.4	5.0
14	232	3.3	2.6	2.0	292	3.7	3.4	-1.4	310	2.5	1.9	-1.6	252	0.9	0.9	0.3	110	5.0	-4.7	1.7	92	10.9	-10.9	0.3	97	16.7	-16.6	2.1
15	241	4.8	4.2	2.3	292	4.6	4.3	-1.7	302	4.7	4.0	-2.5	211	1.2	0.6	1.0	123	3.8	-3.2	2.1	99	11.2	-11.1	1.7	102	17.1	-16.7	3.6
16	243	2.9	2.6	1.3	298	3.2	2.8	-1.5	306	3.7	3.0	-2.2	53	1.0	-0.8	-0.6	94	4.4	-4.4	0.3	104	11.3	-10.9	2.8	102	18.8	-18.4	4.0
17	255	3.4	3.3	0.9	302	2.8	2.4	-1.5	325	2.4	1.4	-2.0	74	1.5	-1.4	-0.4	120	5.9	-5.1	3.0	101	9.9	-9.7	1.8	106	16.3	-15.6	4.6
18	255	3.4	3.3	0.9	311	3.0	2.3	-2.0	342	2.9	0.9	-2.8	225	0.1	0.1	0.1	113	5.4	-5.0	2.1	105	11.0	-10.6	2.9	97	17.1	-17.0	2.1
19	293	3.3	3.0	-1.3	332	2.4	1.1	-2.1	329	2.3	1.2	-2.0	144	1.7	-1.0	1.4	105	5.7	-5.5	1.5	102	10.7	-10.5	2.2	106	17.3	-16.6	4.8
20	301	3.1	2.7	-1.6	345	2.3	0.6	-2.2	6	2.0	-0.2	-2.0	106	3.2	-3.1	0.9	117	5.9	-5.3	2.7	106	11.1	-10.7	3.0	98	15.7	-15.6	2.1
21	315	1.8	1.3	-1.3	351	2.5	0.4	-2.5	39	2.1	-1.3	-1.6	106	2.6	-2.5	0.7	118	5.1	-4.5	2.4	114	10.9	-10.0	4.4	99	14.5	-14.3	2.3
22	281	0.5	0.5	-0.1	37	1.5	-0.9	-1.2	47	1.6	-1.2	-1.1	102	4.4	-4.3	0.9	108	6.2	-5.9	1.9	113	9.9	-9.1	3.8	112	17.4	-16.2	6.4
23	321	1.9	1.2	-1.5	236	0.4	0.3	0.2	140	0.8	-0.5	0.6	123	3.1	-2.6	1.7	92	5.7	-5.7	0.2	112	7.4	-6.8	2.8	95	17.8	-17.7	1.6
24	256	1.2	1.2	0.3	219	0.6	0.4	0.5	53	1.0	-0.8	-0.6	108	3.8	-3.6	1.2	110	5.6	-5.3	1.9	104	7.9	-7.7	1.9	110	13.2	-12.4	4.6
25	293	1.3	1.2	-0.5	4	1.5	-0.1	-1.5	16	1.9	-0.5	-1.8	61	3.1	-2.7	-1.5	116	4.1	-3.7	1.8	120	7.4	-6.4	3.7	99	11.6	-11.5	1.8
26	251	3.1	2.9	1.0	326	2.2	1.2	-1.8	352	3.5	0.5	-3.5	13	1.3	-0.3	-1.3	93	3.9	-3.9	0.2	108	7.9	-7.5	2.4	97	11.5	-11.4	1.4
27	275	2.1	2.1	-0.2	293	2.1	1.9	-0.8	327	1.7	0.9	-1.4	18	0.6	-0.2	-0.6	128	3.6	-2.8	2.2	105	6.5	-6.3	1.7	104	12.0	-11.6	2.9
28	190	1.1	0.2	1.1	318	1.2	0.8	-0.9	352	1.4	0.2	-1.4	107	1.4	-1.3	0.4	116	4.6	-4.1	2.0	111	6.5	-6.1	2.3	107	14.0	-13.4	4.2
29	69	0.9	-0.8	-0.3	360	0.2	0.0	-0.2	25	1.7	-0.7	-1.5	86	1.3	-1.3	-0.1	117	4.0	-3.6	1.8	109	7.1	-6.7	2.3	108	13.2	-12.6	4.0
30	93	2.0	-2.0	0.1	68	2.4	-2.2	-0.9	52	3.3	-2.6	-2.0	92	2.8	-2.8	0.1	125	4.9	-4.0	2.8	112	7.3	-6.8	2.7	105	13.6	-13.1	3.5

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	236	0.4	0.3	0.2	49	2.8	-2.1	-1.8	39	2.7	-1.7	-2.1	96	3.1	-3.1	0.3	125	4.5	-3.7	2.6	124	5.5	-4.6	3.1	108	11.4	-10.9	3.5
2	315	0.6	0.4	-0.4	67	2.5	-2.3	-1.0	62	1.7	-1.5	-0.8	135	2.8	-2.0	2.0	149	2.9	-1.5	2.5	147	4.8	-2.6	4.0	111	9.4	-8.8	3.3
3	243	0.2	0.2	0.1	47	2.3	-1.7	-1.6	59	2.6	-2.2	-1.3	111	2.2	-2.1	0.8	147	2.7	-1.5	2.3	147	3.7	-2.0	3.1	100	11.2	-11.0	2.0
4	333	1.3	0.6	-1.2	71	1.8	-1.7	-0.6	61	1.3	-1.1	-0.6	173	2.3	-0.3	2.3	151	3.5	-1.7	3.1	129	4.8	-3.7	3.0	116	10.3	-9.3	4.5
5	49	1.1	-0.8	-0.7	83	2.5	-2.5	-0.3	52	1.1	-0.9	-0.7	142	1.8	-1.1	1.4	149	2.7	-1.4	2.3	157	3.4	-1.3	3.1	112	11.5	-10.7	4.3
6	72	1.9	-1.8	-0.6	114	1.7	-1.6	0.7	49	1.1	-0.8	-0.7	144	1.9	-1.1	1.5	182	2.9	0.1	2.9	157	4.9	-1.9	4.5	105	10.2	-9.8	2.7
7	120	0.8	-0.7	0.4	99	1.2	-1.2	0.2	135	0.8	-0.6	0.6	147	2.7	-1.5	2.3	183	3.7	0.2	3.7	147	3.7	-2.0	3.1	108	8.2	-7.8	2.6
8	90	0.7	-0.7	0.0	110	1.5	-1.4	0.5	62	2.7	-2.4	-1.3	108	1.3	-1.2	0.4	209	2.3	1.1	2.0	166	3.0	-0.7	2.9	114	8.2	-7.5	3.3
9	47	3.5	-2.6	-2.4	76	2.9	-2.8	-0.7	51	1.3	-1.0	-0.8	170	1.1	-0.2	1.1	188	2.1	0.3	2.1	196	3.7	1.0	3.6	115	8.4	-7.6	3.5
10	63	2.8	-2.5	-1.3	65	1.9	-1.7	-0.8	58	2.2	-1.9	-1.2	83	1.6	-1.6	-0.2	207	1.3	0.6	1.2	178	3.8	-0.1	3.8	126	3.1	-2.5	1.8
11	58	1.5	-1.3	-0.8	37	2.5	-1.5	-2.0	360	2.3	0.0	-2.3	90	1.3	-1.3	0.0	180	1.5	0.0	1.5	180	1.4	0.0	1.4	107	6.4	-6.1	1.9
12	114	1.0	-0.9	0.4	76	1.2	-1.2	-0.3	53	1.5	-1.2	-0.9	114	1.7	-1.6	0.7	219	3.3	2.1	2.6	240	1.6	1.4	0.8	98	5.8	-5.7	0.8
13	63	0.4	-0.4	-0.2	60	3.0	-2.6	-1.5	39	3.2	-2.0	-2.5	119	1.8	-1.6	0.9	233	2.0	1.6	1.2	185	3.8	0.3	3.8	112	5.9	-5.5	2.2
14	29	1.0	-0.5	-0.9	43	3.7	-2.5	-2.7	25	1.4	-0.6	-1.3	21	0.9	-0.3	-0.8	223	2.1	1.4	1.5	196	5.9	1.6	5.7	110	6.1	-5.7	2.1
15	70	2.7	-2.5	-0.9	56	4.1	-3.4	-2.3	39	2.8	-1.8	-2.2	81	0.6	-0.6	-0.1	229	4.1	3.1	2.7	209	8.4	4.1	7.3	119	7.0	-6.1	3.4
16	55	3.2	-2.6	-1.8	77	4.5	-4.4	-1.0	55	1.9	-1.6	-1.1	117	1.6	-1.4	0.7	187	1.7	0.2	1.7	186	5.9	0.6	5.9	126	5.2	-4.2	3.0
17	42	2.7	-1.8	-2.0	50	3.0	-2.3	-1.9	60	1.6	-1.4	-0.8	158	1.6	-0.6	1.5	208	2.1	1.0	1.9	178	5.3	-0.2	5.3	96	4.4	-4.4	0.5
18	45	2.7	-1.9	-1.9	71	3.9	-3.7	-1.3	47	2.5	-1.8	-1.7	338	0.5	0.2	-0.5	236	2.9	2.4	1.6	195	6.6	1.7	6.4	137	5.2	-3.5	3.8
19	61	2.3	-2.0	-1.1	81	1.9	-1.9	-0.3	57	1.7	-1.4	-0.9	213	1.7	0.9	1.4	230	4.8	3.7	3.1	218	7.4	4.6	5.8	146	6.5	-3.6	5.4
20	29	1.0	-0.5	-0.9	62	1.5	-1.3	-0.7	65	1.4	-1.3	-0.6	218	2.8	1.7	2.2	230	3.9	3.0	2.5	229	6.1	4.6	4.0	99	3.1	-3.1	0.5
21	37	1.5	-0.9	-1.2	55	2.9	-2.4	-1.7	315	0.4	0.3	-0.3	238	1.9	1.6	1.0	250	3.3	3.1	1.1	226	5.5	4.0	3.8	124	4.3	-3.6	2.4
22	41	0.9	-0.6	-0.7	59	2.3	-2.0	-1.2	347	2.6	0.6	-2.5	278	2.7	2.7	-0.4	253	4.1	3.9	1.2	227	6.9	5.1	4.7	163	3.7	-1.1	3.5
23	180	0.6	0.0	0.6	65	2.3	-2.1	-1.0	349	1.5	0.3	-1.5	233	2.1	1.7	1.3	260	7.0	6.9	1.2	230	6.5	5.0	4.2	140	4.3	-2.8	3.3
24	62	1.5	-1.3	-0.7	45	2.7	-1.9	-1.9	60	0.8	-0.7	-0.4	281	1.6	1.6	-0.3	274	6.6	6.6	-0.5	255	8.2	7.9	2.1	122	4.1	-3.5	2.2
25	69	2.2	-2.1	-0.8	59	2.6	-2.2	-1.3	15	2.0	-0.5	-1.9	291	2.2	2.1	-0.8	264	5.7	5.7	0.6	256	6.8	6.6	1.7	127	6.8	-5.4	4.1
26	58	1.9	-1.6	-1.0	57	2.7	-2.3	-1.5	21	3.1	-1.1	-2.9	303	3.5	2.9	-1.9	270	7.0	7.0	0.0	240	9.7	8.4	4.8	153	4.2	-1.9	3.7
27	45	2.4	-1.7	-1.7	64	2.8	-2.5	-1.2	15	2.0	-0.5	-1.9	315	1.0	0.7	-0.7	257	7.6	7.4	1.7	243	9.6	8.6	4.3	88	2.5	-2.5	-0.1
28	61	1.8	-1.6	-0.9	59	3.1	-2.7	-1.6	42	1.2	-0.8	-0.9	264	1.9	1.9	0.2	261	6.8	6.7	1.1	226	10.7	7.7	7.5	193	1.8	0.4	1.8
29	34	2.5	-1.4	-2.1	60	3.0	-2.6	-1.5	3	1.7	-0.1	-1.7	264	3.1	3.1	0.3	255	6.9	6.7	1.8	233	10.1	8.1	6.0	209	4.8	2.3	4.2
30	42	3.1	-2.1	-2.3	55	3.3	-2.7	-1.9	86	1.3	-1.3	-0.1	299	1.3	1.1	-0.6	269	9.0	9.0	0.1	238	11.0	9.3	5.8	227	1.6	1.2	1.1
31	48	4.2	-3.1	-2.8	69	4.8	-4.5	-1.7	93	2.0	-2.0	0.1	261	0.6	0.6	0.1	250	8.6	8.1	2.9	235	11.1	9.1	6.3	135	1.4	-1.0	1.0

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	62	3.8	-3.4	-1.8	67	5.2	-4.8	-2.0	117	0.9	-0.8	0.4	250	2.0	1.9	0.7	260	9.1	9.0	1.6	239	11.8	10.1	6.1	249	2.2	2.1	0.8
2	54	3.7	-3.0	-2.2	78	5.2	-5.1	-1.1	84	1.0	-1.0	-0.1	302	1.3	1.1	-0.7	259	8.9	8.7	1.7	244	11.0	9.9	4.9	207	2.0	0.9	1.8
3	55	4.7	-3.8	-2.7	81	4.4	-4.3	-0.7	333	0.4	0.2	-0.4	308	2.3	1.8	-1.4	255	9.2	8.9	2.4	243	12.0	10.7	5.5	201	0.9	0.3	0.8
4	43	4.7	-3.2	-3.4	68	4.0	-3.7	-1.5	352	0.7	0.1	-0.7	315	1.8	1.3	-1.3	268	10.8	10.8	0.3	243	15.4	13.7	7.0	213	3.8	2.1	3.2
5	54	3.9	-3.2	-2.3	62	4.2	-3.7	-2.0	328	2.6	1.4	-2.2	292	4.2	3.9	-1.6	265	12.3	12.3	1.1	248	14.7	13.7	5.4	210	5.6	2.8	4.8
6	54	3.6	-2.9	-2.1	80	3.5	-3.4	-0.6	360	1.7	0.0	-1.7	291	3.9	3.6	-1.4	257	11.4	11.1	2.6	256	14.7	14.3	3.6	253	4.5	4.3	1.3
7	72	3.9	-3.7	-1.2	67	3.9	-3.6	-1.5	37	2.0	-1.2	-1.6	309	2.6	2.0	-1.6	271	10.4	10.4	-0.1	247	13.0	12.0	5.1	249	5.1	4.8	1.8
8	81	2.0	-2.0	-0.3	66	3.6	-3.3	-1.5	59	2.6	-2.2	-1.3	283	2.3	2.2	-0.5	276	10.8	10.7	-1.2	244	13.9	12.5	6.0	257	6.5	6.3	1.5
9	54	2.9	-2.3	-1.7	52	4.7	-3.7	-2.9	360	1.9	0.0	-1.9	298	3.2	2.8	-1.5	266	11.2	11.2	0.8	250	13.4	12.6	4.7	293	2.5	2.3	-1.0
10	65	2.1	-1.9	-0.9	50	2.3	-1.8	-1.5	328	1.9	1.0	-1.6	281	4.9	4.8	-0.9	265	11.7	11.6	1.1	258	15.8	15.5	3.2	252	7.1	6.7	2.2
11	67	2.6	-2.4	-1.0	55	3.5	-2.9	-2.0	340	2.3	0.8	-2.2	270	5.7	5.7	0.0	262	17.6	17.4	2.6	259	18.5	18.1	3.6	284	10.7	10.4	-2.6
12	75	2.7	-2.6	-0.7	69	3.9	-3.6	-1.4	315	1.4	1.0	-1.0	326	2.5	1.4	-2.1	264	10.8	10.7	1.1	250	16.6	15.6	5.7	246	6.0	5.5	2.5
13	54	1.9	-1.5	-1.1	65	4.5	-4.1	-1.9	33	2.4	-1.3	-2.0	304	1.8	1.5	-1.0	275	11.7	11.6	-1.1	252	15.0	14.3	4.6	246	4.4	4.0	1.8
14	51	2.7	-2.1	-1.7	58	3.1	-2.6	-1.6	77	0.9	-0.9	-0.2	354	1.9	0.2	-1.9	271	11.6	11.6	-0.2	255	16.3	15.7	4.3	275	5.0	5.0	-0.4
15	52	3.7	-2.9	-2.3	74	5.6	-5.4	-1.5	63	2.8	-2.5	-1.3	336	1.7	0.7	-1.6	268	9.4	9.4	0.3	250	13.8	13.0	4.7	302	4.4	3.7	-2.3
16	74	2.5	-2.4	-0.7	68	2.7	-2.5	-1.0	77	1.8	-1.8	-0.4	294	2.4	2.2	-1.0	268	11.1	11.1	0.4	258	13.9	13.6	2.9	279	5.6	5.5	-0.9
17	72	2.5	-2.4	-0.8	65	2.1	-1.9	-0.9	82	0.7	-0.7	-0.1	276	2.0	2.0	-0.2	271	11.9	11.9	-0.3	249	15.3	14.3	5.4	263	3.2	3.2	0.4
18	66	2.7	-2.5	-1.1	57	2.7	-2.3	-1.5	345	1.1	0.3	-1.1	284	3.6	3.5	-0.9	267	13.6	13.6	0.8	255	17.5	16.9	4.5	287	8.6	8.2	-2.5
19	30	2.0	-1.0	-1.7	23	2.3	-0.9	-2.1	324	1.7	1.0	-1.4	269	5.3	5.3	0.1	267	14.8	14.8	0.8	245	14.1	12.8	5.9	248	6.8	6.3	2.5
20	58	2.6	-2.2	-1.4	38	2.8	-1.7	-2.2	315	1.7	1.2	-1.2	298	5.5	4.9	-2.6	258	15.9	15.6	3.3	237	17.3	14.5	9.4	244	4.9	4.4	2.1
21	48	3.1	-2.3	-2.1	45	3.0	-2.1	-2.1	336	2.0	0.8	-1.8	284	4.6	4.5	-1.1	252	16.8	16.0	5.2	239	20.4	17.5	10.5	292	7.4	6.9	-2.8
22	65	1.7	-1.5	-0.7	48	2.4	-1.8	-1.6	351	1.9	0.3	-1.9	260	6.7	6.6	1.2	257	18.3	17.9	4.0	239	19.4	16.6	10.1	255	9.8	9.5	2.6
23	62	2.7	-2.4	-1.3	50	3.4	-2.6	-2.2	349	1.6	0.3	-1.6	266	6.1	6.1	0.4	262	17.3	17.1	2.4	237	21.9	18.5	11.8	240	6.7	5.8	3.4
24	42	3.1	-2.1	-2.3	40	4.2	-2.7	-3.2	356	1.5	0.1	-1.5	279	4.7	4.6	-0.7	268	14.9	14.9	0.5	254	20.4	19.6	5.7	263	5.2	5.2	0.6
25	35	3.3	-1.9	-2.7	52	4.8	-3.8	-3.0	11	1.5	-0.3	-1.5	292	5.5	5.1	-2.1	270	14.4	14.4	0.0	251	19.4	18.3	6.4	263	5.7	5.7	0.7
26	34	2.9	-1.6	-2.4	53	3.8	-3.0	-2.3	332	1.9	0.9	-1.7	297	5.6	5.0	-2.5	276	13.7	13.6	-1.5	259	18.8	18.5	3.5	270	6.2	6.2	0.0
27	40	3.1	-2.0	-2.4	47	4.4	-3.2	-3.0	360	1.6	0.0	-1.6	304	6.1	5.1	-3.4	267	13.9	13.9	0.8	260	21.7	21.4	3.6	270	7.4	7.4	0.0
28	64	3.4	-3.1	-1.5	38	4.1	-2.5	-3.2	327	3.3	1.8	-2.8	293	7.5	6.9	-2.9	272	12.8	12.8	-0.4	247	17.8	16.4	7.0	270	6.4	6.4	0.0
29	55	2.9	-2.4	-1.7	30	4.0	-2.0	-3.5	330	3.6	1.8	-3.1	296	6.8	6.1	-3.0	271	17.0	17.0	-0.3	250	22.8	21.4	8.0	275	4.7	4.7	-0.4
30	62	2.6	-2.3	-1.2	38	3.4	-2.1	-2.7	347	3.2	0.7	-3.1	302	6.4	5.4	-3.4	272	14.8	14.8	-0.6	262	20.5	20.3	2.8	277	7.3	7.2	-0.9

Daily Normals of Upper Air Winds (1971-2000)

JAGDALPUR **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	57	2.4	-2.0	-1.3	62	3.2	-2.8	-1.5	336	2.7	1.1	-2.5	294	5.7	5.2	-2.3	276	15.2	15.1	-1.6	262	22.1	21.9	3.1	291	8.9	8.3	-3.2
2	49	4.1	-3.1	-2.7	58	3.2	-2.7	-1.7	333	1.3	0.6	-1.2	286	5.5	5.3	-1.5	271	14.9	14.9	-0.2	247	20.4	18.8	7.9	259	5.7	5.6	1.1
3	63	3.4	-3.0	-1.5	66	2.7	-2.5	-1.1	345	1.1	0.3	-1.1	282	6.8	6.7	-1.4	254	15.9	15.2	4.5	237	18.8	15.8	10.2	360	1.1	0.0	-1.1
4	55	3.3	-2.7	-1.9	49	2.8	-2.1	-1.8	343	2.4	0.7	-2.3	295	5.6	5.1	-2.4	265	12.9	12.9	1.1	252	17.4	16.6	5.3	255	4.3	4.2	1.1
5	59	3.9	-3.3	-2.0	40	3.3	-2.1	-2.5	358	2.6	0.1	-2.6	294	5.5	5.0	-2.2	265	16.1	16.0	1.4	252	20.6	19.5	6.5	266	7.8	7.8	0.5
6	67	3.3	-3.0	-1.3	51	3.3	-2.6	-2.1	9	2.4	-0.4	-2.4	303	5.3	4.4	-2.9	272	12.2	12.2	-0.4	241	17.8	15.5	8.7	268	6.3	6.3	0.2
7	51	3.2	-2.5	-2.0	41	3.7	-2.4	-2.8	17	2.1	-0.6	-2.0	308	4.3	3.4	-2.7	263	15.7	15.6	1.9	243	18.3	16.3	8.4	258	12.1	11.8	2.5
8	44	3.6	-2.5	-2.6	51	3.5	-2.7	-2.2	30	1.4	-0.7	-1.2	303	5.5	4.6	-3.0	271	17.7	17.7	-0.4	248	20.5	19.0	7.7	251	3.6	3.4	1.2
9	44	3.5	-2.4	-2.5	53	3.0	-2.4	-1.8	360	1.4	0.0	-1.4	264	5.7	5.7	0.6	266	15.9	15.9	1.1	252	19.9	18.9	6.1	264	6.2	6.2	0.6
10	48	3.1	-2.3	-2.1	39	2.8	-1.8	-2.2	324	2.7	1.6	-2.2	277	10.4	10.3	-1.2	269	18.7	18.7	0.2	254	23.0	22.1	6.3	263	11.8	11.7	1.4
11	46	4.2	-3.0	-2.9	51	1.9	-1.5	-1.2	311	2.0	1.5	-1.3	284	7.4	7.2	-1.8	267	18.3	18.3	1.1	248	24.0	22.2	9.1	255	10.6	10.2	2.7
12	55	3.8	-3.1	-2.2	25	1.7	-0.7	-1.5	318	3.0	2.0	-2.2	282	5.7	5.6	-1.2	264	18.3	18.2	1.9	251	24.2	22.8	8.0	269	5.7	5.7	0.1
13	45	3.1	-2.2	-2.2	45	1.3	-0.9	-0.9	304	3.7	3.1	-2.1	280	6.6	6.5	-1.1	268	20.6	20.6	0.6	248	19.6	18.1	7.4	292	3.8	3.5	-1.4
14	49	2.0	-1.5	-1.3	360	1.1	0.0	-1.1	309	2.7	2.1	-1.7	282	8.5	8.3	-1.7	267	18.8	18.8	1.1	249	22.8	21.3	8.1	251	11.9	11.3	3.8
15	55	3.3	-2.7	-1.9	25	2.9	-1.2	-2.6	319	2.8	1.8	-2.1	293	9.4	8.6	-3.7	274	20.5	20.4	-1.6	262	23.6	23.4	3.1	261	8.1	8.0	1.3
16	59	3.1	-2.7	-1.6	33	3.0	-1.6	-2.5	334	2.8	1.2	-2.5	296	7.1	6.4	-3.1	273	19.8	19.8	-1.0	264	20.8	20.7	2.2	259	5.7	5.6	1.1
17	49	3.5	-2.6	-2.3	38	2.9	-1.8	-2.3	359	3.9	0.1	-3.9	274	7.4	7.4	-0.5	271	16.8	16.8	-0.2	254	22.3	21.4	6.3	269	9.1	9.1	0.2
18	36	2.9	-1.7	-2.3	29	3.1	-1.5	-2.7	328	3.6	1.9	-3.1	290	9.4	8.8	-3.2	276	19.9	19.8	-2.2	258	23.0	22.5	4.8	265	7.1	7.1	0.6
19	43	3.5	-2.4	-2.6	37	3.0	-1.8	-2.4	349	3.1	0.6	-3.0	289	6.5	6.2	-2.1	278	18.7	18.5	-2.7	257	23.9	23.3	5.2	282	9.5	9.3	-2.0
20	38	1.8	-1.1	-1.4	8	1.4	-0.2	-1.4	360	2.4	0.0	-2.4	280	7.1	7.0	-1.2	269	18.1	18.1	0.4	258	24.5	24.0	4.9	265	8.8	8.8	0.8
21	36	2.7	-1.6	-2.2	13	2.3	-0.5	-2.2	342	2.6	0.8	-2.5	285	9.4	9.1	-2.4	273	18.1	18.1	-1.1	263	24.0	23.8	3.1	273	12.3	12.3	-0.7
22	53	2.0	-1.6	-1.2	34	1.8	-1.0	-1.5	341	3.7	1.2	-3.5	285	8.0	7.7	-2.1	282	23.1	22.6	-4.7	256	24.6	23.9	6.0	256	9.3	9.0	2.2
23	52	1.1	-0.9	-0.7	8	2.1	-0.3	-2.1	356	4.4	0.3	-4.4	284	8.2	8.0	-2.0	271	21.0	21.0	-0.4	264	25.6	25.5	2.6	258	10.0	9.8	2.1
24	82	0.7	-0.7	-0.1	337	0.8	0.3	-0.7	310	4.0	3.1	-2.6	279	12.5	12.3	-2.0	269	19.1	19.1	0.2	262	27.5	27.2	3.8	263	10.6	10.5	1.3
25	37	1.5	-0.9	-1.2	329	0.6	0.3	-0.5	298	4.0	3.5	-1.9	283	14.4	14.0	-3.3	268	24.9	24.9	1.0	258	26.0	25.5	5.3	259	14.2	13.9	2.7
26	35	1.6	-0.9	-1.3	22	1.8	-0.7	-1.7	299	4.1	3.6	-2.0	289	12.0	11.4	-3.9	266	22.1	22.1	1.4	255	26.6	25.7	7.0	266	16.7	16.6	1.3
27	59	1.7	-1.5	-0.9	25	1.4	-0.6	-1.3	300	3.2	2.8	-1.6	280	10.9	10.7	-1.8	264	23.0	22.9	2.5	262	26.9	26.6	3.7	254	16.6	16.0	4.6
28	45	1.3	-0.9	-0.9	45	0.7	-0.5	-0.5	277	3.8	3.8	-0.5	275	10.7	10.7	-0.9	272	22.1	22.1	-0.6	263	25.6	25.4	2.9	260	16.2	16.0	2.8
29	60	2.0	-1.7	-1.0	336	1.2	0.5	-1.1	304	4.1	3.4	-2.3	282	11.3	11.1	-2.3	274	23.0	22.9	-1.6	265	23.9	23.8	1.9	284	6.4	6.2	-1.6
30	48	1.3	-1.0	-0.9	324	1.7	1.0	-1.4	311	4.5	3.4	-3.0	279	11.8	11.6	-1.9	277	23.2	23.0	-2.7	264	22.1	22.0	2.4	274	14.1	14.1	-0.9
31	54	1.4	-1.1	-0.8	353	2.4	0.3	-2.4	312	4.6	3.4	-3.1	287	11.3	10.8	-3.4	280	22.5	22.2	-3.9	257	26.4	25.8	5.8	271	11.4	11.4	-0.2

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	111	3.1	-2.9	1.1	301	1.7	1.5	-0.9	275	7.5	7.5	-0.7	274	20.3	20.3	-1.4	272	39.7	39.7	-1.4	271	46.9	46.9	-0.8	267	29.7	29.7	1.3
2	99	1.3	-1.3	0.2	292	2.9	2.7	-1.1	270	8.0	8.0	0.0	271	20.3	20.3	-0.2	271	39.6	39.6	-0.5	265	48.2	48.0	4.2	264	30.1	30.0	3.0
3	42	1.3	-0.9	-1.0	332	1.5	0.7	-1.3	287	8.1	7.7	-2.4	278	20.4	20.2	-2.7	277	37.7	37.4	-4.8	274	45.7	45.6	-3.2	271	30.0	30.0	-0.7
4	83	1.6	-1.6	-0.2	292	2.2	2.0	-0.8	276	8.2	8.2	-0.8	268	19.1	19.1	0.7	270	37.7	37.7	0.2	268	47.5	47.5	1.4	263	33.6	33.4	4.0
5	346	1.2	0.3	-1.2	284	3.6	3.5	-0.9	277	8.6	8.5	-1.1	273	21.5	21.5	-1.3	268	35.7	35.7	1.5	272	44.1	44.1	-1.2	268	27.3	27.3	1.0
6	36	1.7	-1.0	-1.4	280	2.2	2.2	-0.4	269	8.2	8.2	0.1	270	19.2	19.2	-0.1	268	39.0	39.0	1.2	268	43.0	43.0	1.2	265	27.1	27.0	2.4
7	124	1.8	-1.5	1.0	248	2.2	2.0	0.8	261	7.0	6.9	1.1	270	16.9	16.9	0.0	270	36.6	36.6	-0.2	260	43.5	42.8	7.8	266	30.9	30.8	2.2
8	53	1.5	-1.2	-0.9	297	1.1	1.0	-0.5	276	7.3	7.3	-0.8	270	19.5	19.5	-0.1	272	37.1	37.1	-1.4	270	44.4	44.4	-0.2	270	30.3	30.3	0.2
9	360	0.1	0.0	-0.1	284	2.5	2.4	-0.6	275	7.3	7.3	-0.7	273	19.0	19.0	-1.1	273	36.0	36.0	-1.7	272	40.9	40.9	-1.6	263	24.6	24.4	3.1
10	82	1.5	-1.5	-0.2	279	1.8	1.8	-0.3	273	6.8	6.8	-0.3	270	18.7	18.7	0.0	270	37.8	37.8	0.2	268	46.1	46.1	1.8	267	25.9	25.9	1.5
11	99	0.6	-0.6	0.1	261	2.5	2.5	0.4	267	9.4	9.4	0.5	271	22.9	22.9	-0.5	270	40.6	40.6	-0.2	269	49.1	49.1	0.6	267	32.2	32.2	1.7
12	305	1.6	1.3	-0.9	290	3.0	2.8	-1.0	270	8.8	8.8	0.0	273	24.5	24.5	-1.1	270	47.4	47.4	-0.3	270	45.6	45.6	0.3	264	35.9	35.7	3.9
13	10	1.7	-0.3	-1.7	313	2.3	1.7	-1.6	274	7.5	7.5	-0.5	275	22.1	22.0	-1.8	275	40.4	40.2	-3.7	269	46.6	46.6	0.7	257	28.4	27.7	6.2
14	166	0.4	-0.1	0.4	290	2.0	1.9	-0.7	264	8.1	8.1	0.9	272	23.7	23.7	-1.0	272	41.8	41.8	-1.6	273	50.0	49.9	-2.4	273	32.8	32.7	-1.9
15	336	1.7	0.7	-1.6	279	3.0	3.0	-0.5	257	10.6	10.3	2.3	268	23.3	23.3	0.9	270	41.0	41.0	0.2	270	52.0	52.0	-0.2	271	30.1	30.1	-0.4
16	40	2.3	-1.5	-1.8	309	2.8	2.2	-1.8	276	8.2	8.2	-0.9	275	22.8	22.7	-1.8	271	46.2	46.2	-0.8	265	55.1	54.9	4.6	266	31.4	31.3	2.1
17	62	2.7	-2.4	-1.3	327	1.7	0.9	-1.4	285	7.5	7.3	-1.9	275	20.7	20.6	-1.8	272	38.5	38.5	-1.1	267	50.9	50.8	3.1	266	31.9	31.8	2.4
18	66	3.2	-2.9	-1.3	289	2.4	2.3	-0.8	269	8.5	8.5	0.1	273	21.9	21.9	-1.1	275	39.2	39.0	-3.6	267	45.0	45.0	2.1	273	38.8	38.8	-1.8
19	233	0.5	0.4	0.3	278	3.6	3.6	-0.5	273	8.3	8.3	-0.5	275	23.6	23.5	-2.0	272	41.4	41.4	-1.1	267	48.8	48.7	2.7	265	30.1	30.0	2.4
20	324	0.9	0.5	-0.7	291	3.1	2.9	-1.1	277	9.5	9.4	-1.1	271	22.8	22.8	-0.2	267	41.4	41.3	2.4	264	49.8	49.5	5.5	262	29.1	28.8	4.0
21	3	1.8	-0.1	-1.8	295	3.1	2.8	-1.3	270	8.4	8.4	0.0	270	23.6	23.6	-0.2	267	39.7	39.6	2.3	264	47.3	47.0	4.9	266	36.1	36.0	2.4
22	90	1.9	-1.9	0.0	297	2.2	2.0	-1.0	274	7.4	7.4	-0.5	276	23.4	23.3	-2.6	275	39.2	39.1	-3.1	270	43.9	43.9	-0.3	271	28.2	28.2	-0.5
23	32	0.9	-0.5	-0.8	300	2.4	2.1	-1.2	278	8.3	8.2	-1.1	276	23.2	23.1	-2.3	275	38.0	37.9	-3.2	274	44.7	44.6	-3.5	271	27.2	27.2	-0.3
24	288	1.6	1.5	-0.5	284	2.5	2.4	-0.6	268	9.8	9.8	0.3	272	22.5	22.5	-0.9	270	41.6	41.6	0.0	268	51.1	51.1	2.0	262	25.9	25.6	3.7
25	45	1.8	-1.3	-1.3	279	3.1	3.1	-0.5	268	9.8	9.8	0.3	265	19.7	19.6	1.7	272	39.4	39.4	-1.2	270	50.2	50.2	0.4	262	28.7	28.4	4.0
26	67	3.6	-3.3	-1.4	277	3.2	3.2	-0.4	265	11.0	11.0	0.9	270	23.1	23.1	-0.2	272	41.2	41.2	-1.4	267	50.6	50.5	3.0	257	29.8	29.0	6.8
27	52	1.8	-1.4	-1.1	293	3.4	3.1	-1.3	266	10.7	10.7	0.7	270	25.3	25.3	-0.2	268	46.3	46.3	1.6	262	50.0	49.5	7.3	270	37.1	37.1	-0.1
28	97	3.3	-3.3	0.4	270	2.6	2.6	0.0	267	10.1	10.1	0.6	275	24.0	23.9	-2.3	276	41.1	40.9	-4.2	273	46.7	46.6	-2.7	272	27.8	27.8	-0.9
29	42	3.9	-2.6	-2.9	307	3.9	3.1	-2.3	278	10.6	10.5	-1.4	274	24.1	24.0	-1.7	272	41.9	41.9	-1.1	266	52.4	52.3	3.3	264	32.6	32.4	3.6
30	35	1.6	-0.9	-1.3	268	2.5	2.5	0.1	266	11.8	11.8	0.8	271	24.3	24.3	-0.5	269	46.8	46.8	0.5	266	45.9	45.8	2.9	260	34.8	34.2	6.2
31	63	1.6	-1.4	-0.7	280	3.4	3.3	-0.6	271	9.4	9.4	-0.2	268	23.7	23.7	0.8	269	43.4	43.4	0.4	269	48.0	48.0	0.6	271	32.7	32.7	-0.4

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	238	0.9	0.8	0.5	281	2.5	2.5	-0.5	277	10.0	9.9	-1.3	272	24.0	24.0	-0.9	269	43.2	43.2	0.6	266	48.8	48.7	3.5	268	29.5	29.5	1.1
2	72	0.6	-0.6	-0.2	294	2.4	2.2	-1.0	273	8.3	8.3	-0.5	270	21.2	21.2	-0.1	276	42.8	42.6	-4.5	273	52.2	52.1	-2.4	272	34.5	34.5	-1.1
3	49	3.0	-2.3	-2.0	298	1.5	1.3	-0.7	277	8.9	8.8	-1.1	277	22.0	21.8	-2.8	276	39.4	39.2	-4.0	277	41.3	41.0	-5.0	276	28.1	27.9	-2.9
4	67	0.8	-0.7	-0.3	285	3.9	3.8	-1.0	274	9.6	9.6	-0.6	272	21.3	21.3	-0.7	271	37.3	37.3	-0.5	270	41.9	41.9	-0.1	268	24.3	24.3	0.8
5	94	1.3	-1.3	0.1	310	3.5	2.7	-2.3	286	9.3	8.9	-2.6	277	21.1	20.9	-2.7	275	44.2	44.1	-3.6	269	49.1	49.1	0.6	271	28.2	28.2	-0.6
6	70	2.0	-1.9	-0.7	273	1.9	1.9	-0.1	280	8.1	8.0	-1.4	276	18.8	18.7	-2.1	275	36.1	36.0	-2.9	271	41.7	41.7	-0.6	267	29.2	29.2	1.6
7	61	1.0	-0.9	-0.5	280	2.8	2.8	-0.5	280	7.9	7.8	-1.4	274	20.7	20.6	-1.5	269	34.1	34.1	0.8	268	45.4	45.4	1.7	269	29.0	29.0	0.3
8	325	1.6	0.9	-1.3	288	3.5	3.3	-1.1	279	10.4	10.3	-1.6	276	22.2	22.1	-2.2	273	38.3	38.2	-2.3	271	44.8	44.8	-0.4	265	33.5	33.4	2.8
9	13	2.6	-0.6	-2.5	316	3.0	2.1	-2.2	298	8.2	7.2	-3.9	288	19.9	18.9	-6.2	279	36.0	35.6	-5.4	279	45.2	44.6	-7.2	272	29.6	29.6	-0.8
10	285	2.3	2.2	-0.6	297	3.7	3.3	-1.7	281	8.6	8.5	-1.6	278	21.3	21.1	-3.0	280	39.1	38.5	-6.8	277	48.2	47.8	-6.1	272	28.3	28.3	-1.1
11	354	1.8	0.2	-1.8	295	3.1	2.8	-1.3	276	8.0	7.9	-0.9	273	22.3	22.3	-1.3	274	40.5	40.4	-2.6	271	42.7	42.7	-0.4	265	29.2	29.1	2.4
12	347	1.8	0.4	-1.8	303	2.7	2.3	-1.5	272	7.1	7.1	-0.3	271	20.8	20.8	-0.4	273	37.4	37.3	-2.1	270	47.7	47.7	-0.3	265	27.5	27.4	2.2
13	217	0.5	0.3	0.4	258	3.3	3.2	0.7	261	9.7	9.6	1.5	265	23.0	22.9	2.0	271	40.0	40.0	-0.9	266	48.9	48.8	3.0	268	27.0	27.0	0.9
14	257	2.6	2.5	0.6	268	3.6	3.6	0.1	256	7.9	7.7	1.9	264	23.3	23.2	2.3	265	40.8	40.7	3.4	264	45.7	45.5	4.4	263	31.8	31.6	3.9
15	227	2.3	1.7	1.6	262	3.7	3.7	0.5	257	7.8	7.6	1.8	265	19.9	19.8	1.8	265	37.2	37.1	3.0	264	44.9	44.6	5.0	263	23.0	22.8	2.7
16	243	2.7	2.4	1.2	268	2.9	2.9	0.1	266	7.6	7.6	0.5	266	21.0	21.0	1.4	261	41.5	41.0	6.4	262	43.7	43.3	5.9	259	25.8	25.3	4.8
17	266	3.2	3.2	0.2	264	4.4	4.4	0.5	263	10.5	10.4	1.3	265	21.7	21.6	1.7	272	43.5	43.5	-1.5	266	46.0	45.9	3.0	263	27.5	27.3	3.2
18	279	3.7	3.7	-0.6	273	3.6	3.6	-0.2	261	9.1	9.0	1.4	271	22.5	22.5	-0.4	270	38.6	38.6	0.2	265	46.4	46.2	3.8	265	25.7	25.6	2.3
19	36	1.4	-0.8	-1.1	261	3.9	3.9	0.6	264	8.7	8.7	0.9	268	20.9	20.9	0.6	269	41.5	41.5	0.4	266	44.1	44.0	3.1	274	25.2	25.1	-1.7
20	41	1.8	-1.2	-1.4	280	4.1	4.0	-0.7	276	8.8	8.8	-0.9	273	20.1	20.1	-1.2	275	38.4	38.3	-3.1	267	45.8	45.8	2.1	276	28.4	28.2	-3.0
21	50	3.4	-2.6	-2.2	319	3.7	2.4	-2.8	283	9.0	8.8	-2.0	281	19.7	19.4	-3.7	277	37.4	37.1	-4.7	274	44.2	44.1	-3.2	271	29.0	29.0	-0.3
22	24	2.7	-1.1	-2.5	283	4.1	4.0	-0.9	279	9.2	9.1	-1.4	281	21.1	20.7	-3.9	273	39.4	39.3	-2.2	270	42.4	42.4	-0.3	262	28.7	28.4	4.2
23	276	1.0	1.0	-0.1	262	3.5	3.5	0.5	269	8.0	8.0	0.2	274	19.7	19.7	-1.3	276	38.8	38.6	-4.3	268	46.1	46.1	1.6	268	33.9	33.9	1.1
24	237	3.0	2.5	1.6	258	4.3	4.2	0.9	273	9.1	9.1	-0.5	266	20.1	20.1	1.4	273	35.3	35.2	-2.1	271	43.6	43.6	-1.1	270	26.0	26.0	-0.1
25	297	0.4	0.4	-0.2	277	4.6	4.6	-0.6	273	10.9	10.9	-0.5	269	22.6	22.6	0.4	266	32.3	32.2	2.1	267	42.5	42.5	1.9	272	25.2	25.2	-0.8
26	346	0.4	0.1	-0.4	282	4.7	4.6	-1.0	278	10.0	9.9	-1.4	271	20.2	20.2	-0.5	269	34.0	34.0	0.7	266	38.5	38.4	2.5	267	20.8	20.8	1.2
27	330	0.8	0.4	-0.7	258	4.9	4.8	1.0	268	10.1	10.1	0.3	271	22.4	22.4	-0.5	277	36.9	36.6	-4.3	271	43.6	43.6	-1.1	265	25.4	25.3	2.4
28	198	0.6	0.2	0.6	266	4.3	4.3	0.3	277	11.2	11.1	-1.4	272	24.5	24.5	-0.8	275	40.9	40.8	-3.5	271	48.0	48.0	-0.5	260	27.5	27.1	4.7
29	243	1.8	1.6	0.8	268	3.0	3.0	0.1	273	6.2	6.2	-0.3	266	22.1	22.0	1.5	256	34.8	33.8	8.4	249	45.8	42.7	16.6	256	21.0	20.4	4.9

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	99	2.5	-2.5	0.4	282	3.8	3.7	-0.8	278	9.1	9.0	-1.2	273	20.5	20.5	-0.9	273	38.7	38.6	-2.3	271	40.6	40.6	-0.9	269	18.2	18.2	0.4
2	63	0.2	-0.2	-0.1	291	3.6	3.4	-1.3	284	7.3	7.1	-1.8	276	18.3	18.2	-1.9	271	31.7	31.7	-0.4	268	41.0	41.0	1.7	263	26.2	26.0	3.2
3	118	3.2	-2.8	1.5	274	3.2	3.2	-0.2	280	7.8	7.7	-1.3	277	17.4	17.3	-2.2	270	33.2	33.2	-0.2	264	43.9	43.6	4.8	272	30.4	30.4	-1.3
4	90	0.5	-0.5	0.0	265	4.4	4.4	0.4	264	7.2	7.2	0.7	266	17.2	17.2	1.3	270	34.5	34.5	-0.3	271	39.5	39.5	-0.7	277	26.3	26.1	-3.1
5	333	1.3	0.6	-1.2	280	2.7	2.7	-0.5	264	9.1	9.1	0.9	272	21.2	21.2	-0.6	270	33.9	33.9	0.1	276	35.7	35.5	-3.8	267	26.4	26.4	1.6
6	345	1.6	0.4	-1.5	278	3.4	3.4	-0.5	272	9.2	9.2	-0.3	276	20.1	20.0	-2.0	275	35.7	35.5	-3.4	273	40.2	40.1	-2.1	279	23.7	23.4	-3.7
7	282	2.4	2.3	-0.5	282	3.5	3.4	-0.7	270	8.1	8.1	0.0	272	18.0	18.0	-0.5	268	29.9	29.9	0.8	267	38.4	38.3	2.0	264	27.7	27.6	2.7
8	135	0.1	-0.1	0.1	264	3.8	3.8	0.4	264	8.5	8.5	0.9	267	19.1	19.1	1.0	268	33.6	33.6	1.1	264	42.3	42.1	4.3	266	24.6	24.5	1.9
9	333	1.6	0.7	-1.4	277	3.3	3.3	-0.4	271	8.7	8.7	-0.1	267	18.5	18.5	1.1	274	28.8	28.7	-2.1	268	40.0	40.0	1.1	267	22.6	22.6	1.1
10	45	1.4	-1.0	-1.0	271	4.6	4.6	-0.1	266	7.9	7.9	0.6	267	18.2	18.2	0.8	268	32.8	32.8	1.2	267	38.6	38.5	2.2	267	22.6	22.6	1.1
11	222	3.6	2.4	2.7	262	3.7	3.7	0.5	265	8.8	8.8	0.8	265	17.1	17.0	1.5	269	33.0	33.0	0.7	267	41.9	41.8	2.2	266	29.1	29.0	2.0
12	243	3.4	3.0	1.5	283	5.3	5.2	-1.2	271	8.1	8.1	-0.1	277	19.3	19.2	-2.3	276	33.5	33.3	-3.5	277	39.4	39.1	-4.6	267	25.7	25.7	1.4
13	275	2.5	2.5	-0.2	280	4.0	3.9	-0.7	275	8.6	8.6	-0.8	278	17.1	16.9	-2.5	275	31.6	31.5	-2.6	277	36.1	35.8	-4.4	270	24.6	24.6	-0.2
14	235	2.4	2.0	1.4	270	4.1	4.1	0.0	268	7.5	7.5	0.3	276	15.9	15.8	-1.6	276	29.4	29.2	-3.1	274	37.5	37.4	-2.8	275	26.6	26.5	-2.5
15	360	0.1	0.0	-0.1	270	4.1	4.1	0.0	269	8.6	8.6	0.1	273	18.7	18.7	-0.9	283	27.6	26.9	-6.0	271	36.2	36.2	-0.6	276	20.5	20.4	-2.0
16	309	1.4	1.1	-0.9	260	4.6	4.5	0.8	264	10.1	10.1	1.0	267	21.1	21.1	1.2	269	35.9	35.9	0.9	267	42.8	42.7	2.2	269	24.8	24.8	0.3
17	278	1.4	1.4	-0.2	266	4.9	4.9	0.3	274	8.3	8.3	-0.6	267	18.9	18.9	1.1	270	29.0	29.0	0.1	266	39.3	39.2	2.7	266	21.5	21.4	1.6
18	270	1.0	1.0	0.0	272	6.1	6.1	-0.2	268	9.2	9.2	0.3	263	19.5	19.4	2.4	269	32.2	32.2	0.6	268	42.2	42.2	1.2	260	24.7	24.3	4.2
19	294	1.2	1.1	-0.5	272	4.7	4.7	-0.2	284	9.1	8.8	-2.2	270	17.7	17.7	0.1	268	31.2	31.2	0.9	268	38.4	38.4	1.5	271	26.7	26.7	-0.4
20	275	3.3	3.3	-0.3	282	5.4	5.3	-1.1	271	7.6	7.6	-0.1	268	19.6	19.6	0.6	267	34.1	34.0	1.9	261	39.3	38.8	6.0	269	25.4	25.4	0.6
21	312	2.5	1.9	-1.7	260	5.3	5.2	0.9	271	8.4	8.4	-0.2	270	17.4	17.4	-0.1	272	28.4	28.4	-1.0	272	37.6	37.6	-1.6	276	24.9	24.8	-2.4
22	315	1.7	1.2	-1.2	273	5.9	5.9	-0.3	274	7.9	7.9	-0.5	264	16.9	16.8	1.7	270	28.5	28.5	0.1	272	32.3	32.3	-0.9	272	23.3	23.3	-0.7
23	253	1.7	1.6	0.5	272	4.8	4.8	-0.2	267	7.8	7.8	0.4	269	16.3	16.3	0.4	276	26.8	26.7	-2.8	272	33.0	33.0	-0.9	264	21.5	21.4	2.4
24	257	2.6	2.5	0.6	280	4.2	4.1	-0.7	271	9.0	9.0	-0.2	277	16.2	16.1	-1.9	274	27.1	27.0	-1.8	268	35.1	35.1	1.4	260	21.0	20.7	3.6
25	313	3.5	2.6	-2.4	283	4.6	4.5	-1.0	274	6.9	6.9	-0.5	274	15.5	15.5	-1.0	276	26.3	26.2	-2.6	272	30.5	30.5	-0.8	266	24.0	24.0	1.5
26	63	0.4	-0.4	-0.2	262	2.9	2.9	0.4	275	7.6	7.6	-0.7	275	15.8	15.7	-1.3	277	25.8	25.6	-3.1	276	32.8	32.6	-3.4	270	20.5	20.5	-0.1
27	196	1.9	0.5	1.8	277	4.2	4.2	-0.5	281	6.9	6.8	-1.3	275	14.6	14.6	-1.2	275	26.4	26.3	-2.1	275	32.3	32.2	-3.1	261	15.5	15.3	2.3
28	285	2.4	2.3	-0.6	269	4.8	4.8	0.1	269	7.5	7.5	0.1	270	16.8	16.8	0.0	276	29.7	29.5	-3.0	270	36.3	36.3	-0.1	277	22.1	21.9	-2.6
29	281	3.7	3.6	-0.7	264	4.9	4.9	0.5	258	9.0	8.8	1.8	274	17.0	17.0	-1.2	268	31.6	31.6	1.1	266	38.0	37.9	2.6	260	28.0	27.6	4.7
30	3	1.8	-0.1	-1.8	288	4.3	4.1	-1.3	268	7.1	7.1	0.3	269	16.7	16.7	0.4	268	25.8	25.8	0.7	269	31.9	31.9	0.3	258	19.8	19.4	4.2
31	311	2.0	1.5	-1.3	277	4.1	4.1	-0.5	262	7.7	7.6	1.1	267	15.8	15.8	0.8	268	27.2	27.2	1.0	266	33.6	33.5	2.3	270	22.3	22.3	0.0

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	92	2.6	-2.6	0.1	269	3.9	3.9	0.1	264	7.2	7.2	0.7	266	16.7	16.6	1.3	274	27.6	27.5	-1.8	273	36.5	36.5	-1.6	264	21.9	21.8	2.1
2	34	2.7	-1.5	-2.2	268	3.1	3.1	0.1	258	8.5	8.3	1.7	263	13.9	13.8	1.8	265	24.8	24.7	2.0	266	33.3	33.2	2.2	266	20.1	20.1	1.4
3	96	0.9	-0.9	0.1	259	3.8	3.7	0.7	259	7.5	7.4	1.4	267	16.5	16.5	0.8	272	27.4	27.4	-1.1	269	37.4	37.4	0.7	274	22.4	22.4	-1.4
4	186	0.9	0.1	0.9	266	5.3	5.3	0.4	263	6.9	6.9	0.8	262	14.8	14.6	2.1	266	22.9	22.8	1.7	267	35.4	35.3	2.1	262	20.4	20.2	2.9
5	60	2.2	-1.9	-1.1	280	2.7	2.7	-0.5	269	6.4	6.4	0.1	270	13.2	13.2	-0.1	273	24.0	24.0	-1.3	272	32.8	32.8	-1.0	263	19.5	19.3	2.5
6	327	1.7	0.9	-1.4	265	3.5	3.5	0.3	256	6.7	6.5	1.6	266	13.4	13.4	1.0	271	26.6	26.6	-0.5	268	33.7	33.7	1.1	262	21.5	21.3	3.1
7	266	5.1	5.1	0.4	258	4.4	4.3	0.9	269	7.2	7.2	0.1	268	15.1	15.1	0.6	276	28.5	28.3	-3.0	273	35.0	34.9	-1.9	263	18.7	18.6	2.2
8	278	5.7	5.6	-0.8	257	7.1	6.9	1.6	259	8.7	8.6	1.6	268	15.9	15.9	0.6	269	28.9	28.9	0.4	262	36.6	36.3	4.8	257	19.8	19.3	4.4
9	305	1.2	1.0	-0.7	268	3.6	3.6	0.1	267	5.7	5.7	0.3	271	14.9	14.9	-0.2	274	25.0	24.9	-1.7	266	32.5	32.4	2.2	270	20.7	20.7	-0.1
10	312	1.3	1.0	-0.9	288	3.2	3.0	-1.0	272	5.2	5.2	-0.2	272	14.3	14.3	-0.4	272	27.9	27.9	-1.0	274	32.3	32.2	-2.2	272	17.9	17.9	-0.5
11	305	2.1	1.7	-1.2	280	4.1	4.0	-0.7	277	4.3	4.3	-0.5	268	13.9	13.9	0.6	278	29.0	28.7	-4.0	276	33.2	33.0	-3.7	270	16.4	16.4	0.1
12	319	3.2	2.1	-2.4	277	4.1	4.1	-0.5	272	6.0	6.0	-0.2	272	15.2	15.2	-0.4	272	28.3	28.3	-0.9	273	34.2	34.1	-2.0	269	19.6	19.6	0.5
13	345	3.0	0.8	-2.9	267	4.2	4.2	0.2	255	6.0	5.8	1.5	262	14.5	14.4	1.9	264	28.9	28.7	3.0	262	37.3	36.9	5.4	266	20.4	20.3	1.5
14	312	1.3	1.0	-0.9	264	5.6	5.6	0.6	262	6.8	6.7	0.9	263	13.3	13.2	1.6	262	24.6	24.4	3.4	260	32.3	31.8	5.8	256	18.2	17.7	4.3
15	3	3.3	-0.2	-3.3	272	5.0	5.0	-0.2	283	5.0	4.9	-1.1	276	12.3	12.2	-1.2	275	22.1	22.0	-2.0	274	29.0	28.9	-1.9	268	16.4	16.4	0.5
16	350	1.1	0.2	-1.1	289	3.7	3.5	-1.2	294	4.8	4.4	-2.0	279	11.2	11.1	-1.8	276	21.9	21.8	-2.4	273	26.0	26.0	-1.4	273	20.7	20.7	-1.1
17	276	3.0	3.0	-0.3	272	5.5	5.5	-0.2	276	5.6	5.6	-0.6	270	11.9	11.9	-0.1	273	20.1	20.1	-1.0	280	26.2	25.8	-4.7	252	19.5	18.6	6.0
18	270	4.2	4.2	0.0	265	4.5	4.5	0.4	276	5.3	5.3	-0.6	273	11.8	11.8	-0.6	274	22.4	22.3	-1.6	272	27.6	27.6	-0.9	274	17.3	17.3	-1.3
19	275	4.3	4.3	-0.4	264	5.1	5.1	0.5	273	3.7	3.7	-0.2	276	10.5	10.4	-1.1	273	21.7	21.7	-1.2	266	26.4	26.3	2.0	255	11.1	10.7	2.9
20	251	4.9	4.6	1.6	250	5.3	5.0	1.8	253	4.4	4.2	1.3	276	9.8	9.7	-1.1	271	19.0	19.0	-0.4	272	24.7	24.7	-0.8	251	12.2	11.6	3.9
21	247	6.9	6.3	2.7	253	4.8	4.6	1.4	251	6.2	5.9	2.0	258	11.7	11.4	2.5	262	19.5	19.3	2.8	259	26.8	26.3	5.2	252	13.6	12.9	4.2
22	268	5.1	5.1	0.2	262	4.9	4.9	0.7	269	5.4	5.4	0.1	281	7.9	7.8	-1.5	269	20.4	20.4	0.3	267	27.0	27.0	1.2	268	11.0	11.0	0.4
23	291	5.6	5.2	-2.0	270	5.6	5.6	0.0	278	4.8	4.7	-0.7	283	11.1	10.8	-2.4	276	18.7	18.6	-2.0	270	24.4	24.4	-0.2	263	13.9	13.8	1.6
24	285	3.9	3.8	-1.0	285	4.7	4.5	-1.2	290	4.5	4.2	-1.5	287	8.0	7.7	-2.3	281	17.2	16.9	-3.4	270	22.7	22.7	0.1	272	12.0	12.0	-0.5
25	270	5.5	5.5	0.0	263	5.6	5.6	0.7	273	5.3	5.3	-0.3	286	6.6	6.3	-1.8	282	17.6	17.2	-3.8	272	27.4	27.4	-1.0	267	12.0	12.0	0.7
26	289	3.6	3.4	-1.2	261	7.2	7.1	1.1	281	4.1	4.0	-0.8	282	8.1	7.9	-1.7	281	18.6	18.3	-3.5	280	24.8	24.4	-4.5	252	13.0	12.3	4.1
27	223	4.0	2.7	2.9	270	6.3	6.3	0.0	277	4.0	4.0	-0.5	280	8.6	8.5	-1.5	275	19.0	18.9	-1.6	271	27.5	27.5	-0.7	265	12.2	12.2	1.0
28	279	8.5	8.4	-1.3	278	6.7	6.6	-0.9	277	4.8	4.8	-0.6	273	8.9	8.9	-0.4	274	19.9	19.9	-1.4	265	27.7	27.6	2.5	258	13.9	13.6	2.8
29	270	8.9	8.9	0.0	264	5.5	5.5	0.6	273	4.4	4.4	-0.2	273	10.0	10.0	-0.6	283	19.4	18.9	-4.2	275	27.9	27.8	-2.6	266	14.2	14.2	0.9
30	255	7.3	7.0	1.9	256	7.2	7.0	1.7	264	5.8	5.8	0.6	272	11.8	11.8	-0.5	278	22.6	22.4	-3.2	264	28.8	28.6	3.2	249	11.1	10.4	3.9

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	256	3.6	3.5	0.9	261	7.4	7.3	1.1	264	4.4	4.4	0.5	262	11.1	11.0	1.6	266	22.5	22.5	1.4	268	26.7	26.7	0.7	261	13.3	13.1	2.1
2	261	5.8	5.7	0.9	264	5.5	5.5	0.6	271	4.2	4.2	-0.1	275	11.1	11.1	-0.9	275	21.8	21.7	-1.8	271	29.4	29.4	-0.6	257	14.7	14.3	3.4
3	266	6.5	6.5	0.5	257	7.4	7.2	1.6	254	5.3	5.1	1.5	262	11.1	11.0	1.5	266	21.2	21.2	1.4	259	29.8	29.2	5.7	257	12.4	12.1	2.8
4	276	3.1	3.1	-0.3	264	5.8	5.8	0.6	286	4.4	4.2	-1.2	279	9.6	9.5	-1.5	278	21.8	21.6	-3.1	260	30.9	30.4	5.5	244	9.0	8.1	4.0
5	281	6.5	6.4	-1.3	250	6.9	6.5	2.4	262	4.3	4.3	0.6	284	8.3	8.1	-2.0	273	20.6	20.6	-1.1	265	29.8	29.7	2.7	254	13.8	13.3	3.8
6	274	5.3	5.3	-0.4	264	6.2	6.2	0.7	280	4.7	4.6	-0.8	280	8.3	8.2	-1.5	279	20.2	19.9	-3.2	266	28.1	28.0	1.8	261	10.8	10.7	1.6
7	271	4.7	4.7	-0.1	269	4.9	4.9	0.1	309	4.0	3.1	-2.5	284	8.3	8.1	-2.0	279	17.7	17.5	-2.7	271	26.1	26.1	-0.3	262	13.2	13.1	1.9
8	261	5.0	4.9	0.8	260	5.1	5.0	0.9	292	5.1	4.7	-1.9	280	8.3	8.2	-1.5	276	17.0	16.9	-1.7	276	26.0	25.9	-2.6	271	11.4	11.4	-0.2
9	272	2.6	2.6	-0.1	266	6.8	6.8	0.5	279	6.6	6.5	-1.0	291	9.7	9.1	-3.5	278	19.6	19.4	-2.6	270	27.9	27.9	0.1	255	11.7	11.3	3.1
10	237	4.2	3.5	2.3	270	5.3	5.3	0.0	297	5.1	4.5	-2.3	282	9.3	9.1	-1.9	281	16.5	16.2	-3.1	277	19.5	19.3	-2.5	270	11.6	11.6	0.1
11	247	5.4	5.0	2.1	255	6.0	5.8	1.6	296	3.9	3.5	-1.7	292	8.0	7.4	-3.0	281	17.5	17.2	-3.3	272	20.2	20.2	-0.7	261	13.6	13.4	2.2
12	254	8.1	7.8	2.3	247	5.7	5.3	2.2	298	2.7	2.4	-1.3	304	6.5	5.4	-3.6	277	17.0	16.9	-2.1	272	21.5	21.5	-0.7	249	10.6	9.9	3.8
13	278	5.3	5.3	-0.7	255	6.0	5.8	1.6	259	3.6	3.5	0.7	293	6.9	6.4	-2.7	282	16.8	16.4	-3.6	266	21.2	21.2	1.3	252	12.2	11.6	3.8
14	289	5.7	5.4	-1.9	267	5.5	5.5	0.3	296	3.9	3.5	-1.7	276	8.0	7.9	-0.9	276	18.5	18.4	-2.0	265	23.6	23.5	2.2	259	9.4	9.2	1.8
15	262	6.5	6.4	0.9	259	5.7	5.6	1.1	273	4.1	4.1	-0.2	277	8.6	8.5	-1.0	272	17.1	17.1	-0.6	265	26.7	26.6	2.2	256	11.4	11.0	2.8
16	270	6.7	6.7	0.0	255	6.2	6.0	1.6	274	4.0	4.0	-0.3	280	7.3	7.2	-1.3	268	16.7	16.7	0.6	263	24.9	24.7	2.9	238	10.2	8.7	5.4
17	275	6.4	6.4	-0.6	254	5.7	5.5	1.6	280	3.5	3.4	-0.6	288	7.4	7.0	-2.3	276	19.3	19.2	-1.9	266	23.1	23.1	1.5	243	9.6	8.6	4.3
18	246	7.3	6.7	3.0	263	5.6	5.6	0.7	307	3.8	3.0	-2.3	294	7.9	7.2	-3.2	281	19.4	19.0	-3.8	266	22.9	22.9	1.5	242	9.8	8.7	4.6
19	247	5.2	4.8	2.0	255	6.4	6.2	1.7	275	4.8	4.8	-0.4	304	7.6	6.3	-4.2	281	17.2	16.9	-3.3	270	22.0	22.0	0.0	239	7.4	6.4	3.8
20	233	6.4	5.1	3.8	245	7.0	6.3	3.0	290	4.9	4.6	-1.7	297	8.7	7.8	-3.9	283	17.8	17.3	-4.1	275	19.5	19.4	-1.6	244	7.9	7.1	3.4
21	269	6.4	6.4	0.1	257	7.3	7.1	1.6	284	7.2	7.0	-1.8	289	9.1	8.6	-3.0	277	20.0	19.9	-2.4	271	19.3	19.3	-0.5	260	4.8	4.7	0.8
22	245	8.4	7.6	3.5	256	6.1	5.9	1.5	294	3.9	3.6	-1.6	301	8.1	6.9	-4.2	289	15.2	14.4	-4.9	275	16.0	15.9	-1.4	265	8.8	8.8	0.8
23	250	7.8	7.3	2.7	260	7.2	7.1	1.3	303	4.0	3.4	-2.2	312	7.8	5.8	-5.2	293	16.1	14.8	-6.3	274	15.3	15.3	-1.2	273	5.3	5.3	-0.3
24	247	8.3	7.6	3.3	248	6.8	6.3	2.5	309	4.4	3.4	-2.8	311	7.2	5.4	-4.7	287	14.1	13.5	-4.0	288	15.7	15.0	-4.8	263	7.6	7.5	0.9
25	250	8.3	7.8	2.9	249	7.2	6.7	2.6	300	3.8	3.3	-1.9	304	6.9	5.7	-3.8	296	13.9	12.5	-6.0	277	15.0	14.9	-1.8	238	4.5	3.8	2.4
26	251	8.3	7.8	2.7	253	7.0	6.7	2.1	294	4.2	3.8	-1.7	320	6.8	4.4	-5.2	283	13.5	13.2	-3.0	261	17.0	16.8	2.6	241	7.1	6.2	3.4
27	257	9.0	8.8	2.1	245	6.7	6.1	2.8	300	3.9	3.4	-2.0	306	5.4	4.4	-3.2	274	13.6	13.6	-0.9	270	16.8	16.8	0.0	225	5.1	3.6	3.6
28	259	7.2	7.1	1.4	254	4.8	4.6	1.3	322	3.4	2.1	-2.7	300	6.7	5.8	-3.3	273	15.0	15.0	-0.8	264	15.3	15.2	1.5	229	5.5	4.2	3.6
29	253	8.9	8.5	2.6	249	7.1	6.6	2.5	268	5.4	5.4	0.2	291	7.0	6.5	-2.5	274	15.9	15.9	-1.1	265	15.3	15.2	1.4	225	4.2	3.0	3.0
30	251	8.4	8.0	2.7	236	6.6	5.5	3.7	274	4.0	4.0	-0.3	300	5.2	4.5	-2.6	276	13.7	13.6	-1.4	259	13.2	12.9	2.6	234	4.2	3.4	2.5
31	249	6.2	5.8	2.2	248	6.6	6.1	2.5	283	3.1	3.0	-0.7	300	6.2	5.4	-3.1	281	10.1	9.9	-1.9	257	13.6	13.2	3.1	241	4.6	4.0	2.2

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	247	7.5	6.9	3.0	242	5.5	4.9	2.6	319	2.3	1.5	-1.7	328	3.8	2.0	-3.2	279	11.4	11.3	-1.8	249	12.6	11.7	4.6	195	2.0	0.5	1.9
2	254	9.1	8.8	2.5	256	6.8	6.6	1.7	314	3.6	2.6	-2.5	327	5.9	3.2	-4.9	290	11.8	11.1	-4.0	258	15.7	15.4	3.3	220	5.1	3.3	3.9
3	243	4.5	4.0	2.0	236	5.7	4.7	3.2	290	3.5	3.3	-1.2	332	4.9	2.3	-4.3	265	11.2	11.2	0.9	253	12.3	11.8	3.6	230	5.5	4.2	3.5
4	248	5.8	5.4	2.2	247	6.9	6.3	2.7	323	2.0	1.2	-1.6	328	4.6	2.4	-3.9	276	11.4	11.3	-1.2	258	12.9	12.6	2.7	283	3.1	3.0	-0.7
5	257	5.9	5.8	1.3	245	6.4	5.8	2.7	347	2.6	0.6	-2.5	341	4.9	1.6	-4.6	293	9.6	8.8	-3.8	268	12.3	12.3	0.4	229	2.9	2.2	1.9
6	248	6.2	5.8	2.3	239	7.0	6.0	3.6	334	2.8	1.2	-2.5	335	5.9	2.5	-5.3	288	9.7	9.2	-3.0	255	13.6	13.1	3.5	90	3.6	-3.6	0.0
7	246	7.8	7.1	3.2	236	6.9	5.7	3.8	315	1.7	1.2	-1.2	343	4.5	1.3	-4.3	277	8.6	8.5	-1.1	258	11.5	11.2	2.4	309	2.2	1.7	-1.4
8	246	7.9	7.2	3.2	244	7.5	6.7	3.3	324	2.4	1.4	-1.9	337	5.2	2.0	-4.8	283	9.6	9.3	-2.2	263	10.1	10.0	1.2	34	1.8	-1.0	-1.5
9	235	8.2	6.7	4.7	232	6.0	4.7	3.7	360	1.3	0.0	-1.3	350	3.5	0.6	-3.4	283	7.6	7.4	-1.7	270	7.6	7.6	0.0	95	3.2	-3.2	0.3
10	226	5.2	3.7	3.6	232	7.1	5.6	4.4	317	2.5	1.7	-1.8	315	4.4	3.1	-3.1	288	5.8	5.5	-1.8	258	7.9	7.7	1.6	50	2.3	-1.8	-1.5
11	245	19.6	17.7	8.4	241	7.3	6.4	3.6	270	2.6	2.6	0.0	337	2.6	1.0	-2.4	275	6.1	6.1	-0.5	260	6.4	6.3	1.1	99	4.0	-4.0	0.6
12	233	8.4	6.7	5.1	245	8.3	7.5	3.5	310	1.7	1.3	-1.1	325	2.9	1.7	-2.4	268	6.8	6.8	0.2	267	6.1	6.1	0.3	120	1.4	-1.2	0.7
13	246	6.4	5.9	2.6	245	6.3	5.7	2.6	331	2.5	1.2	-2.2	347	3.9	0.9	-3.8	267	9.2	9.2	0.5	264	7.2	7.2	0.7	83	5.2	-5.2	-0.6
14	231	4.1	3.2	2.6	234	6.4	5.2	3.8	349	0.5	0.1	-0.5	337	2.8	1.1	-2.6	285	5.9	5.7	-1.5	273	6.3	6.3	-0.3	84	3.7	-3.7	-0.4
15	246	4.3	3.9	1.7	232	6.5	5.1	4.0	21	2.2	-0.8	-2.1	358	3.7	0.1	-3.7	283	6.9	6.7	-1.5	261	6.3	6.2	1.0	77	4.3	-4.2	-1.0
16	238	4.9	4.2	2.6	253	5.9	5.6	1.7	6	1.8	-0.2	-1.8	351	3.1	0.5	-3.1	290	5.4	5.1	-1.9	264	6.9	6.9	0.7	65	4.5	-4.1	-1.9
17	258	6.6	6.5	1.4	247	6.9	6.3	2.7	348	1.4	0.3	-1.4	360	2.5	0.0	-2.5	324	3.7	2.2	-3.0	259	3.2	3.1	0.6	82	6.0	-5.9	-0.8
18	252	8.3	7.9	2.6	244	8.9	8.0	3.9	49	1.1	-0.8	-0.7	2	3.8	-0.1	-3.8	326	4.2	2.4	-3.5	272	2.4	2.4	-0.1	106	4.1	-3.9	1.1
19	245	5.1	4.6	2.1	233	8.3	6.6	5.0	331	1.0	0.5	-0.9	21	3.6	-1.3	-3.4	21	0.9	-0.3	-0.8	303	1.7	1.4	-0.9	83	5.5	-5.5	-0.7
20	243	5.1	4.6	2.3	236	6.5	5.4	3.7	19	2.4	-0.8	-2.3	25	3.5	-1.5	-3.2	311	3.2	2.4	-2.1	284	2.1	2.0	-0.5	80	6.0	-5.9	-1.0
21	254	9.5	9.1	2.6	234	7.1	5.7	4.2	16	1.9	-0.5	-1.8	333	2.9	1.3	-2.6	281	2.0	2.0	-0.4	225	1.4	1.0	1.0	73	6.7	-6.4	-2.0
22	248	9.4	8.7	3.6	241	6.4	5.6	3.1	343	1.7	0.5	-1.6	347	0.9	0.2	-0.9	254	1.8	1.7	0.5	176	1.3	-0.1	1.3	88	8.6	-8.6	-0.3
23	243	9.5	8.5	4.3	227	5.4	4.0	3.7	49	3.0	-2.3	-2.0	34	1.8	-1.0	-1.5	291	3.0	2.8	-1.1	270	1.0	1.0	0.0	70	6.3	-5.9	-2.2
24	247	5.1	4.7	2.0	238	6.4	5.4	3.4	25	1.4	-0.6	-1.3	43	4.4	-3.0	-3.2	16	2.6	-0.7	-2.5	207	0.4	0.2	0.4	79	8.7	-8.6	-1.6
25	246	8.0	7.3	3.2	235	5.1	4.2	2.9	40	1.6	-1.0	-1.2	43	3.8	-2.6	-2.8	63	0.7	-0.6	-0.3	202	1.8	0.7	1.7	98	10.8	-10.7	1.5
26	246	9.0	8.2	3.6	240	6.9	6.0	3.4	23	3.8	-1.5	-3.5	28	2.7	-1.3	-2.4	347	0.9	0.2	-0.9	142	1.8	-1.1	1.4	81	9.0	-8.9	-1.4
27	248	9.4	8.7	3.5	246	7.0	6.4	2.9	48	2.4	-1.8	-1.6	42	3.8	-2.5	-2.8	53	2.6	-2.1	-1.6	74	2.5	-2.4	-0.7	83	11.0	-10.9	-1.3
28	243	9.0	8.0	4.1	241	6.8	6.0	3.3	31	3.1	-1.6	-2.7	39	3.8	-2.4	-3.0	71	3.6	-3.4	-1.2	78	3.4	-3.3	-0.7	83	12.3	-12.2	-1.6
29	248	10.4	9.6	3.9	249	6.8	6.4	2.4	40	3.9	-2.5	-3.0	41	4.8	-3.1	-3.6	76	3.6	-3.5	-0.9	102	3.0	-2.9	0.6	76	11.5	-11.2	-2.7
30	244	7.6	6.8	3.3	233	7.4	5.9	4.4	31	2.9	-1.5	-2.5	31	3.5	-1.8	-3.0	27	1.3	-0.6	-1.2	96	1.8	-1.8	0.2	75	9.8	-9.4	-2.6

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	233	8.7	7.0	5.2	234	7.3	5.9	4.3	49	1.1	-0.8	-0.7	43	1.9	-1.3	-1.4	132	1.3	-1.0	0.9	98	3.5	-3.5	0.5	66	14.3	-13.0	-5.9
2	234	8.9	7.2	5.3	233	7.9	6.3	4.8	54	1.9	-1.5	-1.1	27	3.3	-1.5	-2.9	62	1.5	-1.3	-0.7	101	1.6	-1.6	0.3	80	12.2	-12.0	-2.2
3	233	7.0	5.6	4.2	233	8.1	6.5	4.9	60	0.8	-0.7	-0.4	57	1.7	-1.4	-0.9	104	0.8	-0.8	0.2	93	4.4	-4.4	0.2	80	12.2	-12.0	-2.1
4	247	5.6	5.1	2.2	234	8.1	6.5	4.8	158	0.5	-0.2	0.5	48	1.3	-1.0	-0.9	124	1.1	-0.9	0.6	132	2.8	-2.1	1.9	80	13.8	-13.6	-2.4
5	237	5.9	5.0	3.2	226	8.1	5.9	5.6	108	1.3	-1.2	0.4	55	2.9	-2.4	-1.7	87	1.9	-1.9	-0.1	149	3.9	-2.0	3.3	81	13.4	-13.3	-2.0
6	235	7.7	6.3	4.4	231	7.6	5.9	4.8	65	1.7	-1.5	-0.7	34	2.7	-1.5	-2.2	153	0.2	-0.1	0.2	120	2.8	-2.4	1.4	70	13.4	-12.6	-4.5
7	247	9.9	9.1	3.8	241	6.6	5.8	3.2	53	0.5	-0.4	-0.3	49	3.2	-2.4	-2.1	45	2.8	-2.0	-2.0	74	3.7	-3.6	-1.0	72	14.6	-13.9	-4.4
8	240	8.3	7.2	4.2	224	5.9	4.1	4.3	31	2.9	-1.5	-2.5	42	5.8	-3.9	-4.3	82	5.1	-5.1	-0.7	95	6.9	-6.9	0.6	83	13.0	-12.9	-1.6
9	246	7.0	6.4	2.9	225	5.2	3.7	3.7	57	2.0	-1.7	-1.1	57	4.4	-3.7	-2.4	80	3.6	-3.5	-0.6	118	5.5	-4.9	2.6	82	15.0	-14.9	-2.0
10	248	6.9	6.4	2.6	237	5.1	4.3	2.8	40	1.7	-1.1	-1.3	37	3.4	-2.0	-2.7	79	3.3	-3.2	-0.6	112	5.2	-4.8	1.9	81	16.6	-16.4	-2.6
11	247	10.0	9.2	4.0	233	6.2	5.0	3.7	25	2.3	-1.0	-2.1	69	1.9	-1.8	-0.7	82	3.6	-3.6	-0.5	86	5.9	-5.9	-0.4	79	15.9	-15.6	-3.1
12	248	6.8	6.3	2.5	242	6.2	5.5	2.9	38	1.8	-1.1	-1.4	58	3.6	-3.0	-1.9	87	4.2	-4.2	-0.2	101	5.8	-5.7	1.1	80	16.1	-15.9	-2.8
13	254	6.4	6.1	1.8	243	6.2	5.5	2.8	41	2.3	-1.5	-1.7	73	2.8	-2.7	-0.8	91	4.3	-4.3	0.1	90	5.6	-5.6	0.0	80	13.7	-13.5	-2.3
14	258	7.9	7.7	1.7	256	5.4	5.2	1.3	18	2.6	-0.8	-2.5	63	2.8	-2.5	-1.3	82	3.7	-3.7	-0.5	115	5.2	-4.7	2.2	84	16.1	-16.0	-1.7
15	241	5.0	4.4	2.4	241	5.7	5.0	2.8	11	2.1	-0.4	-2.1	38	1.6	-1.0	-1.3	89	4.0	-4.0	-0.1	94	7.1	-7.1	0.5	82	16.1	-15.9	-2.3
16	284	15.2	14.7	-3.8	260	4.1	4.0	0.7	39	2.8	-1.8	-2.2	112	1.1	-1.0	0.4	93	4.2	-4.2	0.2	83	5.1	-5.1	-0.6	82	17.9	-17.7	-2.6
17	255	15.2	14.7	4.0	238	4.0	3.4	2.1	56	4.1	-3.4	-2.3	52	2.9	-2.3	-1.8	90	4.6	-4.6	0.0	100	7.4	-7.3	1.3	86	18.7	-18.7	-1.3
18	229	6.2	4.7	4.1	242	5.4	4.8	2.5	34	2.7	-1.5	-2.2	81	2.5	-2.5	-0.4	90	4.9	-4.9	0.0	95	6.4	-6.4	0.6	81	16.6	-16.4	-2.5
19	230	6.9	5.3	4.4	233	4.6	3.7	2.8	51	2.1	-1.6	-1.3	95	3.4	-3.4	0.3	105	5.2	-5.0	1.3	97	7.3	-7.2	0.9	90	14.9	-14.9	0.0
20	240	7.2	6.2	3.6	239	6.2	5.3	3.2	22	2.7	-1.0	-2.5	72	1.6	-1.5	-0.5	87	3.9	-3.9	-0.2	93	7.3	-7.3	0.4	79	15.1	-14.8	-2.8
21	248	4.6	4.3	1.7	235	5.7	4.7	3.3	36	1.9	-1.1	-1.5	69	2.8	-2.6	-1.0	100	3.5	-3.4	0.6	96	7.2	-7.2	0.7	87	15.5	-15.5	-0.9
22	248	8.4	7.8	3.1	260	3.9	3.8	0.7	43	3.3	-2.2	-2.4	61	2.3	-2.0	-1.1	96	5.8	-5.8	0.6	98	8.1	-8.0	1.1	82	15.1	-15.0	-2.0
23	250	7.9	7.4	2.7	247	5.0	4.6	2.0	65	2.3	-2.1	-1.0	81	2.4	-2.4	-0.4	103	5.1	-5.0	1.2	97	8.1	-8.0	1.0	90	14.5	-14.5	0.0
24	249	7.4	6.9	2.6	238	4.9	4.1	2.6	47	2.3	-1.7	-1.6	68	3.1	-2.9	-1.2	104	4.6	-4.5	1.1	97	7.6	-7.5	0.9	81	16.6	-16.4	-2.6
25	248	8.4	7.8	3.2	244	4.8	4.3	2.1	46	3.0	-2.2	-2.1	38	4.7	-2.9	-3.7	86	4.7	-4.7	-0.3	104	7.8	-7.6	1.9	88	15.5	-15.5	-0.5
26	254	9.1	8.8	2.5	243	6.9	6.2	3.1	43	1.8	-1.2	-1.3	58	3.2	-2.7	-1.7	83	5.6	-5.6	-0.7	100	8.2	-8.1	1.4	84	16.0	-15.9	-1.7
27	255	8.7	8.4	2.2	253	7.0	6.7	2.0	27	2.0	-0.9	-1.8	55	2.9	-2.4	-1.7	93	5.6	-5.6	0.3	105	8.7	-8.4	2.2	84	16.7	-16.6	-1.6
28	248	5.6	5.2	2.1	246	5.5	5.0	2.2	32	3.6	-1.9	-3.0	72	3.3	-3.1	-1.0	89	4.9	-4.9	-0.1	96	7.2	-7.2	0.7	84	17.3	-17.2	-1.7
29	266	5.3	5.3	0.4	231	5.5	4.3	3.5	42	2.4	-1.6	-1.8	41	3.0	-2.0	-2.3	92	4.9	-4.9	0.2	97	7.0	-7.0	0.8	89	18.9	-18.9	-0.2
30	261	7.3	7.2	1.2	243	5.8	5.2	2.6	51	4.0	-3.1	-2.5	79	3.7	-3.6	-0.7	108	6.0	-5.7	1.8	109	9.3	-8.8	3.1	92	16.5	-16.5	0.6
31	240	4.8	4.1	2.4	235	5.2	4.3	3.0	39	3.8	-2.4	-3.0	61	3.1	-2.7	-1.5	122	6.8	-5.8	3.6	107	7.9	-7.6	2.3	87	15.5	-15.5	-0.9

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	241	7.5	6.6	3.6	251	5.0	4.7	1.6	50	3.3	-2.5	-2.1	76	3.0	-2.9	-0.7	103	6.9	-6.7	1.5	103	10.9	-10.6	2.4	84	19.6	-19.5	-2.2
2	243	6.5	5.8	3.0	239	5.7	4.9	2.9	51	2.2	-1.7	-1.4	62	3.4	-3.0	-1.6	90	6.5	-6.5	0.0	88	9.4	-9.4	-0.4	82	17.6	-17.4	-2.4
3	247	8.6	7.9	3.4	239	6.9	5.9	3.5	59	2.7	-2.3	-1.4	75	4.6	-4.4	-1.2	89	5.7	-5.7	-0.1	90	9.0	-9.0	0.0	80	16.9	-16.6	-2.9
4	255	6.0	5.8	1.6	242	3.4	3.0	1.6	47	2.5	-1.8	-1.7	55	4.4	-3.6	-2.5	98	3.7	-3.7	0.5	89	7.5	-7.5	-0.1	74	19.8	-19.1	-5.4
5	261	7.9	7.8	1.3	235	3.3	2.7	1.9	45	1.8	-1.3	-1.3	66	3.5	-3.2	-1.4	74	3.3	-3.2	-0.9	103	5.8	-5.7	1.3	82	16.6	-16.4	-2.4
6	255	9.1	8.8	2.3	242	6.2	5.5	2.9	37	1.5	-0.9	-1.2	88	2.9	-2.9	-0.1	99	5.7	-5.6	0.9	83	7.9	-7.8	-1.0	85	14.7	-14.6	-1.3
7	256	10.0	9.7	2.5	239	5.5	4.7	2.8	15	2.3	-0.6	-2.2	75	4.2	-4.1	-1.1	86	6.4	-6.4	-0.4	93	9.3	-9.3	0.5	91	17.2	-17.2	0.3
8	244	10.0	9.0	4.3	229	4.5	3.4	3.0	54	4.3	-3.5	-2.5	69	4.9	-4.6	-1.8	88	5.1	-5.1	-0.2	100	7.8	-7.7	1.4	77	15.6	-15.2	-3.4
9	246	8.5	7.8	3.5	209	3.5	1.7	3.1	64	3.2	-2.9	-1.4	68	3.5	-3.2	-1.3	95	6.5	-6.5	0.6	96	8.0	-8.0	0.8	87	13.1	-13.1	-0.8
10	239	5.1	4.4	2.6	263	3.1	3.1	0.4	50	3.8	-2.9	-2.4	71	4.3	-4.1	-1.4	91	5.8	-5.8	0.1	95	10.0	-10.0	0.9	88	16.3	-16.3	-0.7
11	272	4.8	4.8	-0.2	249	2.5	2.3	0.9	44	4.0	-2.8	-2.9	65	4.2	-3.8	-1.8	89	5.1	-5.1	-0.1	110	9.0	-8.5	3.1	73	15.4	-14.8	-4.4
12	246	6.4	5.8	2.6	236	5.9	4.9	3.3	52	1.1	-0.9	-0.7	56	3.0	-2.5	-1.7	95	4.2	-4.2	0.4	91	7.6	-7.6	0.1	77	15.4	-15.0	-3.6
13	247	9.4	8.6	3.7	232	5.7	4.5	3.5	6	1.8	-0.2	-1.8	43	2.2	-1.5	-1.6	51	2.7	-2.1	-1.7	69	4.5	-4.2	-1.6	76	14.0	-13.6	-3.3
14	243	6.8	6.0	3.1	249	4.9	4.6	1.8	38	2.4	-1.5	-1.9	51	2.7	-2.1	-1.7	79	2.0	-2.0	-0.4	97	5.2	-5.2	0.6	83	15.2	-15.1	-1.8
15	245	7.2	6.5	3.1	228	3.8	2.8	2.5	31	2.9	-1.5	-2.5	51	3.6	-2.8	-2.3	83	4.6	-4.6	-0.6	91	5.5	-5.5	0.1	85	12.3	-12.3	-1.1
16	252	8.2	7.8	2.5	251	4.6	4.4	1.5	38	2.8	-1.7	-2.2	63	2.5	-2.2	-1.1	93	3.8	-3.8	0.2	102	8.4	-8.2	1.7	84	14.9	-14.8	-1.5
17	248	7.4	6.8	2.8	233	3.6	2.9	2.2	58	3.1	-2.6	-1.6	71	3.6	-3.4	-1.2	97	4.7	-4.7	0.6	120	5.8	-5.0	2.9	85	14.7	-14.6	-1.3
18	256	8.3	8.1	2.0	221	4.4	2.9	3.3	72	2.2	-2.1	-0.7	86	3.0	-3.0	-0.2	111	3.6	-3.4	1.3	118	6.6	-5.8	3.1	90	15.2	-15.2	-0.1
19	256	7.7	7.5	1.9	236	4.5	3.7	2.5	35	3.9	-2.2	-3.2	64	2.8	-2.5	-1.2	88	2.5	-2.5	-0.1	106	5.9	-5.7	1.6	82	14.6	-14.5	-2.0
20	252	8.6	8.2	2.6	252	3.6	3.4	1.1	40	3.9	-2.5	-3.0	67	3.3	-3.0	-1.3	76	4.0	-3.9	-1.0	91	5.3	-5.3	0.1	78	13.9	-13.6	-2.8
21	249	7.2	6.7	2.6	253	4.4	4.2	1.3	33	3.5	-1.9	-2.9	86	2.6	-2.6	-0.2	102	3.4	-3.3	0.7	92	5.2	-5.2	0.2	85	14.0	-13.9	-1.3
22	261	6.0	5.9	0.9	247	4.1	3.8	1.6	56	3.2	-2.7	-1.8	62	1.7	-1.5	-0.8	71	4.2	-4.0	-1.4	94	5.8	-5.8	0.4	82	13.5	-13.4	-1.8
23	264	4.4	4.4	0.5	253	3.0	2.9	0.9	49	3.8	-2.9	-2.5	62	3.6	-3.2	-1.7	73	3.8	-3.6	-1.1	96	6.6	-6.6	0.7	84	13.2	-13.1	-1.4
24	249	4.9	4.6	1.8	244	3.0	2.7	1.3	55	4.4	-3.6	-2.5	68	3.1	-2.9	-1.2	85	2.4	-2.4	-0.2	115	3.8	-3.4	1.6	87	11.3	-11.3	-0.5
25	258	4.9	4.8	1.0	232	4.6	3.6	2.8	36	3.6	-2.1	-2.9	56	2.5	-2.1	-1.4	127	1.5	-1.2	0.9	127	4.6	-3.7	2.8	72	10.0	-9.5	-3.0
26	256	4.9	4.7	1.2	238	6.2	5.2	3.3	35	3.7	-2.1	-3.0	38	1.8	-1.1	-1.4	145	1.2	-0.7	1.0	129	3.3	-2.6	2.1	84	10.7	-10.6	-1.2
27	272	5.8	5.8	-0.2	247	4.0	3.7	1.6	24	3.6	-1.5	-3.3	62	3.2	-2.8	-1.5	97	1.6	-1.6	0.2	124	3.7	-3.1	2.1	83	11.5	-11.4	-1.4
28	248	5.5	5.1	2.1	230	3.1	2.4	2.0	35	4.0	-2.3	-3.3	65	2.9	-2.6	-1.2	125	1.9	-1.6	1.1	134	4.3	-3.1	3.0	83	11.4	-11.3	-1.4
29	258	6.4	6.3	1.3	232	2.3	1.8	1.4	45	3.5	-2.5	-2.5	63	2.9	-2.6	-1.3	106	2.5	-2.4	0.7	129	3.6	-2.8	2.3	84	10.8	-10.7	-1.2
30	255	6.6	6.4	1.7	263	1.6	1.6	0.2	54	4.8	-3.9	-2.8	67	2.8	-2.6	-1.1	146	1.1	-0.6	0.9	147	2.7	-1.5	2.3	88	10.3	-10.3	-0.3
31	268	6.8	6.8	0.2	270	0.9	0.9	0.0	43	4.8	-3.3	-3.5	67	3.3	-3.0	-1.3	163	1.0	-0.3	1.0	139	3.5	-2.3	2.6	85	10.5	-10.5	-1.0

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	241	5.6	4.9	2.7	239	1.7	1.5	0.9	34	4.6	-2.6	-3.8	52	2.4	-1.9	-1.5	149	1.2	-0.6	1.0	162	5.1	-1.6	4.8	95	8.4	-8.4	0.7
2	254	6.3	6.1	1.7	246	3.2	2.9	1.3	40	3.9	-2.5	-3.0	56	3.0	-2.5	-1.7	219	0.6	0.4	0.5	145	5.0	-2.9	4.1	87	8.7	-8.7	-0.5
3	253	4.2	4.0	1.2	232	3.3	2.6	2.0	39	3.5	-2.2	-2.7	68	2.2	-2.0	-0.8	190	1.1	0.2	1.1	127	3.4	-2.7	2.0	78	6.6	-6.4	-1.4
4	264	5.0	5.0	0.5	221	2.8	1.8	2.1	44	3.3	-2.3	-2.4	180	0.4	0.0	0.4	252	1.6	1.5	0.5	175	2.3	-0.2	2.3	86	8.1	-8.1	-0.5
5	257	7.1	6.9	1.6	242	4.3	3.8	2.0	52	2.3	-1.8	-1.4	288	0.3	0.3	-0.1	124	0.4	-0.3	0.2	168	2.5	-0.5	2.4	80	9.4	-9.3	-1.6
6	269	6.3	6.3	0.1	234	4.7	3.8	2.8	21	3.0	-1.1	-2.8	360	1.4	0.0	-1.4	252	2.5	2.4	0.8	151	2.3	-1.1	2.0	86	8.5	-8.5	-0.6
7	264	4.8	4.8	0.5	245	4.2	3.8	1.8	15	3.0	-0.8	-2.9	15	1.6	-0.4	-1.5	254	2.5	2.4	0.7	222	1.2	0.8	0.9	83	6.4	-6.3	-0.8
8	280	3.9	3.8	-0.7	252	3.8	3.6	1.2	41	2.3	-1.5	-1.7	72	0.3	-0.3	-0.1	229	2.8	2.1	1.8	216	2.2	1.3	1.8	99	6.8	-6.7	1.1
9	256	6.3	6.1	1.5	242	4.0	3.5	1.9	42	3.0	-2.0	-2.2	337	0.8	0.3	-0.7	261	2.6	2.6	0.4	180	1.5	0.0	1.5	83	7.9	-7.8	-0.9
10	243	5.1	4.5	2.3	240	3.4	2.9	1.7	74	1.9	-1.8	-0.5	165	1.6	-0.4	1.5	261	4.0	4.0	0.6	213	4.3	2.3	3.6	82	7.3	-7.2	-1.0
11	261	5.9	5.8	0.9	238	2.8	2.4	1.5	40	3.4	-2.2	-2.6	297	0.2	0.2	-0.1	241	4.5	3.9	2.2	211	5.2	2.7	4.5	102	4.9	-4.8	1.0
12	264	5.8	5.8	0.6	250	2.3	2.2	0.8	42	2.5	-1.7	-1.9	270	1.1	1.1	0.0	247	3.8	3.5	1.5	225	4.7	3.3	3.3	72	4.3	-4.1	-1.3
13	273	6.2	6.2	-0.3	239	2.9	2.5	1.5	37	2.6	-1.6	-2.1	326	0.4	0.2	-0.3	250	5.6	5.3	1.9	220	4.0	2.6	3.1	82	5.8	-5.7	-0.8
14	244	12.8	11.5	5.7	258	3.4	3.3	0.7	59	2.7	-2.3	-1.4	323	1.0	0.6	-0.8	258	6.2	6.1	1.3	237	6.0	5.0	3.3	81	4.4	-4.3	-0.7
15	261	6.7	6.6	1.1	229	3.0	2.3	2.0	41	2.9	-1.9	-2.2	217	0.5	0.3	0.4	253	6.1	5.8	1.8	239	7.1	6.1	3.7	121	4.3	-3.7	2.2
16	255	6.7	6.5	1.7	244	2.8	2.5	1.2	40	2.5	-1.6	-1.9	295	2.3	2.1	-1.0	263	6.7	6.7	0.8	245	6.3	5.7	2.7	77	5.4	-5.3	-1.2
17	254	5.1	4.9	1.4	247	3.0	2.8	1.2	23	1.5	-0.6	-1.4	247	1.5	1.4	0.6	263	8.5	8.4	1.0	238	8.0	6.8	4.2	189	1.8	0.3	1.8
18	231	4.8	3.7	3.0	238	3.6	3.0	1.9	71	2.8	-2.6	-0.9	243	2.0	1.8	0.9	256	8.1	7.8	2.0	240	7.9	6.8	4.0	85	2.1	-2.1	-0.2
19	255	5.5	5.3	1.4	229	3.2	2.4	2.1	53	3.0	-2.4	-1.8	276	2.0	2.0	-0.2	250	8.1	7.6	2.7	233	7.7	6.2	4.6	73	2.1	-2.0	-0.6
20	254	5.7	5.5	1.6	222	2.4	1.6	1.8	110	2.0	-1.9	0.7	290	1.5	1.4	-0.5	245	8.1	7.4	3.4	236	9.2	7.6	5.2	101	3.8	-3.7	0.7
21	255	4.8	4.6	1.2	255	1.1	1.1	0.3	45	2.7	-1.9	-1.9	280	2.3	2.3	-0.4	259	9.8	9.6	1.8	243	11.4	10.1	5.2	186	1.0	0.1	1.0
22	229	5.7	4.3	3.8	219	1.3	0.8	1.0	22	2.9	-1.1	-2.7	319	1.8	1.2	-1.4	256	9.1	8.8	2.2	242	10.9	9.6	5.2	230	1.7	1.3	1.1
23	244	4.9	4.4	2.1	285	1.1	1.1	-0.3	24	3.6	-1.5	-3.3	281	2.1	2.1	-0.4	254	11.8	11.3	3.3	252	13.0	12.4	4.0	270	1.2	1.2	0.0
24	247	3.4	3.1	1.3	279	1.3	1.3	-0.2	32	3.2	-1.7	-2.7	277	1.6	1.6	-0.2	264	9.2	9.1	1.0	248	11.6	10.7	4.4	229	2.8	2.1	1.8
25	274	3.9	3.9	-0.3	247	1.3	1.2	0.5	47	3.3	-2.4	-2.2	283	2.3	2.2	-0.5	262	10.4	10.3	1.4	250	11.8	11.1	4.0	50	1.7	-1.3	-1.1
26	261	5.7	5.6	0.9	258	1.9	1.9	0.4	19	3.4	-1.1	-3.2	309	1.9	1.5	-1.2	271	11.8	11.8	-0.3	255	13.2	12.8	3.4	184	1.4	0.1	1.4
27	259	5.1	5.0	1.0	265	3.3	3.3	0.3	26	2.8	-1.2	-2.5	303	3.0	2.5	-1.6	268	12.3	12.3	0.4	263	12.4	12.3	1.5	312	1.3	1.0	-0.9
28	254	3.2	3.1	0.9	253	2.1	2.0	0.6	360	2.8	0.0	-2.8	296	3.4	3.1	-1.5	264	10.1	10.0	1.1	270	10.5	10.5	0.0	96	1.0	-1.0	0.1
29	238	4.5	3.8	2.4	249	2.5	2.3	0.9	15	1.1	-0.3	-1.1	301	2.6	2.2	-1.3	259	13.1	12.9	2.5	256	14.3	13.9	3.4	290	2.0	1.9	-0.7
30	249	4.0	3.7	1.4	246	1.2	1.1	0.5	329	1.7	0.9	-1.5	284	4.5	4.4	-1.1	263	13.0	12.9	1.5	262	14.6	14.5	2.0	209	2.3	1.1	2.0

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	274	4.2	4.2	-0.3	262	2.2	2.2	0.3	355	1.2	0.1	-1.2	277	4.8	4.8	-0.6	261	14.7	14.5	2.2	253	14.8	14.2	4.3	255	2.7	2.6	0.7
2	255	3.1	3.0	0.8	248	1.6	1.5	0.6	357	1.9	0.1	-1.9	308	3.6	2.8	-2.2	274	12.6	12.6	-0.8	261	15.0	14.8	2.3	212	1.9	1.0	1.6
3	256	4.9	4.8	1.2	266	1.5	1.5	0.1	354	2.8	0.3	-2.8	295	5.1	4.6	-2.1	264	12.5	12.4	1.4	249	14.5	13.6	5.1	255	6.4	6.2	1.7
4	253	5.2	5.0	1.5	267	1.9	1.9	0.1	8	3.0	-0.4	-3.0	290	5.6	5.3	-1.9	264	13.4	13.3	1.4	257	16.4	16.0	3.8	260	5.2	5.1	0.9
5	279	2.0	2.0	-0.3	284	1.6	1.6	-0.4	10	2.8	-0.5	-2.8	308	5.6	4.4	-3.4	265	13.5	13.4	1.2	255	15.4	14.9	3.9	255	4.7	4.5	1.2
6	90	0.4	-0.4	0.0	287	1.7	1.6	-0.5	4	4.2	-0.3	-4.2	311	6.0	4.5	-3.9	262	11.8	11.7	1.7	254	15.9	15.3	4.4	252	3.6	3.4	1.1
7	353	1.6	0.2	-1.6	293	2.1	1.9	-0.8	356	3.2	0.2	-3.2	293	5.6	5.1	-2.2	262	14.4	14.3	1.9	254	17.1	16.5	4.6	245	8.2	7.4	3.5
8	297	0.9	0.8	-0.4	262	1.5	1.5	0.2	358	2.5	0.1	-2.5	293	5.6	5.2	-2.2	264	16.5	16.4	1.7	254	18.7	18.0	5.0	266	7.9	7.9	0.5
9	27	0.4	-0.2	-0.4	291	2.6	2.4	-0.9	355	3.4	0.3	-3.4	285	7.9	7.6	-2.0	267	15.7	15.7	0.8	256	19.6	19.1	4.6	255	8.0	7.7	2.0
10	29	1.0	-0.5	-0.9	291	1.4	1.3	-0.5	344	3.3	0.9	-3.2	276	8.1	8.0	-0.9	267	16.9	16.9	0.9	262	16.8	16.7	2.2	264	11.6	11.5	1.2
11	304	1.1	0.9	-0.6	279	3.1	3.1	-0.5	335	2.6	1.1	-2.4	280	9.1	9.0	-1.6	269	19.1	19.1	0.5	257	19.9	19.4	4.6	265	8.9	8.9	0.8
12	325	1.6	0.9	-1.3	278	2.2	2.2	-0.3	350	2.8	0.5	-2.8	290	6.3	5.9	-2.1	267	18.3	18.3	0.8	261	20.9	20.6	3.4	267	13.2	13.2	0.7
13	139	0.9	-0.6	0.7	289	2.4	2.3	-0.8	317	3.4	2.3	-2.5	292	8.2	7.6	-3.1	266	19.7	19.7	1.3	264	22.2	22.1	2.5	258	8.9	8.7	1.8
14	195	3.5	0.9	3.4	258	2.9	2.8	0.6	328	3.2	1.7	-2.7	277	8.1	8.0	-1.0	268	20.2	20.2	0.8	257	21.5	21.0	4.8	261	6.7	6.6	1.0
15	135	0.6	-0.4	0.4	285	2.4	2.3	-0.6	294	2.2	2.0	-0.9	285	8.7	8.4	-2.3	276	20.3	20.2	-2.3	260	22.8	22.5	3.8	260	11.3	11.1	1.9
16	85	4.2	-4.2	-0.4	302	1.3	1.1	-0.7	320	1.7	1.1	-1.3	282	9.3	9.1	-2.0	270	19.7	19.7	-0.1	255	23.8	22.9	6.3	263	10.8	10.7	1.3
17	65	1.4	-1.3	-0.6	298	1.5	1.3	-0.7	317	2.2	1.5	-1.6	280	7.5	7.4	-1.3	269	21.9	21.9	0.4	258	25.7	25.1	5.5	258	10.9	10.7	2.2
18	276	1.9	1.9	-0.2	303	1.7	1.4	-0.9	344	2.6	0.7	-2.5	279	8.6	8.5	-1.4	263	22.4	22.2	2.7	259	26.8	26.3	5.2	263	16.1	16.0	2.0
19	270	3.4	3.4	0.0	285	2.4	2.3	-0.6	290	5.2	4.9	-1.8	278	8.4	8.3	-1.1	265	24.0	23.9	2.1	257	30.4	29.6	6.9	261	10.6	10.5	1.7
20	277	3.1	3.1	-0.4	297	2.0	1.8	-0.9	318	3.6	2.4	-2.7	287	9.2	8.8	-2.7	272	21.3	21.3	-0.7	262	26.3	26.0	3.7	257	11.5	11.2	2.6
21	289	1.8	1.7	-0.6	260	1.7	1.7	0.3	324	2.4	1.4	-1.9	282	9.7	9.5	-2.1	270	21.9	21.9	0.0	265	28.0	27.9	2.6	262	12.8	12.7	1.7
22	275	2.1	2.1	-0.2	265	2.4	2.4	0.2	293	2.3	2.1	-0.9	275	8.9	8.9	-0.8	268	23.6	23.6	0.9	263	28.7	28.5	3.6	262	15.5	15.3	2.2
23	342	0.3	0.1	-0.3	285	1.6	1.5	-0.4	294	2.7	2.5	-1.1	275	8.6	8.6	-0.8	268	23.3	23.3	1.0	262	28.8	28.5	3.8	257	13.2	12.9	2.9
24	354	1.8	0.2	-1.8	281	1.0	1.0	-0.2	317	2.5	1.7	-1.8	277	8.2	8.1	-1.0	265	24.4	24.3	2.1	259	28.0	27.5	5.1	265	12.6	12.5	1.2
25	307	1.5	1.2	-0.9	270	0.7	0.7	0.0	318	2.7	1.8	-2.0	286	9.2	8.9	-2.5	266	27.2	27.1	1.8	266	30.5	30.4	2.2	266	14.9	14.9	1.1
26	260	1.1	1.1	0.2	266	1.4	1.4	0.1	321	3.5	2.2	-2.7	288	9.7	9.2	-3.0	276	23.7	23.6	-2.6	261	32.8	32.4	5.2	272	16.9	16.9	-0.7
27	337	0.8	0.3	-0.7	297	1.3	1.2	-0.6	326	3.4	1.9	-2.8	286	10.1	9.7	-2.8	264	26.1	26.0	2.7	258	33.6	32.9	6.8	269	12.5	12.5	0.2
28	10	1.1	-0.2	-1.1	286	1.8	1.7	-0.5	331	2.9	1.4	-2.5	288	7.9	7.5	-2.4	272	22.0	22.0	-0.7	259	29.8	29.2	5.9	255	15.6	15.1	4.0
29	4	1.6	-0.1	-1.6	326	1.8	1.0	-1.5	348	3.0	0.6	-2.9	299	7.7	6.8	-3.7	277	21.2	21.1	-2.5	261	28.7	28.3	4.5	267	12.9	12.9	0.6
30	43	1.6	-1.1	-1.2	276	0.9	0.9	-0.1	326	2.2	1.2	-1.8	286	9.1	8.8	-2.5	270	22.9	22.9	0.1	262	30.1	29.8	4.1	266	16.9	16.9	1.2
31	39	0.6	-0.4	-0.5	8	1.4	-0.2	-1.4	329	2.7	1.4	-2.3	278	9.8	9.7	-1.3	271	23.5	23.5	-0.5	260	31.4	30.9	5.3	271	16.2	16.2	-0.2

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	63	2.5	-2.2	-1.1	62	1.5	-1.3	-0.7	325	3.2	1.8	-2.6	277	10.0	9.9	-1.3	275	23.5	23.4	-2.2	264	32.0	31.8	3.1	266	17.2	17.2	1.2
2	97	2.3	-2.3	0.3	319	0.9	0.6	-0.7	349	3.3	0.6	-3.2	287	11.2	10.7	-3.2	273	24.6	24.6	-1.2	269	31.3	31.3	0.4	270	18.7	18.7	0.1
3	174	0.9	-0.1	0.9	317	2.1	1.4	-1.5	333	3.7	1.7	-3.3	283	11.3	11.0	-2.5	264	22.5	22.4	2.2	259	28.3	27.8	5.4	253	17.0	16.3	4.9
4	146	0.4	-0.2	0.3	313	1.9	1.4	-1.3	324	4.1	2.4	-3.3	287	12.1	11.6	-3.5	282	25.6	25.1	-5.2	264	31.4	31.2	3.3	267	14.9	14.9	0.7
5	247	0.8	0.7	0.3	315	1.7	1.2	-1.2	337	3.8	1.5	-3.5	285	12.3	11.9	-3.1	279	27.5	27.1	-4.5	263	31.9	31.7	3.8	278	14.0	13.9	-1.9
6	147	1.7	-0.9	1.4	299	1.0	0.9	-0.5	334	4.8	2.1	-4.3	286	12.3	11.8	-3.4	272	25.5	25.5	-0.8	261	32.4	32.0	5.3	276	17.7	17.6	-1.7
7	100	1.1	-1.1	0.2	315	1.3	0.9	-0.9	314	3.0	2.2	-2.1	276	11.1	11.0	-1.2	268	27.7	27.7	1.1	264	36.7	36.5	4.1	273	21.9	21.9	-1.3
8	50	1.7	-1.3	-1.1	360	0.6	0.0	-0.6	317	2.1	1.4	-1.5	276	11.8	11.7	-1.2	274	27.4	27.3	-2.1	269	33.3	33.3	0.8	271	18.1	18.1	-0.4
9	72	2.2	-2.1	-0.7	321	0.6	0.4	-0.5	311	3.3	2.5	-2.2	279	12.8	12.6	-2.0	272	29.2	29.2	-1.1	267	33.3	33.2	2.0	280	17.0	16.8	-2.9
10	75	2.7	-2.6	-0.7	345	1.6	0.4	-1.5	304	2.7	2.2	-1.5	284	10.3	10.0	-2.5	274	26.9	26.8	-2.0	273	32.3	32.3	-1.7	278	12.9	12.8	-1.8
11	79	2.0	-2.0	-0.4	221	0.9	0.6	0.7	307	3.9	3.1	-2.3	287	11.8	11.3	-3.5	283	29.9	29.2	-6.5	276	38.2	38.0	-3.9	274	19.5	19.5	-1.3
12	43	6.7	-4.5	-4.9	321	1.4	0.9	-1.1	316	4.5	3.1	-3.2	284	12.7	12.3	-3.1	275	28.4	28.3	-2.4	271	34.9	34.9	-0.5	266	22.9	22.9	1.5
13	73	1.4	-1.3	-0.4	5	1.2	-0.1	-1.2	330	3.9	2.0	-3.4	285	12.3	11.9	-3.2	278	24.9	24.7	-3.4	271	31.9	31.9	-0.5	261	17.8	17.6	2.7
14	84	1.9	-1.9	-0.2	331	1.3	0.6	-1.1	318	4.3	2.9	-3.2	286	10.9	10.5	-3.0	276	26.7	26.6	-2.8	267	38.2	38.1	2.2	267	20.9	20.9	1.1
15	110	3.7	-3.5	1.3	297	0.7	0.6	-0.3	304	3.0	2.5	-1.7	276	11.1	11.0	-1.2	271	24.3	24.3	-0.3	263	34.9	34.6	4.3	262	17.9	17.7	2.6
16	102	2.4	-2.3	0.5	290	1.2	1.1	-0.4	284	4.0	3.9	-1.0	270	13.0	13.0	0.0	271	27.4	27.4	-0.4	260	35.4	34.9	6.2	264	20.1	20.0	2.0
17	108	2.8	-2.7	0.9	270	1.2	1.2	0.0	284	4.6	4.5	-1.1	275	13.1	13.1	-1.1	267	27.3	27.3	1.4	259	35.4	34.7	6.9	263	18.7	18.6	2.2
18	101	1.0	-1.0	0.2	315	2.1	1.5	-1.5	288	4.8	4.6	-1.5	271	15.0	15.0	-0.3	263	31.5	31.3	3.9	261	38.2	37.7	5.9	264	22.1	22.0	2.3
19	85	3.6	-3.6	-0.3	323	1.0	0.6	-0.8	288	3.8	3.6	-1.2	274	14.0	14.0	-1.1	271	31.4	31.4	-0.6	261	38.3	37.8	6.1	264	21.7	21.6	2.1
20	60	3.2	-2.8	-1.6	346	1.2	0.3	-1.2	300	4.3	3.7	-2.1	279	12.0	11.8	-1.9	269	27.2	27.2	0.5	261	36.2	35.7	5.9	273	21.3	21.3	-1.3
21	108	2.6	-2.5	0.8	315	0.6	0.4	-0.4	313	4.1	3.0	-2.8	273	10.4	10.4	-0.5	265	27.1	27.0	2.3	264	32.3	32.1	3.2	260	22.1	21.8	3.8
22	79	1.6	-1.6	-0.3	277	1.7	1.7	-0.2	273	3.8	3.8	-0.2	266	14.7	14.7	0.9	265	29.0	28.9	2.4	262	36.9	36.5	5.3	261	21.1	20.8	3.4
23	81	2.4	-2.4	-0.4	329	1.2	0.6	-1.0	292	3.5	3.2	-1.3	270	13.0	13.0	0.0	271	28.4	28.4	-0.7	264	34.2	34.0	3.7	263	23.8	23.6	2.8
24	68	3.7	-3.4	-1.4	336	1.2	0.5	-1.1	294	4.3	3.9	-1.7	274	14.1	14.1	-1.1	274	28.3	28.2	-2.0	276	34.8	34.6	-3.5	269	24.2	24.2	0.5
25	71	2.1	-2.0	-0.7	287	1.4	1.3	-0.4	281	4.9	4.8	-0.9	270	16.2	16.2	-0.1	267	32.0	31.9	1.9	263	37.0	36.7	4.6	269	20.0	20.0	0.5
26	252	0.6	0.6	0.2	299	1.3	1.1	-0.6	274	5.1	5.1	-0.4	276	17.8	17.7	-1.8	269	32.9	32.9	0.7	266	35.9	35.8	2.7	267	29.0	29.0	1.6
27	352	1.4	0.2	-1.4	315	2.1	1.5	-1.5	281	5.2	5.1	-1.0	269	16.8	16.8	0.4	262	36.8	36.4	5.3	259	41.0	40.2	8.0	266	29.4	29.3	1.8
28	52	1.6	-1.3	-1.0	333	2.0	0.9	-1.8	298	5.0	4.4	-2.3	277	16.0	15.9	-1.9	266	32.1	32.0	2.2	258	35.5	34.8	7.1	268	20.9	20.9	0.9
29	92	3.1	-3.1	0.1	349	1.0	0.2	-1.0	291	5.0	4.7	-1.8	274	16.4	16.4	-1.1	266	33.0	32.9	2.4	258	39.5	38.7	8.0	263	26.0	25.8	3.3
30	94	1.4	-1.4	0.1	312	1.2	0.9	-0.8	288	5.4	5.1	-1.7	272	16.9	16.9	-0.7	272	32.1	32.1	-0.9	264	40.5	40.2	4.5	258	22.7	22.2	4.9

Daily Normals of Upper Air Winds (1971-2000)

JODHPUR **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	57	2.0	-1.7	-1.1	307	1.0	0.8	-0.6	291	5.0	4.7	-1.8	274	16.2	16.2	-1.2	265	31.5	31.4	2.7	261	40.7	40.2	6.3	262	23.7	23.5	3.3
2	87	1.9	-1.9	-0.1	360	0.6	0.0	-0.6	280	4.8	4.7	-0.8	272	15.9	15.9	-0.5	265	30.8	30.7	2.6	261	35.8	35.4	5.6	259	23.8	23.4	4.5
3	114	2.2	-2.0	0.9	346	0.4	0.1	-0.4	271	4.2	4.2	-0.1	273	16.1	16.1	-0.8	269	28.8	28.8	0.4	266	36.0	35.9	2.2	262	23.6	23.4	3.1
4	92	2.7	-2.7	0.1	336	1.2	0.5	-1.1	276	5.0	5.0	-0.5	268	17.0	17.0	0.5	267	30.4	30.4	1.7	262	39.2	38.8	5.3	266	25.7	25.6	1.7
5	87	3.4	-3.4	-0.2	76	0.4	-0.4	-0.1	285	4.3	4.2	-1.1	276	15.4	15.3	-1.7	271	31.5	31.5	-0.3	259	37.5	36.8	7.0	262	27.6	27.3	3.9
6	82	2.1	-2.1	-0.3	332	1.7	0.8	-1.5	277	4.8	4.8	-0.6	274	15.3	15.3	-1.2	264	30.6	30.4	3.3	259	38.4	37.7	7.4	260	29.4	29.0	5.0
7	176	1.3	-0.1	1.3	312	1.5	1.1	-1.0	284	5.7	5.5	-1.4	275	16.7	16.6	-1.4	268	31.8	31.8	1.2	263	40.0	39.7	5.1	262	28.0	27.7	3.8
8	306	0.9	0.7	-0.5	283	2.3	2.2	-0.5	283	6.3	6.1	-1.4	270	18.3	18.3	-0.1	269	33.9	33.9	0.6	265	44.7	44.5	4.1	268	22.6	22.6	0.8
9	15	3.0	-0.8	-2.9	319	2.3	1.5	-1.7	283	6.5	6.3	-1.5	277	15.4	15.3	-1.9	270	30.9	30.9	0.0	258	37.5	36.7	7.5	258	22.4	21.9	4.8
10	56	2.9	-2.4	-1.6	308	1.1	0.9	-0.7	284	5.3	5.1	-1.3	278	16.1	15.9	-2.3	265	31.4	31.3	2.5	256	39.6	38.5	9.4	266	25.9	25.9	1.6
11	61	2.5	-2.2	-1.2	289	1.8	1.7	-0.6	276	5.3	5.3	-0.6	269	17.2	17.2	0.2	267	36.7	36.6	2.2	274	38.2	38.1	-2.9	264	25.3	25.2	2.5
12	66	3.2	-2.9	-1.3	336	2.7	1.1	-2.5	278	6.2	6.1	-0.9	273	18.3	18.3	-1.0	268	35.5	35.5	1.2	265	40.1	39.9	3.6	270	22.7	22.7	-0.1
13	18	1.9	-0.6	-1.8	312	2.7	2.0	-1.8	279	5.8	5.7	-0.9	274	18.1	18.0	-1.4	269	33.8	33.8	0.3	266	39.7	39.6	3.0	276	25.6	25.5	-2.6
14	26	3.2	-1.4	-2.9	316	2.9	2.0	-2.1	292	7.5	7.0	-2.8	278	16.5	16.3	-2.4	270	31.4	31.4	-0.1	269	39.1	39.1	0.5	270	27.2	27.2	0.0
15	61	1.8	-1.6	-0.9	298	1.5	1.3	-0.7	280	5.9	5.8	-1.0	277	18.7	18.6	-2.3	275	33.2	33.1	-3.1	271	39.6	39.6	-1.0	276	28.0	27.9	-2.8
16	87	2.0	-2.0	-0.1	257	0.9	0.9	0.2	264	5.8	5.8	0.6	270	17.0	17.0	0.1	268	34.6	34.6	1.1	268	39.6	39.6	1.3	283	35.3	34.4	-8.1
17	90	2.5	-2.5	0.0	333	1.1	0.5	-1.0	276	6.3	6.3	-0.7	272	15.3	15.3	-0.6	272	32.9	32.9	-1.0	269	38.5	38.5	0.9	271	25.2	25.2	-0.4
18	81	2.6	-2.6	-0.4	295	1.4	1.3	-0.6	283	6.6	6.4	-1.5	277	16.2	16.1	-2.1	276	32.1	32.0	-3.1	274	42.4	42.3	-2.6	273	26.1	26.1	-1.3
19	69	3.3	-3.1	-1.2	281	1.0	1.0	-0.2	275	5.8	5.8	-0.5	277	16.8	16.7	-2.0	275	31.8	31.7	-2.6	268	39.9	39.9	1.6	270	22.8	22.8	-0.1
20	14	0.4	-0.1	-0.4	295	1.9	1.7	-0.8	277	6.3	6.2	-0.8	278	15.6	15.5	-2.1	271	33.6	33.6	-0.3	267	39.7	39.6	2.1	268	24.2	24.2	0.7
21	111	1.9	-1.8	0.7	326	2.3	1.3	-1.9	287	5.9	5.6	-1.7	273	16.7	16.7	-1.0	269	33.1	33.1	0.3	273	44.1	44.1	-2.1	269	24.9	24.9	0.4
22	90	2.0	-2.0	0.0	294	1.7	1.6	-0.7	265	6.8	6.8	0.6	270	16.9	16.9	-0.1	269	33.3	33.3	0.6	269	41.0	41.0	0.5	276	27.9	27.8	-2.8
23	74	2.9	-2.8	-0.8	347	1.7	0.4	-1.7	286	7.1	6.8	-2.0	272	18.4	18.4	-0.8	275	34.7	34.6	-2.8	277	42.1	41.8	-5.2	273	28.1	28.0	-1.7
24	47	2.2	-1.6	-1.5	310	1.7	1.3	-1.1	277	6.2	6.1	-0.8	277	17.2	17.1	-2.0	276	37.2	37.0	-4.2	274	43.7	43.6	-2.9	280	31.3	30.8	-5.5
25	61	2.3	-2.0	-1.1	284	1.2	1.2	-0.3	281	6.0	5.9	-1.1	272	18.1	18.1	-0.6	271	36.2	36.2	-0.6	270	43.1	43.1	-0.2	272	28.5	28.5	-0.9
26	109	3.1	-2.9	1.0	264	1.0	1.0	0.1	273	6.6	6.6	-0.4	275	20.9	20.8	-1.7	273	38.6	38.5	-2.0	268	46.8	46.8	2.0	266	27.6	27.5	2.1
27	79	1.5	-1.5	-0.3	335	2.9	1.2	-2.6	285	7.3	7.1	-1.9	276	18.9	18.8	-2.1	274	33.3	33.2	-2.1	271	43.7	43.7	-0.5	272	26.1	26.1	-0.7
28	90	1.3	-1.3	0.0	279	1.2	1.2	-0.2	272	6.7	6.7	-0.2	273	19.0	19.0	-0.9	274	35.4	35.3	-2.7	272	42.5	42.5	-1.7	272	28.8	28.8	-1.0
29	51	2.6	-2.0	-1.6	298	2.1	1.9	-1.0	276	8.1	8.1	-0.8	275	19.7	19.6	-1.8	277	35.6	35.3	-4.6	273	46.1	46.0	-2.2	273	23.8	23.8	-1.2
30	39	1.9	-1.2	-1.5	297	2.2	2.0	-1.0	290	8.9	8.4	-3.0	275	21.0	20.9	-1.8	277	37.7	37.4	-4.5	275	45.3	45.1	-3.8	273	31.5	31.5	-1.4
31	71	2.8	-2.6	-0.9	255	1.1	1.1	0.3	272	7.8	7.8	-0.3	272	18.3	18.3	-0.6	272	37.5	37.5	-1.1	267	46.9	46.9	2.1	266	31.1	31.0	2.0

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	48	8.1	-6.1	-5.4	67	5.6	-5.2	-2.2	100	2.9	-2.9	0.5	81	2.0	-2.0	-0.3	242	3.0	2.6	1.4	229	6.9	5.2	4.6	174	0.9	-0.1	0.9
2	41	8.5	-5.6	-6.4	66	6.0	-5.5	-2.5	84	2.8	-2.8	-0.3	96	1.8	-1.8	0.2	252	2.5	2.4	0.8	211	8.5	4.4	7.3	123	1.7	-1.4	0.9
3	49	8.3	-6.3	-5.4	62	4.9	-4.3	-2.3	78	3.0	-2.9	-0.6	73	3.4	-3.3	-1.0	231	2.2	1.7	1.4	241	6.8	6.0	3.3	276	0.9	0.9	-0.1
4	41	8.2	-5.4	-6.2	49	5.5	-4.1	-3.6	63	3.6	-3.2	-1.6	63	3.0	-2.7	-1.4	186	1.8	0.2	1.8	193	7.0	1.6	6.8	225	1.6	1.1	1.1
5	49	7.7	-5.8	-5.0	54	7.4	-6.0	-4.3	68	4.0	-3.7	-1.5	82	3.6	-3.6	-0.5	207	3.9	1.8	3.5	201	8.0	2.9	7.5	276	1.0	1.0	-0.1
6	44	7.6	-5.3	-5.4	55	7.6	-6.2	-4.4	87	3.6	-3.6	-0.2	107	1.4	-1.3	0.4	230	5.2	4.0	3.3	215	8.0	4.6	6.6	262	2.7	2.7	0.4
7	47	7.8	-5.7	-5.3	62	7.2	-6.4	-3.4	83	3.1	-3.1	-0.4	83	1.7	-1.7	-0.2	239	5.8	5.0	3.0	213	10.7	5.8	9.0	315	0.4	0.3	-0.3
8	65	6.7	-6.1	-2.8	73	6.3	-6.0	-1.8	90	2.2	-2.2	0.0	81	2.0	-2.0	-0.3	217	6.4	3.9	5.1	234	11.8	9.6	6.9	259	4.7	4.6	0.9
9	59	6.0	-5.1	-3.1	80	4.2	-4.1	-0.7	69	1.9	-1.8	-0.7	70	1.5	-1.4	-0.5	216	6.7	3.9	5.4	236	10.6	8.8	5.9	262	0.7	0.7	0.1
10	53	7.1	-5.7	-4.3	57	5.3	-4.4	-2.9	79	3.2	-3.1	-0.6	69	1.7	-1.6	-0.6	215	5.4	3.1	4.4	222	7.3	4.9	5.4	182	2.9	0.1	2.9
11	58	6.5	-5.5	-3.4	62	5.5	-4.8	-2.6	76	3.0	-2.9	-0.7	86	1.4	-1.4	-0.1	228	6.7	5.0	4.5	221	9.2	6.0	7.0	202	4.0	1.5	3.7
12	54	5.2	-4.2	-3.1	52	3.9	-3.1	-2.4	81	3.0	-3.0	-0.5	59	1.2	-1.0	-0.6	210	4.8	2.4	4.2	203	7.5	2.9	6.9	92	3.7	-3.7	0.1
13	54	5.9	-4.8	-3.5	67	5.3	-4.9	-2.1	83	4.3	-4.3	-0.5	80	2.2	-2.2	-0.4	246	6.2	5.7	2.5	204	6.8	2.8	6.2	86	1.4	-1.4	-0.1
14	56	4.8	-4.0	-2.7	67	5.9	-5.4	-2.3	99	3.2	-3.2	0.5	126	2.6	-2.1	1.5	240	4.4	3.8	2.2	207	7.8	3.5	7.0	73	3.4	-3.3	-1.0
15	60	5.4	-4.7	-2.7	77	5.1	-5.0	-1.2	94	3.0	-3.0	0.2	110	1.2	-1.1	0.4	262	6.4	6.3	0.9	193	10.5	2.3	10.2	148	2.6	-1.4	2.2
16	64	5.5	-4.9	-2.4	68	5.9	-5.5	-2.2	87	3.9	-3.9	-0.2	119	2.9	-2.5	1.4	233	3.9	3.1	2.3	206	6.7	2.9	6.0	151	1.3	-0.6	1.1
17	52	5.7	-4.5	-3.5	72	5.7	-5.4	-1.8	91	4.4	-4.4	0.1	86	1.5	-1.5	-0.1	260	1.7	1.7	0.3	180	6.2	0.0	6.2	110	2.7	-2.5	0.9
18	58	6.0	-5.1	-3.2	67	6.4	-5.9	-2.5	79	3.1	-3.0	-0.6	80	2.2	-2.2	-0.4	165	1.1	-0.3	1.1	190	4.6	0.8	4.5	98	4.8	-4.7	0.7
19	53	6.1	-4.9	-3.7	49	5.3	-4.0	-3.5	44	2.8	-1.9	-2.0	47	3.3	-2.4	-2.2	240	0.8	0.7	0.4	213	4.3	2.3	3.6	66	3.2	-2.9	-1.3
20	58	6.1	-5.2	-3.2	50	6.2	-4.7	-4.0	25	1.4	-0.6	-1.3	24	3.5	-1.4	-3.2	203	2.3	0.9	2.1	204	4.9	2.0	4.5	112	1.1	-1.0	0.4
21	56	4.3	-3.6	-2.4	47	6.0	-4.4	-4.1	43	2.5	-1.7	-1.8	53	4.0	-3.2	-2.4	210	0.8	0.4	0.7	229	5.7	4.3	3.8	185	2.1	0.2	2.1
22	62	5.0	-4.4	-2.3	72	6.3	-6.0	-2.0	61	4.8	-4.2	-2.3	62	4.3	-3.8	-2.0	190	4.1	0.7	4.0	196	5.2	1.4	5.0	360	0.6	0.0	-0.6
23	51	5.5	-4.3	-3.5	63	6.3	-5.6	-2.9	72	5.1	-4.8	-1.6	92	3.4	-3.4	0.1	225	1.6	1.1	1.1	211	4.5	2.3	3.9	131	4.0	-3.0	2.6
24	58	6.4	-5.4	-3.4	53	7.2	-5.8	-4.3	62	4.5	-4.0	-2.1	69	2.2	-2.1	-0.8	248	3.2	3.0	1.2	218	5.0	3.1	3.9	92	6.2	-6.2	0.2
25	55	6.7	-5.5	-3.9	58	7.3	-6.2	-3.9	64	5.1	-4.6	-2.2	74	3.3	-3.2	-0.9	294	3.2	2.9	-1.3	206	4.9	2.1	4.4	87	3.8	-3.8	-0.2
26	50	6.9	-5.3	-4.4	64	6.6	-5.9	-2.9	67	4.0	-3.7	-1.6	71	2.8	-2.6	-0.9	307	4.0	3.2	-2.4	214	5.4	3.0	4.5	120	3.6	-3.1	1.8
27	56	6.6	-5.5	-3.7	52	6.8	-5.4	-4.2	64	3.9	-3.5	-1.7	82	3.6	-3.6	-0.5	227	1.9	1.4	1.3	190	6.9	1.2	6.8	139	3.8	-2.5	2.9
28	56	6.5	-5.4	-3.7	61	6.5	-5.7	-3.2	69	4.3	-4.0	-1.5	76	3.8	-3.7	-0.9	240	5.8	5.0	2.9	222	7.2	4.8	5.3	357	1.9	0.1	-1.9
29	49	6.7	-5.1	-4.4	59	6.3	-5.4	-3.2	59	4.5	-3.9	-2.3	65	2.3	-2.1	-1.0	246	3.7	3.4	1.5	211	7.4	3.8	6.3	41	0.9	-0.6	-0.7
30	49	6.5	-4.9	-4.2	54	5.2	-4.2	-3.0	74	4.3	-4.1	-1.2	60	2.4	-2.1	-1.2	229	2.0	1.5	1.3	206	7.0	3.1	6.3	85	2.3	-2.3	-0.2
31	49	5.7	-4.3	-3.8	59	5.7	-4.9	-2.9	67	4.9	-4.5	-1.9	25	2.6	-1.1	-2.4	255	3.4	3.3	0.9	232	7.8	6.2	4.8	256	0.8	0.8	0.2

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	61	5.5	-4.8	-2.7	69	5.1	-4.8	-1.8	71	4.9	-4.6	-1.6	28	3.0	-1.4	-2.6	268	3.4	3.4	0.1	239	5.4	4.6	2.8	56	4.6	-3.8	-2.6
2	50	6.5	-5.0	-4.2	54	5.4	-4.4	-3.2	58	4.1	-3.5	-2.2	41	1.8	-1.2	-1.4	265	4.6	4.6	0.4	249	4.8	4.5	1.7	339	2.2	0.8	-2.1
3	49	6.9	-5.2	-4.5	60	6.4	-5.5	-3.2	76	3.3	-3.2	-0.8	18	0.6	-0.2	-0.6	285	4.1	4.0	-1.1	241	5.3	4.6	2.6	142	1.1	-0.7	0.9
4	50	7.5	-5.8	-4.8	55	6.2	-5.1	-3.6	71	2.8	-2.6	-0.9	305	1.2	1.0	-0.7	254	4.4	4.2	1.2	228	6.3	4.7	4.2	11	2.1	-0.4	-2.1
5	60	5.6	-4.9	-2.8	55	5.5	-4.5	-3.2	56	2.7	-2.2	-1.5	360	0.9	0.0	-0.9	289	1.8	1.7	-0.6	175	6.2	-0.5	6.2	102	1.4	-1.4	0.3
6	60	5.1	-4.4	-2.5	67	5.4	-5.0	-2.1	63	2.7	-2.4	-1.2	338	1.6	0.6	-1.5	208	3.4	1.6	3.0	217	6.1	3.7	4.9	48	1.2	-0.9	-0.8
7	59	5.7	-4.9	-2.9	65	5.2	-4.7	-2.2	63	2.2	-2.0	-1.0	30	1.4	-0.7	-1.2	254	5.8	5.6	1.6	227	6.5	4.8	4.4	78	2.4	-2.3	-0.5
8	70	4.0	-3.8	-1.4	57	4.5	-3.8	-2.5	72	2.3	-2.2	-0.7	17	3.1	-0.9	-3.0	272	5.5	5.5	-0.2	221	2.8	1.8	2.1	140	2.6	-1.7	2.0
9	79	3.8	-3.7	-0.7	55	3.7	-3.0	-2.1	41	1.1	-0.7	-0.8	356	2.6	0.2	-2.6	267	6.2	6.2	0.3	242	8.0	7.1	3.7	95	2.1	-2.1	0.2
10	111	2.6	-2.4	0.9	53	4.9	-3.9	-2.9	32	3.1	-1.6	-2.6	23	2.5	-1.0	-2.3	250	5.3	5.0	1.8	231	7.5	5.9	4.7	103	4.3	-4.2	1.0
11	76	3.2	-3.1	-0.8	54	5.4	-4.4	-3.2	31	4.2	-2.2	-3.6	45	3.5	-2.5	-2.5	255	5.2	5.0	1.3	218	8.1	5.0	6.4	93	3.5	-3.5	0.2
12	64	4.9	-4.4	-2.1	64	5.8	-5.2	-2.5	35	3.9	-2.2	-3.2	65	2.1	-1.9	-0.9	277	4.1	4.1	-0.5	210	7.3	3.6	6.3	330	1.4	0.7	-1.2
13	72	4.8	-4.6	-1.5	68	5.0	-4.6	-1.9	55	4.0	-3.3	-2.3	88	2.4	-2.4	-0.1	268	3.6	3.6	0.1	207	6.0	2.7	5.4	42	1.5	-1.0	-1.1
14	67	4.7	-4.3	-1.8	60	4.3	-3.7	-2.1	82	2.1	-2.1	-0.3	123	4.2	-3.5	2.3	241	1.8	1.6	0.9	180	6.4	0.0	6.4	123	2.7	-2.3	1.5
15	59	4.5	-3.9	-2.3	56	5.0	-4.1	-2.8	23	1.3	-0.5	-1.2	112	2.4	-2.2	0.9	229	2.3	1.7	1.5	206	5.8	2.5	5.2	203	1.3	0.5	1.2
16	67	4.0	-3.7	-1.6	54	3.9	-3.2	-2.3	47	2.3	-1.7	-1.6	92	2.6	-2.6	0.1	265	2.1	2.1	0.2	240	3.6	3.1	1.8	210	3.8	1.9	3.3
17	76	3.3	-3.2	-0.8	58	3.4	-2.9	-1.8	58	3.4	-2.9	-1.8	79	2.1	-2.1	-0.4	189	2.4	0.4	2.4	185	5.6	0.5	5.6	92	3.5	-3.5	0.1
18	108	2.8	-2.7	0.9	82	3.6	-3.6	-0.5	72	2.9	-2.8	-0.9	360	1.5	0.0	-1.5	210	3.0	1.5	2.6	208	3.4	1.6	3.0	346	2.1	0.5	-2.0
19	116	2.8	-2.5	1.2	75	4.6	-4.4	-1.2	45	2.8	-2.0	-2.0	45	1.4	-1.0	-1.0	228	2.8	2.1	1.9	174	3.1	-0.3	3.1	67	2.5	-2.3	-1.0
20	134	3.6	-2.6	2.5	74	4.8	-4.6	-1.3	48	3.1	-2.3	-2.1	42	1.2	-0.8	-0.9	280	1.1	1.1	-0.2	230	3.3	2.5	2.1	58	1.5	-1.3	-0.8
21	156	4.3	-1.7	3.9	78	3.9	-3.8	-0.8	57	3.5	-2.9	-1.9	22	1.8	-0.7	-1.7	304	2.7	2.2	-1.5	204	3.4	1.4	3.1	106	2.5	-2.4	0.7
22	135	4.5	-3.2	3.2	74	4.4	-4.2	-1.2	41	2.8	-1.8	-2.1	45	2.8	-2.0	-2.0	258	3.0	2.9	0.6	212	4.0	2.1	3.4	322	1.1	0.7	-0.9
23	109	4.0	-3.8	1.3	80	4.0	-3.9	-0.7	42	3.6	-2.4	-2.7	69	2.2	-2.1	-0.8	256	3.0	2.9	0.7	190	2.9	0.5	2.9	76	2.5	-2.4	-0.6
24	80	4.2	-4.1	-0.7	67	4.4	-4.1	-1.7	68	3.2	-3.0	-1.2	84	2.9	-2.9	-0.3	239	2.7	2.3	1.4	214	2.9	1.6	2.4	72	2.3	-2.2	-0.7
25	75	4.3	-4.2	-1.1	75	4.7	-4.5	-1.2	61	4.8	-4.2	-2.3	55	2.1	-1.7	-1.2	265	4.5	4.5	0.4	245	5.0	4.5	2.1	34	2.7	-1.5	-2.2
26	74	4.0	-3.8	-1.1	73	4.7	-4.5	-1.4	71	4.6	-4.3	-1.5	119	1.0	-0.9	0.5	227	2.5	1.8	1.7	210	3.6	1.8	3.1	87	3.6	-3.6	-0.2
27	69	4.7	-4.4	-1.7	70	5.9	-5.6	-2.0	49	4.1	-3.1	-2.7	101	2.0	-2.0	0.4	246	6.7	6.1	2.7	261	7.1	7.0	1.1	64	2.5	-2.3	-1.1
28	74	4.7	-4.5	-1.3	80	5.1	-5.0	-0.9	54	4.8	-3.9	-2.8	81	1.3	-1.3	-0.2	249	4.5	4.2	1.6	212	3.4	1.8	2.9	41	2.1	-1.4	-1.6
29	55	7.6	-6.2	-4.4	69	6.5	-6.1	-2.3	73	7.7	-7.3	-2.3	80	3.4	-3.3	-0.6	230	4.5	3.4	2.9	211	6.3	3.3	5.4	333	2.2	1.0	-2.0

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	70	4.8	-4.5	-1.6	70	5.5	-5.2	-1.9	59	4.7	-4.0	-2.4	60	2.0	-1.7	-1.0	225	2.4	1.7	1.7	209	4.8	2.3	4.2	97	3.5	-3.5	0.4
2	72	4.6	-4.4	-1.4	65	5.9	-5.3	-2.5	52	4.3	-3.4	-2.7	63	3.5	-3.1	-1.6	260	3.9	3.8	0.7	207	5.9	2.7	5.3	119	1.8	-1.6	0.9
3	72	5.5	-5.2	-1.7	73	5.3	-5.1	-1.6	60	4.8	-4.1	-2.4	98	0.7	-0.7	0.1	261	3.6	3.6	0.6	220	6.0	3.9	4.6	246	3.0	2.7	1.2
4	72	4.5	-4.3	-1.4	76	5.6	-5.4	-1.3	51	5.5	-4.3	-3.5	92	2.3	-2.3	0.1	270	2.5	2.5	0.0	215	7.1	4.1	5.8	243	2.2	2.0	1.0
5	73	4.2	-4.0	-1.2	74	5.4	-5.2	-1.5	56	3.7	-3.1	-2.1	65	2.6	-2.4	-1.1	254	3.6	3.5	1.0	223	7.6	5.2	5.5	115	1.4	-1.3	0.6
6	76	3.4	-3.3	-0.8	79	3.8	-3.7	-0.7	63	3.7	-3.3	-1.7	84	1.8	-1.8	-0.2	204	4.3	1.7	3.9	212	6.4	3.4	5.4	270	2.1	2.1	0.0
7	74	3.3	-3.2	-0.9	76	4.2	-4.1	-1.0	56	4.3	-3.6	-2.4	87	3.4	-3.4	-0.2	232	3.7	2.9	2.3	228	5.9	4.4	4.0	76	1.2	-1.2	-0.3
8	100	3.6	-3.5	0.6	80	4.6	-4.5	-0.8	51	4.8	-3.7	-3.0	86	2.6	-2.6	-0.2	243	2.2	2.0	1.0	240	6.4	5.5	3.2	96	0.9	-0.9	0.1
9	82	3.7	-3.7	-0.5	74	4.4	-4.2	-1.2	54	4.6	-3.7	-2.7	61	1.8	-1.6	-0.9	251	5.3	5.0	1.7	241	7.0	6.1	3.4	216	3.1	1.8	2.5
10	101	4.2	-4.1	0.8	84	4.5	-4.5	-0.5	60	5.6	-4.9	-2.8	68	1.8	-1.7	-0.7	246	5.2	4.8	2.1	223	6.7	4.6	4.9	300	2.8	2.4	-1.4
11	115	4.5	-4.1	1.9	95	4.5	-4.5	0.4	81	5.0	-4.9	-0.8	120	1.4	-1.2	0.7	258	5.3	5.2	1.1	240	8.5	7.3	4.3	353	1.6	0.2	-1.6
12	117	3.1	-2.8	1.4	86	3.1	-3.1	-0.2	63	4.2	-3.7	-1.9	225	0.1	0.1	0.1	261	6.5	6.4	1.0	255	10.0	9.7	2.6	225	1.0	0.7	0.7
13	144	3.1	-1.8	2.5	95	5.0	-5.0	0.4	41	5.5	-3.6	-4.2	11	1.0	-0.2	-1.0	259	6.4	6.3	1.2	250	8.3	7.8	2.8	273	4.1	4.1	-0.2
14	144	1.9	-1.1	1.5	85	4.5	-4.5	-0.4	49	6.1	-4.6	-4.0	11	1.6	-0.3	-1.6	264	7.5	7.5	0.8	255	8.3	8.0	2.1	309	2.7	2.1	-1.7
15	146	3.6	-2.0	3.0	80	5.2	-5.1	-0.9	55	6.5	-5.3	-3.7	63	3.6	-3.2	-1.6	255	5.2	5.0	1.3	242	9.3	8.2	4.4	22	0.5	-0.2	-0.5
16	133	2.6	-1.9	1.8	91	4.6	-4.6	0.1	52	7.3	-5.7	-4.5	74	4.7	-4.5	-1.3	268	3.6	3.6	0.1	251	8.0	7.6	2.6	75	2.3	-2.2	-0.6
17	107	3.8	-3.6	1.1	83	4.9	-4.9	-0.6	53	4.9	-3.9	-2.9	93	4.2	-4.2	0.2	247	4.4	4.1	1.7	236	6.1	5.1	3.4	82	2.7	-2.7	-0.4
18	134	3.0	-2.2	2.1	81	3.7	-3.7	-0.6	60	6.1	-5.3	-3.1	78	3.4	-3.3	-0.7	238	4.0	3.4	2.1	219	6.7	4.2	5.2	156	1.0	-0.4	0.9
19	103	2.3	-2.2	0.5	82	3.5	-3.5	-0.5	55	6.8	-5.6	-3.9	72	1.9	-1.8	-0.6	208	5.4	2.5	4.8	236	5.5	4.6	3.1	135	0.8	-0.6	0.6
20	130	3.8	-2.9	2.4	95	4.4	-4.4	0.4	56	7.7	-6.4	-4.3	67	3.3	-3.0	-1.3	227	4.4	3.2	3.0	250	6.3	5.9	2.2	360	0.3	0.0	-0.3
21	141	3.2	-2.0	2.5	92	2.4	-2.4	0.1	55	7.4	-6.1	-4.2	74	4.7	-4.5	-1.3	263	5.6	5.6	0.7	243	7.0	6.2	3.2	73	2.8	-2.7	-0.8
22	150	3.0	-1.5	2.6	84	3.7	-3.7	-0.4	52	7.0	-5.5	-4.3	76	3.8	-3.7	-0.9	270	4.4	4.4	0.0	250	7.2	6.7	2.5	80	1.1	-1.1	-0.2
23	152	3.4	-1.6	3.0	105	2.8	-2.7	0.7	61	6.8	-6.0	-3.3	48	3.1	-2.3	-2.1	267	4.5	4.5	0.2	239	8.2	7.0	4.2	63	1.8	-1.6	-0.8
24	178	3.7	-0.1	3.7	119	2.9	-2.5	1.4	64	6.1	-5.5	-2.7	59	4.2	-3.6	-2.2	263	7.1	7.0	0.9	233	8.5	6.8	5.1	82	0.7	-0.7	-0.1
25	179	4.1	-0.1	4.1	114	2.7	-2.5	1.1	53	6.3	-5.0	-3.8	79	2.5	-2.5	-0.5	249	6.2	5.8	2.2	241	9.2	8.0	4.5	250	1.2	1.1	0.4
26	155	3.1	-1.3	2.8	95	2.2	-2.2	0.2	55	6.4	-5.2	-3.7	116	3.2	-2.9	1.4	243	6.5	5.8	3.0	241	9.0	7.9	4.3	297	0.2	0.2	-0.1
27	144	2.2	-1.3	1.8	108	2.8	-2.7	0.9	61	5.6	-4.9	-2.7	88	2.8	-2.8	-0.1	250	5.2	4.9	1.8	251	7.2	6.8	2.3	169	0.5	-0.1	0.5
28	133	1.9	-1.4	1.3	92	2.5	-2.5	0.1	49	6.9	-5.2	-4.5	76	4.6	-4.5	-1.1	278	4.8	4.7	-0.7	257	6.5	6.3	1.4	126	2.2	-1.8	1.3
29	149	2.6	-1.3	2.2	93	3.6	-3.6	0.2	42	6.4	-4.3	-4.7	77	4.6	-4.5	-1.0	299	1.0	0.9	-0.5	239	4.8	4.1	2.5	354	0.9	0.1	-0.9
30	136	3.5	-2.4	2.5	82	3.4	-3.4	-0.5	46	7.0	-5.0	-4.9	80	6.1	-6.0	-1.1	243	1.6	1.4	0.7	221	5.5	3.6	4.1	20	1.2	-0.4	-1.1
31	167	2.3	-0.5	2.2	90	2.8	-2.8	0.0	52	6.1	-4.8	-3.7	72	4.9	-4.7	-1.5	210	6.1	3.0	5.3	216	7.7	4.5	6.2	85	1.1	-1.1	-0.1

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	150	3.2	-1.6	2.8	82	2.1	-2.1	-0.3	43	6.7	-4.6	-4.9	67	3.6	-3.3	-1.4	230	4.5	3.5	2.9	229	5.7	4.3	3.8	58	1.5	-1.3	-0.8
2	150	4.3	-2.1	3.7	116	2.5	-2.3	1.1	57	6.7	-5.6	-3.6	97	4.7	-4.7	0.6	235	2.9	2.4	1.7	205	6.8	2.9	6.1	58	1.9	-1.6	-1.0
3	137	4.2	-2.9	3.1	99	3.0	-3.0	0.5	66	6.1	-5.6	-2.5	102	3.9	-3.8	0.8	221	3.3	2.2	2.5	190	6.6	1.2	6.5	84	2.8	-2.8	-0.3
4	139	3.3	-2.2	2.5	98	2.2	-2.2	0.3	62	5.7	-5.0	-2.7	99	2.5	-2.5	0.4	215	4.7	2.7	3.9	203	6.3	2.5	5.8	91	4.3	-4.3	0.1
5	129	2.8	-2.2	1.8	109	2.4	-2.3	0.8	52	5.7	-4.5	-3.5	108	2.2	-2.1	0.7	248	4.6	4.3	1.7	192	7.5	1.6	7.3	352	1.5	0.2	-1.5
6	142	1.1	-0.7	0.9	101	3.1	-3.0	0.6	73	5.9	-5.7	-1.7	88	2.9	-2.9	-0.1	250	4.1	3.9	1.4	217	8.4	5.1	6.7	123	1.7	-1.4	0.9
7	155	2.6	-1.1	2.4	109	3.1	-2.9	1.0	64	6.6	-5.9	-2.9	78	2.9	-2.8	-0.6	297	1.8	1.6	-0.8	199	5.6	1.8	5.3	94	4.3	-4.3	0.3
8	172	3.7	-0.5	3.7	90	2.8	-2.8	0.0	57	6.6	-5.5	-3.6	74	4.4	-4.2	-1.2	322	1.1	0.7	-0.9	231	4.0	3.1	2.5	93	2.0	-2.0	0.1
9	182	5.0	0.2	5.0	118	1.9	-1.7	0.9	53	7.4	-5.9	-4.4	92	4.8	-4.8	0.2	221	2.1	1.4	1.6	230	4.8	3.7	3.1	261	1.2	1.2	0.2
10	182	5.2	0.2	5.2	108	1.6	-1.5	0.5	52	8.2	-6.5	-5.0	73	3.7	-3.5	-1.1	241	1.3	1.1	0.6	232	4.7	3.7	2.9	104	2.9	-2.8	0.7
11	180	5.0	0.0	5.0	138	1.3	-0.9	1.0	49	7.5	-5.7	-4.9	67	4.6	-4.2	-1.8	225	0.4	0.3	0.3	215	3.7	2.1	3.0	117	4.2	-3.8	1.9
12	198	4.7	1.5	4.5	148	1.9	-1.0	1.6	56	6.2	-5.1	-3.5	81	4.4	-4.3	-0.7	261	0.6	0.6	0.1	201	5.3	1.9	5.0	105	5.1	-4.9	1.3
13	182	4.8	0.2	4.8	149	1.7	-0.9	1.5	58	6.0	-5.1	-3.2	95	3.4	-3.4	0.3	114	1.0	-0.9	0.4	179	5.2	-0.1	5.2	69	3.0	-2.8	-1.1
14	198	4.4	1.4	4.2	127	0.5	-0.4	0.3	53	6.4	-5.1	-3.8	64	4.8	-4.3	-2.1	180	0.9	0.0	0.9	197	5.9	1.7	5.7	77	3.5	-3.4	-0.8
15	196	5.0	1.4	4.8	105	2.4	-2.3	0.6	57	7.2	-6.1	-3.9	78	4.3	-4.2	-0.9	229	2.0	1.5	1.3	206	6.1	2.7	5.5	57	1.7	-1.4	-0.9
16	197	3.8	1.1	3.6	79	1.0	-1.0	-0.2	59	6.6	-5.7	-3.4	73	5.0	-4.8	-1.5	244	3.2	2.9	1.4	221	7.4	4.8	5.6	127	3.0	-2.4	1.8
17	195	3.4	0.9	3.3	105	2.4	-2.3	0.6	55	7.0	-5.8	-4.0	88	3.0	-3.0	-0.1	215	3.2	1.8	2.6	216	7.7	4.5	6.2	80	3.4	-3.3	-0.6
18	186	5.0	0.5	5.0	135	2.3	-1.6	1.6	50	7.6	-5.8	-4.9	90	2.8	-2.8	0.0	215	2.9	1.7	2.4	201	7.5	2.7	7.0	76	3.4	-3.3	-0.8
19	187	3.8	0.5	3.8	104	1.6	-1.6	0.4	62	7.4	-6.5	-3.5	83	3.2	-3.2	-0.4	228	7.1	5.3	4.7	209	9.8	4.7	8.6	135	3.3	-2.3	2.3
20	188	4.3	0.6	4.3	93	1.8	-1.8	0.1	49	8.2	-6.2	-5.3	81	4.0	-4.0	-0.6	233	5.6	4.5	3.4	211	11.0	5.6	9.5	118	2.7	-2.4	1.3
21	188	4.2	0.6	4.2	111	0.9	-0.8	0.3	56	6.9	-5.7	-3.9	79	3.6	-3.5	-0.7	237	5.6	4.7	3.0	208	11.0	5.2	9.7	142	4.8	-3.0	3.8
22	209	2.3	1.1	2.0	124	1.1	-0.9	0.6	56	7.6	-6.3	-4.2	105	2.7	-2.6	0.7	253	7.0	6.7	2.0	241	10.2	8.9	5.0	58	1.9	-1.6	-1.0
23	198	2.6	0.8	2.5	62	1.5	-1.3	-0.7	60	7.3	-6.3	-3.7	77	1.7	-1.7	-0.4	250	4.4	4.1	1.5	230	8.5	6.5	5.4	62	4.2	-3.7	-2.0
24	187	4.8	0.6	4.8	157	1.3	-0.5	1.2	48	6.0	-4.5	-4.0	86	3.0	-3.0	-0.2	246	6.8	6.2	2.7	219	7.0	4.4	5.4	101	3.1	-3.0	0.6
25	195	4.1	1.1	4.0	90	0.5	-0.5	0.0	51	6.4	-5.0	-4.0	350	1.1	0.2	-1.1	286	4.5	4.3	-1.2	238	4.9	4.2	2.6	65	3.1	-2.8	-1.3
26	210	4.8	2.4	4.1	139	1.1	-0.7	0.8	60	7.2	-6.2	-3.6	20	2.0	-0.7	-1.9	281	3.7	3.6	-0.7	215	6.8	3.9	5.6	78	6.4	-6.3	-1.3
27	202	4.1	1.5	3.8	86	1.3	-1.3	-0.1	59	7.9	-6.7	-4.1	33	2.7	-1.5	-2.3	253	2.8	2.7	0.8	233	6.4	5.1	3.9	82	7.2	-7.1	-1.0
28	212	4.0	2.1	3.4	153	0.7	-0.3	0.6	57	6.4	-5.3	-3.5	57	2.0	-1.7	-1.1	259	3.1	3.0	0.6	216	4.6	2.7	3.7	71	7.5	-7.1	-2.4
29	212	4.4	2.3	3.7	149	0.6	-0.3	0.5	52	6.6	-5.2	-4.0	51	1.9	-1.5	-1.2	258	3.3	3.2	0.7	219	4.5	2.8	3.5	84	7.1	-7.1	-0.7
30	209	5.0	2.4	4.4	202	1.1	0.4	1.0	40	6.5	-4.2	-5.0	354	2.0	0.2	-2.0	313	1.8	1.3	-1.2	203	4.1	1.6	3.8	89	7.2	-7.2	-0.1

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	209	4.7	2.3	4.1	246	1.2	1.1	0.5	50	6.2	-4.7	-4.0	9	3.3	-0.5	-3.3	241	1.8	1.6	0.9	165	2.4	-0.6	2.3	90	6.8	-6.8	0.0
2	220	6.2	4.0	4.8	248	1.6	1.5	0.6	45	5.8	-4.1	-4.1	41	3.5	-2.3	-2.6	235	1.2	1.0	0.7	192	2.9	0.6	2.8	92	7.6	-7.6	0.3
3	210	5.6	2.8	4.8	216	1.4	0.8	1.1	51	7.2	-5.6	-4.6	64	2.5	-2.3	-1.1	23	0.8	-0.3	-0.7	135	1.8	-1.3	1.3	101	9.6	-9.4	1.8
4	213	3.3	1.8	2.8	195	1.1	0.3	1.1	45	5.5	-3.9	-3.9	79	3.1	-3.0	-0.6	96	1.8	-1.8	0.2	150	3.4	-1.7	2.9	87	6.8	-6.8	-0.3
5	212	5.4	2.9	4.6	256	0.8	0.8	0.2	47	6.3	-4.6	-4.3	62	4.0	-3.5	-1.9	132	2.5	-1.9	1.7	134	5.2	-3.7	3.6	76	7.6	-7.4	-1.8
6	210	6.4	3.2	5.5	141	0.6	-0.4	0.5	49	7.2	-5.5	-4.7	49	3.0	-2.3	-2.0	293	0.8	0.7	-0.3	168	2.9	-0.6	2.8	87	9.1	-9.1	-0.4
7	214	5.3	3.0	4.4	351	0.6	0.1	-0.6	51	6.4	-5.0	-4.0	77	1.7	-1.7	-0.4	162	0.3	-0.1	0.3	156	4.2	-1.7	3.8	101	10.1	-9.9	2.0
8	229	6.8	5.1	4.5	265	1.1	1.1	0.1	45	6.2	-4.4	-4.4	58	1.5	-1.3	-0.8	126	0.9	-0.7	0.5	107	3.4	-3.2	1.0	109	9.0	-8.5	2.9
9	233	6.5	5.2	3.9	245	1.7	1.5	0.7	41	6.7	-4.4	-5.1	56	0.7	-0.6	-0.4	196	0.7	0.2	0.7	134	4.3	-3.1	3.0	105	10.3	-9.9	2.7
10	229	7.4	5.6	4.8	298	2.1	1.9	-1.0	48	5.5	-4.1	-3.7	23	2.1	-0.8	-1.9	186	1.9	0.2	1.9	142	4.7	-2.9	3.7	91	10.0	-10.0	0.2
11	230	7.1	5.4	4.6	281	1.5	1.5	-0.3	36	5.7	-3.4	-4.6	360	0.7	0.0	-0.7	203	2.1	0.8	1.9	137	4.5	-3.1	3.3	107	9.5	-9.1	2.7
12	237	5.9	5.0	3.2	259	1.6	1.6	0.3	44	5.8	-4.0	-4.2	71	2.4	-2.3	-0.8	159	1.7	-0.6	1.6	144	5.8	-3.4	4.7	95	9.3	-9.3	0.8
13	237	5.6	4.7	3.0	252	1.9	1.8	0.6	46	4.9	-3.5	-3.4	59	1.7	-1.5	-0.9	158	3.1	-1.2	2.9	120	6.2	-5.4	3.1	94	11.1	-11.1	0.8
14	240	5.6	4.9	2.8	243	2.2	2.0	1.0	50	5.2	-4.0	-3.4	82	1.4	-1.4	-0.2	147	2.7	-1.5	2.3	126	4.4	-3.6	2.6	94	12.3	-12.3	0.8
15	240	6.0	5.2	3.0	252	1.6	1.5	0.5	46	5.2	-3.7	-3.6	83	1.7	-1.7	-0.2	104	2.1	-2.0	0.5	103	6.4	-6.2	1.4	98	14.2	-14.1	1.9
16	246	9.0	8.2	3.7	245	1.9	1.7	0.8	48	4.3	-3.2	-2.9	52	2.3	-1.8	-1.4	82	3.5	-3.5	-0.5	110	5.6	-5.3	1.9	91	12.3	-12.3	0.2
17	248	7.9	7.3	2.9	270	3.2	3.2	0.0	48	5.4	-4.0	-3.6	55	2.1	-1.7	-1.2	105	2.8	-2.7	0.7	111	5.1	-4.8	1.8	106	13.8	-13.3	3.7
18	250	9.9	9.3	3.4	258	4.0	3.9	0.8	30	4.0	-2.0	-3.5	51	1.3	-1.0	-0.8	99	2.5	-2.5	0.4	92	5.1	-5.1	0.2	95	12.4	-12.4	1.0
19	246	9.0	8.2	3.7	262	2.9	2.9	0.4	30	4.8	-2.4	-4.1	349	1.5	0.3	-1.5	153	1.1	-0.5	1.0	119	5.5	-4.8	2.7	95	11.9	-11.9	1.0
20	247	6.5	6.0	2.5	277	3.4	3.4	-0.4	28	4.7	-2.2	-4.1	23	1.3	-0.5	-1.2	123	1.7	-1.4	0.9	121	6.0	-5.1	3.1	93	11.2	-11.2	0.5
21	247	7.1	6.5	2.8	286	3.7	3.6	-1.0	40	4.5	-2.9	-3.4	353	1.6	0.2	-1.6	155	1.9	-0.8	1.7	120	6.6	-5.7	3.3	99	12.6	-12.4	2.0
22	238	8.0	6.8	4.3	262	4.1	4.1	0.6	33	3.8	-2.1	-3.2	321	1.4	0.9	-1.1	232	1.1	0.9	0.7	118	6.2	-5.5	2.9	94	14.7	-14.7	1.1
23	242	8.4	7.4	4.0	260	3.6	3.5	0.6	31	2.9	-1.5	-2.5	315	2.4	1.7	-1.7	27	0.7	-0.3	-0.6	116	6.0	-5.4	2.6	91	15.1	-15.1	0.2
24	243	9.7	8.6	4.4	260	4.8	4.7	0.8	38	3.3	-2.0	-2.6	344	2.9	0.8	-2.8	90	1.8	-1.8	0.0	115	8.6	-7.8	3.6	85	15.1	-15.0	-1.3
25	246	8.5	7.7	3.5	268	3.3	3.3	0.1	28	3.6	-1.7	-3.2	21	1.4	-0.5	-1.3	93	1.9	-1.9	0.1	100	8.4	-8.3	1.5	91	16.7	-16.7	0.3
26	247	7.0	6.5	2.7	259	4.1	4.0	0.8	34	3.7	-2.1	-3.1	3	1.7	-0.1	-1.7	107	1.4	-1.3	0.4	108	9.1	-8.7	2.8	92	16.2	-16.2	0.5
27	240	6.9	6.0	3.5	262	5.5	5.4	0.8	35	4.0	-2.3	-3.3	42	2.5	-1.7	-1.9	112	3.5	-3.3	1.3	99	8.0	-7.9	1.3	101	18.7	-18.3	3.7
28	245	8.7	7.9	3.7	262	4.5	4.5	0.6	23	3.8	-1.5	-3.5	21	0.9	-0.3	-0.8	122	3.1	-2.6	1.6	95	7.5	-7.5	0.7	95	16.9	-16.8	1.6
29	256	9.5	9.2	2.3	279	5.0	4.9	-0.8	26	4.6	-2.0	-4.1	315	1.0	0.7	-0.7	125	2.8	-2.3	1.6	108	6.6	-6.3	2.1	92	17.8	-17.8	0.7
30	247	9.4	8.6	3.7	261	4.5	4.4	0.7	25	4.5	-1.9	-4.1	345	1.1	0.3	-1.1	106	2.6	-2.5	0.7	100	6.6	-6.5	1.1	90	19.2	-19.2	0.1
31	253	8.0	7.7	2.3	266	4.4	4.4	0.3	33	2.4	-1.3	-2.0	297	1.3	1.2	-0.6	111	2.8	-2.6	1.0	98	7.2	-7.1	1.0	98	19.9	-19.7	2.7

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	250	7.0	6.6	2.4	264	5.3	5.3	0.6	15	2.4	-0.6	-2.3	169	0.5	-0.1	0.5	104	3.3	-3.2	0.8	102	8.8	-8.6	1.8	98	17.6	-17.4	2.3
2	248	10.3	9.5	3.9	263	6.4	6.4	0.8	355	2.4	0.2	-2.4	291	1.7	1.6	-0.6	90	3.3	-3.3	0.0	83	9.0	-8.9	-1.1	91	21.4	-21.4	0.3
3	255	8.5	8.2	2.2	271	6.9	6.9	-0.1	356	1.3	0.1	-1.3	286	1.5	1.4	-0.4	87	3.9	-3.9	-0.2	94	10.7	-10.7	0.8	93	23.6	-23.6	1.3
4	246	8.0	7.3	3.2	264	7.0	7.0	0.7	288	1.9	1.8	-0.6	301	2.3	2.0	-1.2	90	3.2	-3.2	0.0	88	9.8	-9.8	-0.3	96	21.7	-21.6	2.3
5	250	8.8	8.3	3.0	272	6.9	6.9	-0.2	290	3.5	3.3	-1.2	237	2.4	2.0	1.3	81	3.9	-3.9	-0.6	90	11.8	-11.8	0.1	90	23.0	-23.0	0.0
6	242	9.6	8.5	4.5	257	7.8	7.6	1.8	253	3.7	3.5	1.1	246	1.2	1.1	0.5	88	5.8	-5.8	-0.2	83	11.6	-11.5	-1.5	88	22.8	-22.8	-0.8
7	253	10.3	9.9	3.0	261	7.7	7.6	1.2	282	3.9	3.8	-0.8	262	2.1	2.1	0.3	96	5.0	-5.0	0.5	88	14.3	-14.3	-0.6	85	23.8	-23.7	-2.0
8	251	11.3	10.7	3.6	268	8.8	8.8	0.3	290	3.2	3.0	-1.1	263	0.8	0.8	0.1	89	3.9	-3.9	-0.1	90	13.9	-13.9	0.0	93	20.0	-20.0	0.9
9	268	8.6	8.6	0.3	273	7.6	7.6	-0.4	285	3.9	3.8	-1.0	262	1.4	1.4	0.2	78	5.4	-5.3	-1.1	83	15.5	-15.4	-1.8	88	23.4	-23.4	-1.0
10	265	9.4	9.4	0.8	273	8.6	8.6	-0.4	289	5.4	5.1	-1.8	258	3.9	3.8	0.8	86	6.5	-6.5	-0.4	92	16.4	-16.4	0.5	93	20.4	-20.4	1.2
11	267	10.7	10.7	0.6	271	8.9	8.9	-0.2	282	6.6	6.4	-1.4	261	3.3	3.3	0.5	82	4.2	-4.2	-0.6	80	16.1	-15.9	-2.7	86	24.9	-24.8	-1.9
12	255	9.8	9.5	2.5	274	9.6	9.6	-0.6	285	7.2	6.9	-1.9	274	4.6	4.6	-0.3	90	4.0	-4.0	0.0	84	16.5	-16.4	-1.6	90	23.2	-23.2	-0.2
13	267	14.0	14.0	0.7	274	10.7	10.7	-0.7	290	6.6	6.2	-2.2	263	5.4	5.4	0.7	70	5.5	-5.2	-1.9	79	18.5	-18.2	-3.4	88	25.3	-25.3	-0.7
14	265	13.7	13.6	1.3	263	10.5	10.4	1.3	276	6.6	6.6	-0.7	274	4.8	4.8	-0.3	82	6.2	-6.1	-0.9	69	16.7	-15.5	-6.1	85	27.5	-27.4	-2.3
15	264	14.5	14.4	1.6	268	11.3	11.3	0.3	263	7.9	7.8	0.9	262	5.0	5.0	0.7	107	5.9	-5.6	1.7	80	18.8	-18.5	-3.1	88	26.2	-26.2	-1.0
16	256	10.9	10.6	2.7	264	10.7	10.6	1.1	274	8.8	8.8	-0.6	246	4.4	4.0	1.8	77	6.1	-5.9	-1.4	78	19.8	-19.4	-4.0	86	26.2	-26.1	-1.9
17	255	12.0	11.6	3.1	263	11.3	11.2	1.3	276	9.7	9.6	-1.0	261	6.5	6.4	1.0	88	3.6	-3.6	-0.1	78	18.3	-17.9	-3.9	88	26.0	-26.0	-0.9
18	255	11.4	11.0	3.0	264	13.2	13.1	1.3	273	9.3	9.3	-0.5	265	6.0	6.0	0.5	88	5.9	-5.9	-0.2	78	21.4	-20.9	-4.6	87	26.9	-26.9	-1.4
19	250	11.4	10.7	4.0	263	12.8	12.7	1.6	276	8.1	8.1	-0.9	270	6.4	6.4	0.0	74	6.6	-6.4	-1.8	86	20.3	-20.3	-1.4	84	25.7	-25.6	-2.5
20	255	12.9	12.5	3.3	268	13.1	13.1	0.4	283	9.7	9.4	-2.2	282	5.1	5.0	-1.1	75	5.1	-4.9	-1.3	78	20.0	-19.6	-4.1	90	25.4	-25.4	0.1
21	257	10.5	10.2	2.4	269	10.7	10.7	0.1	286	8.0	7.7	-2.2	275	6.1	6.1	-0.5	81	7.4	-7.3	-1.2	87	22.7	-22.7	-1.2	93	22.4	-22.4	1.3
22	266	10.9	10.9	0.8	277	11.8	11.7	-1.5	286	7.4	7.1	-2.0	271	5.6	5.6	-0.1	83	7.9	-7.8	-1.0	79	24.8	-24.3	-4.9	85	26.3	-26.2	-2.1
23	266	10.6	10.6	0.7	271	9.3	9.3	-0.1	280	7.7	7.6	-1.3	268	6.3	6.3	0.2	88	6.0	-6.0	-0.2	82	23.5	-23.3	-3.2	88	26.5	-26.5	-1.0
24	263	10.0	9.9	1.3	269	11.4	11.4	0.1	276	7.7	7.7	-0.8	258	6.8	6.7	1.4	96	5.9	-5.9	0.6	82	22.9	-22.7	-3.2	85	26.8	-26.7	-2.2
25	254	12.2	11.7	3.4	265	11.0	11.0	0.9	278	7.8	7.7	-1.1	269	6.3	6.3	0.1	84	7.5	-7.5	-0.8	83	23.8	-23.6	-2.9	90	30.8	-30.8	-0.2
26	259	11.8	11.6	2.3	266	11.4	11.4	0.7	279	8.4	8.3	-1.3	273	5.2	5.2	-0.3	81	7.3	-7.2	-1.2	83	24.1	-23.9	-3.1	90	26.3	-26.3	-0.1
27	262	13.0	12.9	1.7	267	12.0	12.0	0.7	275	8.6	8.6	-0.8	267	5.3	5.3	0.3	81	6.7	-6.6	-1.1	78	24.8	-24.3	-5.0	89	30.4	-30.4	-0.4
28	260	12.9	12.7	2.2	270	11.1	11.1	0.0	274	8.6	8.6	-0.6	257	6.1	5.9	1.4	99	7.3	-7.2	1.2	79	22.6	-22.2	-4.4	88	29.1	-29.1	-1.2
29	262	10.5	10.4	1.5	265	10.0	10.0	0.8	280	7.7	7.6	-1.3	257	4.4	4.3	1.0	82	7.4	-7.3	-1.0	83	22.2	-22.0	-2.7	87	26.6	-26.6	-1.4
30	256	12.3	11.9	3.0	261	10.9	10.8	1.8	275	7.3	7.3	-0.6	246	4.3	3.9	1.7	83	7.6	-7.5	-0.9	78	23.6	-23.1	-4.8	83	29.1	-28.9	-3.5

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	264	14.5	14.4	1.4	269	11.5	11.5	0.2	272	7.2	7.2	-0.3	258	4.0	3.9	0.8	89	8.6	-8.6	-0.1	84	21.5	-21.4	-2.3	90	31.0	-31.0	-0.2
2	261	13.2	13.0	2.0	267	11.0	11.0	0.5	277	7.7	7.6	-0.9	247	3.0	2.8	1.2	102	8.3	-8.1	1.7	81	25.3	-25.0	-4.1	91	27.2	-27.2	0.3
3	271	12.1	12.1	-0.2	276	8.9	8.8	-1.0	278	7.1	7.0	-1.0	239	3.5	3.0	1.8	86	9.0	-9.0	-0.7	81	25.4	-25.1	-3.8	89	31.9	-31.9	-0.6
4	260	10.7	10.5	1.8	274	8.1	8.1	-0.6	291	5.7	5.3	-2.0	263	2.4	2.4	0.3	99	8.1	-8.0	1.3	84	25.0	-24.8	-2.8	90	30.1	-30.1	0.0
5	266	9.7	9.7	0.7	263	7.5	7.4	0.9	274	4.5	4.5	-0.3	234	1.4	1.1	0.8	91	11.7	-11.7	0.2	84	26.9	-26.8	-2.7	86	29.6	-29.5	-2.3
6	263	10.9	10.8	1.3	273	7.7	7.7	-0.4	282	5.7	5.6	-1.2	262	2.2	2.2	0.3	95	8.7	-8.7	0.8	81	23.4	-23.1	-3.5	86	27.5	-27.4	-2.1
7	271	13.0	13.0	-0.3	268	9.0	9.0	0.3	279	5.7	5.6	-0.9	260	2.2	2.2	0.4	90	9.4	-9.4	0.0	82	21.4	-21.2	-2.9	90	30.7	-30.7	0.1
8	265	9.8	9.8	0.9	268	10.1	10.1	0.3	272	6.4	6.4	-0.2	254	3.2	3.1	0.9	86	9.5	-9.5	-0.7	79	22.8	-22.4	-4.2	83	27.8	-27.6	-3.4
9	269	10.5	10.5	0.1	271	9.8	9.8	-0.2	276	5.0	5.0	-0.5	256	2.5	2.4	0.6	87	8.3	-8.3	-0.4	77	22.9	-22.3	-5.0	88	27.7	-27.7	-0.8
10	265	12.0	11.9	1.1	273	8.0	8.0	-0.4	287	6.2	5.9	-1.8	246	2.2	2.0	0.9	87	8.2	-8.2	-0.5	83	24.0	-23.8	-3.0	84	31.1	-30.9	-3.5
11	263	13.2	13.1	1.6	272	9.3	9.3	-0.4	285	7.3	7.1	-1.9	277	4.1	4.1	-0.5	86	7.7	-7.7	-0.5	82	23.0	-22.8	-3.1	85	28.9	-28.8	-2.5
12	261	11.5	11.4	1.8	272	10.6	10.6	-0.4	274	7.7	7.7	-0.6	250	3.2	3.0	1.1	87	7.4	-7.4	-0.4	75	22.7	-21.9	-5.9	80	27.0	-26.6	-4.5
13	260	11.7	11.5	2.1	272	10.2	10.2	-0.4	272	7.0	7.0	-0.2	251	4.6	4.3	1.5	80	5.9	-5.8	-1.0	79	21.1	-20.7	-4.0	88	24.3	-24.3	-1.0
14	267	10.9	10.9	0.6	270	10.3	10.3	0.0	278	8.4	8.3	-1.2	253	4.2	4.0	1.2	101	5.8	-5.7	1.1	80	19.4	-19.1	-3.4	90	25.7	-25.7	0.0
15	266	11.7	11.7	0.8	279	10.5	10.4	-1.6	281	9.1	8.9	-1.7	271	5.4	5.4	-0.1	85	9.0	-9.0	-0.8	77	21.3	-20.8	-4.8	83	24.4	-24.2	-3.1
16	264	14.6	14.5	1.6	276	11.5	11.4	-1.1	282	9.0	8.8	-1.9	269	4.8	4.8	0.1	97	8.6	-8.5	1.1	77	22.3	-21.7	-5.2	88	31.1	-31.1	-0.9
17	270	13.7	13.7	0.0	274	11.0	11.0	-0.8	287	8.8	8.4	-2.5	257	5.2	5.1	1.2	95	7.6	-7.6	0.6	78	20.4	-20.0	-4.2	87	28.2	-28.2	-1.3
18	270	12.1	12.1	0.1	272	9.9	9.9	-0.3	286	9.2	8.9	-2.5	257	3.7	3.6	0.8	85	8.7	-8.7	-0.8	82	22.3	-22.1	-3.2	88	32.0	-32.0	-1.2
19	261	11.0	10.9	1.7	275	9.7	9.7	-0.9	289	7.0	6.6	-2.3	250	3.7	3.5	1.3	93	10.8	-10.8	0.5	85	25.2	-25.1	-2.0	82	30.0	-29.7	-4.1
20	263	14.4	14.3	1.8	273	9.0	9.0	-0.5	286	6.8	6.5	-1.9	236	1.4	1.2	0.8	93	10.6	-10.6	0.5	80	24.1	-23.8	-4.0	85	29.1	-29.0	-2.7
21	266	12.4	12.4	0.9	268	9.6	9.6	0.4	279	5.9	5.8	-0.9	260	1.7	1.7	0.3	84	9.6	-9.5	-1.0	77	23.0	-22.4	-5.0	88	26.0	-26.0	-1.0
22	269	12.3	12.3	0.3	272	9.6	9.6	-0.3	278	6.8	6.7	-0.9	261	3.1	3.1	0.5	85	10.0	-10.0	-0.9	78	24.0	-23.5	-5.0	90	26.3	-26.3	-0.2
23	260	10.1	10.0	1.7	271	10.5	10.5	-0.2	279	8.0	7.9	-1.3	245	4.5	4.1	1.9	81	6.8	-6.7	-1.1	77	21.5	-20.9	-4.9	86	25.8	-25.7	-1.8
24	259	9.2	9.0	1.8	269	8.2	8.2	0.2	278	7.5	7.4	-1.1	245	5.3	4.8	2.2	81	10.6	-10.5	-1.6	82	21.7	-21.5	-3.2	81	27.7	-27.4	-4.1
25	259	11.5	11.3	2.1	271	8.8	8.8	-0.2	281	7.3	7.2	-1.4	254	4.4	4.2	1.2	89	10.0	-10.0	-0.1	83	24.7	-24.5	-3.1	92	28.5	-28.5	1.0
26	265	13.0	12.9	1.2	279	10.7	10.6	-1.6	279	8.6	8.5	-1.4	264	4.6	4.6	0.5	83	9.7	-9.6	-1.2	82	26.2	-25.9	-3.8	82	27.3	-27.0	-3.8
27	262	13.6	13.5	2.0	271	10.5	10.5	-0.2	281	7.8	7.7	-1.5	269	4.9	4.9	0.1	87	7.9	-7.9	-0.4	81	24.1	-23.8	-3.8	89	23.9	-23.9	-0.4
28	267	12.8	12.8	0.6	270	10.6	10.6	0.0	280	7.7	7.6	-1.4	264	5.4	5.4	0.6	94	7.8	-7.8	0.5	78	23.3	-22.8	-5.0	89	27.9	-27.9	-0.4
29	267	12.9	12.9	0.6	274	8.9	8.9	-0.6	284	8.1	7.8	-2.0	261	5.8	5.7	0.9	95	9.3	-9.3	0.8	83	24.2	-24.0	-3.1	91	25.9	-25.9	0.5
30	268	12.7	12.7	0.5	267	10.2	10.2	0.6	285	6.7	6.5	-1.7	272	3.8	3.8	-0.1	91	9.1	-9.1	0.1	80	23.6	-23.2	-4.1	89	26.0	-26.0	-0.3
31	275	10.0	10.0	-0.8	271	9.1	9.1	-0.2	284	7.2	7.0	-1.8	274	5.3	5.3	-0.4	91	9.6	-9.6	0.2	78	23.2	-22.7	-5.0	84	28.6	-28.5	-2.9

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	270	11.1	11.1	0.0	269	10.2	10.2	0.1	281	8.2	8.0	-1.6	261	5.2	5.1	0.8	89	9.2	-9.2	-0.1	81	25.2	-24.9	-4.1	84	29.1	-29.0	-2.9
2	272	10.8	10.8	-0.4	270	9.5	9.5	0.0	281	8.3	8.1	-1.6	252	4.4	4.2	1.4	97	9.6	-9.5	1.2	80	24.0	-23.6	-4.3	84	27.8	-27.6	-3.0
3	272	9.3	9.3	-0.4	274	7.2	7.2	-0.5	292	6.2	5.8	-2.3	248	3.5	3.2	1.3	97	10.8	-10.7	1.4	83	25.8	-25.6	-3.2	82	26.7	-26.4	-3.9
4	263	10.4	10.3	1.3	282	7.6	7.4	-1.6	274	5.9	5.9	-0.4	229	3.8	2.9	2.5	88	9.7	-9.7	-0.3	82	24.7	-24.5	-3.4	86	28.6	-28.5	-2.0
5	253	7.6	7.3	2.2	271	7.3	7.3	-0.1	272	5.6	5.6	-0.2	236	1.8	1.5	1.0	83	10.4	-10.3	-1.3	82	26.6	-26.4	-3.6	82	26.6	-26.3	-3.7
6	262	9.1	9.0	1.2	266	8.3	8.3	0.6	272	6.3	6.3	-0.2	232	3.1	2.4	1.9	86	9.6	-9.6	-0.6	80	25.3	-24.9	-4.4	89	23.6	-23.6	-0.3
7	251	10.0	9.5	3.2	269	9.5	9.5	0.2	272	7.4	7.4	-0.2	241	4.1	3.6	2.0	93	8.1	-8.1	0.4	80	24.2	-23.9	-4.0	90	25.4	-25.4	-0.1
8	268	9.8	9.8	0.3	274	10.4	10.4	-0.7	274	8.6	8.6	-0.6	262	6.1	6.0	0.8	96	7.6	-7.6	0.8	79	24.1	-23.6	-4.8	89	25.0	-25.0	-0.4
9	263	11.6	11.5	1.4	270	11.5	11.5	-0.1	278	9.7	9.6	-1.4	277	5.6	5.6	-0.7	96	8.3	-8.3	0.8	80	21.2	-20.9	-3.7	92	22.8	-22.8	0.6
10	263	12.2	12.1	1.4	271	12.0	12.0	-0.3	277	8.8	8.7	-1.1	267	4.2	4.2	0.2	100	8.9	-8.8	1.6	78	24.0	-23.5	-5.0	85	24.6	-24.5	-2.2
11	267	10.1	10.1	0.5	274	9.7	9.7	-0.6	281	9.4	9.2	-1.8	251	4.3	4.1	1.4	79	8.2	-8.0	-1.6	77	24.5	-23.9	-5.5	86	26.2	-26.1	-1.7
12	257	8.0	7.8	1.8	271	10.0	10.0	-0.2	290	8.1	7.6	-2.8	258	6.0	5.9	1.3	80	7.7	-7.6	-1.4	83	22.6	-22.4	-2.6	89	24.6	-24.6	-0.6
13	253	9.4	9.0	2.7	276	10.2	10.1	-1.1	286	8.0	7.7	-2.2	267	3.8	3.8	0.2	93	9.2	-9.2	0.5	83	24.0	-23.8	-3.1	93	22.8	-22.8	1.3
14	256	8.6	8.3	2.1	275	8.4	8.4	-0.7	293	8.0	7.4	-3.1	263	4.0	4.0	0.5	93	9.8	-9.8	0.5	81	22.3	-22.0	-3.4	95	25.8	-25.7	2.1
15	261	7.3	7.2	1.1	276	9.0	9.0	-0.9	289	8.0	7.6	-2.6	249	3.3	3.1	1.2	97	9.5	-9.4	1.2	80	22.0	-21.7	-3.8	89	25.0	-25.0	-0.3
16	259	9.2	9.0	1.8	270	8.0	8.0	0.0	286	7.1	6.8	-1.9	249	3.4	3.2	1.2	86	9.3	-9.3	-0.6	80	23.6	-23.2	-4.1	88	26.2	-26.2	-1.1
17	271	10.4	10.4	-0.1	275	10.1	10.1	-0.8	277	8.1	8.0	-1.0	247	3.8	3.5	1.5	85	8.1	-8.1	-0.7	81	24.3	-24.0	-3.9	79	25.0	-24.5	-4.9
18	264	9.3	9.3	0.9	269	9.0	9.0	0.1	278	7.8	7.7	-1.1	249	3.4	3.2	1.2	95	9.6	-9.6	0.8	81	24.8	-24.5	-3.9	89	28.7	-28.7	-0.5
19	266	9.7	9.7	0.6	277	8.8	8.7	-1.1	281	7.0	6.9	-1.3	256	4.1	4.0	1.0	90	9.5	-9.5	0.0	87	24.5	-24.5	-1.3	85	24.3	-24.2	-2.2
20	264	10.2	10.1	1.1	274	8.4	8.4	-0.6	280	7.2	7.1	-1.3	257	2.8	2.7	0.6	85	8.8	-8.8	-0.7	81	23.6	-23.3	-3.7	86	27.9	-27.8	-2.0
21	272	9.0	9.0	-0.3	284	7.8	7.6	-1.9	287	6.4	6.1	-1.9	242	1.9	1.7	0.9	88	9.5	-9.5	-0.4	83	22.0	-21.9	-2.5	89	26.6	-26.6	-0.5
22	272	11.1	11.1	-0.4	285	8.2	7.9	-2.1	284	6.3	6.1	-1.5	270	2.6	2.6	0.0	96	8.3	-8.3	0.8	82	21.1	-20.9	-3.0	84	26.6	-26.5	-2.8
23	257	8.2	8.0	1.9	277	6.9	6.9	-0.8	281	5.7	5.6	-1.1	193	2.7	0.6	2.6	95	9.4	-9.4	0.9	85	22.3	-22.2	-2.1	90	23.3	-23.3	0.0
24	260	9.5	9.3	1.7	279	7.4	7.3	-1.2	281	5.7	5.6	-1.1	250	2.3	2.2	0.8	94	11.0	-11.0	0.8	86	24.0	-23.9	-1.7	83	25.5	-25.3	-3.0
25	262	9.1	9.0	1.3	279	7.4	7.3	-1.1	274	7.0	7.0	-0.5	266	3.9	3.9	0.3	89	9.2	-9.2	-0.2	83	21.0	-20.9	-2.5	83	27.1	-26.9	-3.2
26	273	10.0	10.0	-0.6	274	8.7	8.7	-0.6	281	7.1	7.0	-1.3	297	3.6	3.2	-1.6	97	9.4	-9.3	1.2	84	25.1	-25.0	-2.7	94	20.5	-20.5	1.3
27	260	10.8	10.6	1.9	276	8.1	8.0	-0.9	276	6.7	6.7	-0.7	277	2.5	2.5	-0.3	91	9.9	-9.9	0.1	80	23.1	-22.8	-3.9	94	22.4	-22.3	1.5
28	267	11.6	11.6	0.6	278	7.8	7.7	-1.1	285	7.4	7.2	-1.9	266	4.2	4.2	0.3	107	8.3	-7.9	2.4	76	20.8	-20.2	-5.1	87	24.3	-24.3	-1.4
29	268	10.7	10.7	0.4	282	7.5	7.3	-1.6	283	7.1	6.9	-1.6	245	3.1	2.8	1.3	99	8.9	-8.8	1.4	80	22.4	-22.0	-4.0	85	23.7	-23.6	-2.0
30	264	11.5	11.4	1.2	279	7.8	7.7	-1.2	279	6.1	6.0	-1.0	242	2.7	2.4	1.3	92	8.0	-8.0	0.3	83	22.1	-21.9	-2.7	86	24.3	-24.2	-1.7
31	258	9.7	9.5	2.0	275	7.4	7.4	-0.6	283	5.7	5.6	-1.3	260	1.7	1.7	0.3	89	9.6	-9.6	-0.1	86	23.1	-23.1	-1.5	89	25.5	-25.5	-0.4

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	251	7.8	7.4	2.6	269	6.7	6.7	0.1	282	4.7	4.6	-1.0	270	1.1	1.1	0.0	88	9.7	-9.7	-0.3	85	25.3	-25.2	-2.2	89	21.1	-21.1	-0.4
2	259	9.9	9.7	1.8	269	6.1	6.1	0.1	275	5.0	5.0	-0.4	219	1.3	0.8	1.0	100	11.4	-11.2	1.9	82	24.2	-23.9	-3.5	87	25.5	-25.5	-1.3
3	269	12.1	12.1	0.2	275	6.9	6.9	-0.6	272	5.0	5.0	-0.2	207	3.0	1.4	2.7	97	11.7	-11.6	1.4	83	23.6	-23.4	-2.9	88	23.1	-23.1	-1.0
4	266	10.1	10.1	0.7	271	6.2	6.2	-0.1	279	5.1	5.0	-0.8	246	1.2	1.1	0.5	93	10.9	-10.9	0.5	82	22.9	-22.7	-3.2	88	21.3	-21.3	-0.9
5	271	8.0	8.0	-0.1	283	5.8	5.7	-1.3	276	4.5	4.5	-0.5	270	1.8	1.8	0.0	85	8.8	-8.8	-0.8	85	23.5	-23.4	-2.1	90	21.9	-21.9	-0.1
6	258	8.8	8.6	1.9	275	5.6	5.6	-0.5	265	5.6	5.6	0.5	239	2.7	2.3	1.4	94	9.2	-9.2	0.6	84	22.6	-22.5	-2.5	85	22.2	-22.1	-1.8
7	267	7.7	7.7	0.4	283	6.1	5.9	-1.4	280	5.2	5.1	-0.9	279	2.4	2.4	-0.4	93	9.7	-9.7	0.5	85	20.6	-20.5	-1.7	92	20.7	-20.7	0.6
8	255	7.9	7.6	2.0	273	6.5	6.5	-0.3	280	5.3	5.2	-0.9	267	1.8	1.8	0.1	88	9.8	-9.8	-0.3	88	21.3	-21.3	-0.8	89	21.4	-21.4	-0.5
9	260	8.3	8.2	1.5	288	5.2	4.9	-1.6	292	3.8	3.5	-1.4	270	2.3	2.3	0.0	100	10.4	-10.2	1.8	86	20.1	-20.1	-1.3	95	21.1	-21.0	1.7
10	247	8.3	7.7	3.2	278	5.3	5.3	-0.7	291	3.6	3.4	-1.3	275	1.2	1.2	-0.1	100	7.9	-7.8	1.4	83	20.6	-20.4	-2.6	89	19.7	-19.7	-0.5
11	247	7.0	6.5	2.7	266	5.8	5.8	0.4	284	3.6	3.5	-0.9	227	1.6	1.2	1.1	101	8.6	-8.4	1.6	82	20.0	-19.8	-2.7	88	20.9	-20.9	-0.7
12	243	7.4	6.6	3.3	266	4.3	4.3	0.3	272	2.9	2.9	-0.1	168	1.9	-0.4	1.9	102	9.2	-9.0	1.9	86	16.9	-16.9	-1.3	91	18.9	-18.9	0.2
13	234	7.7	6.3	4.5	271	4.3	4.3	-0.1	295	2.9	2.6	-1.2	189	1.3	0.2	1.3	99	9.1	-9.0	1.4	87	17.0	-17.0	-0.8	85	21.0	-20.9	-1.8
14	250	9.7	9.1	3.4	282	4.2	4.1	-0.9	285	2.7	2.6	-0.7	153	1.1	-0.5	1.0	94	7.2	-7.2	0.5	87	17.0	-17.0	-0.8	94	18.7	-18.7	1.3
15	259	8.5	8.3	1.6	286	3.7	3.6	-1.0	297	4.0	3.6	-1.8	234	0.9	0.7	0.5	88	7.6	-7.6	-0.2	90	17.1	-17.1	0.0	90	21.5	-21.5	0.0
16	256	9.6	9.3	2.3	268	3.5	3.5	0.1	315	2.4	1.7	-1.7	83	0.8	-0.8	-0.1	83	8.2	-8.1	-1.0	88	16.9	-16.9	-0.5	87	21.7	-21.7	-1.1
17	269	7.0	7.0	0.1	280	4.1	4.0	-0.7	301	2.6	2.2	-1.3	112	1.8	-1.7	0.7	95	8.7	-8.7	0.7	87	16.9	-16.9	-0.9	89	20.8	-20.8	-0.5
18	268	8.3	8.3	0.3	275	4.8	4.8	-0.4	277	3.3	3.3	-0.4	52	1.1	-0.9	-0.7	98	7.9	-7.8	1.1	90	15.9	-15.9	-0.1	90	22.3	-22.3	-0.1
19	267	5.2	5.2	0.3	271	4.6	4.6	-0.1	300	3.4	3.0	-1.7	342	0.6	0.2	-0.6	97	7.9	-7.8	0.9	96	17.5	-17.4	1.8	88	18.4	-18.4	-0.7
20	265	6.9	6.9	0.6	281	5.1	5.0	-1.0	292	4.1	3.8	-1.5	81	0.6	-0.6	-0.1	101	5.7	-5.6	1.1	88	15.1	-15.1	-0.4	93	17.7	-17.7	0.8
21	263	6.4	6.4	0.8	275	5.0	5.0	-0.4	310	4.0	3.1	-2.6	214	0.7	0.4	0.6	87	6.6	-6.6	-0.4	86	16.1	-16.1	-1.1	89	19.5	-19.5	-0.4
22	253	6.9	6.6	2.0	275	4.4	4.4	-0.4	305	3.9	3.2	-2.2	219	0.6	0.4	0.5	93	8.9	-8.9	0.5	90	16.3	-16.3	-0.1	90	21.4	-21.4	0.1
23	244	5.8	5.2	2.5	266	4.4	4.4	0.3	288	3.2	3.0	-1.0	279	0.6	0.6	-0.1	96	10.1	-10.0	1.1	88	15.0	-15.0	-0.5	93	19.5	-19.5	1.1
24	244	5.1	4.6	2.2	268	3.4	3.4	0.1	282	1.9	1.9	-0.4	162	1.9	-0.6	1.8	102	9.3	-9.1	1.9	90	17.1	-17.1	-0.1	94	16.7	-16.6	1.3
25	255	3.8	3.7	1.0	291	3.1	2.9	-1.1	285	2.4	2.3	-0.6	135	2.0	-1.4	1.4	95	10.5	-10.5	1.0	93	16.2	-16.2	0.8	89	19.2	-19.2	-0.3
26	250	4.6	4.3	1.6	267	3.7	3.7	0.2	245	2.6	2.4	1.1	127	1.0	-0.8	0.6	104	8.1	-7.9	1.9	90	13.8	-13.8	0.0	96	16.7	-16.6	1.7
27	241	4.6	4.0	2.2	270	4.5	4.5	0.0	280	3.6	3.5	-0.6	235	1.2	1.0	0.7	96	8.2	-8.2	0.8	94	17.2	-17.2	1.3	89	16.0	-16.0	-0.2
28	244	5.2	4.7	2.3	274	4.4	4.4	-0.3	288	3.5	3.3	-1.1	139	2.1	-1.4	1.6	88	9.3	-9.3	-0.4	84	18.1	-18.0	-1.9	84	16.6	-16.5	-1.7
29	253	5.5	5.3	1.6	292	4.3	4.0	-1.6	304	4.3	3.6	-2.4	360	0.1	0.0	-0.1	90	8.0	-8.0	0.0	83	16.0	-15.9	-2.0	84	18.7	-18.6	-2.0
30	247	4.8	4.4	1.9	278	2.7	2.7	-0.4	289	2.4	2.3	-0.8	336	1.0	0.4	-0.9	89	6.2	-6.2	-0.1	87	15.0	-15.0	-0.8	97	13.7	-13.6	1.6

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	250	4.4	4.1	1.5	269	4.3	4.3	0.1	274	2.6	2.6	-0.2	235	1.2	1.0	0.7	78	6.0	-5.9	-1.3	85	14.4	-14.3	-1.2	90	13.1	-13.1	-0.1
2	242	5.4	4.8	2.5	267	3.8	3.8	0.2	281	3.7	3.6	-0.7	291	0.9	0.8	-0.3	92	6.2	-6.2	0.2	88	13.3	-13.3	-0.5	92	11.8	-11.8	0.4
3	242	6.0	5.3	2.8	268	3.8	3.8	0.1	279	4.0	4.0	-0.6	227	2.3	1.7	1.6	105	7.6	-7.3	2.0	87	14.8	-14.8	-0.9	90	13.0	-13.0	0.0
4	271	7.6	7.6	-0.1	273	4.5	4.5	-0.2	290	4.5	4.2	-1.5	264	2.0	2.0	0.2	104	7.3	-7.1	1.8	92	16.3	-16.3	0.7	98	16.2	-16.0	2.3
5	258	6.4	6.3	1.3	284	4.2	4.1	-1.0	304	4.3	3.6	-2.4	249	2.2	2.1	0.8	98	5.9	-5.8	0.8	96	13.5	-13.4	1.4	93	13.3	-13.3	0.8
6	279	4.3	4.2	-0.7	290	3.5	3.3	-1.2	293	3.4	3.1	-1.3	223	2.3	1.6	1.7	97	8.6	-8.5	1.1	88	16.9	-16.9	-0.5	92	13.0	-13.0	0.4
7	283	4.0	3.9	-0.9	309	2.8	2.2	-1.8	301	2.3	2.0	-1.2	166	0.4	-0.1	0.4	92	7.6	-7.6	0.3	92	13.9	-13.9	0.6	94	13.8	-13.8	1.0
8	272	3.6	3.6	-0.1	303	2.4	2.0	-1.3	298	2.1	1.9	-1.0	97	1.6	-1.6	0.2	103	6.6	-6.4	1.5	91	11.9	-11.9	0.3	93	13.1	-13.1	0.8
9	239	3.7	3.2	1.9	258	1.4	1.4	0.3	280	1.1	1.1	-0.2	131	1.1	-0.8	0.7	99	5.7	-5.6	0.9	87	12.9	-12.9	-0.7	95	12.2	-12.2	1.1
10	217	3.4	2.0	2.7	220	0.8	0.5	0.6	349	1.5	0.3	-1.5	105	1.6	-1.5	0.4	95	5.9	-5.9	0.5	97	11.7	-11.6	1.5	96	10.9	-10.8	1.1
11	243	5.1	4.6	2.3	266	1.3	1.3	0.1	333	1.6	0.7	-1.4	108	1.3	-1.2	0.4	89	6.3	-6.3	-0.1	93	11.3	-11.3	0.5	93	13.1	-13.1	0.6
12	251	5.3	5.0	1.7	338	1.1	0.4	-1.0	352	1.5	0.2	-1.5	78	2.4	-2.3	-0.5	94	5.1	-5.1	0.4	93	10.0	-10.0	0.6	94	11.4	-11.4	0.7
13	278	3.0	3.0	-0.4	336	1.7	0.7	-1.6	339	2.6	0.9	-2.4	76	0.8	-0.8	-0.2	97	4.0	-4.0	0.5	107	8.1	-7.7	2.4	96	7.9	-7.9	0.8
14	270	3.5	3.5	0.0	331	2.5	1.2	-2.2	342	2.3	0.7	-2.2	50	1.6	-1.2	-1.0	98	5.1	-5.1	0.7	100	11.3	-11.1	1.9	110	8.2	-7.7	2.8
15	289	3.7	3.5	-1.2	348	3.0	0.6	-2.9	342	2.5	0.8	-2.4	28	1.5	-0.7	-1.3	108	4.7	-4.5	1.5	100	12.3	-12.1	2.2	94	11.1	-11.1	0.7
16	280	4.0	3.9	-0.7	330	2.8	1.4	-2.4	339	3.0	1.1	-2.8	45	0.8	-0.6	-0.6	98	6.8	-6.7	0.9	102	12.9	-12.6	2.6	90	11.1	-11.1	0.0
17	302	2.2	1.9	-1.2	343	2.7	0.8	-2.6	327	3.0	1.6	-2.5	90	1.8	-1.8	0.0	107	5.0	-4.8	1.5	103	11.3	-11.0	2.6	93	11.8	-11.8	0.7
18	259	4.3	4.2	0.8	340	2.0	0.7	-1.9	323	2.6	1.6	-2.1	100	1.1	-1.1	0.2	105	5.8	-5.6	1.5	95	9.8	-9.8	0.8	88	13.9	-13.9	-0.6
19	278	3.7	3.7	-0.5	18	0.9	-0.3	-0.9	322	1.8	1.1	-1.4	86	1.3	-1.3	-0.1	105	7.3	-7.0	1.9	104	11.8	-11.4	2.9	94	11.7	-11.7	0.8
20	263	1.6	1.6	0.2	55	1.2	-1.0	-0.7	301	1.2	1.0	-0.6	135	2.5	-1.8	1.8	96	4.6	-4.6	0.5	104	9.4	-9.1	2.3	92	15.2	-15.2	0.4
21	113	0.8	-0.7	0.3	48	3.1	-2.3	-2.1	22	1.8	-0.7	-1.7	107	2.4	-2.3	0.7	105	4.8	-4.6	1.2	108	7.6	-7.2	2.3	101	9.7	-9.5	1.8
22	225	1.6	1.1	1.1	59	2.6	-2.2	-1.3	38	1.8	-1.1	-1.4	87	3.6	-3.6	-0.2	96	4.1	-4.1	0.4	98	8.5	-8.4	1.2	95	10.1	-10.1	0.9
23	270	0.8	0.8	0.0	39	2.6	-1.6	-2.0	61	2.3	-2.0	-1.1	83	2.6	-2.6	-0.3	102	5.0	-4.9	1.0	110	8.9	-8.3	3.1	101	10.6	-10.4	2.1
24	60	2.2	-1.9	-1.1	50	3.8	-2.9	-2.4	58	2.6	-2.2	-1.4	100	3.4	-3.3	0.6	96	4.5	-4.5	0.5	118	7.6	-6.7	3.5	94	7.5	-7.5	0.5
25	9	1.8	-0.3	-1.8	67	4.0	-3.7	-1.6	80	2.8	-2.8	-0.5	79	4.1	-4.0	-0.8	96	4.9	-4.9	0.5	105	7.0	-6.8	1.8	100	8.6	-8.5	1.5
26	352	2.2	0.3	-2.2	33	4.0	-2.2	-3.4	35	3.9	-2.2	-3.2	86	2.9	-2.9	-0.2	97	5.5	-5.5	0.7	104	8.3	-8.1	2.0	101	8.6	-8.5	1.6
27	360	1.6	0.0	-1.6	38	3.1	-1.9	-2.4	41	2.9	-1.9	-2.2	68	3.5	-3.2	-1.3	82	3.6	-3.6	-0.5	105	7.6	-7.3	2.0	96	6.9	-6.9	0.7
28	26	3.0	-1.3	-2.7	44	3.2	-2.2	-2.3	48	2.7	-2.0	-1.8	114	3.7	-3.4	1.5	105	4.1	-4.0	1.1	110	8.2	-7.7	2.8	97	7.9	-7.8	0.9
29	2	3.7	-0.1	-3.7	27	4.4	-2.0	-3.9	74	1.5	-1.4	-0.4	113	2.6	-2.4	1.0	103	4.5	-4.4	1.0	108	6.7	-6.4	2.1	113	7.2	-6.6	2.8
30	2	3.7	-0.1	-3.7	30	3.6	-1.8	-3.1	23	1.3	-0.5	-1.2	101	3.3	-3.2	0.6	108	4.5	-4.3	1.4	114	6.8	-6.2	2.8	106	6.8	-6.5	1.9
31	318	1.3	0.9	-1.0	30	4.2	-2.1	-3.6	27	0.4	-0.2	-0.4	120	2.4	-2.1	1.2	114	4.4	-4.0	1.8	112	7.3	-6.8	2.7	105	7.1	-6.9	1.8

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	273	2.0	2.0	-0.1	18	3.6	-1.1	-3.4	20	1.2	-0.4	-1.1	67	2.5	-2.3	-1.0	103	4.8	-4.7	1.1	107	6.7	-6.4	2.0	93	9.0	-9.0	0.4
2	85	1.2	-1.2	-0.1	28	3.0	-1.4	-2.6	47	1.8	-1.3	-1.2	63	2.7	-2.4	-1.2	103	4.4	-4.3	1.0	108	6.5	-6.2	2.0	103	8.9	-8.7	2.0
3	52	2.3	-1.8	-1.4	54	2.7	-2.2	-1.6	47	1.8	-1.3	-1.2	108	2.5	-2.4	0.8	117	5.1	-4.6	2.3	111	10.5	-9.8	3.8	102	6.3	-6.2	1.3
4	30	4.4	-2.2	-3.8	58	3.6	-3.0	-1.9	62	2.6	-2.3	-1.2	87	1.8	-1.8	-0.1	126	4.8	-3.9	2.8	134	7.5	-5.4	5.2	77	9.2	-9.0	-2.0
5	41	5.2	-3.4	-3.9	38	4.9	-3.0	-3.9	48	2.8	-2.1	-1.9	113	3.8	-3.5	1.5	122	4.5	-3.8	2.4	127	7.6	-6.1	4.6	101	6.6	-6.5	1.3
6	20	6.1	-2.1	-5.7	31	4.9	-2.5	-4.2	44	3.3	-2.3	-2.4	113	2.5	-2.3	1.0	115	3.8	-3.5	1.6	119	6.8	-6.0	3.3	102	7.9	-7.7	1.7
7	57	3.8	-3.2	-2.1	59	4.3	-3.7	-2.2	80	2.9	-2.9	-0.5	91	3.9	-3.9	0.1	104	5.3	-5.1	1.3	111	9.3	-8.7	3.4	91	8.3	-8.3	0.2
8	51	5.0	-3.9	-3.2	62	4.7	-4.2	-2.2	82	3.5	-3.5	-0.5	115	3.1	-2.8	1.3	99	5.2	-5.1	0.8	112	8.4	-7.8	3.1	99	5.2	-5.1	0.8
9	78	1.4	-1.4	-0.3	48	3.1	-2.3	-2.1	81	2.6	-2.6	-0.4	79	5.4	-5.3	-1.0	99	4.3	-4.2	0.7	124	6.5	-5.4	3.7	89	6.6	-6.6	-0.1
10	78	4.0	-3.9	-0.8	61	4.3	-3.8	-2.1	73	3.9	-3.7	-1.1	92	5.3	-5.3	0.2	101	5.2	-5.1	1.0	118	7.0	-6.2	3.3	117	7.0	-6.2	3.2
11	66	6.0	-5.5	-2.5	54	4.8	-3.9	-2.8	49	2.9	-2.2	-1.9	78	4.0	-3.9	-0.8	94	5.7	-5.7	0.4	106	9.3	-8.9	2.6	87	5.3	-5.3	-0.3
12	48	5.8	-4.3	-3.9	37	4.1	-2.5	-3.3	59	2.1	-1.8	-1.1	54	4.6	-3.7	-2.7	97	4.6	-4.6	0.6	125	8.9	-7.3	5.1	93	8.6	-8.6	0.5
13	47	7.1	-5.2	-4.9	40	3.9	-2.5	-3.0	41	2.8	-1.8	-2.1	93	2.2	-2.2	0.1	112	4.2	-3.9	1.6	121	8.3	-7.1	4.3	105	4.3	-4.2	1.1
14	46	6.2	-4.5	-4.3	47	5.4	-3.9	-3.7	65	1.4	-1.3	-0.6	98	3.5	-3.5	0.5	130	3.8	-2.9	2.4	121	6.9	-5.9	3.5	54	1.4	-1.1	-0.8
15	60	4.8	-4.2	-2.4	49	3.5	-2.6	-2.3	84	1.0	-1.0	-0.1	78	2.5	-2.4	-0.5	96	4.9	-4.9	0.5	114	8.7	-8.0	3.5	85	4.2	-4.2	-0.4
16	63	4.2	-3.7	-1.9	60	3.8	-3.3	-1.9	98	2.2	-2.2	0.3	125	2.1	-1.7	1.2	110	5.5	-5.2	1.9	99	7.3	-7.2	1.2	84	5.9	-5.9	-0.6
17	73	2.1	-2.0	-0.6	66	3.4	-3.1	-1.4	115	2.6	-2.4	1.1	104	3.4	-3.3	0.8	104	4.1	-4.0	1.0	126	8.2	-6.7	4.8	104	5.6	-5.4	1.3
18	50	3.0	-2.3	-1.9	56	4.5	-3.7	-2.5	76	2.1	-2.0	-0.5	98	3.4	-3.4	0.5	117	4.9	-4.4	2.2	137	6.6	-4.5	4.8	68	2.4	-2.2	-0.9
19	82	2.9	-2.9	-0.4	67	4.8	-4.4	-1.9	78	3.3	-3.2	-0.7	83	3.5	-3.5	-0.4	134	4.5	-3.2	3.1	143	6.3	-3.8	5.0	83	3.2	-3.2	-0.4
20	50	5.3	-4.1	-3.4	45	5.7	-4.0	-4.0	65	1.4	-1.3	-0.6	72	3.6	-3.4	-1.1	147	3.8	-2.1	3.2	139	7.3	-4.8	5.5	127	3.8	-3.0	2.3
21	54	6.2	-5.0	-3.6	43	6.2	-4.2	-4.5	67	3.0	-2.8	-1.2	98	3.6	-3.6	0.5	147	4.4	-2.4	3.7	155	7.5	-3.1	6.8	122	3.8	-3.2	2.0
22	57	6.4	-5.3	-3.5	49	6.3	-4.8	-4.1	74	3.6	-3.5	-1.0	78	3.9	-3.8	-0.8	162	2.6	-0.8	2.5	153	8.0	-3.6	7.1	97	5.8	-5.8	0.7
23	63	7.2	-6.4	-3.3	56	5.8	-4.8	-3.2	75	3.8	-3.7	-1.0	85	3.2	-3.2	-0.3	127	2.6	-2.1	1.6	158	6.7	-2.5	6.2	103	4.8	-4.7	1.1
24	31	6.4	-3.3	-5.5	34	6.0	-3.4	-5.0	57	4.5	-3.8	-2.5	77	4.3	-4.2	-1.0	106	1.9	-1.8	0.5	156	6.0	-2.4	5.5	97	5.9	-5.9	0.7
25	39	5.9	-3.7	-4.6	41	5.7	-3.8	-4.3	53	3.4	-2.7	-2.0	90	3.5	-3.5	0.0	141	2.1	-1.3	1.6	148	4.1	-2.2	3.5	88	2.9	-2.9	-0.1
26	34	7.3	-4.1	-6.0	39	6.4	-4.0	-5.0	68	3.8	-3.5	-1.4	77	5.7	-5.6	-1.3	105	3.1	-3.0	0.8	140	7.7	-5.0	5.9	74	4.7	-4.5	-1.3
27	34	7.1	-4.0	-5.9	44	7.6	-5.3	-5.4	74	5.1	-4.9	-1.4	76	7.1	-6.9	-1.7	124	3.7	-3.1	2.1	154	6.2	-2.7	5.6	118	1.7	-1.5	0.8
28	30	6.8	-3.4	-5.9	47	6.9	-5.1	-4.7	64	5.1	-4.6	-2.2	76	6.8	-6.6	-1.6	88	2.3	-2.3	-0.1	148	5.1	-2.7	4.3	94	4.0	-4.0	0.3
29	21	6.3	-2.3	-5.9	44	7.4	-5.1	-5.3	60	4.4	-3.8	-2.2	73	7.0	-6.7	-2.0	119	2.5	-2.2	1.2	160	6.5	-2.2	6.1	91	5.7	-5.7	0.1
30	41	6.5	-4.3	-4.9	52	6.2	-4.9	-3.8	80	6.0	-5.9	-1.0	71	5.3	-5.0	-1.7	107	3.0	-2.9	0.9	158	8.4	-3.2	7.8	95	3.7	-3.7	0.3

Daily Normals of Upper Air Winds (1971-2000)

KARAIKAL **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	40	7.5	-4.8	-5.7	42	7.0	-4.7	-5.2	82	5.2	-5.2	-0.7	72	7.1	-6.8	-2.2	95	2.1	-2.1	0.2	168	4.8	-1.0	4.7	130	1.6	-1.2	1.0
2	38	7.2	-4.4	-5.7	63	6.7	-6.0	-3.0	83	5.2	-5.2	-0.6	79	8.2	-8.0	-1.6	107	3.1	-3.0	0.9	173	7.3	-0.9	7.2	177	2.1	-0.1	2.1
3	39	7.5	-4.7	-5.9	58	7.3	-6.2	-3.9	78	5.6	-5.5	-1.2	69	7.5	-7.0	-2.7	137	3.5	-2.4	2.6	186	6.6	0.7	6.6	212	1.3	0.7	1.1
4	35	6.3	-3.6	-5.2	51	6.7	-5.2	-4.2	57	4.5	-3.8	-2.5	77	6.9	-6.7	-1.5	135	3.3	-2.3	2.3	170	6.4	-1.1	6.3	90	6.2	-6.2	0.0
5	66	5.6	-5.1	-2.3	58	6.6	-5.6	-3.5	76	4.5	-4.4	-1.1	76	4.2	-4.1	-1.0	160	4.5	-1.5	4.2	167	8.9	-2.0	8.7	126	2.7	-2.2	1.6
6	44	6.0	-4.2	-4.3	49	6.4	-4.8	-4.2	57	4.9	-4.1	-2.7	52	4.9	-3.9	-3.0	207	0.4	0.2	0.4	179	6.0	-0.1	6.0	121	3.7	-3.2	1.9
7	44	8.2	-5.7	-5.9	50	6.5	-5.0	-4.2	65	4.0	-3.6	-1.7	72	4.8	-4.6	-1.5	170	2.9	-0.5	2.9	168	6.4	-1.3	6.3	110	3.5	-3.3	1.2
8	41	7.5	-4.9	-5.7	48	5.7	-4.2	-3.8	69	3.6	-3.4	-1.3	70	4.4	-4.1	-1.5	323	0.5	0.3	-0.4	182	4.6	0.2	4.6	95	3.6	-3.6	0.3
9	34	7.5	-4.2	-6.2	41	5.5	-3.6	-4.2	86	4.5	-4.5	-0.3	74	3.7	-3.6	-1.0	232	1.6	1.3	1.0	214	5.0	2.8	4.2	162	0.9	-0.3	0.9
10	46	6.9	-5.0	-4.8	60	5.9	-5.1	-2.9	78	3.9	-3.8	-0.8	94	2.9	-2.9	0.2	103	1.7	-1.7	0.4	170	4.6	-0.8	4.5	98	3.6	-3.6	0.5
11	48	7.6	-5.7	-5.1	53	6.1	-4.9	-3.7	82	5.0	-5.0	-0.7	76	4.2	-4.1	-1.0	157	2.5	-1.0	2.3	166	7.5	-1.8	7.3	102	4.0	-3.9	0.8
12	43	8.1	-5.5	-5.9	60	6.9	-6.0	-3.4	88	5.5	-5.5	-0.2	90	5.2	-5.2	0.0	151	2.1	-1.0	1.8	183	5.7	0.3	5.7	169	1.5	-0.3	1.5
13	55	7.7	-6.3	-4.4	66	7.2	-6.6	-2.9	84	5.3	-5.3	-0.6	86	4.0	-4.0	-0.3	203	2.3	0.9	2.1	197	5.9	1.7	5.7	105	2.8	-2.7	0.7
14	52	7.5	-5.9	-4.6	66	5.4	-4.9	-2.2	89	4.4	-4.4	-0.1	74	4.1	-3.9	-1.1	223	2.2	1.5	1.6	196	6.9	1.9	6.6	75	2.4	-2.3	-0.6
15	41	8.0	-5.3	-6.0	58	7.7	-6.5	-4.1	83	4.8	-4.8	-0.6	71	4.6	-4.4	-1.5	233	2.1	1.7	1.3	225	5.9	4.2	4.2	144	1.4	-0.8	1.1
16	44	7.2	-5.0	-5.2	61	7.2	-6.3	-3.5	70	4.4	-4.1	-1.5	71	4.6	-4.4	-1.5	219	1.3	0.8	1.0	231	5.7	4.4	3.6	107	3.8	-3.6	1.1
17	46	8.1	-5.9	-5.6	55	8.1	-6.6	-4.7	71	5.7	-5.4	-1.9	94	5.4	-5.4	0.4	212	1.3	0.7	1.1	210	7.9	4.0	6.8	129	1.4	-1.1	0.9
18	44	8.9	-6.2	-6.4	66	8.2	-7.5	-3.3	79	5.7	-5.6	-1.1	80	6.0	-5.9	-1.0	221	1.8	1.2	1.4	196	8.1	2.2	7.8	60	1.4	-1.2	-0.7
19	40	8.0	-5.1	-6.1	49	6.3	-4.8	-4.1	67	4.1	-3.8	-1.6	85	5.6	-5.6	-0.5	174	2.0	-0.2	2.0	193	5.7	1.3	5.5	18	1.6	-0.5	-1.5
20	33	8.5	-4.6	-7.2	50	7.8	-6.0	-5.0	75	4.7	-4.5	-1.2	84	4.7	-4.7	-0.5	225	4.2	3.0	3.0	201	6.0	2.1	5.6	137	2.6	-1.8	1.9
21	44	7.7	-5.4	-5.5	58	7.3	-6.2	-3.8	65	4.3	-3.9	-1.8	64	5.1	-4.6	-2.2	236	3.2	2.7	1.8	208	9.2	4.3	8.1	77	2.7	-2.6	-0.6
22	49	6.9	-5.2	-4.5	59	5.7	-4.9	-2.9	79	4.9	-4.8	-0.9	71	4.0	-3.8	-1.3	219	3.2	2.0	2.5	233	7.7	6.2	4.6	159	1.9	-0.7	1.8
23	50	7.5	-5.7	-4.8	66	5.9	-5.4	-2.4	77	4.1	-4.0	-0.9	94	3.9	-3.9	0.3	253	5.6	5.4	1.6	216	6.8	4.0	5.5	140	4.5	-2.9	3.4
24	43	8.5	-5.8	-6.2	54	5.6	-4.5	-3.3	83	3.5	-3.5	-0.4	104	3.3	-3.2	0.8	231	4.5	3.5	2.8	209	7.8	3.8	6.8	230	2.3	1.8	1.5
25	39	7.2	-4.6	-5.6	62	6.4	-5.6	-3.0	74	3.2	-3.1	-0.9	106	2.9	-2.8	0.8	222	5.8	3.9	4.3	227	9.6	7.0	6.5	211	3.1	1.6	2.7
26	38	7.7	-4.7	-6.1	53	7.3	-5.8	-4.4	84	2.0	-2.0	-0.2	79	2.1	-2.1	-0.4	230	6.0	4.6	3.9	223	7.8	5.3	5.7	259	2.1	2.1	0.4
27	48	8.6	-6.4	-5.7	64	7.3	-6.6	-3.2	77	3.9	-3.8	-0.9	115	1.7	-1.5	0.7	229	3.3	2.5	2.2	212	9.6	5.1	8.1	322	1.1	0.7	-0.9
28	53	7.4	-5.9	-4.5	58	6.4	-5.4	-3.4	101	3.8	-3.7	0.7	64	3.0	-2.7	-1.3	211	2.9	1.5	2.5	235	8.1	6.6	4.7	241	1.3	1.1	0.6
29	52	7.1	-5.6	-4.4	68	5.9	-5.5	-2.2	85	3.2	-3.2	-0.3	72	2.8	-2.7	-0.9	246	3.2	2.9	1.3	215	8.0	4.6	6.6	77	2.8	-2.7	-0.6
30	51	7.5	-5.8	-4.7	56	5.7	-4.7	-3.2	87	2.2	-2.2	-0.1	79	3.2	-3.1	-0.6	252	2.8	2.7	0.9	215	8.7	5.0	7.1	243	0.2	0.2	0.1
31	50	7.5	-5.8	-4.8	70	5.2	-4.9	-1.8	85	3.3	-3.3	-0.3	79	3.3	-3.2	-0.6	265	3.5	3.5	0.3	219	9.5	5.9	7.4	90	0.6	-0.6	0.0

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	2	3.8	-0.1	-3.8	309	5.8	4.5	-3.7	286	12.0	11.5	-3.3	276	21.9	21.8	-2.2	267	39.7	39.6	2.4	262	40.0	39.6	5.9	261	20.3	20.1	3.1
2	356	5.7	0.4	-5.7	318	5.2	3.5	-3.9	293	11.2	10.3	-4.4	274	21.7	21.6	-1.6	267	38.3	38.2	2.2	257	42.5	41.4	9.5	262	21.4	21.2	2.8
3	346	5.7	1.4	-5.5	315	6.6	4.7	-4.7	285	11.3	10.9	-3.0	275	21.5	21.4	-1.8	266	40.9	40.8	2.7	261	41.4	40.8	6.8	268	25.2	25.2	0.7
4	325	4.5	2.6	-3.7	322	5.6	3.4	-4.4	290	11.1	10.4	-3.8	279	19.6	19.4	-2.9	265	35.5	35.4	2.9	261	39.7	39.3	5.9	266	24.6	24.5	1.6
5	336	3.0	1.2	-2.7	316	5.5	3.8	-4.0	288	11.1	10.5	-3.5	271	20.0	20.0	-0.5	266	35.9	35.8	2.6	260	42.7	42.1	7.3	258	20.8	20.3	4.4
6	336	3.2	1.3	-2.9	310	6.7	5.1	-4.3	290	12.1	11.4	-4.2	273	22.5	22.5	-1.1	264	38.5	38.3	4.0	256	41.6	40.4	9.9	260	25.3	24.9	4.2
7	348	2.9	0.6	-2.8	321	5.5	3.5	-4.3	285	11.8	11.4	-3.0	272	21.6	21.6	-0.9	260	37.3	36.8	6.2	256	41.0	39.7	10.1	261	24.0	23.7	3.9
8	338	3.2	1.2	-3.0	309	7.0	5.4	-4.4	284	11.6	11.3	-2.8	272	20.8	20.8	-0.8	266	37.2	37.1	2.8	258	43.9	43.0	8.9	261	28.3	27.9	4.6
9	317	4.1	2.8	-3.0	306	6.7	5.4	-3.9	283	10.6	10.3	-2.3	272	21.1	21.1	-0.6	267	37.8	37.7	2.0	258	41.2	40.3	8.5	257	23.6	23.0	5.2
10	331	5.3	2.6	-4.6	304	7.2	6.0	-4.0	277	11.6	11.5	-1.5	271	21.9	21.9	-0.2	264	39.3	39.1	4.0	257	40.0	38.9	9.1	261	26.7	26.4	4.2
11	330	2.8	1.4	-2.4	307	6.9	5.5	-4.2	292	12.6	11.6	-4.8	267	21.0	21.0	1.1	258	36.2	35.5	7.3	252	39.9	37.9	12.4	257	24.3	23.6	5.6
12	313	4.0	2.9	-2.7	303	6.4	5.4	-3.5	279	11.7	11.5	-1.9	268	22.8	22.8	0.7	260	39.3	38.7	6.9	254	43.0	41.4	11.5	260	25.3	24.9	4.5
13	323	4.1	2.5	-3.3	298	5.5	4.8	-2.6	276	11.8	11.7	-1.3	266	23.0	22.9	1.6	262	37.7	37.3	5.4	256	45.5	44.1	11.3	263	23.1	22.9	2.9
14	312	4.3	3.2	-2.9	299	6.8	5.9	-3.3	283	12.8	12.5	-2.9	272	23.7	23.7	-0.9	265	38.0	37.9	3.1	256	44.5	43.1	11.0	259	27.2	26.7	5.4
15	348	2.4	0.5	-2.3	295	6.2	5.6	-2.6	282	13.2	12.9	-2.8	273	24.9	24.9	-1.4	266	39.8	39.7	2.9	257	45.6	44.4	10.3	263	26.3	26.1	3.4
16	242	1.9	1.7	0.9	285	6.1	5.9	-1.6	281	13.8	13.5	-2.7	270	24.7	24.7	0.1	269	41.4	41.4	0.7	261	44.1	43.6	6.9	262	25.4	25.2	3.4
17	314	5.3	3.8	-3.7	296	6.9	6.2	-3.0	286	12.9	12.4	-3.5	273	23.7	23.7	-1.1	268	39.9	39.9	1.6	259	42.3	41.5	8.3	262	23.3	23.1	3.2
18	337	5.2	2.0	-4.8	305	7.3	6.0	-4.2	288	13.7	13.0	-4.2	277	23.0	22.8	-3.0	268	41.1	41.1	1.5	259	44.3	43.6	8.1	262	21.9	21.7	3.1
19	333	3.7	1.7	-3.3	305	7.8	6.4	-4.4	288	13.4	12.8	-4.1	276	23.2	23.1	-2.5	263	40.2	39.9	5.1	258	38.9	38.1	7.8	265	25.2	25.1	2.3
20	328	3.6	1.9	-3.1	300	6.4	5.5	-3.2	283	12.2	11.9	-2.7	275	22.7	22.6	-1.9	263	37.9	37.6	4.7	258	40.3	39.4	8.4	264	21.7	21.6	2.2
21	317	2.3	1.6	-1.7	303	6.6	5.5	-3.6	283	12.2	11.9	-2.8	274	22.5	22.5	-1.4	266	38.4	38.3	2.5	255	43.3	41.9	11.1	256	23.9	23.2	5.6
22	327	6.2	3.4	-5.2	311	7.4	5.6	-4.8	286	11.7	11.2	-3.3	276	24.5	24.4	-2.4	260	35.3	34.7	6.4	252	43.0	41.0	13.0	257	23.5	22.9	5.2
23	324	5.3	3.1	-4.3	300	6.7	5.8	-3.3	285	13.2	12.8	-3.4	276	23.4	23.3	-2.4	263	37.1	36.8	4.7	258	41.6	40.6	9.0	258	25.4	24.9	5.1
24	323	4.6	2.8	-3.7	302	7.4	6.3	-3.9	292	13.6	12.6	-5.0	276	24.2	24.0	-2.7	265	36.0	35.9	3.2	253	36.9	35.3	10.8	265	22.7	22.6	1.9
25	337	5.8	2.3	-5.3	311	7.2	5.5	-4.7	295	13.1	11.9	-5.5	276	20.5	20.4	-2.1	269	34.5	34.5	0.9	257	35.8	34.8	8.3	260	20.5	20.2	3.6
26	335	6.3	2.6	-5.7	310	6.5	5.0	-4.2	289	10.9	10.3	-3.5	270	19.2	19.2	-0.1	267	33.2	33.2	1.8	256	36.0	35.0	8.6	258	20.5	20.0	4.4
27	329	5.7	3.0	-4.9	311	6.9	5.2	-4.5	295	11.2	10.1	-4.8	271	21.2	21.2	-0.3	266	33.4	33.3	2.6	264	38.6	38.4	4.1	262	22.7	22.5	3.0
28	314	3.7	2.7	-2.6	303	5.9	4.9	-3.2	285	10.6	10.3	-2.7	269	22.7	22.7	0.5	264	33.7	33.5	3.7	257	38.2	37.2	8.5	265	23.2	23.1	2.2
29	336	3.5	1.4	-3.2	298	5.1	4.5	-2.4	287	12.4	11.8	-3.7	276	22.7	22.6	-2.4	262	35.9	35.5	5.2	256	38.0	36.9	9.2	260	24.3	23.9	4.4
30	323	3.4	2.0	-2.7	295	6.5	5.9	-2.7	287	12.1	11.5	-3.6	272	24.1	24.1	-1.0	271	38.0	38.0	-0.9	262	39.9	39.5	5.5	265	27.3	27.2	2.2
31	302	1.5	1.3	-0.8	298	6.2	5.5	-2.9	285	12.0	11.6	-3.0	274	22.8	22.8	-1.4	264	38.3	38.1	3.8	256	40.7	39.5	10.0	261	24.3	24.0	3.6

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	336	3.4	1.4	-3.1	284	6.0	5.8	-1.4	281	12.4	12.2	-2.4	271	23.1	23.1	-0.4	264	36.2	36.0	3.6	256	39.9	38.7	9.6	261	27.7	27.3	4.4
2	337	2.3	0.9	-2.1	291	6.3	5.9	-2.3	280	12.0	11.8	-2.1	272	24.4	24.4	-0.9	264	38.7	38.5	4.3	258	44.1	43.2	9.0	262	24.8	24.6	3.4
3	314	2.8	2.0	-1.9	291	5.5	5.1	-2.0	285	12.1	11.7	-3.1	268	23.8	23.8	0.9	265	38.3	38.2	3.3	262	41.3	40.9	6.0	262	25.9	25.7	3.4
4	325	3.2	1.8	-2.6	300	6.1	5.3	-3.1	289	11.8	11.2	-3.8	271	23.2	23.2	-0.4	260	39.8	39.2	6.8	256	44.4	43.1	10.6	272	25.8	25.8	-0.7
5	341	3.4	1.1	-3.2	286	5.4	5.2	-1.5	276	12.4	12.3	-1.4	268	24.4	24.4	0.7	265	39.1	38.9	3.6	263	39.4	39.1	4.9	263	21.1	20.9	2.6
6	330	2.4	1.2	-2.1	291	6.0	5.6	-2.1	279	12.7	12.6	-1.9	272	22.8	22.8	-0.9	264	39.5	39.3	3.9	257	41.6	40.5	9.7	263	24.6	24.4	3.2
7	325	2.1	1.2	-1.7	291	5.3	4.9	-1.9	287	11.2	10.7	-3.3	274	22.3	22.2	-1.7	265	36.2	36.1	3.0	261	39.3	38.9	5.9	267	22.3	22.3	1.2
8	310	3.1	2.4	-2.0	291	6.0	5.6	-2.2	283	11.7	11.4	-2.6	272	23.0	23.0	-1.0	264	38.1	37.9	4.2	260	41.5	40.9	7.3	263	22.5	22.3	2.7
9	225	0.8	0.6	0.6	292	5.4	5.0	-2.0	284	11.9	11.5	-2.9	273	23.0	23.0	-1.4	266	35.9	35.8	2.7	257	43.9	42.8	9.9	260	26.8	26.4	4.6
10	135	0.4	-0.3	0.3	275	4.4	4.4	-0.4	281	11.4	11.2	-2.1	277	20.4	20.2	-2.5	267	33.3	33.2	2.0	265	39.4	39.3	3.4	269	23.0	23.0	0.3
11	326	1.1	0.6	-0.9	288	4.6	4.4	-1.4	291	12.0	11.2	-4.4	275	22.0	21.9	-2.0	270	34.3	34.3	0.2	263	34.5	34.2	4.5	268	22.6	22.6	0.8
12	313	2.5	1.8	-1.7	288	5.5	5.2	-1.7	285	13.2	12.8	-3.4	277	22.4	22.2	-2.9	273	35.5	35.5	-1.6	267	46.2	46.1	2.4	265	23.9	23.8	2.1
13	293	3.6	3.3	-1.4	299	5.7	5.0	-2.8	288	13.3	12.6	-4.2	275	22.4	22.3	-2.1	270	35.8	35.8	-0.2	263	39.6	39.3	4.6	269	26.1	26.1	0.6
14	306	3.1	2.5	-1.8	274	5.2	5.2	-0.4	285	12.4	12.0	-3.3	274	22.6	22.5	-1.6	269	37.1	37.1	0.8	263	38.1	37.8	4.9	267	26.3	26.3	1.3
15	312	2.4	1.8	-1.6	285	5.6	5.4	-1.4	286	11.4	10.9	-3.2	270	22.2	22.2	0.1	262	40.2	39.8	5.9	260	40.2	39.6	6.8	265	23.9	23.8	2.1
16	308	6.1	4.8	-3.8	290	5.9	5.5	-2.0	285	12.0	11.6	-3.2	271	22.2	22.2	-0.3	266	38.5	38.4	2.5	263	39.5	39.2	4.9	258	20.7	20.3	4.2
17	287	3.4	3.2	-1.0	278	5.3	5.3	-0.7	283	12.5	12.2	-2.9	268	24.0	24.0	0.8	266	39.3	39.2	2.5	261	42.8	42.2	6.9	262	26.6	26.3	3.9
18	279	3.9	3.9	-0.6	276	5.7	5.7	-0.6	282	11.4	11.2	-2.3	266	22.8	22.7	1.7	264	37.3	37.1	3.9	255	39.8	38.4	10.6	263	23.2	23.0	2.9
19	285	4.3	4.2	-1.1	292	6.5	6.0	-2.4	282	12.4	12.1	-2.5	270	22.7	22.7	0.0	264	39.9	39.7	4.4	255	38.2	36.8	10.1	256	21.0	20.3	5.2
20	281	3.6	3.5	-0.7	294	6.1	5.6	-2.5	283	11.6	11.3	-2.7	272	21.7	21.7	-0.6	262	34.9	34.6	4.8	257	34.8	33.8	8.1	259	22.0	21.6	4.3
21	252	0.9	0.9	0.3	288	5.2	4.9	-1.6	279	11.1	11.0	-1.7	264	22.9	22.8	2.5	262	39.6	39.2	5.6	258	40.2	39.3	8.4	266	22.6	22.5	1.7
22	306	1.7	1.4	-1.0	288	4.8	4.6	-1.5	283	11.3	11.0	-2.6	267	24.9	24.9	1.1	262	37.5	37.2	5.1	258	39.4	38.5	8.3	260	22.1	21.8	3.8
23	270	3.4	3.4	0.0	282	5.7	5.6	-1.2	282	11.6	11.3	-2.5	269	21.2	21.2	0.5	266	38.4	38.3	2.5	255	37.6	36.4	9.6	258	23.0	22.5	4.6
24	344	1.8	0.5	-1.7	294	6.4	5.9	-2.6	290	13.0	12.2	-4.5	270	22.4	22.4	-0.1	265	35.3	35.2	2.8	259	38.6	37.9	7.5	261	22.1	21.8	3.4
25	280	3.4	3.3	-0.6	298	6.6	5.8	-3.1	290	13.1	12.3	-4.4	274	22.5	22.4	-1.6	266	34.3	34.2	2.2	258	36.7	35.9	7.5	266	25.5	25.4	1.9
26	290	4.1	3.9	-1.4	289	6.0	5.7	-2.0	292	12.7	11.8	-4.8	278	19.7	19.5	-2.6	269	35.4	35.4	0.9	255	36.6	35.3	9.6	267	19.5	19.5	1.0
27	253	3.8	3.6	1.1	284	5.5	5.3	-1.3	280	12.0	11.8	-2.1	271	19.8	19.8	-0.2	265	32.8	32.7	2.9	264	39.1	38.9	4.2	261	21.1	20.8	3.4
28	275	4.3	4.3	-0.4	279	5.8	5.7	-0.9	288	12.7	12.1	-4.0	272	20.1	20.1	-0.8	261	31.7	31.3	4.8	264	38.1	37.9	4.3	266	22.5	22.4	1.7
29	293	2.6	2.4	-1.0	277	8.0	7.9	-1.0	287	13.4	12.8	-3.8	289	22.7	21.5	-7.3	271	37.9	37.9	-0.4	256	37.8	36.7	8.9	259	21.6	21.2	4.2

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	278	2.7	2.7	-0.4	276	6.7	6.7	-0.7	285	12.6	12.2	-3.3	275	20.4	20.3	-1.8	264	30.4	30.2	3.3	258	35.5	34.7	7.5	262	23.9	23.7	3.4
2	317	5.1	3.5	-3.7	291	6.6	6.1	-2.4	285	13.5	13.1	-3.4	277	20.2	20.1	-2.3	263	34.7	34.4	4.3	255	37.9	36.6	9.9	262	26.9	26.6	3.9
3	334	4.3	1.9	-3.9	297	4.8	4.3	-2.2	282	10.6	10.4	-2.2	277	18.4	18.3	-2.3	265	32.9	32.8	3.1	253	38.0	36.2	11.4	250	22.8	21.5	7.7
4	312	2.7	2.0	-1.8	293	5.0	4.6	-2.0	297	11.6	10.4	-5.2	278	18.1	17.9	-2.6	268	29.9	29.9	1.2	258	35.8	35.0	7.5	259	23.7	23.3	4.5
5	289	4.6	4.3	-1.5	287	5.4	5.2	-1.6	292	11.9	11.1	-4.4	273	19.3	19.3	-1.1	264	30.6	30.4	3.1	254	37.8	36.4	10.1	264	23.4	23.3	2.3
6	292	4.8	4.5	-1.8	272	5.2	5.2	-0.2	287	11.8	11.3	-3.5	272	21.0	21.0	-0.6	262	34.6	34.3	4.8	258	38.5	37.6	8.3	263	22.8	22.6	2.9
7	291	3.4	3.2	-1.2	272	5.1	5.1	-0.2	284	11.4	11.0	-2.8	274	19.2	19.1	-1.5	264	32.2	32.0	3.2	259	35.5	34.8	6.8	262	17.6	17.4	2.4
8	310	5.0	3.8	-3.2	281	6.6	6.5	-1.3	292	12.1	11.2	-4.6	278	18.4	18.2	-2.6	268	31.7	31.7	0.9	263	38.2	37.9	4.7	265	23.4	23.3	1.9
9	306	4.4	3.6	-2.6	286	6.1	5.9	-1.7	291	11.8	11.0	-4.3	276	17.7	17.6	-1.8	266	32.7	32.6	2.2	258	38.5	37.7	7.8	263	23.7	23.5	3.0
10	303	2.4	2.0	-1.3	281	4.7	4.6	-0.9	286	11.6	11.1	-3.2	274	17.9	17.9	-1.1	261	33.6	33.2	5.1	255	40.4	39.0	10.4	261	25.4	25.1	4.2
11	261	4.5	4.4	0.7	271	5.4	5.4	-0.1	289	11.3	10.7	-3.6	269	16.8	16.8	0.4	260	33.1	32.6	5.6	256	37.5	36.4	9.2	266	21.9	21.9	1.4
12	247	5.3	4.9	2.1	275	5.8	5.8	-0.5	288	10.3	9.8	-3.1	264	18.0	17.9	1.9	258	32.7	32.0	6.7	257	34.4	33.5	8.0	257	20.6	20.1	4.6
13	253	5.1	4.9	1.5	287	5.4	5.2	-1.6	283	12.2	11.9	-2.7	275	18.3	18.2	-1.6	260	33.8	33.3	5.6	258	37.0	36.1	7.9	258	20.5	20.1	4.2
14	275	4.2	4.2	-0.4	282	5.7	5.6	-1.2	284	12.6	12.2	-3.1	275	18.4	18.3	-1.7	266	31.3	31.2	2.1	260	36.9	36.4	6.3	261	24.1	23.8	3.7
15	305	2.9	2.4	-1.7	296	6.2	5.6	-2.7	287	11.6	11.1	-3.4	279	18.8	18.6	-2.9	270	30.9	30.9	0.1	269	32.9	32.9	0.8	259	23.0	22.6	4.5
16	297	4.9	4.4	-2.2	286	5.5	5.3	-1.5	292	13.1	12.1	-4.9	279	16.3	16.1	-2.6	272	29.1	29.1	-1.1	267	34.0	33.9	2.0	265	19.6	19.5	1.8
17	289	4.6	4.4	-1.5	292	5.0	4.6	-1.9	288	12.0	11.4	-3.8	278	16.8	16.6	-2.4	268	29.5	29.5	0.8	260	34.4	33.9	5.9	263	18.3	18.2	2.2
18	291	5.6	5.2	-2.0	293	5.1	4.7	-2.0	290	11.0	10.3	-3.8	276	16.2	16.1	-1.7	269	31.1	31.1	0.7	260	35.4	34.9	6.1	264	18.6	18.5	2.0
19	264	3.9	3.9	0.4	273	5.2	5.2	-0.3	283	11.2	10.9	-2.5	275	17.1	17.0	-1.4	266	32.7	32.6	2.5	260	35.8	35.3	6.2	262	18.4	18.2	2.4
20	270	4.3	4.3	0.0	266	5.3	5.3	0.4	285	12.6	12.2	-3.2	272	16.9	16.9	-0.7	266	30.3	30.2	2.3	258	32.2	31.5	6.8	252	21.2	20.2	6.5
21	260	3.5	3.4	0.6	273	5.0	5.0	-0.3	285	12.8	12.3	-3.4	274	19.6	19.5	-1.4	266	31.7	31.6	2.1	259	33.5	32.9	6.3	266	19.6	19.6	1.4
22	251	4.0	3.8	1.3	274	4.4	4.4	-0.3	288	11.0	10.5	-3.4	281	16.2	15.9	-3.2	266	28.8	28.7	2.2	263	36.5	36.2	4.3	256	16.9	16.4	4.2
23	248	6.7	6.2	2.5	271	4.2	4.2	-0.1	282	11.6	11.4	-2.4	281	17.3	17.0	-3.3	268	27.8	27.8	1.0	255	35.0	33.8	9.2	263	19.3	19.2	2.4
24	227	4.4	3.2	3.0	252	4.8	4.6	1.5	278	11.3	11.2	-1.5	278	16.0	15.9	-2.1	265	27.7	27.6	2.2	259	32.5	31.9	6.2	263	22.7	22.5	2.8
25	251	5.9	5.6	1.9	265	5.5	5.5	0.5	278	10.0	9.9	-1.4	271	15.3	15.3	-0.3	260	25.9	25.5	4.3	257	33.4	32.5	7.6	263	18.3	18.2	2.1
26	234	5.4	4.4	3.2	252	5.1	4.8	1.6	276	9.7	9.6	-1.0	268	15.1	15.1	0.5	265	28.9	28.8	2.4	258	33.4	32.7	7.0	260	19.3	19.0	3.3
27	260	4.6	4.5	0.8	263	5.2	5.2	0.6	275	10.7	10.7	-0.9	277	16.7	16.6	-2.1	268	27.5	27.5	1.2	260	35.3	34.8	5.9	265	19.9	19.8	1.6
28	288	2.6	2.5	-0.8	282	4.8	4.7	-1.0	289	11.5	10.9	-3.8	285	15.1	14.6	-3.8	273	25.9	25.9	-1.3	263	34.0	33.8	3.9	265	19.0	18.9	1.5
29	219	5.7	3.6	4.4	268	5.3	5.3	0.2	285	9.1	8.8	-2.4	281	14.9	14.6	-2.8	269	24.2	24.2	0.4	265	32.0	31.9	3.0	268	14.0	14.0	0.5
30	245	6.7	6.1	2.8	263	5.0	5.0	0.6	289	10.0	9.5	-3.2	279	13.7	13.5	-2.2	267	24.6	24.6	1.4	264	30.3	30.1	3.1	265	14.8	14.8	1.2
31	237	4.3	3.6	2.3	278	5.7	5.6	-0.8	289	11.7	11.1	-3.8	282	16.5	16.2	-3.3	274	27.4	27.3	-2.0	263	31.1	30.8	4.0	265	16.6	16.5	1.4

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	252	5.2	5.0	1.6	275	4.9	4.9	-0.4	291	10.6	9.9	-3.8	276	14.4	14.3	-1.4	267	27.3	27.3	1.6	264	30.0	29.9	2.9	277	16.6	16.5	-2.0
2	256	5.6	5.4	1.3	275	5.8	5.8	-0.5	283	10.6	10.3	-2.4	285	16.9	16.3	-4.3	273	26.8	26.8	-1.5	271	30.8	30.8	-0.5	277	17.3	17.2	-2.1
3	233	5.3	4.2	3.2	266	4.3	4.3	0.3	283	10.6	10.3	-2.3	276	15.6	15.5	-1.5	263	26.1	25.9	3.2	262	36.0	35.6	5.1	269	18.5	18.5	0.3
4	248	5.5	5.1	2.1	282	4.9	4.8	-1.0	285	10.0	9.7	-2.6	277	15.5	15.4	-2.0	263	29.4	29.2	3.5	263	32.1	31.8	4.1	267	16.4	16.4	0.9
5	258	4.0	3.9	0.8	270	5.7	5.7	0.0	283	9.6	9.4	-2.1	279	15.3	15.1	-2.3	266	27.3	27.2	2.1	266	35.0	34.9	2.4	269	17.4	17.4	0.3
6	250	4.9	4.6	1.7	275	5.6	5.6	-0.5	278	10.1	10.0	-1.4	278	14.5	14.4	-2.0	267	25.1	25.1	1.2	264	30.7	30.5	3.3	262	16.8	16.6	2.3
7	239	8.2	7.1	4.2	276	6.2	6.2	-0.7	288	10.4	9.9	-3.3	282	15.0	14.7	-3.1	270	23.4	23.4	0.1	268	31.2	31.2	1.3	263	16.3	16.2	2.0
8	262	5.1	5.1	0.7	270	6.0	6.0	0.0	289	10.4	9.8	-3.4	282	15.8	15.5	-3.2	273	25.8	25.8	-1.4	268	31.0	31.0	1.3	266	12.3	12.3	0.9
9	238	7.0	5.9	3.7	265	6.9	6.9	0.6	287	10.9	10.4	-3.2	278	14.8	14.7	-2.1	273	29.3	29.3	-1.6	264	37.1	36.9	4.0	262	18.7	18.5	2.5
10	241	7.1	6.2	3.4	277	6.2	6.1	-0.8	276	10.0	10.0	-1.0	277	15.5	15.4	-1.8	264	28.8	28.7	2.8	259	33.6	33.0	6.5	261	20.3	20.0	3.2
11	227	5.6	4.1	3.8	274	4.8	4.8	-0.3	283	10.2	9.9	-2.3	279	16.1	15.9	-2.6	268	26.6	26.6	0.8	265	30.6	30.5	2.8	270	16.4	16.4	-0.1
12	218	5.0	3.1	3.9	265	5.6	5.6	0.5	285	11.1	10.7	-2.9	282	15.6	15.2	-3.3	271	24.6	24.6	-0.5	270	26.8	26.8	0.0	266	14.4	14.4	1.1
13	254	2.5	2.4	0.7	277	4.7	4.7	-0.6	288	10.4	9.9	-3.3	285	15.0	14.5	-4.0	272	23.5	23.5	-0.7	271	28.5	28.5	-0.6	270	15.2	15.2	0.0
14	234	5.1	4.1	3.0	277	4.7	4.7	-0.6	291	9.9	9.3	-3.5	285	13.3	12.9	-3.4	267	24.6	24.6	1.3	265	28.1	28.0	2.3	260	15.1	14.9	2.7
15	233	5.0	4.0	3.0	268	4.9	4.9	0.2	288	8.5	8.1	-2.7	280	12.6	12.4	-2.1	264	25.5	25.4	2.7	261	27.7	27.4	4.1	267	11.6	11.6	0.6
16	255	6.1	5.9	1.6	272	5.7	5.7	-0.2	282	8.5	8.3	-1.8	281	13.2	13.0	-2.5	264	25.5	25.4	2.5	261	29.7	29.3	4.6	264	12.7	12.6	1.4
17	238	7.8	6.6	4.1	261	5.9	5.8	0.9	287	9.3	8.9	-2.8	275	14.0	13.9	-1.3	262	25.2	24.9	3.7	253	29.8	28.6	8.5	255	15.7	15.2	4.1
18	238	7.0	5.9	3.7	261	5.8	5.7	0.9	277	8.7	8.6	-1.0	274	12.3	12.3	-0.8	260	25.9	25.5	4.6	257	34.5	33.7	7.5	262	13.5	13.4	2.0
19	234	8.1	6.5	4.8	265	6.6	6.6	0.6	282	8.8	8.6	-1.8	282	12.6	12.3	-2.7	266	22.8	22.8	1.4	258	30.2	29.6	6.1	257	11.6	11.3	2.7
20	232	6.8	5.3	4.2	260	4.5	4.4	0.8	289	8.3	7.8	-2.7	278	13.1	13.0	-1.8	265	24.6	24.5	2.0	258	28.3	27.7	5.9	258	12.5	12.2	2.6
21	235	4.4	3.6	2.5	258	5.2	5.1	1.1	284	10.2	9.9	-2.5	284	11.9	11.5	-2.9	266	23.1	23.0	1.7	255	29.6	28.6	7.8	263	10.5	10.4	1.2
22	220	6.4	4.1	4.9	253	5.9	5.6	1.7	286	9.3	9.0	-2.5	284	11.7	11.4	-2.8	265	21.2	21.1	1.8	253	26.8	25.6	7.8	262	11.7	11.6	1.6
23	236	5.8	4.8	3.2	267	6.5	6.5	0.3	290	8.7	8.2	-3.0	276	13.1	13.0	-1.3	262	22.9	22.7	3.2	255	27.9	27.0	7.1	263	12.0	11.9	1.5
24	225	9.3	6.6	6.6	260	6.3	6.2	1.1	292	9.8	9.1	-3.6	273	12.1	12.1	-0.6	256	25.1	24.4	5.9	255	28.7	27.7	7.4	260	14.1	13.9	2.5
25	215	6.4	3.7	5.2	256	6.0	5.8	1.4	279	8.6	8.5	-1.3	271	12.0	12.0	-0.3	258	20.7	20.3	4.2	253	24.5	23.5	7.0	263	9.0	8.9	1.1
26	220	6.0	3.9	4.6	249	7.0	6.5	2.5	284	7.7	7.5	-1.9	286	11.8	11.3	-3.3	248	21.8	20.2	8.1	245	25.6	23.2	10.9	257	9.9	9.6	2.3
27	224	7.5	5.2	5.4	247	6.5	6.0	2.5	295	7.8	7.1	-3.3	293	10.4	9.6	-4.0	268	19.7	19.7	0.7	253	26.3	25.1	7.7	273	10.3	10.3	-0.5
28	219	8.0	5.0	6.2	243	6.7	6.0	3.0	288	8.5	8.1	-2.7	293	11.1	10.2	-4.3	266	16.9	16.9	1.3	262	22.4	22.2	3.1	287	7.1	6.8	-2.1
29	225	8.4	5.9	6.0	246	6.9	6.3	2.8	292	7.4	6.9	-2.8	297	11.1	9.9	-5.0	266	18.6	18.5	1.4	258	23.1	22.6	4.7	273	8.7	8.7	-0.4
30	226	6.0	4.3	4.2	268	5.3	5.3	0.2	299	8.6	7.5	-4.2	285	11.9	11.5	-3.0	270	18.7	18.7	0.0	260	22.3	21.9	4.0	271	7.5	7.5	-0.1

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	218	8.0	4.9	6.3	246	6.1	5.6	2.5	295	9.8	8.9	-4.1	291	11.6	10.8	-4.2	268	19.3	19.3	0.6	264	21.0	20.9	2.2	252	5.8	5.5	1.8
2	199	5.5	1.8	5.2	235	5.5	4.5	3.2	291	8.6	8.0	-3.1	285	11.8	11.4	-3.1	266	19.2	19.2	1.2	250	20.8	19.6	7.0	249	6.9	6.4	2.5
3	220	9.2	5.9	7.0	251	6.4	6.0	2.1	291	7.2	6.7	-2.6	288	10.3	9.8	-3.2	262	19.9	19.7	2.6	252	23.1	22.0	7.2	251	5.0	4.7	1.6
4	223	7.8	5.3	5.7	250	6.1	5.7	2.1	293	7.6	7.0	-2.9	285	8.8	8.5	-2.3	260	19.8	19.5	3.5	261	21.3	21.0	3.5	256	6.4	6.2	1.5
5	224	6.2	4.3	4.4	249	5.5	5.1	2.0	287	8.0	7.7	-2.3	288	9.6	9.1	-2.9	264	19.2	19.1	1.9	259	21.7	21.3	4.2	268	6.7	6.7	0.2
6	223	6.7	4.6	4.9	262	5.1	5.1	0.7	297	8.7	7.7	-4.0	287	11.1	10.6	-3.3	261	18.7	18.5	2.9	257	23.8	23.2	5.5	258	7.4	7.2	1.5
7	224	6.6	4.6	4.8	231	5.0	3.9	3.2	302	8.9	7.5	-4.7	288	9.7	9.2	-3.0	263	17.3	17.2	2.1	253	19.8	19.0	5.7	254	8.5	8.2	2.4
8	219	7.0	4.4	5.4	244	5.9	5.3	2.6	298	8.8	7.8	-4.1	291	10.6	9.9	-3.8	272	16.4	16.4	-0.7	258	20.3	19.8	4.3	255	8.2	7.9	2.1
9	212	6.1	3.2	5.2	236	5.5	4.6	3.1	292	7.6	7.1	-2.8	289	11.5	10.9	-3.8	270	18.1	18.1	0.1	258	18.8	18.4	3.9	275	7.1	7.1	-0.6
10	219	3.6	2.3	2.8	247	4.8	4.4	1.9	287	7.2	6.9	-2.1	287	11.5	11.0	-3.4	258	17.2	16.8	3.7	249	19.9	18.6	7.0	300	4.0	3.5	-2.0
11	224	4.5	3.1	3.2	236	5.8	4.8	3.2	290	5.9	5.6	-2.0	278	10.2	10.1	-1.4	258	17.1	16.7	3.5	250	19.5	18.4	6.6	262	3.0	3.0	0.4
12	216	4.8	2.8	3.9	240	5.1	4.4	2.5	301	7.1	6.1	-3.7	281	8.7	8.6	-1.6	255	16.4	15.9	4.2	251	17.2	16.3	5.6	263	2.4	2.4	0.3
13	207	6.3	2.8	5.6	234	5.2	4.2	3.1	300	6.7	5.8	-3.4	288	8.6	8.2	-2.7	263	16.7	16.6	2.0	256	15.7	15.2	3.8	222	3.6	2.4	2.7
14	203	7.6	3.0	7.0	229	6.3	4.8	4.1	301	7.4	6.3	-3.8	284	8.1	7.8	-2.0	263	13.4	13.3	1.6	251	14.4	13.6	4.7	246	3.4	3.1	1.4
15	209	6.8	3.3	5.9	238	6.0	5.1	3.2	303	7.2	6.0	-3.9	292	8.1	7.5	-3.0	260	12.7	12.5	2.2	251	11.6	11.0	3.7	220	3.1	2.0	2.4
16	208	7.4	3.5	6.5	235	5.6	4.6	3.2	298	6.6	5.8	-3.1	288	7.5	7.1	-2.3	263	12.3	12.2	1.4	256	11.4	11.1	2.7	206	2.8	1.2	2.5
17	215	7.7	4.4	6.3	242	6.4	5.7	3.0	303	8.0	6.7	-4.3	292	8.4	7.8	-3.1	258	12.4	12.1	2.6	252	12.6	12.0	4.0	208	2.4	1.1	2.1
18	194	6.8	1.6	6.6	254	4.7	4.5	1.3	305	7.4	6.1	-4.2	283	7.6	7.4	-1.7	251	11.6	11.0	3.7	244	12.9	11.6	5.7	174	1.9	-0.2	1.9
19	247	4.1	3.8	1.6	259	3.8	3.7	0.7	305	7.2	5.9	-4.1	294	8.2	7.5	-3.3	259	11.2	11.0	2.1	239	13.1	11.3	6.7	248	1.8	1.7	0.7
20	216	5.2	3.1	4.2	255	5.0	4.8	1.3	301	8.6	7.4	-4.4	289	8.0	7.6	-2.6	265	9.9	9.9	0.9	246	11.4	10.4	4.7	180	1.9	0.0	1.9
21	204	3.7	1.5	3.4	243	3.3	2.9	1.5	302	8.1	6.9	-4.3	274	6.7	6.7	-0.5	260	9.6	9.4	1.7	238	10.8	9.2	5.7	163	2.7	-0.8	2.6
22	216	6.0	3.5	4.9	229	4.0	3.0	2.6	310	7.7	5.9	-4.9	273	7.4	7.4	-0.4	250	11.0	10.4	3.7	234	12.3	10.0	7.2	162	2.2	-0.7	2.1
23	203	6.5	2.6	6.0	234	4.1	3.3	2.4	315	7.4	5.2	-5.2	285	6.7	6.5	-1.8	243	10.7	9.6	4.8	229	11.1	8.4	7.2	170	2.3	-0.4	2.3
24	216	4.7	2.8	3.8	241	3.8	3.3	1.8	313	7.0	5.1	-4.8	280	6.3	6.2	-1.1	245	9.7	8.8	4.1	231	11.3	8.8	7.1	147	3.1	-1.7	2.6
25	215	8.3	4.8	6.8	232	4.6	3.6	2.8	309	7.1	5.5	-4.5	283	6.3	6.1	-1.4	258	8.6	8.4	1.8	233	8.1	6.5	4.9	118	3.0	-2.6	1.4
26	206	5.8	2.5	5.2	234	3.7	3.0	2.2	308	7.0	5.5	-4.3	285	6.4	6.2	-1.7	244	8.8	7.9	3.8	229	9.9	7.5	6.5	122	3.8	-3.2	2.0
27	219	6.2	3.9	4.8	235	5.7	4.7	3.3	300	7.0	6.1	-3.5	284	4.4	4.3	-1.1	250	7.7	7.2	2.6	233	8.6	6.8	5.2	120	3.2	-2.8	1.6
28	185	5.4	0.5	5.4	237	5.4	4.5	2.9	299	7.0	6.1	-3.4	284	6.4	6.2	-1.5	250	7.2	6.7	2.5	220	7.7	4.9	5.9	102	4.7	-4.6	1.0
29	218	5.8	3.6	4.6	242	5.4	4.8	2.5	308	8.7	6.9	-5.3	286	7.0	6.7	-1.9	248	6.5	6.0	2.4	228	6.0	4.5	4.0	106	5.2	-5.0	1.4
30	212	7.8	4.1	6.6	239	5.7	4.9	2.9	307	8.0	6.4	-4.8	295	6.8	6.1	-2.9	255	6.2	6.0	1.6	228	7.3	5.4	4.9	105	5.4	-5.2	1.4
31	216	7.3	4.3	5.9	251	5.2	4.9	1.7	304	8.1	6.7	-4.6	291	7.3	6.8	-2.6	252	5.8	5.5	1.8	229	5.5	4.2	3.6	113	6.5	-6.0	2.5

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	222	8.7	5.8	6.5	249	4.9	4.6	1.8	306	7.0	5.7	-4.1	288	5.2	4.9	-1.6	258	3.9	3.8	0.8	223	4.5	3.1	3.3	98	6.3	-6.2	0.9
2	215	8.5	4.9	7.0	237	4.3	3.6	2.3	321	6.5	4.1	-5.0	292	5.0	4.6	-1.9	248	3.1	2.9	1.2	220	5.9	3.8	4.5	97	8.4	-8.3	1.0
3	195	7.3	1.9	7.1	242	3.0	2.6	1.4	319	5.3	3.5	-4.0	282	3.9	3.8	-0.8	232	4.2	3.3	2.6	208	5.2	2.4	4.6	98	6.2	-6.1	0.9
4	205	9.3	3.9	8.4	224	4.6	3.2	3.3	319	4.4	2.9	-3.3	285	3.8	3.7	-1.0	224	3.7	2.6	2.7	196	5.8	1.6	5.6	89	9.1	-9.1	-0.2
5	212	9.7	5.2	8.2	242	4.9	4.3	2.3	308	6.6	5.2	-4.0	296	4.9	4.4	-2.1	228	4.5	3.3	3.0	191	4.4	0.8	4.3	93	8.2	-8.2	0.5
6	202	8.6	3.2	8.0	240	4.4	3.8	2.2	303	5.9	4.9	-3.2	289	3.1	2.9	-1.0	225	4.0	2.8	2.8	177	4.4	-0.2	4.4	90	9.1	-9.1	0.0
7	213	7.3	4.0	6.1	235	5.1	4.2	2.9	299	6.5	5.7	-3.2	268	3.0	3.0	0.1	256	1.6	1.6	0.4	119	1.8	-1.6	0.9	76	10.0	-9.7	-2.5
8	209	7.1	3.5	6.2	230	5.5	4.2	3.5	294	4.8	4.4	-2.0	292	3.2	3.0	-1.2	151	1.3	-0.6	1.1	110	4.1	-3.9	1.4	84	10.3	-10.2	-1.1
9	204	5.8	2.4	5.3	220	5.1	3.3	3.9	278	3.4	3.4	-0.5	267	3.5	3.5	0.2	201	1.4	0.5	1.3	84	3.1	-3.1	-0.3	82	11.1	-11.0	-1.6
10	199	4.3	1.4	4.1	227	3.3	2.4	2.2	293	3.9	3.6	-1.5	250	2.7	2.5	0.9	135	1.3	-0.9	0.9	141	1.4	-0.9	1.1	80	12.0	-11.8	-2.1
11	208	7.7	3.6	6.8	216	5.7	3.4	4.6	293	3.0	2.8	-1.2	258	1.9	1.9	0.4	152	1.9	-0.9	1.7	118	5.0	-4.4	2.3	78	12.3	-12.0	-2.5
12	206	8.6	3.8	7.7	223	4.5	3.1	3.3	293	3.9	3.6	-1.5	243	0.2	0.2	0.1	194	0.4	0.1	0.4	103	4.1	-4.0	0.9	74	13.2	-12.7	-3.6
13	198	6.3	2.0	6.0	226	3.3	2.4	2.3	312	2.8	2.1	-1.9	156	1.0	-0.4	0.9	120	2.8	-2.4	1.4	92	4.7	-4.7	0.2	82	14.2	-14.1	-2.0
14	190	5.2	0.9	5.1	207	2.7	1.2	2.4	258	2.5	2.4	0.5	189	2.0	0.3	2.0	109	3.9	-3.7	1.3	92	5.7	-5.7	0.2	86	12.9	-12.9	-0.8
15	153	4.2	-1.9	3.7	213	4.2	2.3	3.5	282	3.0	2.9	-0.6	193	2.2	0.5	2.1	128	4.2	-3.3	2.6	99	7.8	-7.7	1.2	81	14.1	-13.9	-2.2
16	178	5.6	-0.2	5.6	216	3.9	2.3	3.2	278	2.1	2.1	-0.3	162	1.6	-0.5	1.5	121	3.7	-3.2	1.9	89	8.4	-8.4	-0.2	77	12.5	-12.2	-2.9
17	155	4.2	-1.8	3.8	210	4.0	2.0	3.5	261	1.9	1.9	0.3	197	1.0	0.3	1.0	126	2.7	-2.2	1.6	92	7.1	-7.1	0.3	79	14.0	-13.8	-2.6
18	198	5.1	1.6	4.8	237	4.9	4.1	2.7	261	2.5	2.5	0.4	180	1.1	0.0	1.1	122	4.9	-4.2	2.6	104	8.1	-7.9	1.9	79	14.0	-13.8	-2.6
19	207	8.0	3.6	7.2	220	5.0	3.2	3.8	243	2.8	2.5	1.3	164	1.5	-0.4	1.4	117	4.4	-3.9	2.0	97	9.2	-9.1	1.1	80	16.3	-16.1	-2.7
20	213	4.2	2.3	3.5	225	2.7	1.9	1.9	295	1.7	1.5	-0.7	159	2.6	-0.9	2.4	113	5.2	-4.8	2.0	94	9.5	-9.5	0.7	81	18.2	-18.0	-2.7
21	218	4.3	2.7	3.4	204	3.7	1.5	3.4	233	1.5	1.2	0.9	151	3.7	-1.8	3.2	121	5.8	-5.0	3.0	96	10.1	-10.1	1.0	81	16.6	-16.4	-2.5
22	195	4.6	1.2	4.4	202	4.8	1.8	4.4	207	3.3	1.5	2.9	153	4.6	-2.1	4.1	126	6.5	-5.3	3.8	90	10.7	-10.7	0.0	83	17.1	-17.0	-2.0
23	241	4.9	4.3	2.4	231	4.1	3.2	2.6	248	2.7	2.5	1.0	171	3.2	-0.5	3.2	116	6.4	-5.8	2.8	96	10.4	-10.3	1.1	81	19.0	-18.7	-3.1
24	229	5.7	4.3	3.7	260	4.1	4.0	0.7	259	2.6	2.6	0.5	229	2.1	1.6	1.4	116	5.5	-5.0	2.4	92	12.5	-12.5	0.4	83	18.9	-18.8	-2.3
25	232	4.6	3.6	2.8	246	4.6	4.2	1.9	268	2.6	2.6	0.1	209	1.8	0.9	1.6	99	5.5	-5.4	0.9	95	11.9	-11.9	1.0	84	20.8	-20.7	-2.2
26	238	3.6	3.1	1.9	246	4.4	4.0	1.8	259	3.1	3.0	0.6	145	2.1	-1.2	1.7	103	6.9	-6.7	1.5	84	12.1	-12.0	-1.3	77	19.6	-19.1	-4.5
27	175	4.2	-0.4	4.2	207	3.9	1.8	3.5	201	1.9	0.7	1.8	153	3.9	-1.8	3.5	111	8.3	-7.7	3.0	86	11.8	-11.8	-0.9	74	19.4	-18.6	-5.5
28	201	8.8	3.1	8.2	209	6.5	3.1	5.7	198	4.4	1.4	4.2	168	4.0	-0.8	3.9	109	7.5	-7.1	2.5	85	12.6	-12.6	-1.0	74	18.0	-17.3	-4.8
29	203	8.4	3.3	7.7	224	5.9	4.1	4.3	222	3.1	2.1	2.3	149	2.1	-1.1	1.8	100	7.7	-7.6	1.4	86	14.0	-14.0	-0.9	79	21.1	-20.7	-4.0
30	229	6.6	5.0	4.3	238	5.2	4.4	2.8	247	3.0	2.8	1.2	159	2.6	-0.9	2.4	99	8.0	-7.9	1.2	82	14.3	-14.2	-2.0	78	21.3	-20.8	-4.5

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	229	6.7	5.0	4.4	235	6.0	4.9	3.4	251	4.0	3.8	1.3	157	2.5	-1.0	2.3	105	6.2	-6.0	1.6	83	12.7	-12.6	-1.5	82	22.4	-22.2	-3.3
2	214	3.6	2.0	3.0	235	5.5	4.5	3.1	244	2.8	2.5	1.2	139	3.8	-2.5	2.9	103	8.3	-8.1	1.9	85	12.7	-12.7	-1.0	79	23.1	-22.7	-4.3
3	201	6.1	2.2	5.7	238	5.2	4.4	2.7	243	2.9	2.6	1.3	162	2.2	-0.7	2.1	102	7.0	-6.8	1.5	86	13.2	-13.2	-1.0	82	21.1	-20.9	-3.1
4	214	6.9	3.8	5.7	239	4.2	3.6	2.2	229	2.0	1.5	1.3	178	2.3	-0.1	2.3	101	7.2	-7.1	1.4	85	15.3	-15.2	-1.3	80	24.5	-24.2	-4.1
5	229	8.4	6.3	5.5	230	4.8	3.7	3.1	250	2.3	2.2	0.8	163	2.4	-0.7	2.3	102	8.4	-8.2	1.7	83	15.6	-15.5	-2.0	78	24.5	-23.9	-5.2
6	223	7.4	5.0	5.4	225	5.5	3.9	3.9	245	1.9	1.7	0.8	159	2.6	-0.9	2.4	101	7.7	-7.6	1.5	82	17.6	-17.4	-2.3	83	25.8	-25.6	-3.1
7	221	6.5	4.2	4.9	220	4.2	2.7	3.2	226	2.9	2.1	2.0	127	3.6	-2.9	2.2	113	6.7	-6.2	2.6	84	14.2	-14.1	-1.5	79	24.3	-23.9	-4.6
8	203	4.8	1.9	4.4	224	4.2	2.9	3.0	229	2.9	2.2	1.9	131	3.5	-2.6	2.3	107	7.7	-7.4	2.3	83	14.3	-14.2	-1.7	80	22.9	-22.6	-3.8
9	217	4.8	2.9	3.8	225	3.8	2.7	2.7	212	1.5	0.8	1.3	131	3.2	-2.4	2.1	106	9.4	-9.0	2.6	92	15.6	-15.6	0.6	85	26.4	-26.3	-2.2
10	225	4.9	3.5	3.5	228	4.2	3.1	2.8	231	2.2	1.7	1.4	144	3.1	-1.8	2.5	102	9.9	-9.7	2.1	81	14.9	-14.7	-2.3	79	24.4	-23.9	-4.8
11	206	5.5	2.4	4.9	212	3.8	2.0	3.2	199	2.4	0.8	2.3	124	4.5	-3.7	2.5	101	10.4	-10.2	1.9	82	15.4	-15.2	-2.2	81	25.1	-24.8	-3.8
12	187	5.9	0.7	5.9	198	3.2	1.0	3.0	184	2.9	0.2	2.9	146	4.2	-2.4	3.5	106	10.7	-10.3	2.9	83	16.5	-16.4	-2.1	79	23.5	-23.1	-4.5
13	201	4.3	1.5	4.0	193	3.6	0.8	3.5	185	3.6	0.3	3.6	131	4.8	-3.6	3.1	101	9.6	-9.4	1.9	79	16.2	-15.9	-3.0	75	23.2	-22.4	-6.0
14	176	3.1	-0.2	3.1	202	4.2	1.6	3.9	194	2.5	0.6	2.4	135	4.1	-2.9	2.9	96	9.5	-9.4	1.0	80	14.5	-14.3	-2.6	74	23.3	-22.4	-6.4
15	190	6.1	1.1	6.0	207	5.4	2.4	4.8	197	3.9	1.1	3.7	139	3.5	-2.3	2.6	98	8.9	-8.8	1.3	80	15.5	-15.3	-2.6	75	23.6	-22.8	-6.1
16	201	4.5	1.6	4.2	199	4.2	1.4	4.0	184	2.7	0.2	2.7	154	3.2	-1.4	2.9	89	7.3	-7.3	-0.1	77	13.8	-13.4	-3.2	73	24.3	-23.3	-7.0
17	206	4.9	2.1	4.4	195	4.2	1.1	4.1	169	2.5	-0.5	2.5	163	2.4	-0.7	2.3	108	8.0	-7.6	2.4	80	14.4	-14.2	-2.6	74	25.7	-24.7	-7.1
18	182	2.9	0.1	2.9	191	4.1	0.8	4.0	191	3.3	0.6	3.2	157	3.4	-1.3	3.1	98	8.1	-8.0	1.1	78	13.9	-13.6	-2.9	77	23.6	-23.0	-5.5
19	206	5.3	2.3	4.8	220	4.0	2.6	3.1	219	2.7	1.7	2.1	167	2.2	-0.5	2.1	96	7.1	-7.1	0.7	79	14.7	-14.4	-2.8	71	25.9	-24.4	-8.6
20	216	4.9	2.9	4.0	221	3.8	2.5	2.9	229	1.8	1.4	1.2	140	2.6	-1.7	2.0	99	9.3	-9.2	1.4	82	14.9	-14.8	-2.0	81	24.8	-24.5	-4.0
21	238	4.7	4.0	2.5	219	3.8	2.4	3.0	209	2.1	1.0	1.8	147	3.8	-2.1	3.2	101	8.6	-8.5	1.6	77	14.9	-14.5	-3.3	78	25.1	-24.5	-5.4
22	219	5.6	3.5	4.4	208	5.5	2.6	4.8	211	4.1	2.1	3.5	157	3.4	-1.3	3.1	94	8.4	-8.4	0.6	77	17.3	-16.9	-3.9	76	26.4	-25.6	-6.5
23	237	6.7	5.6	3.7	223	5.2	3.6	3.8	202	3.1	1.2	2.9	175	2.2	-0.2	2.2	93	9.4	-9.4	0.5	72	14.6	-13.9	-4.5	80	24.6	-24.3	-4.1
24	249	4.5	4.2	1.6	234	4.6	3.7	2.7	242	2.4	2.1	1.1	130	3.0	-2.3	1.9	91	10.8	-10.8	0.2	77	17.6	-17.2	-3.9	83	23.1	-22.9	-2.7
25	225	1.6	1.1	1.1	245	2.6	2.4	1.1	252	1.9	1.8	0.6	113	2.5	-2.3	1.0	92	9.7	-9.7	0.4	74	16.8	-16.2	-4.6	79	24.7	-24.3	-4.6
26	167	1.8	-0.4	1.8	234	3.6	2.9	2.1	230	2.3	1.8	1.5	141	2.1	-1.3	1.6	93	9.0	-9.0	0.5	77	17.2	-16.8	-3.8	83	23.7	-23.5	-2.7
27	148	2.5	-1.3	2.1	217	3.5	2.1	2.8	221	2.0	1.3	1.5	128	2.3	-1.8	1.4	98	9.2	-9.1	1.2	74	16.2	-15.6	-4.5	75	23.8	-23.0	-6.1
28	168	4.5	-0.9	4.4	227	3.7	2.7	2.5	219	2.8	1.8	2.2	144	3.1	-1.8	2.5	101	9.6	-9.4	1.8	78	14.5	-14.2	-2.9	77	24.8	-24.1	-5.7
29	164	2.6	-0.7	2.5	208	3.4	1.6	3.0	202	3.2	1.2	3.0	154	3.4	-1.5	3.1	95	10.8	-10.8	0.9	78	19.4	-19.0	-4.1	78	28.0	-27.3	-6.0
30	175	3.5	-0.3	3.5	210	3.0	1.5	2.6	187	2.3	0.3	2.3	119	3.9	-3.4	1.9	85	10.1	-10.1	-0.8	74	19.1	-18.4	-5.3	76	27.5	-26.7	-6.7
31	169	3.1	-0.6	3.0	200	2.7	0.9	2.5	187	1.6	0.2	1.6	117	2.9	-2.6	1.3	96	9.2	-9.1	1.0	76	16.0	-15.5	-3.8	75	25.9	-25.0	-6.6

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	195	2.8	0.7	2.7	194	1.6	0.4	1.6	84	1.0	-1.0	-0.1	98	3.4	-3.4	0.5	99	10.0	-9.9	1.5	76	14.7	-14.3	-3.5	76	25.5	-24.8	-6.0
2	171	3.1	-0.5	3.1	171	2.4	-0.4	2.4	125	1.6	-1.3	0.9	111	4.0	-3.7	1.4	90	8.8	-8.8	0.0	77	15.6	-15.2	-3.4	74	24.1	-23.2	-6.5
3	195	3.4	0.9	3.3	178	3.1	-0.1	3.1	164	2.6	-0.7	2.5	130	3.3	-2.5	2.1	91	8.2	-8.2	0.1	75	15.1	-14.6	-3.9	79	21.7	-21.3	-4.1
4	210	4.8	2.4	4.2	186	3.7	0.4	3.7	172	2.9	-0.4	2.9	150	3.4	-1.7	2.9	92	7.5	-7.5	0.2	81	13.0	-12.8	-2.0	78	21.8	-21.3	-4.5
5	236	1.1	0.9	0.6	201	2.2	0.8	2.1	185	1.1	0.1	1.1	107	3.0	-2.9	0.9	101	7.5	-7.4	1.4	80	13.6	-13.4	-2.3	79	21.7	-21.3	-4.2
6	230	5.4	4.1	3.5	191	2.1	0.4	2.1	141	1.4	-0.9	1.1	127	4.5	-3.6	2.7	103	9.1	-8.9	2.1	81	13.6	-13.4	-2.1	76	24.5	-23.7	-6.1
7	237	4.2	3.5	2.3	150	2.2	-1.1	1.9	133	2.5	-1.8	1.7	124	5.8	-4.8	3.2	97	10.6	-10.5	1.2	78	14.4	-14.1	-3.0	79	22.3	-21.9	-4.3
8	237	3.3	2.8	1.8	145	3.3	-1.9	2.7	147	3.5	-1.9	2.9	124	6.4	-5.3	3.6	98	10.2	-10.1	1.5	84	15.4	-15.3	-1.5	78	22.9	-22.4	-4.9
9	202	4.1	1.5	3.8	183	3.5	0.2	3.5	156	2.7	-1.1	2.5	129	5.6	-4.4	3.5	94	9.3	-9.3	0.7	79	15.6	-15.3	-2.9	75	24.1	-23.3	-6.1
10	160	3.7	-1.3	3.5	182	3.3	0.1	3.3	176	2.7	-0.2	2.7	122	4.9	-4.1	2.6	94	8.9	-8.9	0.6	74	16.0	-15.4	-4.3	77	24.2	-23.6	-5.3
11	196	4.7	1.3	4.5	209	2.6	1.3	2.3	207	1.6	0.7	1.4	110	4.5	-4.2	1.5	89	9.6	-9.6	-0.2	79	15.2	-14.9	-3.0	75	25.6	-24.8	-6.5
12	220	5.7	3.7	4.4	142	1.6	-1.0	1.3	141	2.2	-1.4	1.7	120	3.2	-2.8	1.6	93	8.1	-8.1	0.4	77	14.8	-14.4	-3.2	78	21.7	-21.2	-4.4
13	251	5.9	5.6	1.9	175	1.1	-0.1	1.1	130	1.7	-1.3	1.1	142	3.4	-2.1	2.7	108	8.4	-8.0	2.6	88	12.7	-12.7	-0.5	78	22.3	-21.8	-4.8
14	232	4.2	3.3	2.6	191	2.1	0.4	2.1	147	2.0	-1.1	1.7	125	4.0	-3.3	2.3	103	7.6	-7.4	1.7	84	13.7	-13.6	-1.4	82	22.1	-21.9	-3.2
15	200	3.0	1.0	2.8	178	3.6	-0.1	3.6	173	3.1	-0.4	3.1	109	3.4	-3.2	1.1	101	9.6	-9.4	1.9	86	14.1	-14.1	-1.0	79	21.4	-21.0	-4.2
16	214	2.3	1.3	1.9	180	3.7	0.0	3.7	158	3.5	-1.3	3.3	138	5.1	-3.4	3.8	104	8.1	-7.9	2.0	85	14.7	-14.6	-1.3	77	21.5	-21.0	-4.7
17	158	2.7	-1.0	2.5	182	3.4	0.1	3.4	152	3.2	-1.5	2.8	126	4.2	-3.4	2.5	98	8.4	-8.3	1.1	81	13.8	-13.6	-2.2	79	22.3	-21.9	-4.2
18	160	4.9	-1.7	4.6	160	3.5	-1.2	3.3	146	3.0	-1.7	2.5	122	5.8	-4.9	3.1	98	8.8	-8.7	1.2	84	13.0	-12.9	-1.3	81	22.5	-22.2	-3.7
19	173	4.2	-0.5	4.2	180	2.7	0.0	2.7	164	3.3	-0.9	3.2	123	4.3	-3.6	2.3	104	9.2	-8.9	2.3	81	13.2	-13.0	-2.1	79	22.0	-21.6	-4.3
20	200	5.3	1.8	5.0	178	3.2	-0.1	3.2	162	2.9	-0.9	2.8	118	4.3	-3.8	2.0	97	8.6	-8.5	1.0	80	14.5	-14.3	-2.5	79	22.5	-22.1	-4.2
21	182	5.6	0.2	5.6	176	4.1	-0.3	4.1	171	3.1	-0.5	3.1	141	3.6	-2.3	2.8	96	8.3	-8.3	0.8	79	13.4	-13.1	-2.6	81	21.2	-20.9	-3.3
22	191	4.9	0.9	4.8	171	4.3	-0.7	4.2	158	3.8	-1.4	3.5	127	4.3	-3.4	2.6	102	9.0	-8.8	1.9	82	13.3	-13.2	-1.9	80	21.6	-21.3	-3.7
23	184	4.3	0.3	4.3	189	3.7	0.6	3.7	181	4.1	0.1	4.1	146	4.7	-2.6	3.9	99	7.8	-7.7	1.2	75	15.5	-14.9	-4.1	82	21.1	-20.9	-3.0
24	214	5.4	3.0	4.5	208	3.2	1.5	2.8	202	3.1	1.2	2.9	140	3.0	-1.9	2.3	93	8.8	-8.8	0.5	79	13.5	-13.3	-2.5	82	21.3	-21.1	-2.9
25	204	3.4	1.4	3.1	227	2.1	1.5	1.4	239	1.2	1.0	0.6	120	1.6	-1.4	0.8	95	8.8	-8.8	0.7	85	14.1	-14.0	-1.2	78	20.9	-20.5	-4.3
26	147	2.7	-1.5	2.3	—	—	—	—	86	1.5	-1.5	-0.1	116	3.7	-3.3	1.6	97	8.3	-8.2	1.0	81	12.6	-12.5	-1.9	80	21.0	-20.7	-3.6
27	131	2.8	-2.1	1.8	152	3.2	-1.5	2.8	142	3.6	-2.2	2.8	134	6.2	-4.4	4.3	103	8.0	-7.8	1.8	85	12.2	-12.2	-1.1	84	18.8	-18.7	-2.1
28	140	3.9	-2.5	3.0	157	3.6	-1.4	3.3	148	3.9	-2.1	3.3	136	5.8	-4.0	4.2	109	7.8	-7.4	2.5	90	12.8	-12.8	-0.1	81	19.1	-18.8	-3.1
29	185	4.5	0.4	4.5	180	3.7	0.0	3.7	171	3.0	-0.5	3.0	141	4.5	-2.8	3.5	106	8.8	-8.5	2.4	82	13.0	-12.9	-1.7	79	20.6	-20.2	-3.8
30	185	3.4	0.3	3.4	171	3.0	-0.5	3.0	151	2.9	-1.4	2.5	130	4.5	-3.5	2.9	105	8.5	-8.2	2.2	87	12.9	-12.9	-0.6	83	20.9	-20.7	-2.5
31	179	3.9	-0.1	3.9	192	3.0	0.6	2.9	175	2.3	-0.2	2.3	125	3.5	-2.9	2.0	95	7.4	-7.4	0.6	77	12.8	-12.5	-2.8	83	19.2	-19.1	-2.3

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	161	5.9	-1.9	5.6	178	2.6	-0.1	2.6	163	2.4	-0.7	2.3	120	4.2	-3.6	2.1	99	5.8	-5.7	0.9	77	13.0	-12.6	-3.0	82	19.0	-18.8	-2.6
2	175	4.2	-0.4	4.2	176	3.2	-0.2	3.2	164	2.9	-0.8	2.8	142	5.1	-3.1	4.0	106	7.9	-7.6	2.2	87	11.5	-11.5	-0.6	80	19.1	-18.8	-3.3
3	178	4.7	-0.2	4.7	190	3.4	0.6	3.3	184	2.9	0.2	2.9	143	4.3	-2.6	3.4	110	7.4	-7.0	2.5	77	12.7	-12.4	-2.8	84	18.1	-18.0	-1.9
4	180	3.6	0.0	3.6	200	3.0	1.0	2.8	182	2.3	0.1	2.3	160	3.0	-1.0	2.8	107	7.3	-7.0	2.1	82	11.2	-11.1	-1.6	82	18.3	-18.1	-2.4
5	165	3.8	-1.0	3.7	207	2.5	1.1	2.2	203	2.6	1.0	2.4	160	3.0	-1.0	2.8	102	6.3	-6.2	1.3	88	11.0	-11.0	-0.4	84	16.5	-16.4	-1.8
6	172	2.7	-0.4	2.7	207	1.8	0.8	1.6	198	2.5	0.8	2.4	162	2.5	-0.8	2.4	110	5.8	-5.4	2.0	93	9.8	-9.8	0.5	87	17.0	-17.0	-1.0
7	158	3.5	-1.3	3.2	214	0.7	0.4	0.6	200	2.3	0.8	2.2	148	2.6	-1.4	2.2	105	7.1	-6.9	1.8	94	13.0	-13.0	0.9	91	16.6	-16.6	0.3
8	165	4.1	-1.1	4.0	155	1.4	-0.6	1.3	139	1.8	-1.2	1.4	127	3.6	-2.9	2.2	102	7.4	-7.2	1.5	95	10.0	-10.0	0.8	87	18.1	-18.1	-0.8
9	163	3.8	-1.1	3.6	150	2.2	-1.1	1.9	136	3.0	-2.1	2.2	128	4.9	-3.9	3.0	109	7.8	-7.4	2.5	96	10.9	-10.8	1.2	89	16.8	-16.8	-0.3
10	180	2.5	0.0	2.5	157	3.8	-1.5	3.5	155	4.1	-1.7	3.7	142	4.9	-3.0	3.9	115	5.5	-5.0	2.3	90	11.3	-11.3	0.0	87	17.3	-17.3	-0.8
11	218	2.4	1.5	1.9	153	3.7	-1.7	3.3	153	3.6	-1.6	3.2	143	3.6	-2.2	2.9	117	5.6	-5.0	2.5	93	9.2	-9.2	0.5	88	14.1	-14.1	-0.5
12	259	2.5	2.5	0.5	189	4.3	0.7	4.2	198	3.9	1.2	3.7	156	2.2	-0.9	2.0	111	4.7	-4.4	1.7	90	10.2	-10.2	0.0	89	13.3	-13.3	-0.2
13	231	1.3	1.0	0.8	192	2.9	0.6	2.8	195	3.1	0.8	3.0	165	2.8	-0.7	2.7	98	5.8	-5.7	0.8	82	9.1	-9.0	-1.3	85	14.8	-14.7	-1.3
14	132	1.5	-1.1	1.0	194	3.4	0.8	3.3	191	3.7	0.7	3.6	189	3.1	0.5	3.1	113	4.1	-3.8	1.6	75	8.5	-8.2	-2.2	93	13.0	-13.0	0.7
15	189	5.0	0.8	4.9	202	4.2	1.6	3.9	212	3.1	1.6	2.6	180	2.8	0.0	2.8	108	2.6	-2.5	0.8	81	5.5	-5.4	-0.9	92	9.7	-9.7	0.3
16	178	2.6	-0.1	2.6	191	3.2	0.6	3.1	188	2.2	0.3	2.2	171	1.3	-0.2	1.3	110	3.2	-3.0	1.1	76	6.0	-5.8	-1.4	86	9.7	-9.7	-0.6
17	193	3.6	0.8	3.5	198	2.8	0.9	2.7	193	2.8	0.6	2.7	218	1.8	1.1	1.4	115	2.9	-2.6	1.2	81	5.4	-5.3	-0.8	79	9.6	-9.4	-1.9
18	192	5.8	1.2	5.7	204	3.2	1.3	2.9	204	2.7	1.1	2.5	219	2.2	1.4	1.7	111	0.9	-0.8	0.3	87	4.0	-4.0	-0.2	76	8.5	-8.3	-2.0
19	202	3.7	1.4	3.4	182	2.4	0.1	2.4	197	2.7	0.8	2.6	188	2.2	0.3	2.2	120	2.4	-2.1	1.2	116	3.2	-2.9	1.4	85	9.5	-9.5	-0.8
20	192	1.9	0.4	1.9	150	1.4	-0.7	1.2	153	1.8	-0.8	1.6	167	2.6	-0.6	2.5	143	2.0	-1.2	1.6	119	2.9	-2.5	1.4	79	9.5	-9.3	-1.8
21	56	0.4	-0.3	-0.2	117	2.0	-1.8	0.9	162	2.5	-0.8	2.4	170	2.2	-0.4	2.2	150	1.4	-0.7	1.2	111	1.7	-1.6	0.6	91	8.2	-8.2	0.1
22	210	2.4	1.2	2.1	170	1.7	-0.3	1.7	177	2.0	-0.1	2.0	191	1.5	0.3	1.5	72	1.6	-1.5	-0.5	67	3.0	-2.8	-1.2	83	7.0	-6.9	-0.9
23	215	3.2	1.8	2.6	185	2.1	0.2	2.1	188	1.5	0.2	1.5	176	1.3	-0.1	1.3	129	2.1	-1.6	1.3	83	3.2	-3.2	-0.4	73	8.5	-8.1	-2.5
24	190	2.9	0.5	2.9	177	2.2	-0.1	2.2	191	2.0	0.4	2.0	170	1.7	-0.3	1.7	138	1.3	-0.9	1.0	66	1.2	-1.1	-0.5	92	6.9	-6.9	0.3
25	165	3.8	-1.0	3.7	173	3.2	-0.4	3.2	182	2.6	0.1	2.6	186	1.8	0.2	1.8	152	1.5	-0.7	1.3	137	1.6	-1.1	1.2	94	6.2	-6.2	0.4
26	161	3.9	-1.3	3.7	168	2.9	-0.6	2.8	187	3.1	0.4	3.1	209	3.3	1.6	2.9	188	3.0	0.4	3.0	138	3.0	-2.0	2.2	88	5.6	-5.6	-0.2
27	207	2.9	1.3	2.6	214	2.9	1.6	2.4	210	3.2	1.6	2.8	229	2.3	1.7	1.5	183	1.7	0.1	1.7	112	2.9	-2.7	1.1	88	7.1	-7.1	-0.3
28	223	5.4	3.7	4.0	238	1.5	1.3	0.8	261	1.9	1.9	0.3	252	1.9	1.8	0.6	214	1.4	0.8	1.2	153	2.2	-1.0	2.0	101	6.0	-5.9	1.2
29	253	2.1	2.0	0.6	212	2.5	1.3	2.1	220	3.0	1.9	2.3	231	3.3	2.6	2.1	203	2.6	1.0	2.4	141	2.8	-1.8	2.2	99	5.2	-5.1	0.8
30	260	1.7	1.7	0.3	201	1.7	0.6	1.6	228	2.4	1.8	1.6	226	2.8	2.0	1.9	213	3.1	1.7	2.6	197	3.1	0.9	3.0	95	5.6	-5.6	0.5

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	266	1.3	1.3	0.1	186	0.9	0.1	0.9	225	2.4	1.7	1.7	220	2.6	1.7	2.0	230	3.1	2.4	2.0	223	2.3	1.6	1.7	104	7.2	-7.0	1.8
2	287	1.4	1.3	-0.4	188	0.7	0.1	0.7	218	1.6	1.0	1.3	208	2.7	1.3	2.4	235	2.9	2.4	1.7	206	3.0	1.3	2.7	112	4.2	-3.9	1.6
3	246	1.7	1.6	0.7	173	0.8	-0.1	0.8	166	1.2	-0.3	1.2	222	2.8	1.9	2.1	221	4.3	2.8	3.2	219	1.9	1.2	1.5	86	4.8	-4.8	-0.3
4	242	2.1	1.9	1.0	173	0.8	-0.1	0.8	195	1.6	0.4	1.5	203	2.8	1.1	2.6	238	3.2	2.7	1.7	210	2.8	1.4	2.4	95	3.8	-3.8	0.3
5	243	0.9	0.8	0.4	200	1.2	0.4	1.1	191	2.0	0.4	2.0	230	3.5	2.7	2.3	235	4.7	3.9	2.7	247	2.3	2.1	0.9	105	3.0	-2.9	0.8
6	293	2.5	2.3	-1.0	281	0.5	0.5	-0.1	207	1.8	0.8	1.6	236	3.2	2.7	1.8	228	4.6	3.4	3.1	185	4.3	0.4	4.3	116	2.5	-2.3	1.1
7	287	1.0	1.0	-0.3	239	0.6	0.5	0.3	270	1.5	1.5	0.0	254	3.5	3.4	1.0	233	4.9	3.9	2.9	231	3.8	3.0	2.4	92	2.3	-2.3	0.1
8	261	1.3	1.3	0.2	275	1.1	1.1	-0.1	256	1.6	1.6	0.4	248	3.8	3.5	1.4	247	5.0	4.6	2.0	225	5.2	3.7	3.7	157	1.5	-0.6	1.4
9	207	2.0	0.9	1.8	241	1.3	1.1	0.6	253	3.4	3.2	1.0	249	5.3	5.0	1.9	254	6.1	5.9	1.7	243	5.5	4.9	2.5	137	2.2	-1.5	1.6
10	304	1.4	1.2	-0.8	293	2.5	2.3	-1.0	252	2.8	2.7	0.9	261	4.9	4.8	0.8	250	6.2	5.8	2.1	248	7.9	7.3	2.9	189	2.0	0.3	2.0
11	207	0.4	0.2	0.4	299	1.0	0.9	-0.5	257	2.2	2.1	0.5	262	4.4	4.4	0.6	249	6.0	5.6	2.2	234	6.3	5.1	3.7	221	3.0	2.0	2.3
12	214	0.4	0.2	0.3	90	0.4	-0.4	0.0	194	1.6	0.4	1.6	254	4.0	3.8	1.1	248	5.2	4.8	1.9	236	7.3	6.0	4.1	199	2.4	0.8	2.3
13	241	1.3	1.1	0.6	52	1.1	-0.9	-0.7	309	0.6	0.5	-0.4	256	4.0	3.9	1.0	253	6.3	6.0	1.8	242	6.9	6.1	3.3	194	2.9	0.7	2.8
14	281	1.0	1.0	-0.2	42	1.2	-0.8	-0.9	204	1.0	0.4	0.9	247	5.1	4.7	2.0	244	8.8	7.9	3.8	237	10.3	8.7	5.6	195	2.8	0.7	2.7
15	338	1.8	0.7	-1.7	53	1.0	-0.8	-0.6	204	1.0	0.4	0.9	232	4.2	3.3	2.6	236	9.2	7.7	5.1	238	11.2	9.5	6.0	218	2.9	1.8	2.3
16	7	1.6	-0.2	-1.6	51	0.6	-0.5	-0.4	188	2.1	0.3	2.1	239	5.0	4.3	2.6	244	8.1	7.3	3.6	243	11.6	10.3	5.3	195	3.0	0.8	2.9
17	95	2.2	-2.2	0.2	315	0.1	0.1	-0.1	189	1.3	0.2	1.3	242	5.2	4.6	2.4	254	8.2	7.9	2.2	241	10.4	9.1	5.1	233	2.5	2.0	1.5
18	98	0.7	-0.7	0.1	325	1.2	0.7	-1.0	237	1.7	1.4	0.9	252	4.4	4.2	1.4	256	9.6	9.3	2.4	253	10.1	9.6	3.0	205	2.1	0.9	1.9
19	146	0.7	-0.4	0.6	349	1.0	0.2	-1.0	231	2.7	2.1	1.7	257	4.9	4.8	1.1	257	8.7	8.5	1.9	254	9.7	9.3	2.7	225	3.7	2.6	2.6
20	51	2.6	-2.0	-1.6	346	1.6	0.4	-1.6	233	2.5	2.0	1.5	259	5.9	5.8	1.1	253	10.2	9.8	3.0	246	12.2	11.2	4.9	242	6.4	5.6	3.0
21	27	1.6	-0.7	-1.4	346	1.6	0.4	-1.6	251	4.0	3.8	1.3	253	7.1	6.8	2.1	251	11.9	11.2	3.9	252	13.5	12.8	4.2	252	4.4	4.2	1.4
22	8	1.4	-0.2	-1.4	341	2.1	0.7	-2.0	258	3.0	2.9	0.6	263	7.1	7.0	0.9	249	11.1	10.4	3.9	247	14.6	13.4	5.7	238	4.5	3.8	2.4
23	3	1.9	-0.1	-1.9	329	2.1	1.1	-1.8	268	2.5	2.5	0.1	253	6.9	6.6	2.0	257	13.8	13.4	3.1	254	15.0	14.4	4.1	234	4.2	3.4	2.5
24	351	2.0	0.3	-2.0	346	1.6	0.4	-1.6	270	4.0	4.0	0.0	260	7.3	7.2	1.3	259	12.1	11.9	2.3	265	13.6	13.5	1.2	238	4.1	3.5	2.2
25	358	2.6	0.1	-2.6	313	1.9	1.4	-1.3	262	4.3	4.3	0.6	260	8.2	8.1	1.4	260	14.5	14.3	2.4	258	16.0	15.7	3.3	234	4.6	3.7	2.7
26	9	3.8	-0.6	-3.8	342	2.8	0.9	-2.7	261	3.8	3.8	0.6	267	8.8	8.8	0.4	260	16.6	16.3	3.0	259	19.9	19.5	3.8	250	10.4	9.8	3.5
27	30	3.6	-1.8	-3.1	341	2.1	0.7	-2.0	266	3.0	3.0	0.2	267	6.7	6.7	0.4	260	14.8	14.6	2.7	254	18.7	17.9	5.3	239	7.7	6.6	4.0
28	32	4.9	-2.6	-4.2	7	2.6	-0.3	-2.6	236	2.2	1.8	1.2	264	6.5	6.5	0.7	261	14.8	14.6	2.2	253	17.0	16.3	5.0	256	7.3	7.1	1.8
29	20	3.3	-1.1	-3.1	3	1.8	-0.1	-1.8	207	2.8	1.3	2.5	256	8.6	8.3	2.1	246	17.2	15.7	7.0	248	19.8	18.4	7.4	252	7.6	7.2	2.4
30	23	2.1	-0.8	-1.9	20	1.5	-0.5	-1.4	227	2.6	1.9	1.8	240	7.0	6.1	3.5	252	16.8	16.0	5.2	253	21.1	20.2	6.2	261	8.1	8.0	1.2
31	75	3.0	-2.9	-0.8	47	2.1	-1.5	-1.4	239	3.1	2.7	1.6	254	8.1	7.8	2.3	252	16.9	16.1	5.1	255	20.5	19.8	5.4	276	8.7	8.7	-0.9

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	34	2.2	-1.2	-1.8	3	2.0	-0.1	-2.0	226	3.5	2.5	2.4	250	9.2	8.7	3.1	255	18.0	17.4	4.7	258	20.7	20.3	4.2	276	8.1	8.0	-0.9
2	32	3.2	-1.7	-2.7	3	2.0	-0.1	-2.0	235	4.7	3.8	2.7	254	9.0	8.6	2.5	257	20.3	19.8	4.6	259	23.4	23.0	4.4	265	9.8	9.8	0.8
3	12	3.8	-0.8	-3.7	338	1.6	0.6	-1.5	239	4.9	4.2	2.5	270	9.1	9.1	0.0	254	19.3	18.6	5.2	252	23.5	22.4	7.1	263	9.6	9.5	1.2
4	22	3.2	-1.2	-3.0	340	2.0	0.7	-1.9	250	4.6	4.3	1.6	268	9.3	9.3	0.3	263	19.3	19.1	2.4	259	24.2	23.8	4.6	288	9.2	8.8	-2.8
5	17	3.8	-1.1	-3.6	323	2.5	1.5	-2.0	243	4.2	3.7	1.9	265	10.0	10.0	0.9	262	20.4	20.2	2.7	259	24.2	23.7	4.8	259	10.6	10.4	2.0
6	9	2.6	-0.4	-2.6	342	2.3	0.7	-2.2	262	3.6	3.6	0.5	265	9.6	9.6	0.8	262	19.7	19.5	2.9	258	23.9	23.4	4.9	269	9.9	9.9	0.1
7	352	3.0	0.4	-3.0	344	2.9	0.8	-2.8	286	4.6	4.4	-1.3	281	9.8	9.6	-1.9	264	20.6	20.5	2.1	257	24.6	23.9	5.7	260	10.7	10.5	1.8
8	10	3.4	-0.6	-3.3	358	2.9	0.1	-2.9	291	4.0	3.7	-1.4	276	9.7	9.6	-1.0	266	17.6	17.6	1.1	260	21.4	21.1	3.6	254	10.8	10.4	2.9
9	12	3.0	-0.6	-2.9	4	2.9	-0.2	-2.9	279	2.6	2.6	-0.4	267	10.1	10.1	0.5	260	17.4	17.2	2.9	254	22.3	21.4	6.2	262	9.2	9.1	1.3
10	294	1.2	1.1	-0.5	313	1.9	1.4	-1.3	263	4.9	4.9	0.6	265	11.2	11.2	1.0	261	21.5	21.2	3.5	253	23.0	21.9	6.9	266	11.9	11.9	0.8
11	343	2.7	0.8	-2.6	343	2.7	0.8	-2.6	273	4.0	4.0	-0.2	270	10.3	10.3	0.0	267	20.4	20.4	1.0	262	24.4	24.2	3.2	264	10.5	10.4	1.1
12	355	3.3	0.3	-3.3	349	3.6	0.7	-3.5	272	5.0	5.0	-0.2	269	11.0	11.0	0.2	267	22.1	22.1	1.3	263	27.6	27.4	3.6	275	13.1	13.0	-1.2
13	3	2.0	-0.1	-2.0	341	3.1	1.0	-2.9	288	4.0	3.8	-1.2	273	11.4	11.4	-0.5	268	23.1	23.1	0.8	268	28.1	28.1	1.0	279	11.8	11.6	-1.9
14	16	2.9	-0.8	-2.8	341	3.6	1.2	-3.4	286	5.5	5.3	-1.5	282	11.4	11.1	-2.4	271	23.1	23.1	-0.4	260	28.2	27.8	4.7	268	12.4	12.4	0.4
15	13	2.8	-0.6	-2.7	322	3.3	2.0	-2.6	290	4.9	4.6	-1.7	283	11.6	11.3	-2.7	272	22.9	22.9	-0.7	263	28.1	27.9	3.4	273	13.6	13.6	-0.8
16	18	2.9	-0.9	-2.8	331	2.6	1.3	-2.3	289	5.3	5.0	-1.7	277	9.5	9.4	-1.1	270	22.2	22.2	0.1	259	27.3	26.8	5.4	273	13.1	13.1	-0.6
17	333	1.8	0.8	-1.6	331	2.5	1.2	-2.2	287	4.7	4.5	-1.4	275	11.1	11.1	-0.9	262	22.0	21.8	3.0	258	24.5	23.9	5.2	269	12.0	12.0	0.3
18	4	2.6	-0.2	-2.6	340	3.8	1.3	-3.6	287	5.5	5.3	-1.6	270	11.4	11.4	0.0	261	23.8	23.5	3.8	245	26.2	23.7	11.2	261	13.4	13.3	2.0
19	358	2.4	0.1	-2.4	338	3.5	1.3	-3.2	279	5.0	4.9	-0.8	264	12.7	12.6	1.4	257	23.5	22.9	5.1	243	28.6	25.5	12.9	265	16.4	16.3	1.3
20	360	2.4	0.0	-2.4	324	2.2	1.3	-1.8	287	5.0	4.8	-1.5	271	12.2	12.2	-0.3	254	26.9	25.9	7.2	247	31.5	28.9	12.5	254	15.3	14.7	4.2
21	12	2.5	-0.5	-2.4	350	3.4	0.6	-3.3	285	4.1	4.0	-1.1	270	12.0	12.0	0.1	258	26.9	26.3	5.7	250	29.2	27.5	9.8	263	16.1	16.0	2.0
22	17	4.1	-1.2	-3.9	340	3.3	1.1	-3.1	290	4.4	4.1	-1.5	261	10.1	10.0	1.6	251	25.2	23.8	8.3	246	30.4	27.8	12.4	258	14.3	14.0	3.0
23	358	4.8	0.2	-4.8	349	3.2	0.6	-3.1	287	4.8	4.6	-1.4	263	12.5	12.4	1.6	250	25.6	24.1	8.6	241	32.2	28.2	15.5	247	14.7	13.5	5.7
24	305	3.7	3.0	-2.1	330	3.0	1.5	-2.6	277	4.6	4.6	-0.6	264	13.4	13.3	1.4	255	24.5	23.7	6.2	247	32.4	29.9	12.6	257	14.2	13.9	3.1
25	8	5.0	-0.7	-5.0	349	3.6	0.7	-3.5	273	6.5	6.5	-0.3	266	14.0	14.0	1.1	261	25.5	25.2	4.2	249	30.7	28.6	11.2	259	13.7	13.5	2.6
26	339	4.0	1.4	-3.7	342	3.6	1.1	-3.4	280	6.3	6.2	-1.1	276	14.6	14.5	-1.5	262	23.5	23.3	3.1	252	28.7	27.2	9.0	262	13.2	13.1	1.8
27	346	4.2	1.0	-4.1	337	2.5	1.0	-2.3	283	7.0	6.8	-1.6	279	14.6	14.4	-2.2	264	26.1	25.9	2.8	254	29.8	28.7	8.0	263	14.8	14.7	1.7
28	355	3.5	0.3	-3.5	342	3.2	1.0	-3.0	287	6.6	6.3	-1.9	268	14.7	14.7	0.6	263	26.5	26.3	3.4	252	30.0	28.5	9.5	268	15.0	15.0	0.5
29	349	3.6	0.7	-3.5	329	3.5	1.8	-3.0	275	7.1	7.1	-0.6	268	15.1	15.1	0.6	261	25.3	25.0	4.0	250	31.7	29.8	10.7	269	13.8	13.8	0.2
30	4	4.6	-0.3	-4.6	332	4.5	2.1	-4.0	282	7.6	7.4	-1.6	271	15.7	15.7	-0.2	262	28.1	27.8	3.8	253	31.6	30.2	9.2	260	15.3	15.1	2.7

Daily Normals of Upper Air Winds (1971-2000)

KOLKATA **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	349	4.1	0.8	-4.0	318	4.3	2.9	-3.2	281	7.8	7.7	-1.5	272	15.7	15.7	-0.5	266	27.2	27.1	1.9	253	33.2	31.7	9.9	261	17.1	16.9	2.8
2	346	5.0	1.2	-4.9	325	4.7	2.7	-3.9	286	8.2	7.9	-2.2	277	16.3	16.2	-2.0	266	28.1	28.0	2.0	253	31.8	30.4	9.2	256	16.8	16.3	4.1
3	1	4.4	-0.1	-4.4	335	4.1	1.7	-3.7	290	6.4	6.0	-2.2	275	13.7	13.6	-1.3	266	26.6	26.5	1.9	255	34.5	33.4	8.7	263	14.1	14.0	1.6
4	345	4.3	1.1	-4.2	325	5.0	2.9	-4.1	287	8.0	7.7	-2.3	274	14.3	14.3	-0.9	264	25.5	25.4	2.6	252	35.4	33.6	11.2	261	15.4	15.2	2.5
5	349	4.2	0.8	-4.1	335	5.0	2.1	-4.5	289	7.2	6.8	-2.3	275	13.8	13.7	-1.2	262	26.7	26.4	3.8	254	32.2	31.0	8.8	259	20.7	20.3	4.0
6	355	5.3	0.5	-5.3	337	4.3	1.7	-4.0	289	6.9	6.5	-2.3	276	14.1	14.0	-1.5	265	25.7	25.6	2.3	251	34.0	32.1	11.1	262	19.0	18.8	2.8
7	356	4.9	0.3	-4.9	328	3.4	1.8	-2.9	285	6.8	6.6	-1.8	281	12.6	12.4	-2.4	260	26.5	26.1	4.4	252	31.8	30.2	10.1	257	19.8	19.3	4.3
8	350	3.6	0.6	-3.5	320	3.5	2.3	-2.7	294	7.6	6.9	-3.1	273	14.1	14.1	-0.7	264	27.1	26.9	2.9	249	34.3	32.1	12.1	259	20.9	20.5	4.1
9	349	4.4	0.8	-4.3	337	3.6	1.4	-3.3	285	7.5	7.3	-1.9	270	14.7	14.7	-0.1	266	27.0	26.9	1.8	257	33.3	32.4	7.6	257	18.9	18.4	4.2
10	350	2.2	0.4	-2.2	321	3.2	2.0	-2.5	279	8.5	8.4	-1.4	270	16.2	16.2	0.0	261	28.9	28.5	4.5	251	32.2	30.5	10.4	258	15.3	15.0	3.2
11	347	3.7	0.8	-3.6	318	4.6	3.1	-3.4	282	10.1	9.9	-2.1	276	17.9	17.8	-1.9	265	30.1	30.0	2.4	257	35.4	34.5	7.9	256	16.1	15.6	4.0
12	351	4.7	0.7	-4.6	323	4.6	2.8	-3.7	288	8.9	8.5	-2.7	276	17.3	17.2	-1.9	262	30.0	29.7	4.3	254	34.5	33.2	9.5	254	19.9	19.2	5.4
13	350	5.3	0.9	-5.2	316	5.4	3.8	-3.9	284	9.0	8.7	-2.2	277	16.9	16.8	-2.1	263	29.0	28.8	3.3	255	36.4	35.2	9.2	260	19.3	19.0	3.4
14	3	4.1	-0.2	-4.1	314	4.9	3.5	-3.4	288	8.9	8.5	-2.8	277	15.9	15.8	-2.0	267	28.2	28.1	1.7	255	37.5	36.2	9.8	258	23.0	22.5	4.6
15	347	4.9	1.1	-4.8	321	5.9	3.7	-4.6	289	9.4	8.9	-3.1	272	17.5	17.5	-0.5	261	30.4	30.1	4.5	253	35.5	33.9	10.6	261	23.1	22.8	3.5
16	357	5.1	0.3	-5.1	331	5.7	2.8	-5.0	294	9.7	8.8	-4.0	280	18.2	17.9	-3.1	268	30.6	30.6	0.9	262	37.9	37.5	5.6	268	21.9	21.9	0.7
17	349	5.4	1.0	-5.3	327	5.1	2.8	-4.3	292	8.7	8.0	-3.3	275	17.8	17.7	-1.5	269	31.6	31.6	0.8	260	41.5	40.8	7.4	263	18.6	18.5	2.3
18	357	4.2	0.2	-4.2	324	4.8	2.8	-3.9	287	9.5	9.1	-2.8	276	16.6	16.5	-1.6	271	30.4	30.4	-0.5	262	37.6	37.2	5.3	264	20.6	20.5	2.2
19	348	4.9	1.0	-4.8	323	5.0	3.0	-4.0	290	9.5	8.9	-3.3	277	17.1	17.0	-2.2	268	31.5	31.5	1.0	261	38.3	37.8	6.0	266	20.8	20.8	1.3
20	360	3.5	0.0	-3.5	323	6.1	3.7	-4.9	293	8.1	7.4	-3.2	279	16.9	16.7	-2.5	269	31.1	31.1	0.3	262	37.3	36.9	5.4	269	20.4	20.4	0.5
21	4	4.1	-0.3	-4.1	317	5.4	3.7	-3.9	284	8.7	8.4	-2.1	277	18.5	18.4	-2.3	270	32.1	32.1	0.1	256	35.7	34.7	8.6	269	19.2	19.2	0.2
22	357	4.4	0.2	-4.4	322	5.7	3.5	-4.5	291	9.0	8.4	-3.3	280	18.0	17.7	-3.0	269	32.9	32.9	0.7	258	39.1	38.3	8.1	265	17.9	17.8	1.6
23	343	3.4	1.0	-3.3	316	5.2	3.6	-3.7	290	9.0	8.4	-3.1	272	19.2	19.2	-0.8	264	33.8	33.6	3.8	257	36.8	35.9	8.1	259	21.7	21.3	4.1
24	360	2.9	0.0	-2.9	328	5.1	2.7	-4.3	291	9.4	8.8	-3.3	274	19.2	19.2	-1.2	263	35.7	35.4	4.6	255	40.0	38.6	10.4	258	23.8	23.3	4.9
25	40	2.5	-1.6	-1.9	321	4.1	2.6	-3.2	281	9.2	9.0	-1.8	272	18.9	18.9	-0.7	263	31.9	31.6	4.0	259	39.2	38.4	7.8	257	26.7	26.0	6.1
26	11	4.4	-0.8	-4.3	311	4.0	3.0	-2.6	278	8.7	8.6	-1.2	272	20.4	20.4	-0.7	264	36.1	35.9	3.9	258	40.0	39.2	8.0	267	27.3	27.3	1.5
27	346	4.6	1.1	-4.5	310	5.1	3.9	-3.3	275	9.9	9.9	-0.8	269	19.9	19.9	0.4	265	36.0	35.8	3.3	259	39.4	38.6	7.8	263	22.5	22.3	2.9
28	355	3.2	0.3	-3.2	317	5.1	3.5	-3.7	278	9.8	9.7	-1.3	268	19.1	19.1	0.6	266	36.0	35.9	2.3	262	41.6	41.1	6.1	265	27.5	27.4	2.5
29	340	3.3	1.1	-3.1	305	5.2	4.3	-3.0	288	10.1	9.6	-3.1	271	19.7	19.7	-0.5	264	34.7	34.5	3.8	257	38.5	37.5	8.5	261	24.8	24.5	3.9
30	358	3.6	0.1	-3.6	312	5.9	4.4	-3.9	277	10.2	10.1	-1.3	274	21.1	21.1	-1.3	265	35.5	35.4	3.0	259	38.9	38.2	7.4	264	25.8	25.7	2.7
31	8	3.7	-0.5	-3.7	316	6.2	4.3	-4.5	288	11.5	10.9	-3.6	273	22.3	22.3	-1.3	271	37.9	37.9	-0.6	257	40.9	39.8	9.5	258	25.5	24.9	5.3

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	329	2.3	1.2	-2.0	311	4.6	3.5	-3.0	286	9.6	9.2	-2.6	280	21.7	21.4	-3.7	273	40.2	40.1	-2.4	267	43.2	43.1	2.4	268	26.0	26.0	0.9
2	320	3.5	2.3	-2.7	299	6.5	5.7	-3.1	294	9.9	9.0	-4.1	281	21.1	20.7	-3.9	274	39.1	39.0	-2.9	272	50.7	50.7	-1.5	273	34.6	34.5	-2.1
3	336	1.2	0.5	-1.1	308	6.1	4.8	-3.7	297	8.8	7.8	-4.0	286	20.3	19.5	-5.6	276	41.3	41.1	-4.2	273	47.6	47.6	-2.1	263	33.1	32.8	4.2
4	24	1.7	-0.7	-1.6	310	5.1	3.9	-3.3	287	9.1	8.7	-2.7	281	22.7	22.2	-4.5	271	39.1	39.1	-0.4	272	45.1	45.1	-1.9	274	31.7	31.6	-2.3
5	297	3.4	3.0	-1.5	298	5.8	5.1	-2.7	288	10.2	9.7	-3.2	278	22.6	22.4	-3.2	272	42.3	42.3	-1.5	269	47.3	47.3	0.8	267	24.8	24.8	1.4
6	309	2.7	2.1	-1.7	303	4.9	4.1	-2.7	285	9.3	9.0	-2.4	274	21.1	21.0	-1.6	271	37.4	37.4	-0.8	268	41.5	41.5	1.7	260	31.4	31.0	5.3
7	135	0.6	-0.4	0.4	289	3.9	3.7	-1.3	288	7.8	7.4	-2.4	276	16.7	16.6	-1.6	270	34.1	34.1	-0.2	263	42.3	42.0	4.8	275	26.4	26.3	-2.4
8	32	0.9	-0.5	-0.8	302	3.8	3.2	-2.0	279	8.0	7.9	-1.3	272	17.5	17.5	-0.5	270	38.9	38.9	-0.1	264	43.4	43.2	4.3	256	29.9	29.1	7.0
9	343	2.1	0.6	-2.0	300	4.8	4.1	-2.4	289	8.5	8.0	-2.8	275	20.2	20.1	-1.8	270	35.0	35.0	0.1	267	46.1	46.0	2.5	269	33.3	33.3	0.7
10	326	3.6	2.0	-3.0	301	5.6	4.8	-2.9	282	9.9	9.7	-2.1	281	20.0	19.7	-3.7	272	40.0	40.0	-1.3	265	44.0	43.9	3.5	261	27.5	27.2	4.2
11	309	1.9	1.5	-1.2	294	5.2	4.8	-2.1	277	8.7	8.6	-1.1	273	20.5	20.5	-1.0	266	39.6	39.5	2.6	263	42.4	42.0	5.5	260	28.6	28.2	5.0
12	292	3.7	3.4	-1.4	300	5.4	4.7	-2.7	280	9.4	9.3	-1.6	273	22.0	22.0	-1.1	269	39.5	39.5	0.9	263	44.8	44.5	5.1	271	26.5	26.5	-0.5
13	311	5.3	4.0	-3.5	290	6.1	5.7	-2.1	285	8.8	8.5	-2.2	280	21.8	21.5	-3.6	273	40.3	40.3	-1.9	266	46.1	46.0	2.9	267	28.9	28.9	1.4
14	319	4.3	2.8	-3.2	289	5.5	5.2	-1.8	286	9.9	9.5	-2.8	277	21.5	21.4	-2.5	273	44.5	44.4	-2.5	268	49.0	49.0	1.9	266	25.5	25.4	1.8
15	321	3.8	2.4	-3.0	292	6.4	5.9	-2.4	279	11.4	11.3	-1.8	276	23.8	23.7	-2.4	273	39.3	39.3	-1.9	272	47.5	47.5	-1.8	271	29.0	29.0	-0.7
16	308	4.2	3.3	-2.6	297	6.4	5.7	-2.9	283	10.6	10.3	-2.3	282	22.2	21.7	-4.6	272	46.1	46.1	-1.5	271	47.5	47.5	-0.5	273	31.0	31.0	-1.7
17	311	6.5	4.9	-4.3	296	7.1	6.4	-3.1	286	11.3	10.9	-3.1	276	21.8	21.7	-2.1	272	41.8	41.8	-1.3	265	46.6	46.4	3.9	263	33.2	33.0	3.8
18	299	6.2	5.4	-3.0	293	6.9	6.3	-2.7	286	9.7	9.3	-2.7	283	21.4	20.9	-4.8	278	41.4	41.0	-5.5	274	48.3	48.2	-3.6	273	31.5	31.5	-1.7
19	308	3.3	2.6	-2.0	299	6.5	5.7	-3.1	293	9.9	9.1	-3.8	278	20.6	20.4	-2.9	270	41.7	41.7	0.1	269	48.0	48.0	0.8	270	32.7	32.7	0.2
20	292	2.9	2.7	-1.1	295	5.7	5.2	-2.4	290	8.2	7.7	-2.8	278	20.6	20.4	-2.8	274	39.8	39.7	-2.9	272	45.1	45.1	-1.3	271	28.8	28.8	-0.3
21	313	4.8	3.5	-3.3	294	4.5	4.1	-1.8	283	10.9	10.6	-2.5	274	21.3	21.2	-1.6	266	38.0	37.9	2.9	268	45.7	45.7	1.3	268	30.4	30.4	1.1
22	299	3.8	3.3	-1.8	288	4.1	3.9	-1.3	284	11.1	10.8	-2.6	278	21.2	21.0	-2.8	275	40.2	40.1	-3.3	268	44.6	44.6	1.2	269	32.2	32.2	0.7
23	307	6.0	4.8	-3.6	297	7.0	6.2	-3.2	285	10.7	10.3	-2.8	280	21.7	21.4	-3.8	277	38.6	38.3	-4.7	273	48.0	48.0	-2.1	270	29.3	29.3	-0.2
24	307	8.4	6.7	-5.1	305	8.2	6.7	-4.7	295	12.4	11.2	-5.3	282	22.9	22.4	-4.9	275	41.7	41.6	-3.4	272	47.5	47.5	-1.3	272	31.0	31.0	-0.9
25	305	9.8	8.0	-5.6	299	5.8	5.1	-2.8	291	11.7	10.9	-4.2	278	20.9	20.7	-3.0	277	41.8	41.5	-5.3	272	46.9	46.9	-1.3	267	29.1	29.1	1.3
26	305	7.2	5.9	-4.2	295	6.0	5.4	-2.5	281	11.7	11.5	-2.2	275	20.4	20.3	-1.6	268	35.9	35.9	1.4	272	44.2	44.2	-1.6	266	31.2	31.1	2.0
27	317	4.7	3.2	-3.4	291	5.5	5.1	-2.0	278	10.2	10.1	-1.5	271	22.6	22.6	-0.2	268	44.3	44.3	1.4	268	49.1	49.1	1.8	262	34.2	33.8	5.0
28	320	3.4	2.2	-2.6	296	5.5	4.9	-2.4	276	11.4	11.3	-1.2	274	23.4	23.3	-1.6	271	42.5	42.5	-0.7	269	53.8	53.8	0.9	269	34.7	34.7	0.7
29	311	5.6	4.2	-3.7	296	7.6	6.9	-3.3	283	11.5	11.2	-2.5	278	23.4	23.2	-3.4	278	43.4	43.0	-6.1	270	44.7	44.7	-0.2	272	33.1	33.1	-1.3
30	302	4.0	3.4	-2.1	295	7.0	6.3	-3.0	287	11.1	10.6	-3.2	274	21.6	21.6	-1.4	276	42.5	42.3	-4.3	275	49.5	49.3	-3.9	270	34.2	34.2	0.1
31	307	3.1	2.5	-1.9	300	5.3	4.6	-2.7	279	11.0	10.9	-1.7	274	22.5	22.4	-1.7	269	39.9	39.9	1.0	270	49.7	49.7	0.3	262	34.1	33.8	4.5

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	312	2.7	2.0	-1.8	299	5.8	5.1	-2.8	284	9.4	9.1	-2.3	272	23.0	23.0	-0.7	274	41.9	41.8	-2.9	269	48.2	48.2	1.0	271	25.7	25.7	-0.3
2	319	3.3	2.2	-2.5	295	6.3	5.7	-2.7	286	10.6	10.2	-2.9	278	23.1	22.9	-3.2	274	43.0	42.9	-3.0	272	49.5	49.5	-1.7	268	31.9	31.9	1.0
3	328	0.9	0.5	-0.8	297	5.8	5.2	-2.6	283	11.0	10.7	-2.5	274	20.9	20.9	-1.3	276	40.2	39.9	-4.5	271	48.8	48.8	-1.2	272	31.5	31.5	-1.1
4	308	2.9	2.3	-1.8	298	5.4	4.8	-2.5	281	10.9	10.7	-2.0	275	22.5	22.4	-1.8	275	41.1	41.0	-3.3	275	44.5	44.4	-3.5	267	29.3	29.3	1.4
5	323	3.5	2.1	-2.8	297	5.4	4.8	-2.4	288	11.4	10.9	-3.5	275	20.3	20.2	-1.7	277	39.5	39.2	-4.5	272	45.7	45.7	-1.7	271	32.8	32.8	-0.3
6	315	4.7	3.3	-3.3	298	6.4	5.7	-3.0	296	10.2	9.1	-4.5	280	19.8	19.5	-3.5	277	35.5	35.2	-4.6	269	44.8	44.8	0.9	265	25.6	25.5	2.3
7	315	2.5	1.8	-1.8	291	5.0	4.7	-1.8	293	9.2	8.5	-3.6	280	20.5	20.2	-3.7	273	35.9	35.8	-2.0	273	41.8	41.8	-1.9	274	32.4	32.3	-2.1
8	288	2.5	2.4	-0.8	299	7.0	6.1	-3.4	291	12.9	12.0	-4.6	276	22.3	22.2	-2.5	276	37.2	37.0	-4.1	270	43.8	43.8	0.2	270	28.5	28.5	0.0
9	324	1.4	0.8	-1.1	300	8.9	7.7	-4.5	291	11.6	10.8	-4.2	282	18.9	18.5	-3.9	280	33.6	33.0	-6.1	276	38.0	37.8	-4.0	274	31.1	31.0	-2.2
10	321	1.4	0.9	-1.1	297	5.3	4.7	-2.4	293	10.0	9.2	-4.0	286	20.3	19.5	-5.5	285	34.6	33.4	-9.2	282	41.3	40.4	-8.6	277	29.5	29.3	-3.7
11	14	2.1	-0.5	-2.0	294	5.2	4.8	-2.1	288	11.4	10.8	-3.5	285	22.2	21.5	-5.7	280	38.4	37.8	-7.0	276	45.3	45.0	-4.9	272	25.7	25.7	-0.8
12	315	3.4	2.4	-2.4	295	5.0	4.5	-2.1	293	11.6	10.6	-4.6	285	20.2	19.5	-5.3	281	36.4	35.8	-6.7	275	38.8	38.6	-3.7	273	23.9	23.9	-1.1
13	324	5.1	3.0	-4.1	297	6.5	5.8	-2.9	281	11.3	11.1	-2.1	274	21.0	21.0	-1.4	276	34.8	34.6	-3.8	270	44.3	44.3	-0.2	273	27.9	27.8	-1.7
14	289	5.8	5.5	-1.9	302	6.1	5.2	-3.2	283	10.3	10.0	-2.3	272	19.3	19.3	-0.7	268	38.3	38.3	1.6	263	43.1	42.8	4.9	267	25.2	25.2	1.3
15	293	2.6	2.4	-1.0	304	5.4	4.5	-3.0	285	9.1	8.8	-2.3	268	19.0	19.0	0.7	273	37.8	37.7	-2.0	270	38.9	38.9	0.2	267	31.5	31.5	1.5
16	288	4.0	3.8	-1.2	286	5.8	5.6	-1.6	283	11.1	10.8	-2.4	269	18.3	18.3	0.3	269	38.1	38.1	0.5	269	45.5	45.5	0.6	269	23.9	23.9	0.3
17	302	4.4	3.7	-2.3	287	5.4	5.2	-1.6	278	10.7	10.6	-1.4	271	21.3	21.3	-0.5	268	41.3	41.3	1.3	264	42.4	42.2	4.5	267	26.2	26.2	1.4
18	315	5.2	3.7	-3.7	295	7.5	6.8	-3.1	282	10.9	10.7	-2.3	275	22.5	22.4	-1.9	268	42.4	42.4	1.3	268	52.2	52.2	2.1	264	27.6	27.4	2.9
19	332	5.4	2.5	-4.8	294	7.0	6.4	-2.9	276	11.1	11.0	-1.2	271	21.9	21.9	-0.2	272	40.6	40.6	-1.1	267	45.6	45.6	2.0	272	28.5	28.5	-1.0
20	323	4.4	2.6	-3.5	294	6.8	6.2	-2.7	281	10.3	10.1	-2.0	274	21.2	21.2	-1.4	268	36.6	36.6	1.3	268	40.4	40.4	1.7	273	27.3	27.3	-1.2
21	293	1.5	1.4	-0.6	299	7.2	6.3	-3.5	281	11.0	10.8	-2.1	279	20.7	20.4	-3.4	268	39.0	39.0	1.3	267	44.6	44.5	2.7	262	26.8	26.5	3.9
22	314	5.9	4.2	-4.1	292	7.8	7.2	-2.9	285	11.2	10.8	-2.9	277	20.7	20.6	-2.4	270	39.0	39.0	0.1	266	45.9	45.8	3.0	266	25.7	25.6	1.8
23	318	3.8	2.5	-2.8	300	8.8	7.6	-4.4	288	12.3	11.7	-3.8	278	21.9	21.7	-2.9	269	38.4	38.4	0.5	272	41.5	41.5	-1.1	265	30.6	30.5	2.5
24	315	3.1	2.2	-2.2	294	7.2	6.6	-3.0	289	11.6	11.0	-3.7	278	22.3	22.1	-3.0	274	38.5	38.4	-2.8	272	42.4	42.4	-1.2	267	26.7	26.7	1.4
25	36	1.7	-1.0	-1.4	296	7.0	6.3	-3.1	282	10.7	10.5	-2.2	280	22.9	22.6	-3.8	276	35.5	35.3	-3.9	269	40.7	40.7	0.9	275	25.1	25.0	-2.4
26	306	2.9	2.3	-1.7	296	9.0	8.1	-3.9	277	11.8	11.7	-1.4	278	20.1	19.9	-2.8	276	33.8	33.6	-3.6	271	39.8	39.8	-0.6	275	27.7	27.6	-2.2
27	297	3.8	3.4	-1.7	300	7.2	6.2	-3.6	289	10.3	9.8	-3.3	282	19.5	19.1	-3.9	273	35.9	35.8	-2.0	271	42.0	42.0	-0.8	266	25.4	25.3	1.7
28	317	7.8	5.3	-5.7	291	7.9	7.4	-2.8	277	12.5	12.4	-1.6	274	19.5	19.4	-1.5	270	37.2	37.2	-0.3	272	42.4	42.4	-1.6	272	30.2	30.2	-1.1
29	321	1.9	1.2	-1.5	294	9.0	8.2	-3.6	284	13.2	12.8	-3.2	280	23.2	22.9	-3.9	276	35.9	35.7	-3.9	266	44.5	44.4	3.2	273	30.7	30.6	-1.8

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	315	5.1	3.6	-3.6	309	6.0	4.7	-3.8	289	10.9	10.3	-3.6	277	20.7	20.6	-2.4	276	36.0	35.8	-3.7	276	42.9	42.7	-4.2	268	25.6	25.6	0.8
2	299	9.0	7.8	-4.4	300	10.7	9.3	-5.3	288	11.8	11.2	-3.7	281	18.3	17.9	-3.6	281	31.4	30.8	-6.2	273	37.6	37.6	-1.9	262	24.7	24.5	3.5
3	298	6.4	5.6	-3.0	293	9.8	9.0	-3.9	292	12.6	11.7	-4.7	285	17.4	16.8	-4.5	275	31.3	31.2	-2.7	271	31.7	31.7	-0.4	270	22.9	22.9	-0.1
4	315	8.1	5.7	-5.8	304	8.7	7.2	-4.8	292	10.8	10.0	-4.1	286	16.6	15.9	-4.6	276	29.8	29.7	-2.9	274	33.6	33.5	-2.6	275	25.0	24.9	-2.0
5	323	5.5	3.3	-4.4	298	7.2	6.3	-3.4	282	11.6	11.3	-2.5	270	19.3	19.3	-0.1	268	31.5	31.5	0.9	266	38.1	38.0	2.5	271	24.5	24.5	-0.5
6	307	5.9	4.7	-3.5	292	7.1	6.6	-2.6	283	11.2	10.9	-2.6	273	17.6	17.6	-1.0	271	34.8	34.8	-0.9	267	34.6	34.6	1.7	266	22.4	22.4	1.4
7	307	9.0	7.2	-5.4	301	8.4	7.2	-4.3	289	11.9	11.2	-3.9	283	17.8	17.4	-3.9	278	31.9	31.6	-4.4	273	35.3	35.2	-2.0	274	26.8	26.7	-1.9
8	307	6.2	5.0	-3.7	298	8.0	7.1	-3.7	284	11.9	11.5	-2.9	279	18.3	18.1	-3.0	271	31.5	31.5	-0.3	272	41.3	41.3	-1.5	276	27.7	27.5	-3.1
9	305	7.4	6.1	-4.2	289	8.7	8.2	-2.9	284	11.7	11.4	-2.8	276	17.7	17.6	-1.8	267	30.1	30.1	1.5	268	38.9	38.9	1.6	262	26.6	26.3	3.7
10	316	5.6	3.9	-4.0	300	7.3	6.3	-3.7	283	11.8	11.5	-2.6	274	18.5	18.4	-1.4	266	30.0	29.9	2.0	266	36.6	36.5	2.5	272	27.3	27.3	-0.9
11	293	5.6	5.2	-2.2	300	5.6	4.8	-2.8	289	10.8	10.2	-3.6	274	18.3	18.3	-1.2	264	35.7	35.5	3.6	263	42.6	42.3	5.3	268	26.2	26.2	0.9
12	315	5.4	3.8	-3.8	292	5.9	5.5	-2.2	279	11.6	11.4	-1.9	268	19.9	19.9	0.7	266	34.2	34.1	2.4	264	41.4	41.2	4.3	267	24.7	24.7	1.2
13	320	6.7	4.3	-5.1	306	8.2	6.6	-4.8	295	11.7	10.6	-5.0	283	18.8	18.3	-4.3	274	32.4	32.3	-2.1	273	37.0	36.9	-2.1	272	27.8	27.8	-1.0
14	304	7.8	6.5	-4.4	299	9.0	7.9	-4.4	292	12.3	11.4	-4.7	288	17.7	16.9	-5.4	283	31.9	31.0	-7.4	275	38.8	38.6	-3.6	272	29.1	29.1	-1.1
15	314	6.5	4.7	-4.5	295	7.5	6.8	-3.2	290	11.3	10.6	-3.8	282	17.4	17.0	-3.5	280	31.6	31.1	-5.6	279	37.3	36.8	-6.0	277	21.4	21.2	-2.7
16	304	9.0	7.5	-5.0	300	11.1	9.6	-5.5	294	12.2	11.1	-5.0	283	17.7	17.2	-4.0	277	33.0	32.8	-4.0	272	37.5	37.5	-1.5	273	21.5	21.5	-1.1
17	296	7.9	7.1	-3.5	296	8.1	7.3	-3.5	284	13.0	12.6	-3.1	278	19.3	19.1	-2.6	273	33.8	33.8	-1.6	266	42.9	42.8	3.3	265	22.8	22.7	2.0
18	295	3.8	3.4	-1.6	289	8.0	7.6	-2.6	278	11.6	11.5	-1.6	276	19.0	18.9	-1.9	271	32.7	32.7	-0.7	267	41.1	41.1	1.9	264	30.2	30.0	3.2
19	321	7.2	4.5	-5.6	294	9.7	8.8	-4.0	287	12.9	12.4	-3.7	279	18.2	18.0	-2.7	278	31.4	31.1	-4.4	270	41.6	41.6	0.1	275	28.9	28.8	-2.5
20	302	8.6	7.3	-4.5	290	8.9	8.3	-3.1	285	13.6	13.1	-3.6	283	18.2	17.7	-4.1	280	29.6	29.1	-5.3	269	35.7	35.7	0.9	270	22.2	22.2	-0.1
21	323	7.6	4.6	-6.1	304	9.6	8.0	-5.3	285	12.9	12.4	-3.4	277	19.6	19.5	-2.4	276	30.6	30.4	-3.1	275	37.7	37.6	-3.2	274	27.6	27.5	-1.9
22	315	3.0	2.1	-2.1	288	7.4	7.0	-2.3	287	11.5	11.0	-3.4	277	17.0	16.9	-2.2	279	30.0	29.6	-4.7	272	41.5	41.5	-1.5	270	19.2	19.2	0.0
23	323	7.7	4.6	-6.2	305	8.1	6.6	-4.7	287	11.1	10.6	-3.3	278	17.6	17.4	-2.3	277	29.6	29.4	-3.4	270	34.8	34.8	0.2	256	20.8	20.2	5.0
24	310	5.5	4.2	-3.5	305	7.2	5.9	-4.1	289	11.0	10.4	-3.5	273	18.0	18.0	-1.0	274	29.0	28.9	-1.8	266	35.1	35.0	2.6	267	24.1	24.1	1.1
25	292	4.5	4.2	-1.7	304	6.6	5.5	-3.7	289	11.2	10.6	-3.6	279	16.1	15.9	-2.5	273	26.9	26.9	-1.2	267	33.0	33.0	1.7	277	21.2	21.1	-2.5
26	343	4.1	1.2	-3.9	303	7.1	5.9	-3.9	285	8.8	8.5	-2.3	280	17.5	17.3	-2.9	277	27.1	26.9	-3.4	275	35.8	35.7	-3.2	276	20.7	20.6	-2.1
27	323	4.6	2.8	-3.7	310	7.9	6.0	-5.1	296	10.6	9.5	-4.7	284	16.3	15.8	-3.8	288	25.6	24.4	-7.9	279	33.1	32.7	-5.4	275	21.1	21.0	-1.7
28	327	5.9	3.2	-4.9	299	8.3	7.3	-4.0	289	12.0	11.3	-3.9	287	15.2	14.6	-4.4	284	20.6	20.0	-5.1	281	27.6	27.1	-5.2	274	20.6	20.6	-1.4
29	360	2.0	0.0	-2.0	310	5.9	4.5	-3.8	290	12.3	11.6	-4.2	281	17.0	16.7	-3.2	276	30.0	29.8	-3.0	277	34.0	33.8	-4.1	267	20.0	20.0	0.9
30	358	3.1	0.1	-3.1	306	9.1	7.4	-5.3	296	12.0	10.8	-5.3	279	17.1	16.9	-2.8	274	26.8	26.7	-1.7	274	33.8	33.7	-2.5	271	21.2	21.2	-0.5
31	324	6.5	3.8	-5.3	297	8.2	7.3	-3.7	289	12.7	12.0	-4.1	279	16.7	16.5	-2.7	273	28.1	28.1	-1.5	270	36.2	36.2	0.0	258	20.1	19.7	4.1

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	323	6.1	3.7	-4.9	302	7.6	6.5	-4.0	288	13.2	12.5	-4.1	283	17.0	16.5	-3.9	277	27.1	26.9	-3.5	273	32.1	32.1	-1.5	267	23.3	23.3	1.1
2	305	6.3	5.2	-3.6	302	11.4	9.7	-6.0	284	14.5	14.1	-3.5	280	15.7	15.4	-2.8	275	25.7	25.6	-2.4	268	37.0	37.0	1.0	262	21.4	21.2	3.0
3	318	4.3	2.9	-3.2	296	8.5	7.6	-3.7	285	12.1	11.7	-3.2	272	17.7	17.7	-0.5	263	26.2	26.0	3.4	263	36.2	35.9	4.3	261	28.7	28.3	4.7
4	309	5.8	4.5	-3.7	295	7.8	7.1	-3.3	285	12.7	12.3	-3.2	277	17.5	17.4	-2.1	272	27.4	27.4	-0.9	269	37.1	37.1	0.8	264	26.4	26.3	2.7
5	313	5.0	3.6	-3.4	297	7.4	6.6	-3.3	284	11.5	11.2	-2.7	276	15.6	15.5	-1.6	272	28.0	28.0	-1.2	268	38.4	38.4	1.1	266	22.8	22.8	1.4
6	304	4.8	4.0	-2.7	290	8.1	7.6	-2.8	284	11.5	11.2	-2.7	279	16.8	16.6	-2.6	275	26.7	26.6	-2.2	269	36.2	36.2	0.4	266	22.2	22.1	1.7
7	312	8.9	6.6	-6.0	302	10.3	8.7	-5.5	288	12.1	11.5	-3.8	285	17.7	17.1	-4.5	278	30.0	29.7	-4.1	277	36.8	36.5	-4.8	256	20.5	19.9	5.0
8	299	4.7	4.1	-2.3	305	9.3	7.6	-5.4	288	11.9	11.3	-3.7	282	16.0	15.6	-3.4	276	28.0	27.8	-2.9	273	35.2	35.2	-1.6	265	19.5	19.4	1.7
9	294	2.0	1.8	-0.8	294	6.4	5.8	-2.6	285	9.9	9.6	-2.6	278	14.5	14.3	-2.1	274	26.2	26.1	-1.7	265	37.2	37.1	3.3	262	26.4	26.1	3.9
10	324	4.4	2.6	-3.6	301	8.4	7.2	-4.3	287	12.2	11.7	-3.6	277	18.0	17.9	-2.3	276	29.7	29.5	-3.0	268	35.3	35.3	1.5	267	23.8	23.8	1.2
11	303	3.0	2.5	-1.6	307	8.8	7.0	-5.3	293	13.3	12.2	-5.3	287	15.9	15.2	-4.6	283	28.2	27.5	-6.1	282	32.2	31.5	-6.7	274	20.4	20.4	-1.4
12	336	3.5	1.4	-3.2	301	8.6	7.4	-4.4	295	11.9	10.8	-5.0	285	16.4	15.9	-4.2	282	29.3	28.7	-6.0	279	37.3	36.8	-5.8	277	20.6	20.4	-2.5
13	312	4.8	3.6	-3.2	298	8.2	7.2	-3.9	292	13.9	12.8	-5.3	288	16.6	15.8	-5.0	277	30.2	30.0	-3.8	280	36.2	35.6	-6.4	276	18.3	18.2	-1.8
14	351	1.3	0.2	-1.3	299	6.3	5.5	-3.1	287	12.1	11.5	-3.6	277	15.2	15.1	-1.9	270	27.3	27.3	0.1	271	33.7	33.7	-0.6	273	21.9	21.9	-1.1
15	354	3.7	0.4	-3.7	312	6.2	4.6	-4.2	288	11.8	11.2	-3.7	276	16.6	16.5	-1.7	268	24.1	24.1	0.7	268	32.2	32.2	1.1	270	20.2	20.2	-0.1
16	325	4.7	2.7	-3.8	300	6.1	5.3	-3.1	284	10.6	10.3	-2.6	279	14.9	14.7	-2.2	270	22.6	22.6	0.1	266	30.5	30.4	2.0	272	21.1	21.1	-0.6
17	311	5.0	3.8	-3.3	287	5.9	5.7	-1.7	284	10.5	10.2	-2.6	281	14.1	13.9	-2.6	282	20.4	20.0	-4.1	270	26.0	26.0	-0.1	269	13.5	13.5	0.2
18	313	4.5	3.3	-3.1	304	6.8	5.6	-3.8	287	10.5	10.0	-3.1	285	14.7	14.2	-3.7	270	22.3	22.3	0.0	267	25.1	25.1	1.3	268	16.3	16.3	0.7
19	317	6.4	4.4	-4.7	312	7.2	5.3	-4.8	288	11.4	10.8	-3.5	286	13.1	12.6	-3.5	271	19.7	19.7	-0.2	268	26.9	26.9	1.0	263	14.2	14.1	1.8
20	293	4.0	3.7	-1.6	303	5.4	4.5	-2.9	293	12.8	11.8	-5.0	280	12.0	11.8	-2.0	274	19.8	19.8	-1.3	273	21.7	21.7	-1.2	260	13.3	13.1	2.3
21	301	4.9	4.2	-2.5	307	5.6	4.5	-3.4	295	11.3	10.3	-4.7	287	12.4	11.8	-3.7	267	19.1	19.1	1.0	265	23.9	23.8	2.2	263	12.7	12.6	1.6
22	332	1.9	0.9	-1.7	312	5.9	4.4	-3.9	298	10.8	9.6	-5.0	282	12.5	12.2	-2.7	270	18.3	18.3	0.1	265	27.1	27.0	2.5	271	17.0	17.0	-0.3
23	297	3.7	3.3	-1.7	297	5.8	5.2	-2.6	287	12.6	12.0	-3.7	281	12.2	12.0	-2.3	267	19.2	19.2	0.9	266	26.9	26.8	1.7	274	16.6	16.6	-1.1
24	327	2.7	1.5	-2.3	306	6.4	5.2	-3.8	293	10.8	9.9	-4.2	286	12.2	11.7	-3.3	275	18.8	18.7	-1.8	271	23.5	23.5	-0.4	279	15.6	15.4	-2.5
25	276	2.7	2.7	-0.3	309	7.2	5.6	-4.5	298	10.6	9.4	-5.0	286	11.6	11.2	-3.2	277	18.5	18.4	-2.2	273	25.5	25.5	-1.5	291	15.7	14.7	-5.6
26	132	1.2	-0.9	0.8	301	4.1	3.5	-2.1	302	10.3	8.8	-5.4	293	12.2	11.3	-4.7	290	17.8	16.7	-6.1	287	20.9	20.0	-6.1	285	14.4	13.9	-3.8
27	61	1.0	-0.9	-0.5	305	5.2	4.3	-3.0	295	11.0	10.0	-4.6	301	12.1	10.4	-6.2	285	20.3	19.6	-5.3	284	24.3	23.5	-6.0	289	13.6	12.8	-4.5
28	216	2.4	1.4	1.9	297	6.5	5.8	-3.0	295	11.4	10.3	-4.8	288	12.0	11.4	-3.8	279	20.0	19.7	-3.2	275	24.2	24.1	-2.0	279	14.1	13.9	-2.1
29	297	1.3	1.2	-0.6	310	6.0	4.6	-3.9	295	13.1	11.9	-5.5	295	13.9	12.6	-5.8	278	20.3	20.1	-2.8	270	24.0	24.0	0.0	268	15.2	15.2	0.5
30	257	1.3	1.3	0.3	299	7.1	6.2	-3.4	300	12.4	10.7	-6.2	295	13.8	12.5	-5.9	285	20.6	19.9	-5.2	274	26.3	26.2	-2.0	252	12.1	11.5	3.7

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	337	1.3	0.5	-1.2	297	5.4	4.8	-2.4	297	11.2	10.0	-5.1	283	12.3	12.0	-2.8	273	22.1	22.1	-1.3	271	28.4	28.4	-0.7	261	13.0	12.8	2.0
2	283	1.7	1.7	-0.4	294	6.8	6.2	-2.7	289	11.7	11.1	-3.8	283	13.4	13.0	-3.1	273	19.3	19.3	-0.9	264	24.8	24.7	2.5	267	15.6	15.6	0.9
3	84	0.9	-0.9	-0.1	314	6.1	4.4	-4.2	298	12.0	10.6	-5.7	285	13.5	13.1	-3.4	275	20.0	19.9	-1.8	268	26.1	26.1	1.1	268	14.7	14.7	0.5
4	247	1.3	1.2	0.5	290	3.8	3.6	-1.3	304	10.9	9.0	-6.1	289	14.8	14.0	-4.7	272	21.2	21.2	-0.8	278	29.3	29.0	-4.0	263	11.0	10.9	1.4
5	326	4.0	2.2	-3.3	296	4.9	4.4	-2.1	300	10.9	9.5	-5.4	295	11.8	10.7	-4.9	280	23.4	23.0	-4.2	273	27.0	27.0	-1.3	267	14.5	14.5	0.7
6	299	3.7	3.2	-1.8	308	6.1	4.8	-3.8	295	11.0	10.0	-4.7	292	12.1	11.2	-4.6	282	21.5	21.1	-4.3	274	24.1	24.1	-1.5	258	13.4	13.1	2.8
7	311	3.5	2.6	-2.3	297	4.7	4.2	-2.1	294	11.0	10.1	-4.4	287	12.1	11.6	-3.5	272	20.5	20.5	-0.6	263	26.2	26.0	3.1	254	11.4	11.0	3.1
8	300	3.0	2.6	-1.5	283	5.4	5.3	-1.2	299	11.2	9.8	-5.4	288	11.7	11.1	-3.7	279	19.6	19.4	-2.9	275	25.6	25.5	-2.4	273	14.8	14.8	-0.9
9	252	0.6	0.6	0.2	304	4.2	3.5	-2.4	295	10.6	9.6	-4.4	284	13.5	13.1	-3.3	276	21.6	21.5	-2.4	274	26.9	26.8	-1.8	269	12.0	12.0	0.3
10	66	3.2	-2.9	-1.3	281	4.3	4.2	-0.8	285	10.6	10.3	-2.7	283	10.1	9.9	-2.2	265	17.0	16.9	1.5	267	24.8	24.8	1.4	237	6.9	5.8	3.7
11	346	0.8	0.2	-0.8	301	3.7	3.2	-1.9	297	10.6	9.4	-4.8	296	11.9	10.7	-5.2	282	18.5	18.1	-3.9	272	21.1	21.1	-0.7	267	12.8	12.8	0.7
12	58	0.9	-0.8	-0.5	314	4.5	3.2	-3.1	303	10.2	8.5	-5.6	293	13.7	12.6	-5.3	281	18.5	18.2	-3.4	269	23.7	23.7	0.5	268	13.1	13.1	0.4
13	312	2.7	2.0	-1.8	313	3.5	2.6	-2.4	305	10.9	9.0	-6.2	295	11.5	10.5	-4.8	275	18.5	18.4	-1.6	268	23.3	23.3	0.9	267	13.1	13.1	0.7
14	134	4.2	-3.0	2.9	289	2.8	2.6	-0.9	300	8.4	7.3	-4.2	292	11.5	10.7	-4.3	273	18.3	18.3	-1.1	268	24.0	24.0	0.7	267	10.4	10.4	0.5
15	288	1.3	1.2	-0.4	306	4.1	3.3	-2.4	304	9.5	7.9	-5.3	292	12.6	11.7	-4.8	270	19.2	19.2	-0.1	270	22.0	22.0	-0.1	268	9.7	9.7	0.4
16	258	1.4	1.4	0.3	288	2.8	2.7	-0.9	299	9.4	8.2	-4.5	289	11.9	11.3	-3.8	270	19.6	19.6	-0.1	263	22.2	22.0	2.7	275	11.2	11.2	-1.0
17	319	0.9	0.6	-0.7	307	4.4	3.5	-2.6	303	12.3	10.3	-6.8	288	12.5	11.9	-3.8	271	18.1	18.1	-0.2	269	20.3	20.3	0.5	254	8.2	7.9	2.3
18	322	4.2	2.6	-3.3	305	5.6	4.6	-3.2	301	12.1	10.3	-6.3	293	12.5	11.5	-5.0	283	18.0	17.6	-4.0	261	21.1	20.8	3.3	274	10.7	10.7	-0.8
19	12	1.4	-0.3	-1.4	293	5.7	5.3	-2.2	302	11.9	10.1	-6.2	293	12.3	11.3	-4.9	274	19.5	19.4	-1.4	269	24.2	24.2	0.6	267	8.4	8.4	0.5
20	336	1.7	0.7	-1.6	308	5.4	4.3	-3.3	303	12.3	10.3	-6.7	296	12.4	11.1	-5.5	274	18.9	18.9	-1.2	266	21.9	21.8	1.6	262	9.0	8.9	1.3
21	117	1.8	-1.6	0.8	295	3.8	3.5	-1.6	304	9.0	7.5	-5.0	298	11.4	10.0	-5.4	281	17.8	17.5	-3.3	267	18.1	18.1	1.1	253	10.5	10.1	3.0
22	275	1.1	1.1	-0.1	298	4.2	3.7	-2.0	302	10.2	8.7	-5.4	290	10.4	9.8	-3.5	269	18.9	18.9	0.2	261	19.3	19.1	3.1	262	11.0	10.9	1.6
23	315	0.8	0.6	-0.6	302	5.4	4.6	-2.9	297	12.0	10.7	-5.5	293	12.3	11.3	-4.8	269	16.6	16.6	0.2	255	19.9	19.2	5.1	267	9.3	9.3	0.5
24	270	1.9	1.9	0.0	302	5.7	4.8	-3.0	295	11.7	10.6	-4.9	304	10.6	8.8	-5.9	281	15.6	15.3	-2.9	256	17.5	17.0	4.1	265	6.3	6.3	0.6
25	73	1.7	-1.6	-0.5	285	4.7	4.5	-1.2	307	12.4	9.9	-7.4	302	11.3	9.6	-6.0	273	14.9	14.9	-0.9	253	18.1	17.3	5.2	258	6.3	6.2	1.3
26	90	1.3	-1.3	0.0	299	3.9	3.4	-1.9	299	9.8	8.6	-4.7	296	10.3	9.3	-4.5	284	13.2	12.8	-3.3	259	15.8	15.5	2.9	261	5.2	5.1	0.8
27	132	1.3	-1.0	0.9	303	3.7	3.1	-2.0	308	9.6	7.6	-5.9	306	10.8	8.8	-6.3	279	14.7	14.5	-2.3	267	17.8	17.8	0.9	266	6.3	6.3	0.4
28	183	2.2	0.1	2.2	306	4.3	3.5	-2.5	297	10.5	9.3	-4.8	300	10.8	9.4	-5.4	272	14.1	14.1	-0.4	264	15.8	15.7	1.6	270	4.8	4.8	0.0
29	285	2.0	1.9	-0.5	300	5.1	4.4	-2.5	295	9.5	8.6	-4.1	286	10.8	10.4	-2.9	264	16.2	16.1	1.7	256	16.6	16.1	4.0	230	4.3	3.3	2.8
30	303	3.1	2.6	-1.7	293	6.5	6.0	-2.5	298	11.2	9.9	-5.2	291	11.1	10.4	-4.0	271	13.7	13.7	-0.2	259	15.0	14.7	2.9	246	4.4	4.0	1.8
31	212	1.5	0.8	1.3	293	5.3	4.9	-2.1	301	9.1	7.8	-4.7	281	9.4	9.2	-1.8	267	15.0	15.0	0.8	259	17.6	17.3	3.3	234	4.4	3.6	2.6

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	278	2.1	2.1	-0.3	292	5.5	5.1	-2.1	300	10.7	9.3	-5.3	282	9.2	9.0	-1.9	263	15.3	15.2	1.8	257	15.5	15.1	3.6	224	3.0	2.1	2.2
2	309	5.8	4.5	-3.7	288	6.6	6.3	-2.1	294	9.4	8.6	-3.9	290	10.4	9.8	-3.6	274	13.7	13.7	-0.9	258	13.4	13.1	2.9	246	4.9	4.5	2.0
3	15	1.6	-0.4	-1.5	301	4.8	4.1	-2.5	301	8.7	7.4	-4.5	286	7.6	7.3	-2.1	270	13.1	13.1	-0.1	255	13.9	13.5	3.5	224	6.9	4.8	4.9
4	22	1.8	-0.7	-1.7	305	2.4	2.0	-1.4	306	8.1	6.5	-4.8	284	7.2	7.0	-1.8	262	12.9	12.8	1.9	256	13.1	12.7	3.2	265	3.4	3.4	0.3
5	330	1.4	0.7	-1.2	300	3.4	2.9	-1.7	304	9.2	7.7	-5.1	288	7.4	7.0	-2.3	265	12.6	12.6	1.1	264	12.5	12.4	1.4	262	7.0	6.9	1.0
6	243	0.4	0.4	0.2	299	3.8	3.3	-1.8	291	6.9	6.4	-2.5	298	8.0	7.1	-3.7	270	12.8	12.8	-0.1	260	12.7	12.5	2.3	242	1.9	1.7	0.9
7	329	2.7	1.4	-2.3	275	3.4	3.4	-0.3	307	8.4	6.7	-5.1	296	8.1	7.3	-3.6	277	11.0	10.9	-1.3	266	10.7	10.7	0.8	256	0.8	0.8	0.2
8	172	3.5	-0.5	3.5	268	3.0	3.0	0.1	307	7.2	5.8	-4.3	289	5.8	5.5	-1.9	271	9.2	9.2	-0.1	262	10.7	10.6	1.5	87	2.0	-2.0	-0.1
9	110	3.0	-2.8	1.0	282	2.5	2.4	-0.5	314	7.5	5.4	-5.2	295	4.7	4.2	-2.0	272	11.2	11.2	-0.3	261	7.3	7.2	1.2	64	3.4	-3.1	-1.5
10	120	2.8	-2.4	1.4	272	2.7	2.7	-0.1	299	6.3	5.5	-3.0	285	5.9	5.7	-1.5	257	8.6	8.4	1.9	265	5.3	5.3	0.5	120	2.0	-1.7	1.0
11	162	2.6	-0.8	2.5	288	1.9	1.8	-0.6	308	5.4	4.3	-3.3	286	6.3	6.1	-1.7	269	8.0	8.0	0.2	261	6.1	6.0	1.0	243	0.4	0.4	0.2
12	133	2.1	-1.5	1.4	314	2.9	2.1	-2.0	308	6.1	4.8	-3.7	295	7.4	6.7	-3.1	273	5.4	5.4	-0.3	255	4.8	4.6	1.2	61	4.6	-4.0	-2.2
13	113	2.3	-2.1	0.9	290	3.7	3.5	-1.3	311	6.0	4.5	-3.9	278	5.6	5.5	-0.8	264	6.0	6.0	0.6	252	7.2	6.9	2.2	45	1.7	-1.2	-1.2
14	108	2.8	-2.7	0.9	300	4.4	3.8	-2.2	310	7.1	5.4	-4.6	288	4.7	4.5	-1.5	270	6.2	6.2	0.0	261	4.6	4.5	0.7	73	2.4	-2.3	-0.7
15	116	3.2	-2.9	1.4	275	3.4	3.4	-0.3	301	7.5	6.4	-3.9	295	5.4	4.9	-2.3	285	5.2	5.0	-1.3	281	4.2	4.1	-0.8	58	2.8	-2.4	-1.5
16	128	2.4	-1.9	1.5	275	2.5	2.5	-0.2	314	6.4	4.6	-4.5	293	4.3	4.0	-1.7	278	3.6	3.6	-0.5	286	2.9	2.8	-0.8	74	4.3	-4.1	-1.2
17	137	3.7	-2.5	2.7	313	1.6	1.2	-1.1	321	5.8	3.7	-4.5	313	3.7	2.7	-2.5	270	3.9	3.9	0.0	251	4.6	4.4	1.5	101	5.8	-5.7	1.1
18	100	2.7	-2.7	0.5	328	3.1	1.6	-2.6	316	6.4	4.4	-4.6	297	2.8	2.5	-1.3	267	3.8	3.8	0.2	256	4.4	4.3	1.1	56	6.1	-5.1	-3.4
19	105	5.3	-5.1	1.4	233	0.5	0.4	0.3	329	6.0	3.1	-5.1	326	1.8	1.0	-1.5	256	3.8	3.7	0.9	248	2.7	2.5	1.0	70	5.8	-5.4	-2.0
20	134	3.5	-2.5	2.4	264	1.8	1.8	0.2	319	4.0	2.6	-3.0	300	2.2	1.9	-1.1	256	2.1	2.0	0.5	203	4.1	1.6	3.8	85	6.3	-6.3	-0.6
21	149	2.1	-1.1	1.8	187	0.8	0.1	0.8	345	3.5	0.9	-3.4	242	2.7	2.4	1.3	241	4.1	3.6	2.0	242	3.8	3.4	1.8	59	7.2	-6.2	-3.7
22	180	1.5	0.0	1.5	261	1.3	1.3	0.2	326	2.3	1.3	-1.9	253	2.4	2.3	0.7	231	2.6	2.0	1.6	222	1.5	1.0	1.1	71	9.4	-8.9	-3.1
23	261	2.0	2.0	0.3	273	2.0	2.0	-0.1	320	3.5	2.3	-2.7	283	0.9	0.9	-0.2	270	0.5	0.5	0.0	187	0.8	0.1	0.8	86	7.1	-7.1	-0.5
24	151	1.8	-0.9	1.6	284	1.2	1.2	-0.3	331	3.5	1.7	-3.1	276	1.0	1.0	-0.1	205	1.7	0.7	1.5	201	3.0	1.1	2.8	80	4.8	-4.7	-0.8
25	297	0.2	0.2	-0.1	311	0.9	0.7	-0.6	319	4.4	2.9	-3.3	319	1.1	0.7	-0.8	225	0.6	0.4	0.4	121	0.6	-0.5	0.3	84	9.8	-9.7	-1.0
26	117	1.3	-1.2	0.6	300	1.6	1.4	-0.8	331	2.5	1.2	-2.2	39	0.6	-0.4	-0.5	153	0.7	-0.3	0.6	73	1.4	-1.3	-0.4	71	10.5	-9.9	-3.4
27	111	2.6	-2.4	0.9	95	1.1	-1.1	0.1	20	2.7	-0.9	-2.5	101	1.5	-1.5	0.3	107	1.0	-1.0	0.3	120	2.2	-1.9	1.1	69	8.4	-7.8	-3.0
28	115	4.1	-3.7	1.7	67	0.8	-0.7	-0.3	18	2.8	-0.9	-2.7	110	1.2	-1.1	0.4	113	4.0	-3.7	1.6	98	4.4	-4.4	0.6	74	11.7	-11.2	-3.3
29	116	3.0	-2.7	1.3	98	1.5	-1.5	0.2	341	3.6	1.2	-3.4	135	0.3	-0.2	0.2	112	1.8	-1.7	0.7	62	3.4	-3.0	-1.6	70	10.6	-10.0	-3.6
30	231	2.6	2.0	1.6	270	1.6	1.6	0.0	316	3.6	2.5	-2.6	240	0.8	0.7	0.4	171	1.2	-0.2	1.2	146	1.4	-0.8	1.2	55	11.4	-9.3	-6.6

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	173	0.8	-0.1	0.8	267	1.8	1.8	0.1	333	2.2	1.0	-2.0	270	0.7	0.7	0.0	111	1.4	-1.3	0.5	111	2.6	-2.4	0.9	66	9.9	-9.0	-4.1
2	250	3.0	2.8	1.0	292	2.4	2.2	-0.9	309	2.1	1.6	-1.3	270	0.7	0.7	0.0	115	1.9	-1.7	0.8	120	2.8	-2.4	1.4	70	11.2	-10.5	-3.9
3	284	0.4	0.4	-0.1	291	2.2	2.1	-0.8	315	2.3	1.6	-1.6	261	0.6	0.6	0.1	135	4.0	-2.8	2.8	107	5.5	-5.3	1.6	64	9.9	-8.9	-4.4
4	225	2.1	1.5	1.5	287	4.4	4.2	-1.3	305	4.7	3.9	-2.7	63	0.7	-0.6	-0.3	121	2.1	-1.8	1.1	99	3.8	-3.8	0.6	72	13.6	-12.9	-4.3
5	143	1.5	-0.9	1.2	272	2.5	2.5	-0.1	315	3.0	2.1	-2.1	252	0.9	0.9	0.3	155	2.3	-1.0	2.1	119	5.3	-4.6	2.6	76	15.0	-14.5	-3.7
6	272	2.6	2.6	-0.1	291	1.7	1.6	-0.6	311	3.2	2.4	-2.1	360	0.1	0.0	-0.1	107	2.1	-2.0	0.6	121	4.1	-3.5	2.1	90	13.2	-13.2	-0.1
7	253	2.4	2.3	0.7	339	2.8	1.0	-2.6	341	3.4	1.1	-3.2	106	1.9	-1.8	0.5	114	3.2	-2.9	1.3	112	6.3	-5.8	2.4	80	13.5	-13.3	-2.4
8	156	3.4	-1.4	3.1	169	0.5	-0.1	0.5	8	0.7	-0.1	-0.7	126	2.4	-1.9	1.4	111	4.5	-4.2	1.6	97	8.2	-8.1	1.0	86	8.7	-8.7	-0.6
9	177	2.0	-0.1	2.0	198	0.6	0.2	0.6	2	2.7	-0.1	-2.7	96	1.8	-1.8	0.2	110	4.0	-3.8	1.4	95	6.9	-6.9	0.6	80	13.2	-13.0	-2.3
10	247	2.5	2.3	1.0	225	0.8	0.6	0.6	18	2.0	-0.6	-1.9	114	2.4	-2.2	1.0	109	3.6	-3.4	1.2	81	6.1	-6.0	-1.0	71	14.3	-13.5	-4.6
11	153	1.8	-0.8	1.6	27	0.4	-0.2	-0.4	2	2.9	-0.1	-2.9	90	1.0	-1.0	0.0	110	4.5	-4.2	1.5	95	6.7	-6.7	0.6	85	12.9	-12.9	-1.1
12	130	2.6	-2.0	1.7	113	1.5	-1.4	0.6	85	1.1	-1.1	-0.1	111	1.9	-1.8	0.7	105	5.3	-5.1	1.4	101	5.2	-5.1	1.0	89	13.0	-13.0	-0.3
13	129	3.3	-2.6	2.1	111	2.6	-2.4	0.9	83	2.5	-2.5	-0.3	97	3.1	-3.1	0.4	107	5.1	-4.9	1.5	109	5.9	-5.6	1.9	67	14.7	-13.6	-5.7
14	122	4.4	-3.7	2.3	115	1.7	-1.5	0.7	113	2.1	-1.9	0.8	109	2.4	-2.3	0.8	107	4.4	-4.2	1.3	73	6.5	-6.2	-1.9	82	14.5	-14.4	-1.9
15	151	3.7	-1.8	3.2	142	1.1	-0.7	0.9	90	0.5	-0.5	0.0	106	2.2	-2.1	0.6	92	3.8	-3.8	0.1	101	5.1	-5.0	1.0	79	12.9	-12.7	-2.4
16	100	3.6	-3.5	0.6	132	1.2	-0.9	0.8	54	0.9	-0.7	-0.5	128	2.3	-1.8	1.4	99	5.7	-5.6	0.9	87	8.4	-8.4	-0.4	82	14.0	-13.9	-2.0
17	124	1.1	-0.9	0.6	130	1.7	-1.3	1.1	125	1.2	-1.0	0.7	108	2.3	-2.2	0.7	100	6.3	-6.2	1.1	88	9.2	-9.2	-0.3	81	16.8	-16.6	-2.7
18	131	3.0	-2.3	2.0	135	2.1	-1.5	1.5	53	0.5	-0.4	-0.3	96	3.6	-3.6	0.4	94	5.9	-5.9	0.4	82	9.1	-9.0	-1.2	84	13.9	-13.8	-1.5
19	141	3.3	-2.1	2.6	112	0.5	-0.5	0.2	115	1.4	-1.3	0.6	107	3.4	-3.2	1.0	84	5.3	-5.3	-0.6	50	5.9	-4.5	-3.8	76	16.2	-15.7	-4.0
20	132	2.5	-1.9	1.7	121	1.7	-1.5	0.9	86	1.4	-1.4	-0.1	121	2.9	-2.5	1.5	118	6.0	-5.3	2.8	91	6.1	-6.1	0.1	83	15.7	-15.6	-2.0
21	117	3.5	-3.1	1.6	115	3.1	-2.8	1.3	92	3.0	-3.0	0.1	104	4.0	-3.9	1.0	97	5.8	-5.8	0.7	92	10.2	-10.2	0.3	84	14.6	-14.5	-1.4
22	135	2.8	-2.0	2.0	115	3.5	-3.2	1.5	114	3.9	-3.6	1.6	127	3.5	-2.8	2.1	87	6.6	-6.6	-0.3	89	9.3	-9.3	-0.2	83	16.2	-16.1	-2.0
23	152	1.7	-0.8	1.5	121	3.1	-2.7	1.6	112	2.7	-2.5	1.0	103	3.9	-3.8	0.9	100	8.0	-7.9	1.4	94	10.2	-10.2	0.7	83	14.2	-14.1	-1.8
24	198	0.6	0.2	0.6	153	2.0	-0.9	1.8	140	2.3	-1.5	1.8	114	3.4	-3.1	1.4	104	6.8	-6.6	1.6	97	12.6	-12.5	1.6	78	14.5	-14.2	-3.1
25	70	8.3	-7.8	-2.9	156	1.0	-0.4	0.9	141	2.6	-1.6	2.0	123	3.0	-2.5	1.6	106	6.8	-6.5	1.9	91	10.0	-10.0	0.2	81	13.0	-12.8	-2.0
26	60	0.8	-0.7	-0.4	235	1.9	1.6	1.1	198	0.6	0.2	0.6	121	1.7	-1.5	0.9	93	5.8	-5.8	0.3	88	9.1	-9.1	-0.3	91	14.5	-14.5	0.2
27	153	2.9	-1.3	2.6	264	1.0	1.0	0.1	353	1.6	0.2	-1.6	107	1.0	-1.0	0.3	89	5.2	-5.2	-0.1	80	7.0	-6.9	-1.2	69	13.7	-12.8	-4.8
28	127	3.9	-3.1	2.3	315	0.6	0.4	-0.4	79	2.0	-2.0	-0.4	85	4.2	-4.2	-0.4	83	6.7	-6.7	-0.8	93	7.2	-7.2	0.4	79	16.5	-16.2	-3.1
29	111	7.1	-6.6	2.5	126	1.4	-1.1	0.8	102	1.9	-1.9	0.4	107	3.9	-3.7	1.1	106	7.8	-7.5	2.1	88	10.4	-10.4	-0.3	83	14.6	-14.5	-1.9
30	134	4.9	-3.5	3.4	104	2.1	-2.0	0.5	82	2.2	-2.2	-0.3	99	3.6	-3.6	0.6	110	6.6	-6.2	2.3	92	10.9	-10.9	0.4	87	17.3	-17.3	-0.9
31	135	2.4	-1.7	1.7	146	1.1	-0.6	0.9	104	2.1	-2.0	0.5	104	3.6	-3.5	0.9	79	6.0	-5.9	-1.2	80	9.6	-9.5	-1.6	78	17.7	-17.3	-3.7

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	105	2.4	-2.3	0.6	132	1.3	-1.0	0.9	101	3.1	-3.0	0.6	93	3.6	-3.6	0.2	96	4.8	-4.8	0.5	83	9.1	-9.0	-1.1	82	17.9	-17.7	-2.5
2	124	3.6	-3.0	2.0	137	1.6	-1.1	1.2	137	2.2	-1.5	1.6	101	3.7	-3.6	0.7	96	4.9	-4.9	0.5	81	9.4	-9.3	-1.4	83	15.4	-15.3	-1.8
3	114	4.3	-3.9	1.7	104	4.0	-3.9	1.0	96	2.8	-2.8	0.3	108	3.3	-3.1	1.0	103	5.7	-5.6	1.3	89	6.6	-6.6	-0.1	85	16.4	-16.3	-1.4
4	42	2.8	-1.9	-2.1	93	5.7	-5.7	0.3	94	2.9	-2.9	0.2	107	3.9	-3.7	1.1	90	5.2	-5.2	0.0	65	6.8	-6.2	-2.9	76	15.7	-15.2	-3.9
5	74	3.3	-3.2	-0.9	99	3.9	-3.9	0.6	93	3.5	-3.5	0.2	105	3.4	-3.3	0.9	87	5.6	-5.6	-0.3	86	8.9	-8.9	-0.6	79	17.0	-16.7	-3.3
6	349	0.5	0.1	-0.5	86	3.1	-3.1	-0.2	86	3.2	-3.2	-0.2	89	4.7	-4.7	-0.1	101	6.5	-6.4	1.2	84	7.6	-7.6	-0.8	80	17.9	-17.6	-3.1
7	153	3.0	-1.4	2.7	113	2.6	-2.4	1.0	108	3.6	-3.4	1.1	104	5.3	-5.1	1.3	109	8.7	-8.2	2.9	92	9.1	-9.1	0.3	89	15.2	-15.2	-0.2
8	252	2.0	1.9	0.6	111	4.0	-3.7	1.4	108	4.9	-4.7	1.5	115	4.3	-3.9	1.8	93	8.7	-8.7	0.4	90	10.2	-10.2	0.0	88	16.1	-16.1	-0.7
9	111	1.4	-1.3	0.5	102	5.1	-5.0	1.1	114	7.0	-6.4	2.9	100	6.0	-5.9	1.0	91	9.0	-9.0	0.2	88	10.1	-10.1	-0.4	83	17.4	-17.3	-2.2
10	103	2.7	-2.6	0.6	114	5.5	-5.0	2.2	118	5.7	-5.0	2.7	111	5.3	-4.9	1.9	101	7.5	-7.4	1.4	91	10.3	-10.3	0.2	84	15.8	-15.7	-1.7
11	122	2.8	-2.4	1.5	156	1.0	-0.4	0.9	106	1.8	-1.7	0.5	105	3.5	-3.4	0.9	94	7.7	-7.7	0.5	95	10.4	-10.4	1.0	74	14.3	-13.8	-3.9
12	287	1.7	1.6	-0.5	34	0.7	-0.4	-0.6	351	0.6	0.1	-0.6	79	1.5	-1.5	-0.3	98	5.9	-5.8	0.8	77	6.4	-6.2	-1.4	69	14.1	-13.1	-5.1
13	278	2.7	2.7	-0.4	72	0.9	-0.9	-0.3	117	0.7	-0.6	0.3	97	2.4	-2.4	0.3	74	3.6	-3.5	-1.0	83	6.2	-6.1	-0.8	72	11.7	-11.1	-3.7
14	292	2.9	2.7	-1.1	92	3.7	-3.7	0.1	93	3.3	-3.3	0.2	92	2.9	-2.9	0.1	98	4.9	-4.9	0.7	94	6.6	-6.6	0.5	83	9.1	-9.0	-1.1
15	358	2.4	0.1	-2.4	97	3.9	-3.9	0.5	97	4.3	-4.3	0.5	87	4.2	-4.2	-0.2	109	4.3	-4.1	1.4	96	6.0	-6.0	0.6	79	12.6	-12.4	-2.4
16	74	0.7	-0.7	-0.2	103	3.2	-3.1	0.7	106	2.9	-2.8	0.8	112	3.2	-3.0	1.2	112	3.8	-3.5	1.4	97	6.1	-6.1	0.7	74	13.1	-12.6	-3.7
17	75	2.4	-2.3	-0.6	92	3.0	-3.0	0.1	84	2.7	-2.7	-0.3	95	2.1	-2.1	0.2	109	5.3	-5.0	1.7	117	7.3	-6.5	3.3	85	15.1	-15.0	-1.3
18	108	2.2	-2.1	0.7	87	2.1	-2.1	-0.1	83	2.5	-2.5	-0.3	103	3.6	-3.5	0.8	107	5.1	-4.9	1.5	99	7.9	-7.8	1.3	82	15.0	-14.9	-2.1
19	114	4.7	-4.3	1.9	93	4.0	-4.0	0.2	90	3.1	-3.1	0.0	114	3.4	-3.1	1.4	102	5.2	-5.1	1.1	88	5.8	-5.8	-0.2	86	12.3	-12.3	-0.8
20	94	2.9	-2.9	0.2	97	3.4	-3.4	0.4	99	3.0	-3.0	0.5	113	3.6	-3.3	1.4	105	3.8	-3.7	1.0	83	6.4	-6.3	-0.8	76	12.6	-12.2	-3.0
21	86	2.9	-2.9	-0.2	75	2.0	-1.9	-0.5	80	2.3	-2.3	-0.4	98	2.9	-2.9	0.4	101	5.1	-5.0	1.0	105	6.4	-6.2	1.7	84	12.5	-12.4	-1.2
22	130	1.7	-1.3	1.1	90	3.7	-3.7	0.0	80	3.6	-3.5	-0.6	94	4.3	-4.3	0.3	102	5.4	-5.3	1.1	82	5.5	-5.4	-0.8	81	13.4	-13.2	-2.1
23	169	1.6	-0.3	1.6	77	3.6	-3.5	-0.8	77	3.2	-3.1	-0.7	116	3.0	-2.7	1.3	117	5.1	-4.6	2.3	106	7.5	-7.2	2.1	91	13.0	-13.0	0.2
24	166	0.8	-0.2	0.8	66	2.0	-1.8	-0.8	72	1.6	-1.5	-0.5	118	1.9	-1.7	0.9	113	2.6	-2.4	1.0	93	5.0	-5.0	0.3	77	10.5	-10.2	-2.3
25	204	1.2	0.5	1.1	330	1.4	0.7	-1.2	37	0.5	-0.3	-0.4	135	1.0	-0.7	0.7	122	3.6	-3.0	1.9	104	3.6	-3.5	0.9	72	10.3	-9.8	-3.2
26	143	2.5	-1.5	2.0	297	0.2	0.2	-0.1	180	0.4	0.0	0.4	109	1.8	-1.7	0.6	111	3.4	-3.2	1.2	104	4.5	-4.4	1.1	87	10.3	-10.3	-0.6
27	127	3.0	-2.4	1.8	85	1.2	-1.2	-0.1	93	2.1	-2.1	0.1	111	3.1	-2.9	1.1	103	4.3	-4.2	1.0	92	7.4	-7.4	0.2	70	11.7	-11.0	-3.9
28	129	1.9	-1.5	1.2	80	4.2	-4.1	-0.7	79	4.3	-4.2	-0.8	103	4.9	-4.8	1.1	110	4.7	-4.4	1.6	99	5.4	-5.3	0.8	79	12.3	-12.1	-2.4
29	86	1.6	-1.6	-0.1	92	3.0	-3.0	0.1	84	3.6	-3.6	-0.4	120	3.2	-2.8	1.6	120	3.4	-3.0	1.7	115	3.8	-3.5	1.6	81	8.7	-8.6	-1.4
30	108	2.9	-2.8	0.9	102	3.8	-3.7	0.8	100	4.2	-4.1	0.7	114	3.0	-2.7	1.2	129	4.5	-3.5	2.8	135	4.2	-3.0	3.0	99	8.7	-8.6	1.3
31	63	3.1	-2.8	-1.4	101	3.8	-3.7	0.7	76	2.1	-2.0	-0.5	125	3.3	-2.7	1.9	125	2.8	-2.3	1.6	134	4.2	-3.0	2.9	90	6.7	-6.7	0.0

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	43	2.6	-1.8	-1.9	103	2.2	-2.1	0.5	74	2.5	-2.4	-0.7	117	3.4	-3.0	1.5	136	3.9	-2.7	2.8	118	4.9	-4.3	2.3	91	9.0	-9.0	0.2
2	89	4.0	-4.0	-0.1	123	3.8	-3.2	2.1	124	2.7	-2.2	1.5	150	3.6	-1.8	3.1	109	2.1	-2.0	0.7	85	2.1	-2.1	-0.2	76	9.4	-9.1	-2.2
3	102	5.5	-5.4	1.1	94	1.6	-1.6	0.1	51	1.9	-1.5	-1.2	131	2.8	-2.1	1.8	137	1.8	-1.2	1.3	127	2.6	-2.1	1.6	79	7.5	-7.4	-1.4
4	105	8.0	-7.7	2.0	84	2.8	-2.8	-0.3	82	2.8	-2.8	-0.4	124	2.5	-2.1	1.4	130	2.3	-1.8	1.5	115	1.4	-1.3	0.6	88	9.4	-9.4	-0.4
5	82	4.9	-4.8	-0.7	72	2.6	-2.5	-0.8	62	3.0	-2.6	-1.4	95	2.1	-2.1	0.2	132	1.5	-1.1	1.0	100	1.7	-1.7	0.3	73	7.5	-7.2	-2.2
6	97	1.6	-1.6	0.2	10	1.1	-0.2	-1.1	39	1.3	-0.8	-1.0	159	0.9	-0.3	0.8	153	0.4	-0.2	0.4	97	1.7	-1.7	0.2	72	7.9	-7.5	-2.4
7	91	4.2	-4.2	0.1	80	1.1	-1.1	-0.2	84	0.9	-0.9	-0.1	132	1.2	-0.9	0.8	135	1.0	-0.7	0.7	130	0.8	-0.6	0.5	93	6.8	-6.8	0.3
8	103	7.8	-7.6	1.8	65	1.9	-1.7	-0.8	90	2.1	-2.1	0.0	157	1.3	-0.5	1.2	169	2.1	-0.4	2.1	138	4.2	-2.8	3.1	83	7.0	-6.9	-0.9
9	91	4.9	-4.9	0.1	52	2.3	-1.8	-1.4	68	2.7	-2.5	-1.0	173	0.8	-0.1	0.8	178	2.4	-0.1	2.4	215	4.0	2.3	3.3	89	4.7	-4.7	-0.1
10	118	3.0	-2.6	1.4	41	2.0	-1.3	-1.5	31	1.2	-0.6	-1.0	188	0.7	0.1	0.7	193	2.3	0.5	2.2	217	3.0	1.8	2.4	81	4.7	-4.6	-0.7
11	153	0.7	-0.3	0.6	90	1.9	-1.9	0.0	70	1.5	-1.4	-0.5	194	0.8	0.2	0.8	198	2.6	0.8	2.5	172	3.5	-0.5	3.5	73	6.5	-6.2	-1.9
12	135	0.8	-0.6	0.6	51	1.9	-1.5	-1.2	40	1.7	-1.1	-1.3	212	1.5	0.8	1.3	249	2.5	2.3	0.9	216	3.6	2.1	2.9	81	3.1	-3.1	-0.5
13	48	1.5	-1.1	-1.0	43	1.8	-1.2	-1.3	37	1.5	-0.9	-1.2	225	0.7	0.5	0.5	250	2.7	2.5	0.9	227	5.2	3.8	3.5	58	3.4	-2.9	-1.8
14	29	2.3	-1.1	-2.0	18	0.9	-0.3	-0.9	36	0.9	-0.5	-0.7	231	0.6	0.5	0.4	249	4.0	3.7	1.4	250	5.2	4.9	1.8	68	2.2	-2.0	-0.8
15	84	3.0	-3.0	-0.3	20	2.0	-0.7	-1.9	30	1.6	-0.8	-1.4	211	1.7	0.9	1.5	253	4.1	3.9	1.2	233	4.3	3.4	2.6	100	2.7	-2.7	0.5
16	46	3.0	-2.2	-2.1	338	1.1	0.4	-1.0	256	0.4	0.4	0.1	212	3.1	1.6	2.6	239	4.2	3.6	2.2	243	6.4	5.7	2.9	159	1.4	-0.5	1.3
17	88	2.7	-2.7	-0.1	18	1.6	-0.5	-1.5	45	1.4	-1.0	-1.0	226	3.3	2.4	2.3	258	5.1	5.0	1.1	253	7.5	7.2	2.2	166	0.4	-0.1	0.4
18	64	3.0	-2.7	-1.3	27	1.6	-0.7	-1.4	347	1.8	0.4	-1.8	249	3.1	2.9	1.1	248	5.9	5.5	2.2	249	7.1	6.6	2.5	77	1.8	-1.8	-0.4
19	349	1.6	0.3	-1.6	353	1.6	0.2	-1.6	325	1.6	0.9	-1.3	265	3.5	3.5	0.3	257	6.9	6.7	1.5	247	6.4	5.9	2.5	219	0.6	0.4	0.5
20	342	1.6	0.5	-1.5	3	2.2	-0.1	-2.2	346	1.2	0.3	-1.2	219	1.9	1.2	1.5	267	5.5	5.5	0.3	248	7.9	7.3	3.0	212	1.3	0.7	1.1
21	313	1.6	1.2	-1.1	324	1.9	1.1	-1.5	333	1.6	0.7	-1.4	254	2.5	2.4	0.7	243	7.5	6.7	3.4	252	9.5	9.0	2.9	268	3.5	3.5	0.1
22	35	1.6	-0.9	-1.3	23	1.5	-0.6	-1.4	345	2.0	0.5	-1.9	253	3.1	3.0	0.9	253	8.4	8.1	2.4	259	9.4	9.2	1.8	240	2.4	2.1	1.2
23	6	1.0	-0.1	-1.0	63	0.7	-0.6	-0.3	24	1.0	-0.4	-0.9	231	2.7	2.1	1.7	256	8.7	8.4	2.1	269	9.0	9.0	0.2	321	1.9	1.2	-1.5
24	41	0.9	-0.6	-0.7	54	1.7	-1.4	-1.0	90	0.3	-0.3	0.0	225	4.5	3.2	3.2	252	8.6	8.2	2.7	261	12.2	12.1	1.9	266	4.0	4.0	0.3
25	14	0.4	-0.1	-0.4	343	1.0	0.3	-1.0	299	1.0	0.9	-0.5	270	2.7	2.7	0.0	265	8.8	8.8	0.7	250	12.2	11.5	4.1	307	0.5	0.4	-0.3
26	292	1.8	1.7	-0.7	343	2.4	0.7	-2.3	339	2.5	0.9	-2.3	271	4.0	4.0	-0.1	264	9.1	9.0	1.0	251	10.8	10.2	3.6	298	3.2	2.8	-1.5
27	342	1.6	0.5	-1.5	355	2.3	0.2	-2.3	326	3.4	1.9	-2.8	254	4.8	4.6	1.3	261	10.1	10.0	1.6	257	14.7	14.3	3.2	283	2.2	2.1	-0.5
28	281	2.1	2.1	-0.4	325	2.4	1.4	-2.0	326	3.2	1.8	-2.7	265	4.5	4.5	0.4	263	10.8	10.7	1.3	252	12.8	12.2	4.0	277	2.3	2.3	-0.3
29	258	1.4	1.4	0.3	326	2.3	1.3	-1.9	309	3.8	3.0	-2.4	272	5.2	5.2	-0.2	258	10.6	10.4	2.2	259	12.5	12.3	2.4	303	3.7	3.1	-2.0
30	262	0.7	0.7	0.1	343	2.4	0.7	-2.3	338	4.3	1.6	-4.0	276	6.7	6.7	-0.7	261	12.8	12.7	1.9	257	16.9	16.4	3.9	279	4.0	4.0	-0.6

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	282	1.4	1.4	-0.3	331	2.9	1.4	-2.5	323	3.6	2.2	-2.9	279	6.6	6.5	-1.0	259	12.5	12.3	2.4	254	13.4	12.9	3.7	249	6.2	5.8	2.2
2	281	0.5	0.5	-0.1	325	2.9	1.7	-2.4	335	4.7	2.0	-4.3	277	5.5	5.5	-0.7	254	15.2	14.6	4.2	250	17.1	16.1	5.9	261	6.8	6.7	1.1
3	315	0.7	0.5	-0.5	329	2.6	1.3	-2.2	316	2.9	2.0	-2.1	261	5.5	5.4	0.9	260	13.8	13.6	2.4	257	17.6	17.2	3.9	265	6.9	6.9	0.6
4	202	0.5	0.2	0.5	315	1.4	1.0	-1.0	320	3.0	1.9	-2.3	262	6.0	5.9	0.8	260	14.8	14.6	2.5	253	17.3	16.6	5.0	270	10.7	10.7	0.0
5	128	3.1	-2.4	1.9	360	0.6	0.0	-0.6	284	1.2	1.2	-0.3	265	6.4	6.4	0.6	261	14.1	13.9	2.1	252	16.8	16.0	5.1	252	9.2	8.7	2.9
6	142	1.1	-0.7	0.9	325	2.4	1.4	-2.0	328	3.2	1.7	-2.7	279	5.9	5.8	-0.9	261	13.9	13.7	2.1	254	17.9	17.2	4.8	258	7.1	6.9	1.5
7	243	0.2	0.2	0.1	321	2.8	1.8	-2.2	317	4.0	2.7	-2.9	266	6.4	6.4	0.4	263	13.9	13.8	1.8	259	17.3	17.0	3.4	254	7.1	6.8	2.0
8	351	0.6	0.1	-0.6	330	3.8	1.9	-3.3	320	3.1	2.0	-2.4	273	7.2	7.2	-0.4	259	14.1	13.9	2.6	255	18.6	17.9	4.9	245	7.3	6.6	3.1
9	233	1.5	1.2	0.9	330	2.2	1.1	-1.9	315	3.3	2.3	-2.3	274	7.2	7.2	-0.5	266	14.8	14.8	1.1	260	16.9	16.6	3.0	254	7.8	7.5	2.1
10	295	2.1	1.9	-0.9	316	3.7	2.6	-2.7	308	5.5	4.3	-3.4	281	9.9	9.7	-1.9	264	16.6	16.5	1.7	264	20.6	20.5	2.1	262	6.9	6.8	0.9
11	279	1.3	1.3	-0.2	312	4.7	3.5	-3.1	316	7.2	5.0	-5.2	274	8.9	8.9	-0.6	275	19.2	19.1	-1.8	263	21.6	21.4	2.8	257	11.5	11.2	2.5
12	348	1.4	0.3	-1.4	302	3.9	3.3	-2.1	311	7.7	5.8	-5.1	279	8.7	8.6	-1.4	267	19.4	19.4	0.9	267	22.3	22.3	1.2	273	12.4	12.4	-0.7
13	320	1.6	1.0	-1.2	306	3.6	2.9	-2.1	299	5.8	5.1	-2.8	277	8.0	7.9	-1.0	267	19.0	19.0	1.0	264	20.3	20.2	2.2	265	11.0	11.0	1.0
14	309	2.1	1.6	-1.3	324	4.3	2.5	-3.5	320	5.2	3.4	-4.0	279	9.1	9.0	-1.5	262	18.4	18.2	2.6	258	22.9	22.4	4.6	250	11.7	11.0	4.1
15	319	3.2	2.1	-2.4	336	4.6	1.9	-4.2	307	4.9	3.9	-2.9	271	8.6	8.6	-0.2	262	21.3	21.1	2.9	257	24.3	23.7	5.4	259	13.6	13.4	2.5
16	351	1.9	0.3	-1.9	307	3.1	2.5	-1.9	301	4.5	3.9	-2.3	280	8.8	8.7	-1.6	268	20.7	20.7	0.8	262	25.9	25.6	3.8	267	12.8	12.8	0.7
17	45	0.3	-0.2	-0.2	323	3.0	1.8	-2.4	319	3.5	2.3	-2.6	275	10.7	10.7	-0.9	262	21.0	20.8	3.0	258	24.4	23.9	4.9	253	13.9	13.3	4.0
18	99	0.6	-0.6	0.1	311	3.7	2.8	-2.4	300	5.1	4.4	-2.5	272	10.0	10.0	-0.3	265	23.1	23.0	1.9	255	25.8	24.9	6.7	265	17.0	16.9	1.6
19	352	1.4	0.2	-1.4	314	4.2	3.0	-2.9	292	5.4	5.0	-2.0	265	9.6	9.6	0.8	262	23.2	22.9	3.4	258	24.5	23.9	5.2	261	13.9	13.7	2.2
20	360	1.7	0.0	-1.7	321	3.2	2.0	-2.5	312	5.2	3.9	-3.5	277	10.6	10.5	-1.2	266	23.4	23.4	1.5	264	26.4	26.3	2.7	263	17.1	17.0	2.2
21	329	1.7	0.9	-1.5	310	4.5	3.5	-2.9	306	5.6	4.5	-3.3	280	10.3	10.1	-1.8	271	24.8	24.8	-0.4	267	25.3	25.3	1.4	266	15.6	15.6	1.2
22	333	1.6	0.7	-1.4	318	4.7	3.2	-3.5	313	6.3	4.6	-4.3	291	9.0	8.4	-3.2	277	20.3	20.2	-2.4	269	25.4	25.4	0.4	262	17.3	17.1	2.4
23	315	2.8	2.0	-2.0	305	4.4	3.6	-2.5	304	5.5	4.6	-3.1	274	9.8	9.8	-0.6	272	25.5	25.5	-0.9	267	28.1	28.1	1.6	262	14.5	14.4	2.0
24	338	1.8	0.7	-1.7	304	3.7	3.1	-2.1	297	4.6	4.1	-2.1	280	10.8	10.6	-1.8	266	24.8	24.7	1.8	266	27.5	27.4	2.0	266	15.5	15.5	1.2
25	293	2.1	1.9	-0.8	315	3.5	2.5	-2.5	295	5.7	5.2	-2.4	272	10.3	10.3	-0.4	268	27.2	27.2	0.9	265	32.5	32.4	3.0	267	15.9	15.9	0.8
26	297	1.8	1.6	-0.8	303	4.6	3.9	-2.5	313	6.4	4.7	-4.4	283	11.4	11.1	-2.6	267	27.6	27.6	1.4	265	34.7	34.6	2.8	268	17.2	17.2	0.5
27	316	3.6	2.5	-2.6	307	4.6	3.7	-2.8	311	6.5	4.9	-4.2	282	11.8	11.5	-2.5	268	28.9	28.9	0.8	261	31.9	31.5	4.9	269	18.9	18.9	0.3
28	357	3.4	0.2	-3.4	319	3.3	2.2	-2.5	310	5.0	3.8	-3.2	276	8.4	8.4	-0.9	263	27.0	26.8	3.2	261	35.0	34.6	5.2	262	13.8	13.7	2.0
29	8	0.7	-0.1	-0.7	327	4.2	2.3	-3.5	317	4.8	3.3	-3.5	280	9.4	9.3	-1.6	263	22.8	22.7	2.6	264	31.1	30.9	3.2	257	14.0	13.6	3.2
30	356	1.4	0.1	-1.4	321	3.5	2.2	-2.7	315	3.7	2.6	-2.6	285	9.8	9.5	-2.5	272	25.8	25.8	-0.9	266	33.9	33.8	2.5	268	13.8	13.8	0.4
31	312	1.5	1.1	-1.0	324	2.9	1.7	-2.3	310	3.0	2.3	-1.9	280	9.4	9.3	-1.6	266	25.6	25.5	1.6	261	31.7	31.3	5.0	273	15.1	15.1	-0.9

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	25	1.7	-0.7	-1.5	328	2.8	1.5	-2.4	311	3.7	2.8	-2.4	284	10.9	10.6	-2.6	280	23.4	23.1	-4.0	266	32.0	31.9	2.2	275	18.5	18.4	-1.5
2	354	2.9	0.3	-2.9	317	2.3	1.6	-1.7	311	3.8	2.9	-2.5	280	12.6	12.4	-2.1	274	25.4	25.3	-1.8	268	30.5	30.5	1.3	273	14.9	14.9	-0.9
3	342	2.3	0.7	-2.2	315	2.8	2.0	-2.0	302	4.7	4.0	-2.5	285	12.5	12.1	-3.2	278	24.4	24.2	-3.4	262	30.9	30.6	4.1	278	19.5	19.3	-2.6
4	360	1.8	0.0	-1.8	307	3.8	3.0	-2.3	307	5.9	4.7	-3.6	282	12.8	12.5	-2.6	278	28.8	28.5	-3.8	270	34.5	34.5	-0.2	269	21.1	21.1	0.4
5	318	1.5	1.0	-1.1	313	4.7	3.4	-3.2	308	7.5	5.9	-4.6	294	12.4	11.3	-5.0	283	25.7	25.0	-5.8	271	32.9	32.9	-0.8	276	21.2	21.1	-2.1
6	306	0.9	0.7	-0.5	308	4.1	3.2	-2.5	310	6.0	4.6	-3.9	288	12.0	11.4	-3.7	278	24.5	24.3	-3.2	276	32.0	31.8	-3.4	263	16.5	16.4	2.0
7	322	1.1	0.7	-0.9	308	5.2	4.1	-3.2	307	8.1	6.5	-4.9	286	14.4	13.8	-4.0	276	27.8	27.7	-2.7	273	34.6	34.5	-1.9	279	20.0	19.7	-3.2
8	348	1.4	0.3	-1.4	321	3.6	2.3	-2.8	310	6.7	5.2	-4.3	288	12.3	11.7	-3.9	281	27.9	27.4	-5.1	273	30.6	30.5	-1.8	279	16.1	15.9	-2.6
9	306	2.2	1.8	-1.3	296	4.6	4.1	-2.0	302	7.4	6.3	-3.9	279	13.4	13.2	-2.0	274	29.3	29.2	-2.0	271	30.9	30.9	-0.3	274	21.4	21.3	-1.5
10	318	3.1	2.1	-2.3	323	3.5	2.1	-2.8	307	6.9	5.5	-4.1	292	13.4	12.4	-5.1	278	29.1	28.8	-4.2	267	35.5	35.5	1.7	269	19.1	19.1	0.4
11	342	2.5	0.8	-2.4	324	2.6	1.5	-2.1	306	6.1	4.9	-3.6	290	12.2	11.5	-4.1	271	28.1	28.1	-0.6	264	32.9	32.7	3.6	273	16.4	16.4	-0.9
12	317	2.6	1.8	-1.9	330	3.2	1.6	-2.8	312	5.9	4.4	-3.9	292	14.3	13.3	-5.3	283	27.5	26.8	-6.0	278	35.1	34.8	-4.6	277	16.8	16.7	-2.0
13	297	2.0	1.8	-0.9	315	4.0	2.8	-2.8	308	7.1	5.6	-4.3	286	13.9	13.4	-3.8	282	26.0	25.5	-5.2	276	32.7	32.5	-3.6	279	23.7	23.4	-3.6
14	311	2.9	2.2	-1.9	317	4.5	3.1	-3.3	308	7.9	6.2	-4.9	290	12.9	12.1	-4.4	274	28.5	28.4	-1.9	271	33.6	33.6	-0.5	269	20.5	20.5	0.5
15	332	2.6	1.2	-2.3	317	4.7	3.2	-3.4	308	7.0	5.5	-4.3	287	13.0	12.4	-3.9	276	27.3	27.1	-3.0	269	37.0	37.0	0.8	267	23.1	23.1	1.2
16	360	1.4	0.0	-1.4	308	3.1	2.4	-1.9	306	6.2	5.0	-3.6	285	12.3	11.9	-3.3	274	27.4	27.3	-1.7	270	33.4	33.4	-0.1	266	23.1	23.1	1.5
17	331	2.1	1.0	-1.8	320	3.3	2.1	-2.5	301	5.4	4.6	-2.8	277	14.0	13.9	-1.6	271	28.6	28.6	-0.5	260	39.4	38.8	6.7	261	25.1	24.8	3.8
18	342	2.3	0.7	-2.2	311	3.8	2.9	-2.5	295	6.7	6.1	-2.8	279	13.2	13.0	-2.1	263	29.7	29.5	3.4	261	37.5	37.0	6.1	265	23.5	23.4	2.1
19	22	0.5	-0.2	-0.5	313	3.7	2.7	-2.5	297	6.6	5.9	-3.0	277	14.1	14.0	-1.6	264	31.6	31.4	3.5	262	38.6	38.2	5.6	263	21.1	20.9	2.6
20	10	1.1	-0.2	-1.1	304	4.6	3.8	-2.6	302	5.9	5.0	-3.1	279	12.2	12.0	-2.0	267	31.1	31.1	1.5	262	38.2	37.9	5.1	270	27.0	27.0	0.1
21	343	2.4	0.7	-2.3	310	4.8	3.7	-3.1	301	6.1	5.2	-3.1	276	13.4	13.3	-1.5	266	29.1	29.0	1.8	262	36.7	36.3	5.1	264	27.2	27.0	2.9
22	279	1.3	1.3	-0.2	299	3.7	3.2	-1.8	296	5.2	4.7	-2.3	268	14.7	14.7	0.6	261	30.3	30.0	4.5	262	35.1	34.8	4.9	262	21.6	21.4	3.1
23	336	1.7	0.7	-1.6	313	3.4	2.5	-2.3	291	5.7	5.3	-2.0	273	14.6	14.6	-0.8	267	31.2	31.2	1.6	262	35.4	35.0	5.2	262	23.2	23.0	3.2
24	315	3.5	2.5	-2.5	304	4.2	3.5	-2.4	293	5.6	5.2	-2.2	273	13.8	13.8	-0.8	274	28.8	28.7	-1.8	268	36.6	36.6	1.5	272	25.2	25.2	-1.0
25	304	5.0	4.1	-2.8	300	5.3	4.6	-2.7	294	7.9	7.2	-3.2	278	16.5	16.3	-2.3	275	30.2	30.1	-2.4	269	35.2	35.2	0.9	274	24.6	24.5	-1.6
26	313	3.8	2.8	-2.6	295	4.0	3.6	-1.7	295	7.2	6.5	-3.0	280	16.3	16.1	-2.8	271	29.6	29.6	-0.7	268	36.3	36.3	1.1	266	22.6	22.6	1.5
27	331	3.7	1.8	-3.2	310	4.3	3.3	-2.8	291	7.9	7.4	-2.8	278	17.9	17.7	-2.4	272	36.7	36.7	-1.5	267	41.9	41.9	2.0	269	25.8	25.8	0.4
28	325	2.8	1.6	-2.3	302	4.6	3.9	-2.4	292	7.7	7.1	-2.9	278	18.3	18.1	-2.4	271	35.3	35.3	-0.9	265	40.2	40.0	3.7	269	25.3	25.3	0.3
29	302	3.2	2.7	-1.7	307	4.6	3.7	-2.8	300	7.4	6.4	-3.7	285	16.5	15.9	-4.3	271	35.4	35.4	-0.5	265	41.1	41.0	3.5	270	22.9	22.9	-0.1
30	322	3.3	2.0	-2.6	312	3.0	2.2	-2.0	292	8.3	7.7	-3.1	278	16.0	15.8	-2.2	271	32.9	32.9	-0.4	269	39.8	39.8	1.0	270	25.9	25.9	0.0

Daily Normals of Upper Air Winds (1971-2000)

LUCKNOW **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	326	2.7	1.5	-2.2	314	4.2	3.0	-2.9	293	7.4	6.8	-2.9	276	16.1	16.0	-1.7	272	34.8	34.8	-1.5	267	40.0	40.0	2.0	265	22.0	21.9	1.8
2	313	4.0	2.9	-2.7	304	4.0	3.3	-2.2	289	7.2	6.8	-2.3	279	17.4	17.2	-2.6	272	34.0	34.0	-1.0	268	39.6	39.6	1.2	267	24.7	24.7	1.3
3	323	2.5	1.5	-2.0	302	4.0	3.4	-2.1	293	7.2	6.6	-2.8	275	14.8	14.7	-1.4	269	33.1	33.1	0.4	264	37.1	36.9	3.6	267	25.4	25.4	1.2
4	315	3.1	2.2	-2.2	309	5.4	4.2	-3.4	291	7.9	7.4	-2.9	279	15.8	15.6	-2.5	273	30.7	30.7	-1.7	266	39.0	38.9	2.7	264	27.7	27.6	2.8
5	318	3.8	2.5	-2.8	308	6.1	4.8	-3.7	300	7.5	6.5	-3.8	281	17.0	16.7	-3.2	274	33.0	32.9	-2.2	266	39.2	39.1	2.4	272	23.3	23.3	-0.7
6	315	3.7	2.6	-2.6	301	5.4	4.6	-2.8	290	8.6	8.1	-2.9	278	16.5	16.3	-2.4	272	31.1	31.1	-1.3	266	41.7	41.6	2.8	270	27.1	27.1	-0.2
7	333	2.2	1.0	-2.0	305	4.5	3.7	-2.6	297	8.9	7.9	-4.0	282	16.6	16.2	-3.4	272	31.2	31.2	-1.1	271	39.0	39.0	-0.4	258	32.6	31.9	6.9
8	322	4.4	2.7	-3.5	308	5.1	4.0	-3.1	298	7.8	6.9	-3.6	279	17.6	17.4	-2.7	269	36.7	36.7	0.4	266	41.6	41.5	2.7	265	29.8	29.7	2.6
9	316	4.0	2.8	-2.9	311	4.3	3.2	-2.8	294	8.2	7.5	-3.4	274	16.6	16.6	-1.2	269	33.9	33.9	0.7	259	41.6	40.8	7.9	269	25.9	25.9	0.4
10	317	4.4	3.0	-3.2	303	5.7	4.8	-3.1	292	9.4	8.7	-3.6	281	18.2	17.9	-3.5	268	33.8	33.8	1.0	263	38.3	38.0	4.5	264	27.0	26.9	2.6
11	321	4.8	3.0	-3.7	310	5.5	4.2	-3.5	299	7.9	6.9	-3.9	279	17.8	17.6	-2.8	274	36.2	36.1	-2.3	267	39.8	39.7	2.1	268	28.5	28.5	1.2
12	308	4.2	3.3	-2.6	309	4.4	3.4	-2.8	293	8.8	8.1	-3.5	281	19.7	19.3	-3.7	276	37.5	37.3	-3.9	269	42.8	42.8	0.4	275	24.2	24.1	-1.9
13	310	5.2	4.0	-3.4	301	6.6	5.6	-3.4	296	9.6	8.6	-4.2	283	20.5	20.0	-4.7	277	37.5	37.2	-4.7	266	40.5	40.4	2.8	274	31.6	31.5	-2.4
14	310	5.5	4.2	-3.5	311	6.9	5.2	-4.5	297	9.5	8.5	-4.3	290	19.0	17.8	-6.6	277	34.6	34.4	-4.1	272	43.1	43.1	-1.7	274	28.8	28.7	-2.1
15	311	5.0	3.8	-3.3	307	6.2	5.0	-3.7	299	9.8	8.6	-4.8	279	18.9	18.7	-2.9	280	32.6	32.1	-5.5	275	38.3	38.2	-3.3	282	33.2	32.5	-6.8
16	312	4.8	3.6	-3.2	302	6.1	5.2	-3.2	292	8.7	8.0	-3.3	278	18.9	18.7	-2.6	277	35.7	35.4	-4.4	275	44.0	43.9	-3.5	278	31.9	31.6	-4.5
17	314	3.0	2.2	-2.1	306	5.4	4.4	-3.2	303	9.7	8.1	-5.3	284	18.2	17.7	-4.3	276	33.5	33.3	-3.7	273	41.1	41.1	-1.9	271	27.0	27.0	-0.6
18	324	3.1	1.8	-2.5	315	6.2	4.4	-4.4	304	9.7	8.1	-5.4	289	18.8	17.8	-6.2	279	33.9	33.5	-5.3	275	39.7	39.6	-3.3	276	29.5	29.3	-3.1
19	298	2.4	2.1	-1.1	309	4.6	3.6	-2.9	297	9.0	8.0	-4.1	279	17.1	16.9	-2.8	277	34.0	33.8	-4.0	272	43.3	43.3	-1.6	274	26.1	26.1	-1.6
20	305	4.0	3.3	-2.3	301	4.2	3.6	-2.2	294	9.5	8.7	-3.9	282	18.4	18.0	-3.8	274	37.1	37.0	-2.7	268	42.6	42.6	1.7	273	27.0	27.0	-1.2
21	306	2.6	2.1	-1.5	308	4.7	3.7	-2.9	302	8.2	7.0	-4.3	289	17.2	16.3	-5.5	272	32.7	32.7	-1.2	264	43.4	43.1	4.7	267	26.3	26.3	1.3
22	336	2.4	1.0	-2.2	307	4.6	3.7	-2.8	290	9.7	9.1	-3.3	277	18.2	18.1	-2.3	270	36.4	36.4	0.3	261	47.4	46.8	7.4	266	33.1	33.0	2.2
23	321	2.8	1.8	-2.2	298	4.1	3.6	-1.9	288	8.2	7.8	-2.6	274	20.6	20.5	-1.5	273	37.7	37.7	-1.7	262	46.4	45.9	6.6	268	30.3	30.3	1.2
24	330	2.0	1.0	-1.7	297	5.3	4.7	-2.4	292	7.6	7.1	-2.8	275	19.2	19.1	-1.8	272	35.5	35.5	-1.0	263	43.2	42.9	5.3	261	31.8	31.4	5.1
25	45	0.6	-0.4	-0.4	294	3.5	3.2	-1.4	282	8.5	8.3	-1.8	280	19.3	19.0	-3.4	275	39.1	39.0	-3.3	269	46.3	46.3	1.2	269	34.9	34.9	0.4
26	313	2.5	1.8	-1.7	298	4.4	3.9	-2.1	289	6.9	6.5	-2.3	277	19.0	18.9	-2.2	274	38.1	38.0	-2.8	271	45.5	45.5	-1.1	269	27.2	27.2	0.5
27	303	3.1	2.6	-1.7	306	4.2	3.4	-2.5	294	6.8	6.2	-2.7	279	18.0	17.8	-2.8	269	33.9	33.9	0.7	267	44.1	44.0	2.5	264	30.5	30.3	3.1
28	290	2.0	1.9	-0.7	298	4.4	3.9	-2.1	288	7.6	7.2	-2.3	273	15.2	15.2	-0.8	268	35.4	35.4	1.2	266	43.4	43.3	2.8	273	29.0	29.0	-1.3
29	315	3.4	2.4	-2.4	289	5.2	4.9	-1.7	291	8.3	7.7	-3.0	279	20.6	20.4	-3.1	278	34.7	34.3	-5.0	273	43.3	43.2	-2.1	273	31.8	31.7	-1.9
30	314	3.9	2.8	-2.7	296	5.8	5.2	-2.5	289	9.0	8.5	-2.9	274	20.9	20.8	-1.5	276	42.3	42.0	-4.6	274	47.3	47.2	-3.4	274	31.2	31.1	-2.2
31	322	3.3	2.0	-2.6	305	5.7	4.7	-3.3	293	10.2	9.4	-4.0	283	23.1	22.5	-5.1	273	39.7	39.6	-2.3	271	48.2	48.2	-0.9	270	30.0	30.0	-0.1

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	90	5.7	-5.7	0.0	74	3.6	-3.5	-1.0	295	2.3	2.1	-1.0	279	9.4	9.3	-1.5	272	16.9	16.9	-0.5	253	18.9	18.1	5.5	264	9.6	9.5	1.0
2	75	5.5	-5.3	-1.4	56	4.1	-3.4	-2.3	288	1.9	1.8	-0.6	281	6.9	6.8	-1.3	267	15.2	15.2	0.8	266	20.0	19.9	1.5	267	7.8	7.8	0.4
3	67	4.4	-4.1	-1.7	83	2.4	-2.4	-0.3	321	2.2	1.4	-1.7	289	9.0	8.5	-2.9	273	18.3	18.3	-0.8	270	20.6	20.6	-0.1	273	8.7	8.7	-0.4
4	74	4.8	-4.6	-1.3	58	3.6	-3.1	-1.9	13	1.3	-0.3	-1.3	287	5.9	5.6	-1.7	266	13.1	13.1	0.9	261	20.7	20.5	3.2	283	6.2	6.0	-1.4
5	73	4.5	-4.3	-1.3	67	3.9	-3.6	-1.5	222	1.2	0.8	0.9	262	6.5	6.4	0.9	258	14.9	14.6	3.1	240	17.4	15.1	8.6	275	11.4	11.4	-0.9
6	66	4.6	-4.2	-1.9	71	3.6	-3.4	-1.2	281	1.0	1.0	-0.2	271	7.8	7.8	-0.2	262	15.3	15.2	2.1	254	15.7	15.1	4.3	274	6.6	6.6	-0.5
7	73	5.1	-4.9	-1.5	76	3.2	-3.1	-0.8	256	0.8	0.8	0.2	277	5.9	5.9	-0.7	266	16.3	16.3	1.0	256	19.2	18.6	4.8	287	14.5	13.9	-4.2
8	70	4.7	-4.4	-1.6	68	3.5	-3.2	-1.3	27	0.4	-0.2	-0.4	282	6.2	6.1	-1.3	265	14.3	14.2	1.3	267	19.7	19.7	1.2	271	13.9	13.9	-0.3
9	77	5.1	-5.0	-1.2	92	3.8	-3.8	0.1	153	0.4	-0.2	0.4	268	6.2	6.2	0.2	269	15.2	15.2	0.2	273	14.7	14.7	-0.7	312	7.3	5.4	-4.9
10	87	4.2	-4.2	-0.2	97	3.5	-3.5	0.4	222	2.4	1.6	1.8	275	7.6	7.6	-0.7	260	15.0	14.8	2.5	259	13.6	13.3	2.6	277	7.1	7.0	-0.9
11	105	5.5	-5.3	1.4	81	4.0	-4.0	-0.6	288	0.6	0.6	-0.2	272	7.5	7.5	-0.2	270	11.0	11.0	0.0	261	12.8	12.7	1.9	267	6.4	6.4	0.3
12	124	3.6	-3.0	2.0	90	1.9	-1.9	0.0	257	3.2	3.1	0.7	283	6.9	6.7	-1.6	274	14.0	14.0	-0.9	254	14.2	13.6	4.0	273	8.8	8.8	-0.5
13	79	2.5	-2.5	-0.5	70	2.3	-2.2	-0.8	270	2.0	2.0	0.0	276	6.5	6.5	-0.7	267	16.1	16.1	0.8	254	16.1	15.5	4.4	270	7.1	7.1	0.0
14	93	3.5	-3.5	0.2	102	3.0	-2.9	0.6	253	1.0	1.0	0.3	260	6.6	6.5	1.1	273	16.2	16.2	-0.8	265	17.8	17.7	1.4	243	6.7	6.0	3.0
15	124	4.1	-3.4	2.3	120	2.8	-2.4	1.4	278	1.4	1.4	-0.2	260	7.7	7.6	1.3	268	18.5	18.5	0.8	262	20.4	20.2	2.8	230	6.0	4.6	3.8
16	112	2.2	-2.0	0.8	100	2.8	-2.8	0.5	276	2.0	2.0	-0.2	257	9.3	9.1	2.1	271	17.0	17.0	-0.3	263	18.5	18.4	2.1	256	11.4	11.1	2.8
17	87	3.3	-3.3	-0.2	88	3.1	-3.1	-0.1	339	1.4	0.5	-1.3	272	6.1	6.1	-0.2	273	15.5	15.5	-0.8	262	14.8	14.7	2.1	265	11.8	11.8	1.0
18	90	4.5	-4.5	0.0	63	3.6	-3.2	-1.6	328	3.2	1.7	-2.7	280	6.4	6.3	-1.1	272	15.6	15.6	-0.6	258	13.2	12.9	2.7	265	5.9	5.9	0.5
19	92	3.4	-3.4	0.1	69	3.9	-3.6	-1.4	329	2.1	1.1	-1.8	289	6.1	5.8	-2.0	275	14.1	14.0	-1.2	272	14.8	14.8	-0.4	288	6.9	6.6	-2.1
20	118	1.9	-1.7	0.9	45	1.6	-1.1	-1.1	346	2.5	0.6	-2.4	299	8.0	7.0	-3.9	271	12.6	12.6	-0.3	256	14.2	13.8	3.4	264	6.1	6.1	0.6
21	145	1.6	-0.9	1.3	56	1.8	-1.5	-1.0	347	4.1	0.9	-4.0	299	6.5	5.7	-3.1	264	12.0	11.9	1.3	238	10.2	8.6	5.4	190	6.2	1.1	6.1
22	82	2.9	-2.9	-0.4	63	3.4	-3.0	-1.5	353	4.0	0.5	-4.0	291	5.0	4.7	-1.8	253	15.5	14.8	4.5	241	12.6	11.0	6.1	256	5.4	5.2	1.3
23	117	3.5	-3.1	1.6	54	2.4	-1.9	-1.4	358	3.1	0.1	-3.1	291	4.5	4.2	-1.6	261	11.2	11.1	1.7	245	14.4	13.0	6.2	253	5.0	4.8	1.5
24	80	3.6	-3.5	-0.6	69	4.0	-3.7	-1.4	349	3.8	0.7	-3.7	283	4.3	4.2	-1.0	268	9.9	9.9	0.3	248	14.9	13.9	5.5	205	1.9	0.8	1.7
25	90	1.5	-1.5	0.0	60	4.0	-3.5	-2.0	355	4.6	0.4	-4.6	308	3.6	2.8	-2.2	270	10.2	10.2	0.0	249	13.3	12.4	4.8	191	1.6	0.3	1.6
26	84	2.7	-2.7	-0.3	51	4.3	-3.3	-2.7	10	4.0	-0.7	-3.9	315	2.8	2.0	-2.0	269	10.1	10.1	0.1	251	14.3	13.5	4.6	197	2.4	0.7	2.3
27	85	3.8	-3.8	-0.3	64	5.7	-5.1	-2.5	42	3.0	-2.0	-2.2	299	3.5	3.1	-1.7	260	10.2	10.0	1.8	227	14.2	10.4	9.7	257	5.2	5.1	1.2
28	94	4.4	-4.4	0.3	80	3.6	-3.5	-0.6	35	2.4	-1.4	-2.0	285	5.6	5.4	-1.4	264	9.8	9.7	1.0	252	16.6	15.8	5.2	243	7.4	6.6	3.3
29	86	4.3	-4.3	-0.3	57	4.5	-3.8	-2.5	21	3.9	-1.4	-3.6	316	5.6	3.9	-4.0	277	13.3	13.2	-1.7	247	15.1	13.9	5.8	245	6.8	6.1	2.9
30	94	2.8	-2.8	0.2	60	3.6	-3.1	-1.8	348	2.9	0.6	-2.8	309	5.8	4.5	-3.6	273	15.2	15.2	-0.7	265	13.7	13.6	1.2	279	6.7	6.6	-1.0
31	87	3.3	-3.3	-0.2	58	2.8	-2.4	-1.5	355	2.5	0.2	-2.5	303	6.9	5.8	-3.8	261	12.2	12.0	2.0	256	21.3	20.7	5.1	255	8.7	8.4	2.3

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	96	4.1	-4.1	0.4	72	2.6	-2.5	-0.8	333	3.8	1.7	-3.4	301	7.4	6.4	-3.8	266	16.0	16.0	1.0	272	18.0	18.0	-0.6	276	11.0	10.9	-1.1
2	124	3.6	-3.0	2.0	62	2.1	-1.9	-1.0	292	2.2	2.0	-0.8	288	7.6	7.2	-2.4	264	18.9	18.8	2.1	268	21.4	21.4	0.7	262	12.7	12.6	1.8
3	117	3.7	-3.3	1.7	72	2.3	-2.2	-0.7	324	3.2	1.9	-2.6	278	7.5	7.4	-1.0	274	17.5	17.5	-1.3	262	21.6	21.4	3.0	262	11.7	11.6	1.6
4	118	4.2	-3.7	2.0	93	2.1	-2.1	0.1	334	2.8	1.2	-2.5	281	9.6	9.4	-1.9	268	18.0	18.0	0.5	269	16.1	16.1	0.2	272	6.0	6.0	-0.2
5	124	2.7	-2.2	1.5	76	2.5	-2.4	-0.6	309	2.2	1.7	-1.4	282	7.9	7.7	-1.7	269	16.0	16.0	0.3	261	19.6	19.3	3.2	301	5.4	4.6	-2.8
6	123	3.7	-3.1	2.0	94	3.0	-3.0	0.2	345	1.6	0.4	-1.5	277	8.9	8.8	-1.1	257	17.8	17.3	4.0	251	16.3	15.4	5.3	272	6.1	6.1	-0.2
7	125	3.8	-3.1	2.2	106	3.5	-3.4	1.0	310	1.7	1.3	-1.1	274	7.2	7.2	-0.5	266	17.3	17.3	1.2	260	18.6	18.3	3.2	286	6.6	6.4	-1.8
8	139	2.9	-1.9	2.2	118	2.4	-2.1	1.1	288	2.6	2.5	-0.8	278	9.0	8.9	-1.2	265	18.9	18.8	1.5	254	17.6	16.9	4.8	276	5.1	5.1	-0.5
9	165	2.7	-0.7	2.6	113	1.3	-1.2	0.5	277	3.4	3.4	-0.4	287	9.6	9.2	-2.9	274	18.7	18.7	-1.3	250	19.3	18.1	6.6	273	11.1	11.1	-0.6
10	156	2.0	-0.8	1.8	131	0.9	-0.7	0.6	297	3.1	2.8	-1.4	283	10.1	9.8	-2.3	262	18.9	18.7	2.6	243	17.7	15.8	8.0	201	0.9	0.3	0.8
11	122	2.8	-2.4	1.5	81	1.3	-1.3	-0.2	327	4.0	2.2	-3.4	294	7.4	6.8	-3.0	267	15.0	15.0	0.8	245	17.9	16.2	7.5	237	13.5	11.3	7.3
12	101	2.5	-2.5	0.5	67	3.4	-3.1	-1.3	329	1.7	0.9	-1.5	287	7.7	7.4	-2.3	269	17.0	17.0	0.4	255	23.2	22.4	5.9	208	3.8	1.8	3.4
13	146	2.3	-1.3	1.9	84	1.9	-1.9	-0.2	343	2.1	0.6	-2.0	277	6.9	6.9	-0.8	266	15.6	15.6	1.2	258	16.5	16.1	3.5	323	4.0	2.4	-3.2
14	139	2.9	-1.9	2.2	97	2.4	-2.4	0.3	315	1.7	1.2	-1.2	268	6.5	6.5	0.2	272	13.7	13.7	-0.5	247	15.4	14.2	5.9	224	5.4	3.8	3.9
15	111	2.6	-2.4	0.9	90	1.9	-1.9	0.0	307	4.4	3.5	-2.6	272	7.6	7.6	-0.2	274	17.3	17.3	-1.2	257	18.7	18.2	4.3	253	10.5	10.1	3.0
16	155	1.7	-0.7	1.5	84	0.9	-0.9	-0.1	283	4.0	3.9	-0.9	271	8.7	8.7	-0.2	265	16.4	16.3	1.5	245	14.9	13.5	6.4	271	7.3	7.3	-0.1
17	142	3.6	-2.2	2.8	139	1.1	-0.7	0.8	286	5.2	5.0	-1.4	277	9.7	9.6	-1.1	266	14.6	14.6	1.1	241	16.2	14.1	7.9	259	7.8	7.7	1.5
18	180	3.2	0.0	3.2	180	1.4	0.0	1.4	285	4.8	4.6	-1.2	287	8.9	8.5	-2.6	271	13.8	13.8	-0.2	247	15.5	14.3	6.0	255	4.6	4.4	1.2
19	160	2.3	-0.8	2.2	113	1.3	-1.2	0.5	288	3.9	3.7	-1.2	287	7.6	7.3	-2.2	261	13.8	13.6	2.2	260	20.3	20.0	3.4	275	7.4	7.4	-0.6
20	174	3.8	-0.4	3.8	164	1.8	-0.5	1.7	285	4.3	4.2	-1.1	278	10.3	10.2	-1.4	276	13.4	13.3	-1.4	266	15.1	15.1	1.1	291	8.7	8.1	-3.1
21	177	4.4	-0.2	4.4	118	1.7	-1.5	0.8	292	3.5	3.2	-1.3	270	5.7	5.7	0.0	264	11.5	11.4	1.2	234	13.8	11.1	8.2	256	6.8	6.6	1.7
22	182	14.4	0.5	14.4	148	1.5	-0.8	1.3	301	4.7	4.0	-2.4	292	8.7	8.1	-3.2	274	14.8	14.8	-1.0	263	16.5	16.4	2.0	275	9.8	9.8	-0.8
23	182	2.5	0.1	2.5	135	1.3	-0.9	0.9	325	2.9	1.7	-2.4	293	7.5	6.9	-3.0	276	16.4	16.3	-1.6	261	15.4	15.2	2.3	284	6.8	6.6	-1.6
24	150	3.4	-1.7	3.0	148	1.9	-1.0	1.6	328	3.2	1.7	-2.7	296	5.9	5.3	-2.6	275	12.3	12.3	-1.1	267	15.5	15.5	0.7	278	8.0	7.9	-1.1
25	136	3.0	-2.1	2.2	120	1.6	-1.4	0.8	356	2.6	0.2	-2.6	283	6.6	6.4	-1.5	263	13.9	13.8	1.6	271	16.4	16.4	-0.2	289	11.3	10.7	-3.7
26	161	2.4	-0.8	2.3	106	0.7	-0.7	0.2	355	2.5	0.2	-2.5	275	6.0	6.0	-0.5	277	15.1	15.0	-1.8	262	15.6	15.4	2.2	265	8.5	8.5	0.7
27	126	2.6	-2.1	1.5	86	1.5	-1.5	-0.1	338	3.5	1.3	-3.3	265	8.8	8.8	0.7	276	14.7	14.6	-1.6	260	14.4	14.2	2.5	273	5.1	5.1	-0.3
28	148	2.2	-1.2	1.9	93	1.7	-1.7	0.1	14	2.1	-0.5	-2.0	287	6.3	6.0	-1.8	275	16.5	16.4	-1.5	264	12.5	12.4	1.3	253	8.4	8.0	2.4
29	81	0.6	-0.6	-0.1	75	3.8	-3.7	-1.0	36	2.9	-1.7	-2.3	322	4.3	2.7	-3.4	278	11.0	10.9	-1.5	245	11.7	10.6	4.9	267	4.2	4.2	0.2

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	152	1.5	-0.7	1.3	72	1.3	-1.2	-0.4	336	3.2	1.3	-2.9	293	5.7	5.3	-2.2	269	9.4	9.4	0.1	260	15.7	15.4	2.8	276	8.2	8.2	-0.8
2	148	2.2	-1.2	1.9	85	2.4	-2.4	-0.2	7	3.1	-0.4	-3.1	277	6.8	6.8	-0.8	274	16.0	16.0	-1.1	248	18.0	16.7	6.8	254	6.2	6.0	1.7
3	106	1.8	-1.7	0.5	108	2.6	-2.5	0.8	8	2.9	-0.4	-2.9	269	6.6	6.6	0.1	270	14.2	14.2	-0.1	251	17.5	16.5	5.7	242	7.4	6.5	3.5
4	110	2.3	-2.2	0.8	98	2.2	-2.2	0.3	5	3.2	-0.3	-3.2	298	4.5	4.0	-2.1	272	13.3	13.3	-0.5	244	17.8	16.0	7.8	265	9.8	9.8	0.8
5	163	2.7	-0.8	2.6	102	2.9	-2.8	0.6	20	4.5	-1.5	-4.2	271	8.1	8.1	-0.1	265	14.2	14.1	1.3	257	17.6	17.1	4.0	259	8.1	7.9	1.6
6	150	3.8	-1.9	3.3	111	2.5	-2.3	0.9	345	3.8	1.0	-3.7	280	5.3	5.2	-0.9	257	12.9	12.6	2.9	254	14.8	14.2	4.2	255	4.7	4.5	1.2
7	174	3.1	-0.3	3.1	123	3.1	-2.6	1.7	346	3.7	0.9	-3.6	273	5.5	5.5	-0.3	262	14.1	14.0	1.9	254	13.8	13.2	3.9	274	9.5	9.5	-0.7
8	158	2.9	-1.1	2.7	107	2.4	-2.3	0.7	356	2.9	0.2	-2.9	281	5.2	5.1	-1.0	276	13.6	13.5	-1.5	252	13.9	13.2	4.3	220	4.5	2.9	3.4
9	180	3.0	0.0	3.0	130	2.5	-1.9	1.6	358	3.1	0.1	-3.1	279	5.9	5.8	-0.9	275	13.6	13.6	-1.1	251	15.8	14.9	5.2	258	7.9	7.7	1.6
10	178	3.3	-0.1	3.3	123	3.1	-2.6	1.7	357	2.0	0.1	-2.0	265	4.7	4.7	0.4	265	14.1	14.0	1.3	252	17.7	16.8	5.5	278	8.9	8.8	-1.3
11	171	3.7	-0.6	3.7	123	3.1	-2.6	1.7	360	2.8	0.0	-2.8	268	6.2	6.2	0.2	272	16.6	16.6	-0.7	258	17.6	17.2	3.7	264	6.3	6.3	0.7
12	210	4.6	2.3	4.0	144	0.9	-0.5	0.7	352	3.6	0.5	-3.6	295	5.9	5.3	-2.5	262	16.9	16.7	2.4	252	19.4	18.5	6.0	287	8.2	7.8	-2.4
13	195	4.8	1.2	4.6	155	1.7	-0.7	1.5	359	4.0	0.1	-4.0	296	8.3	7.5	-3.6	265	16.5	16.4	1.4	262	18.1	17.9	2.6	271	12.2	12.2	-0.2
14	180	4.3	0.0	4.3	141	1.4	-0.9	1.1	357	3.6	0.2	-3.6	295	6.7	6.1	-2.8	264	17.7	17.6	1.7	253	20.0	19.1	5.9	258	6.2	6.1	1.3
15	175	4.6	-0.4	4.6	130	2.6	-2.0	1.7	6	2.7	-0.3	-2.7	319	6.5	4.2	-4.9	273	15.0	15.0	-0.7	265	16.8	16.7	1.4	228	6.4	4.8	4.3
16	190	4.1	0.7	4.0	133	2.3	-1.7	1.6	8	4.1	-0.6	-4.1	317	4.5	3.1	-3.3	270	13.4	13.4	-0.1	272	16.8	16.8	-0.6	271	8.6	8.6	-0.1
17	195	2.7	0.7	2.6	149	2.6	-1.3	2.2	33	3.5	-1.9	-2.9	302	2.8	2.4	-1.5	266	10.1	10.1	0.7	256	16.2	15.7	3.9	255	10.7	10.4	2.7
18	205	3.8	1.6	3.5	143	2.1	-1.3	1.7	7	2.4	-0.3	-2.4	283	4.1	4.0	-0.9	263	14.9	14.8	1.8	264	20.5	20.4	2.2	253	13.5	12.9	3.9
19	195	3.1	0.8	3.0	142	1.8	-1.1	1.4	351	3.1	0.5	-3.1	306	4.8	3.9	-2.8	261	11.7	11.6	1.8	245	17.1	15.5	7.2	264	8.4	8.4	0.9
20	198	4.1	1.3	3.9	143	1.5	-0.9	1.2	350	3.5	0.6	-3.4	301	5.8	5.0	-3.0	265	15.0	15.0	1.2	263	18.5	18.4	2.3	270	11.8	11.8	0.1
21	193	5.4	1.2	5.3	166	2.1	-0.5	2.0	336	4.2	1.7	-3.8	290	4.8	4.5	-1.6	270	15.0	15.0	0.0	263	16.5	16.4	2.0	256	3.6	3.5	0.9
22	190	4.5	0.8	4.4	151	1.3	-0.6	1.1	4	4.0	-0.3	-4.0	288	4.5	4.3	-1.4	285	13.3	12.9	-3.4	263	14.9	14.8	1.9	295	5.0	4.5	-2.1
23	188	5.8	0.8	5.7	170	2.9	-0.5	2.9	353	3.2	0.4	-3.2	309	6.5	5.0	-4.1	277	13.7	13.6	-1.7	261	18.3	18.1	3.0	273	10.4	10.4	-0.5
24	180	5.5	0.0	5.5	159	2.8	-1.0	2.6	349	2.6	0.5	-2.6	290	4.6	4.3	-1.6	271	14.8	14.8	-0.3	264	17.4	17.3	1.9	265	14.7	14.6	1.3
25	180	5.5	0.0	5.5	148	3.2	-1.7	2.7	324	3.1	1.8	-2.5	290	4.8	4.5	-1.6	270	18.1	18.1	0.1	261	19.7	19.4	3.2	256	6.3	6.1	1.5
26	185	3.5	0.3	3.5	143	2.1	-1.3	1.7	332	3.0	1.4	-2.6	291	5.0	4.7	-1.8	272	16.3	16.3	-0.7	256	19.6	19.1	4.6	283	10.0	9.7	-2.3
27	183	3.4	0.2	3.4	176	1.5	-0.1	1.5	350	2.8	0.5	-2.8	313	3.8	2.8	-2.6	270	15.9	15.9	-0.1	266	15.1	15.1	1.0	293	7.1	6.5	-2.8
28	183	3.7	0.2	3.7	121	0.6	-0.5	0.3	2	3.7	-0.1	-3.7	335	2.9	1.2	-2.6	279	12.1	12.0	-1.9	266	15.1	15.1	1.1	341	3.1	1.0	-2.9
29	172	4.2	-0.6	4.2	150	2.2	-1.1	1.9	13	3.2	-0.7	-3.1	315	3.7	2.6	-2.6	263	11.2	11.1	1.3	249	15.5	14.5	5.5	284	3.0	2.9	-0.7
30	187	5.0	0.6	5.0	145	1.6	-0.9	1.3	3	4.1	-0.2	-4.1	317	3.7	2.5	-2.7	265	11.0	11.0	0.9	249	13.2	12.3	4.8	250	3.5	3.3	1.2
31	193	5.7	1.3	5.5	164	2.2	-0.6	2.1	23	4.0	-1.6	-3.7	339	2.5	0.9	-2.3	265	11.6	11.6	1.0	240	16.2	14.0	8.1	261	7.5	7.4	1.2

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	172	3.7	-0.5	3.7	133	2.2	-1.6	1.5	38	5.2	-3.2	-4.1	297	2.8	2.5	-1.3	257	11.3	11.0	2.6	255	13.5	13.1	3.4	286	4.7	4.5	-1.3
2	178	5.2	-0.2	5.2	156	3.7	-1.5	3.4	27	3.4	-1.5	-3.0	308	1.1	0.9	-0.7	267	12.0	12.0	0.6	242	14.4	12.7	6.7	260	5.5	5.4	1.0
3	172	5.3	-0.7	5.3	148	3.6	-1.9	3.0	33	4.0	-2.2	-3.4	277	2.4	2.4	-0.3	253	13.0	12.4	3.8	242	12.0	10.6	5.6	306	3.2	2.6	-1.9
4	165	5.2	-1.3	5.0	154	4.1	-1.8	3.7	55	3.8	-3.1	-2.2	274	4.4	4.4	-0.3	261	14.2	14.0	2.3	262	15.0	14.9	2.1	39	3.2	-2.0	-2.5
5	168	4.4	-0.9	4.3	148	3.9	-2.1	3.3	65	3.1	-2.8	-1.3	264	5.0	5.0	0.5	267	15.3	15.3	0.8	253	14.4	13.8	4.2	293	3.9	3.6	-1.5
6	174	3.8	-0.4	3.8	114	3.0	-2.7	1.2	35	3.7	-2.1	-3.0	285	5.4	5.2	-1.4	275	13.8	13.7	-1.2	255	16.2	15.7	4.1	248	2.7	2.5	1.0
7	200	4.7	1.6	4.4	143	1.5	-0.9	1.2	16	3.7	-1.0	-3.6	327	4.2	2.3	-3.5	291	12.7	11.8	-4.6	273	10.4	10.4	-0.6	234	1.4	1.1	0.8
8	202	4.6	1.7	4.3	188	1.4	0.2	1.4	5	4.3	-0.4	-4.3	297	3.6	3.2	-1.6	279	11.6	11.4	-1.9	267	12.0	12.0	0.7	280	4.5	4.4	-0.8
9	187	5.6	0.7	5.6	178	2.9	-0.1	2.9	9	3.3	-0.5	-3.3	293	3.0	2.8	-1.2	269	9.4	9.4	0.2	256	11.9	11.6	2.8	252	5.1	4.8	1.6
10	201	5.3	1.9	5.0	178	2.3	-0.1	2.3	7	3.4	-0.4	-3.4	291	3.4	3.2	-1.2	258	10.5	10.3	2.1	249	15.1	14.1	5.5	247	4.8	4.4	1.9
11	181	4.3	0.1	4.3	162	2.0	-0.6	1.9	11	3.1	-0.6	-3.0	318	2.5	1.7	-1.9	274	9.8	9.8	-0.6	244	17.3	15.6	7.5	259	4.9	4.8	0.9
12	206	3.4	1.5	3.1	183	1.9	0.1	1.9	23	3.3	-1.3	-3.0	296	3.2	2.9	-1.4	283	9.8	9.6	-2.2	255	11.1	10.7	2.9	240	2.4	2.1	1.2
13	195	5.1	1.3	4.9	182	2.7	0.1	2.7	22	2.4	-0.9	-2.2	298	2.4	2.1	-1.1	262	9.1	9.0	1.3	240	11.7	10.1	5.9	168	2.9	-0.6	2.8
14	189	4.4	0.7	4.3	165	2.0	-0.5	1.9	14	3.7	-0.9	-3.6	293	2.6	2.4	-1.0	258	8.8	8.6	1.8	247	13.8	12.7	5.5	265	7.5	7.5	0.6
15	181	5.0	0.1	5.0	156	3.4	-1.4	3.1	41	3.8	-2.5	-2.9	327	2.0	1.1	-1.7	258	10.5	10.3	2.1	244	16.5	14.9	7.2	269	7.6	7.6	0.1
16	176	4.4	-0.3	4.4	170	3.5	-0.6	3.4	50	4.5	-3.4	-2.9	317	2.1	1.4	-1.5	258	12.3	12.0	2.5	247	17.2	15.8	6.8	243	4.9	4.4	2.2
17	176	4.1	-0.3	4.1	143	2.5	-1.5	2.0	29	2.9	-1.4	-2.5	263	3.3	3.3	0.4	246	11.3	10.3	4.6	228	11.1	8.3	7.4	286	1.9	1.8	-0.5
18	196	5.4	1.5	5.2	144	2.2	-1.3	1.8	32	3.9	-2.1	-3.3	313	2.1	1.5	-1.4	236	13.1	10.9	7.3	239	19.4	16.7	9.9	237	3.3	2.8	1.8
19	200	4.4	1.5	4.1	162	2.8	-0.9	2.7	45	4.4	-3.1	-3.1	349	1.5	0.3	-1.5	238	12.3	10.5	6.5	230	17.5	13.5	11.2	214	8.0	4.5	6.6
20	184	5.1	0.4	5.1	140	2.6	-1.7	2.0	25	3.8	-1.6	-3.5	328	2.2	1.2	-1.9	241	11.3	9.9	5.4	232	18.7	14.7	11.6	245	4.5	4.1	1.9
21	190	5.6	1.0	5.5	156	2.4	-1.0	2.2	29	3.9	-1.9	-3.4	311	2.0	1.5	-1.3	263	12.5	12.4	1.6	234	18.8	15.2	11.1	239	5.7	4.9	2.9
22	185	6.1	0.5	6.1	163	2.4	-0.7	2.3	30	3.4	-1.7	-3.0	292	1.6	1.5	-0.6	252	11.0	10.5	3.4	251	18.3	17.3	5.9	275	3.6	3.6	-0.3
23	188	5.6	0.8	5.5	177	2.0	-0.1	2.0	33	4.0	-2.2	-3.4	299	3.1	2.7	-1.5	259	12.4	12.2	2.3	249	16.4	15.3	6.0	267	2.1	2.1	0.1
24	189	5.5	0.9	5.4	173	2.3	-0.3	2.3	19	3.6	-1.2	-3.4	294	3.2	2.9	-1.3	260	12.6	12.4	2.2	257	15.5	15.1	3.6	236	2.3	1.9	1.3
25	193	3.7	0.8	3.6	167	1.8	-0.4	1.8	3	3.4	-0.2	-3.4	303	3.1	2.6	-1.7	274	12.5	12.5	-0.8	250	17.9	16.8	6.1	280	3.6	3.5	-0.6
26	205	4.7	2.0	4.3	177	1.9	-0.1	1.9	29	2.1	-1.0	-1.8	338	3.5	1.3	-3.3	269	12.1	12.1	0.3	246	15.0	13.7	6.0	231	3.2	2.5	2.0
27	204	5.7	2.3	5.2	158	1.6	-0.6	1.5	26	4.9	-2.1	-4.4	358	3.0	0.1	-3.0	277	9.6	9.5	-1.1	244	13.4	12.0	5.9	45	0.7	-0.5	-0.5
28	206	6.4	2.8	5.7	201	1.7	0.6	1.6	15	4.3	-1.1	-4.2	360	4.9	0.0	-4.9	267	8.3	8.3	0.4	246	11.2	10.2	4.6	91	5.0	-5.0	0.1
29	206	6.0	2.6	5.4	283	0.9	0.9	-0.2	11	5.3	-1.0	-5.2	334	5.0	2.2	-4.5	266	12.5	12.5	0.9	244	15.1	13.6	6.5	170	2.7	-0.5	2.7
30	192	6.4	1.3	6.3	214	2.9	1.6	2.4	360	5.6	0.0	-5.6	351	6.1	1.0	-6.0	290	9.0	8.4	-3.1	255	10.6	10.3	2.7	91	4.8	-4.8	0.1

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	203	5.8	2.3	5.3	211	2.3	1.2	2.0	17	5.1	-1.5	-4.9	359	4.4	0.1	-4.4	273	8.3	8.3	-0.5	241	10.9	9.5	5.3	138	3.8	-2.5	2.8
2	205	5.2	2.2	4.7	204	1.7	0.7	1.6	2	3.5	-0.1	-3.5	357	4.2	0.2	-4.2	270	5.7	5.7	0.0	240	8.4	7.3	4.2	123	4.8	-4.0	2.6
3	190	6.2	1.1	6.1	202	2.2	0.8	2.0	22	4.2	-1.6	-3.9	350	2.8	0.5	-2.8	275	5.0	5.0	-0.4	234	5.3	4.3	3.1	136	5.5	-3.8	4.0
4	187	5.9	0.7	5.9	176	2.6	-0.2	2.6	33	4.6	-2.5	-3.9	25	2.9	-1.2	-2.6	271	6.3	6.3	-0.1	251	7.6	7.2	2.5	142	4.4	-2.7	3.5
5	184	5.3	0.4	5.3	180	1.6	0.0	1.6	24	3.9	-1.6	-3.6	354	1.8	0.2	-1.8	272	5.3	5.3	-0.2	238	8.1	6.9	4.3	117	3.6	-3.2	1.6
6	165	4.1	-1.1	4.0	162	2.5	-0.8	2.4	22	5.0	-1.9	-4.6	356	1.5	0.1	-1.5	264	6.4	6.4	0.7	255	5.9	5.7	1.5	136	3.2	-2.2	2.3
7	183	3.6	0.2	3.6	192	1.4	0.3	1.4	37	4.8	-2.9	-3.8	17	1.7	-0.5	-1.6	276	4.9	4.9	-0.5	248	6.3	5.8	2.4	121	10.0	-8.5	5.2
8	166	3.7	-0.9	3.6	165	2.4	-0.6	2.3	39	4.0	-2.5	-3.1	47	4.5	-3.3	-3.1	328	1.3	0.7	-1.1	203	5.2	2.0	4.8	96	6.1	-6.1	0.6
9	206	2.8	1.2	2.5	177	1.7	-0.1	1.7	40	4.0	-2.6	-3.1	25	3.8	-1.6	-3.4	259	4.6	4.5	0.9	256	6.0	5.8	1.4	115	3.8	-3.4	1.6
10	212	5.7	3.0	4.8	222	3.0	2.0	2.2	357	3.9	0.2	-3.9	351	2.6	0.4	-2.6	275	5.3	5.3	-0.5	242	6.9	6.1	3.2	91	6.2	-6.2	0.1
11	224	5.0	3.5	3.6	236	1.8	1.5	1.0	12	3.9	-0.8	-3.8	358	2.9	0.1	-2.9	258	5.0	4.9	1.0	224	6.4	4.4	4.6	124	6.6	-5.5	3.7
12	228	4.8	3.6	3.2	243	3.8	3.4	1.7	6	4.4	-0.5	-4.4	357	3.8	0.2	-3.8	272	5.1	5.1	-0.2	226	8.5	6.1	5.9	110	7.1	-6.7	2.4
13	243	3.3	2.9	1.5	230	2.3	1.8	1.5	1	5.3	-0.1	-5.3	2	2.3	-0.1	-2.3	262	2.2	2.2	0.3	246	4.4	4.0	1.8	113	6.9	-6.4	2.7
14	214	2.2	1.2	1.8	211	3.1	1.6	2.7	18	4.2	-1.3	-4.0	22	4.0	-1.5	-3.7	270	3.0	3.0	0.0	255	3.4	3.3	0.9	91	9.0	-9.0	0.1
15	235	2.4	2.0	1.4	162	1.6	-0.5	1.5	24	3.9	-1.6	-3.6	20	4.0	-1.4	-3.8	266	1.3	1.3	0.1	223	2.2	1.5	1.6	101	10.8	-10.6	2.1
16	238	4.9	4.2	2.6	267	1.8	1.8	0.1	21	4.9	-1.8	-4.6	34	4.7	-2.6	-3.9	239	2.9	2.5	1.5	164	3.3	-0.9	3.2	91	12.9	-12.9	0.3
17	243	6.3	5.6	2.8	297	2.2	2.0	-1.0	27	5.6	-2.6	-5.0	10	4.8	-0.8	-4.7	292	1.1	1.0	-0.4	175	4.4	-0.4	4.4	96	12.3	-12.2	1.2
18	235	6.4	5.2	3.7	264	4.6	4.6	0.5	4	6.4	-0.5	-6.4	2	5.7	-0.2	-5.7	283	2.2	2.1	-0.5	145	4.2	-2.4	3.4	108	8.9	-8.4	2.8
19	243	5.9	5.2	2.7	272	3.6	3.6	-0.1	359	6.0	0.1	-6.0	3	4.1	-0.2	-4.1	274	2.9	2.9	-0.2	183	5.7	0.3	5.7	90	15.2	-15.2	0.0
20	257	7.8	7.6	1.8	270	4.7	4.7	0.0	345	6.2	1.6	-6.0	27	2.5	-1.1	-2.2	242	4.2	3.7	2.0	180	6.9	0.0	6.9	110	13.9	-13.0	4.8
21	255	5.9	5.7	1.5	262	4.3	4.3	0.6	5	4.3	-0.4	-4.3	27	2.5	-1.1	-2.2	245	2.1	1.9	0.9	140	2.3	-1.5	1.8	106	14.9	-14.3	4.1
22	242	4.4	3.9	2.1	273	3.3	3.3	-0.2	358	3.8	0.1	-3.8	5	3.8	-0.3	-3.8	270	2.8	2.8	0.0	149	6.1	-3.1	5.2	93	12.8	-12.8	0.6
23	230	7.5	5.8	4.8	263	4.7	4.7	0.6	357	3.8	0.2	-3.8	42	5.0	-3.3	-3.7	304	1.1	0.9	-0.6	184	3.9	0.3	3.9	104	13.9	-13.5	3.3
24	237	7.0	5.9	3.8	263	5.1	5.1	0.6	15	3.8	-1.0	-3.7	13	2.6	-0.6	-2.5	148	2.2	-1.2	1.9	144	6.6	-3.9	5.3	94	11.8	-11.8	0.9
25	223	7.2	4.9	5.3	261	5.2	5.1	0.8	3	3.6	-0.2	-3.6	36	5.2	-3.1	-4.2	177	1.8	-0.1	1.8	163	3.8	-1.1	3.6	102	13.8	-13.5	2.8
26	210	6.7	3.4	5.8	250	3.2	3.0	1.1	5	3.8	-0.3	-3.8	35	4.7	-2.7	-3.9	177	2.0	-0.1	2.0	111	2.5	-2.3	0.9	100	7.8	-7.7	1.4
27	225	6.8	4.8	4.8	250	3.8	3.6	1.3	7	3.3	-0.4	-3.3	50	3.3	-2.5	-2.1	4	1.6	-0.1	-1.6	115	3.8	-3.4	1.6	106	13.5	-13.0	3.8
28	235	6.8	5.6	3.9	263	4.9	4.9	0.6	7	4.7	-0.6	-4.7	31	3.5	-1.8	-3.0	68	0.5	-0.5	-0.2	114	4.4	-4.0	1.8	118	16.0	-14.2	7.4
29	260	8.9	8.8	1.5	285	6.8	6.6	-1.8	354	3.0	0.3	-3.0	25	3.3	-1.4	-3.0	234	0.9	0.7	0.5	135	5.9	-4.2	4.2	100	15.2	-15.0	2.6
30	256	8.7	8.4	2.1	280	5.8	5.7	-1.0	17	3.8	-1.1	-3.6	33	4.3	-2.3	-3.6	195	1.1	0.3	1.1	132	4.5	-3.3	3.0	105	15.0	-14.5	4.0
31	248	8.4	7.8	3.2	283	4.9	4.8	-1.1	358	3.3	0.1	-3.3	44	3.9	-2.7	-2.8	122	1.9	-1.6	1.0	140	6.1	-3.9	4.7	101	12.7	-12.5	2.4

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	239	7.4	6.4	3.8	287	5.9	5.7	-1.7	352	3.0	0.4	-3.0	64	3.7	-3.3	-1.6	102	3.0	-2.9	0.6	131	5.8	-4.4	3.8	95	18.2	-18.1	1.7
2	246	6.4	5.8	2.6	284	3.2	3.1	-0.8	13	4.3	-1.0	-4.2	38	3.1	-1.9	-2.4	84	2.8	-2.8	-0.3	132	8.1	-6.1	5.4	102	16.4	-16.0	3.4
3	248	5.9	5.5	2.2	281	6.0	5.9	-1.1	354	3.7	0.4	-3.7	38	2.9	-1.8	-2.3	110	5.9	-5.5	2.0	105	8.8	-8.5	2.2	105	20.1	-19.4	5.1
4	226	7.1	5.1	4.9	266	4.6	4.6	0.3	38	4.1	-2.5	-3.2	56	4.5	-3.7	-2.5	107	4.7	-4.5	1.4	118	7.1	-6.3	3.3	106	17.3	-16.6	4.7
5	249	4.5	4.2	1.6	280	5.6	5.5	-1.0	49	3.2	-2.4	-2.1	67	2.3	-2.1	-0.9	101	4.2	-4.1	0.8	92	7.9	-7.9	0.3	92	17.2	-17.2	0.7
6	250	7.9	7.4	2.7	264	6.5	6.5	0.7	61	1.0	-0.9	-0.5	78	2.5	-2.4	-0.5	95	4.6	-4.6	0.4	97	7.8	-7.7	1.0	92	19.8	-19.8	0.7
7	240	8.9	7.7	4.5	271	7.0	7.0	-0.1	24	1.0	-0.4	-0.9	77	2.2	-2.1	-0.5	89	4.5	-4.5	-0.1	93	10.6	-10.6	0.6	96	21.0	-20.9	2.3
8	253	6.9	6.6	2.0	271	7.6	7.6	-0.1	360	0.4	0.0	-0.4	47	1.8	-1.3	-1.2	100	6.0	-5.9	1.0	89	10.0	-10.0	-0.2	92	23.9	-23.9	0.7
9	253	7.7	7.3	2.3	277	7.9	7.8	-1.0	291	2.6	2.4	-0.9	68	1.6	-1.5	-0.6	58	4.4	-3.7	-2.3	72	10.6	-10.1	-3.3	92	22.7	-22.7	0.9
10	265	7.3	7.3	0.7	277	8.3	8.2	-1.0	307	3.1	2.5	-1.9	263	0.8	0.8	0.1	85	5.2	-5.2	-0.5	88	14.7	-14.7	-0.6	86	23.5	-23.5	-1.5
11	265	8.4	8.4	0.7	281	10.1	9.9	-2.0	308	3.6	2.8	-2.2	297	1.6	1.4	-0.7	93	4.1	-4.1	0.2	85	12.3	-12.3	-1.0	90	21.4	-21.4	0.1
12	265	7.7	7.7	0.7	285	8.6	8.3	-2.2	295	3.8	3.4	-1.6	317	3.3	2.2	-2.4	65	3.5	-3.2	-1.5	71	8.7	-8.2	-2.8	97	21.2	-21.0	2.6
13	279	7.5	7.4	-1.2	293	8.7	8.0	-3.4	315	3.8	2.7	-2.7	256	2.1	2.0	0.5	67	5.0	-4.6	-2.0	81	10.8	-10.7	-1.6	93	22.3	-22.3	1.0
14	301	6.9	5.9	-3.5	300	8.3	7.2	-4.1	300	5.2	4.5	-2.6	339	1.4	0.5	-1.3	92	8.1	-8.1	0.3	78	16.0	-15.7	-3.2	90	27.7	-27.7	0.1
15	275	8.9	8.9	-0.8	284	9.0	8.7	-2.2	287	6.3	6.0	-1.8	254	4.4	4.2	1.2	83	6.3	-6.2	-0.8	85	14.0	-13.9	-1.2	97	28.2	-28.0	3.4
16	256	10.7	10.4	2.6	275	12.1	12.0	-1.1	270	7.9	7.9	0.0	276	3.9	3.9	-0.4	75	7.3	-7.1	-1.9	79	17.3	-17.0	-3.2	92	24.3	-24.3	0.8
17	269	12.3	12.3	0.3	281	13.5	13.3	-2.5	268	9.5	9.5	0.4	283	7.8	7.6	-1.7	69	7.7	-7.2	-2.7	81	16.0	-15.8	-2.5	94	25.3	-25.2	1.7
18	262	11.5	11.4	1.6	274	14.5	14.5	-0.9	274	10.9	10.9	-0.8	270	5.1	5.1	0.0	72	5.2	-4.9	-1.6	83	16.3	-16.2	-1.9	87	27.7	-27.7	-1.6
19	252	10.9	10.4	3.3	277	13.1	13.0	-1.6	276	10.0	10.0	-1.0	272	7.5	7.5	-0.2	79	5.8	-5.7	-1.1	84	16.3	-16.2	-1.7	83	26.4	-26.2	-3.3
20	258	11.3	11.0	2.4	283	11.0	10.7	-2.4	291	7.3	6.8	-2.6	281	4.2	4.1	-0.8	93	6.5	-6.5	0.3	77	15.1	-14.7	-3.3	92	25.8	-25.8	1.1
21	277	11.8	11.7	-1.4	289	11.8	11.1	-3.9	293	5.9	5.4	-2.3	281	5.1	5.0	-1.0	74	6.2	-6.0	-1.7	84	17.3	-17.2	-1.8	103	20.8	-20.3	4.6
22	278	10.4	10.3	-1.4	291	11.7	10.9	-4.2	293	7.5	6.9	-2.9	276	4.7	4.7	-0.5	85	7.6	-7.6	-0.6	88	17.8	-17.8	-0.7	91	27.0	-27.0	0.5
23	264	12.2	12.1	1.3	284	12.8	12.4	-3.1	289	7.5	7.1	-2.5	286	5.0	4.8	-1.4	80	8.5	-8.4	-1.5	87	20.2	-20.2	-0.9	89	27.8	-27.8	-0.6
24	273	11.5	11.5	-0.7	284	13.3	12.9	-3.2	277	7.8	7.7	-0.9	261	5.3	5.2	0.8	86	4.9	-4.9	-0.3	78	17.0	-16.6	-3.6	86	32.8	-32.7	-2.2
25	272	10.5	10.5	-0.4	286	11.4	10.9	-3.2	298	7.3	6.5	-3.4	286	4.4	4.2	-1.2	75	6.0	-5.8	-1.5	87	19.9	-19.9	-1.2	97	25.3	-25.1	3.0
26	272	11.9	11.9	-0.5	282	12.2	11.9	-2.6	283	6.4	6.2	-1.4	281	3.3	3.2	-0.6	76	7.9	-7.7	-1.9	76	19.4	-18.8	-4.6	89	27.4	-27.4	-0.6
27	269	11.6	11.6	0.3	280	12.7	12.5	-2.3	279	6.1	6.0	-0.9	287	5.6	5.4	-1.6	85	3.7	-3.7	-0.3	73	16.1	-15.4	-4.8	86	34.5	-34.4	-2.7
28	270	11.5	11.5	0.1	281	11.9	11.7	-2.3	277	7.2	7.1	-0.9	276	4.5	4.5	-0.5	95	7.4	-7.4	0.6	85	19.3	-19.2	-1.8	87	31.5	-31.5	-1.4
29	271	10.2	10.2	-0.2	283	10.5	10.2	-2.4	272	7.0	7.0	-0.3	252	1.3	1.2	0.4	98	6.3	-6.2	0.9	83	20.9	-20.7	-2.5	84	32.6	-32.4	-3.4
30	266	10.5	10.5	0.8	278	10.5	10.4	-1.4	275	7.2	7.2	-0.6	254	0.7	0.7	0.2	91	7.9	-7.9	0.1	81	16.6	-16.4	-2.5	88	31.3	-31.3	-0.9

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	273	11.7	11.7	-0.6	278	12.6	12.5	-1.8	276	6.9	6.9	-0.7	257	2.7	2.6	0.6	82	7.7	-7.6	-1.1	85	21.5	-21.4	-1.8	89	34.5	-34.5	-0.6
2	268	10.0	10.0	0.3	278	11.0	10.9	-1.6	276	8.2	8.2	-0.8	288	2.3	2.2	-0.7	99	9.2	-9.1	1.4	80	21.2	-20.9	-3.7	81	39.8	-39.3	-6.4
3	280	11.1	10.9	-1.9	278	10.4	10.3	-1.5	277	5.6	5.6	-0.7	301	3.1	2.7	-1.6	89	7.7	-7.7	-0.2	84	19.5	-19.4	-2.0	87	36.7	-36.6	-2.0
4	268	9.7	9.7	0.4	280	9.6	9.4	-1.7	286	7.6	7.3	-2.1	273	3.8	3.8	-0.2	100	7.8	-7.7	1.4	83	18.3	-18.2	-2.2	83	33.0	-32.7	-4.2
5	260	7.4	7.3	1.3	276	9.9	9.8	-1.1	276	7.2	7.2	-0.7	297	1.8	1.6	-0.8	89	9.6	-9.6	-0.1	88	18.2	-18.2	-0.6	90	31.4	-31.4	0.2
6	261	7.9	7.8	1.2	274	9.4	9.4	-0.6	272	7.3	7.3	-0.3	285	3.1	3.0	-0.8	79	10.3	-10.1	-1.9	87	21.9	-21.9	-1.1	88	28.7	-28.7	-1.2
7	253	10.1	9.6	3.0	277	8.8	8.7	-1.0	280	5.3	5.2	-0.9	214	0.4	0.2	0.3	85	9.7	-9.7	-0.9	86	20.4	-20.4	-1.4	84	35.0	-34.8	-3.5
8	268	9.3	9.3	0.4	276	11.0	10.9	-1.1	279	8.0	7.9	-1.2	249	2.6	2.4	0.9	85	11.1	-11.1	-0.9	85	20.7	-20.6	-1.8	91	34.2	-34.2	0.8
9	258	8.5	8.3	1.7	274	9.2	9.2	-0.7	272	7.6	7.6	-0.3	302	1.9	1.6	-1.0	89	10.1	-10.1	-0.1	85	22.4	-22.3	-1.8	88	33.4	-33.4	-1.0
10	269	11.9	11.9	0.2	280	10.4	10.2	-1.8	288	7.1	6.8	-2.2	338	1.1	0.4	-1.0	91	10.4	-10.4	0.2	84	22.9	-22.8	-2.4	84	38.6	-38.4	-4.0
11	266	12.5	12.5	0.9	280	10.2	10.1	-1.7	286	8.2	7.9	-2.3	290	2.0	1.9	-0.7	91	10.0	-10.0	0.2	84	18.9	-18.8	-1.9	86	36.1	-36.0	-2.5
12	265	13.4	13.3	1.2	277	11.7	11.6	-1.4	287	8.8	8.4	-2.6	260	2.8	2.8	0.5	89	8.2	-8.2	-0.2	84	21.4	-21.3	-2.3	85	38.0	-37.9	-3.3
13	267	13.3	13.3	0.8	280	12.7	12.5	-2.2	280	9.9	9.8	-1.7	259	6.7	6.6	1.3	83	7.7	-7.6	-0.9	82	17.2	-17.0	-2.3	92	33.5	-33.5	1.1
14	273	14.0	14.0	-0.8	286	13.8	13.3	-3.8	288	8.9	8.4	-2.8	282	4.4	4.3	-0.9	93	11.2	-11.2	0.6	84	21.9	-21.8	-2.3	84	33.1	-32.9	-3.5
15	275	12.0	11.9	-1.1	291	13.3	12.4	-4.8	288	10.9	10.4	-3.3	264	2.8	2.8	0.3	89	8.1	-8.1	-0.1	85	19.0	-18.9	-1.5	89	30.2	-30.2	-0.5
16	269	11.9	11.9	0.2	287	14.1	13.5	-4.1	289	10.7	10.1	-3.4	307	3.0	2.4	-1.8	93	8.3	-8.3	0.4	84	17.5	-17.4	-1.9	90	33.1	-33.1	0.1
17	275	13.2	13.1	-1.2	287	13.8	13.2	-4.0	291	8.1	7.6	-2.9	323	1.5	0.9	-1.2	78	8.8	-8.6	-1.9	90	20.3	-20.3	-0.1	90	32.3	-32.3	-0.2
18	273	12.8	12.8	-0.7	284	14.9	14.5	-3.5	280	8.9	8.8	-1.6	246	4.8	4.4	2.0	85	8.5	-8.5	-0.7	78	16.8	-16.4	-3.5	93	28.9	-28.9	1.4
19	259	9.2	9.0	1.8	283	12.5	12.2	-2.8	284	9.0	8.7	-2.2	264	4.4	4.4	0.5	95	8.5	-8.5	0.7	86	19.6	-19.6	-1.3	90	31.0	-31.0	0.1
20	257	9.6	9.4	2.1	283	12.0	11.7	-2.8	282	9.7	9.5	-2.0	285	4.7	4.5	-1.2	84	9.8	-9.7	-1.0	85	21.2	-21.1	-1.8	88	32.9	-32.9	-1.0
21	260	9.5	9.4	1.6	284	11.3	11.0	-2.7	284	10.0	9.7	-2.4	305	3.5	2.9	-2.0	81	8.0	-7.9	-1.2	90	18.9	-18.9	-0.1	90	32.9	-32.9	0.2
22	265	9.4	9.4	0.8	288	12.9	12.3	-4.0	290	10.0	9.4	-3.4	267	6.8	6.8	0.3	81	9.1	-9.0	-1.4	88	22.6	-22.6	-0.8	93	33.4	-33.4	1.7
23	274	10.9	10.9	-0.8	282	12.3	12.0	-2.6	282	8.8	8.6	-1.9	282	5.5	5.4	-1.1	85	9.9	-9.9	-0.9	84	23.0	-22.9	-2.4	93	33.1	-33.1	1.8
24	266	11.6	11.6	0.8	279	12.0	11.9	-1.8	272	8.3	8.3	-0.3	282	1.9	1.9	-0.4	83	7.9	-7.8	-1.0	80	19.3	-19.0	-3.4	87	31.8	-31.8	-1.7
25	273	10.8	10.8	-0.6	282	11.6	11.4	-2.4	294	9.3	8.5	-3.7	286	3.2	3.1	-0.9	67	8.4	-7.7	-3.3	87	20.7	-20.7	-1.0	91	29.0	-29.0	0.5
26	277	13.2	13.1	-1.6	288	12.9	12.3	-4.0	283	10.7	10.4	-2.4	283	4.8	4.7	-1.1	60	7.6	-6.6	-3.8	78	20.1	-19.6	-4.3	91	32.5	-32.5	0.4
27	273	13.1	13.1	-0.6	286	14.2	13.7	-3.9	287	10.4	10.0	-3.0	297	3.8	3.4	-1.7	92	8.2	-8.2	0.3	79	18.7	-18.3	-3.6	83	33.9	-33.7	-3.9
28	282	12.9	12.6	-2.6	287	13.9	13.3	-4.0	286	9.9	9.5	-2.8	302	5.7	4.8	-3.0	97	8.9	-8.8	1.1	85	18.6	-18.5	-1.6	87	30.6	-30.6	-1.7
29	280	12.7	12.5	-2.1	291	13.1	12.2	-4.7	288	8.8	8.4	-2.7	286	2.9	2.8	-0.8	88	7.6	-7.6	-0.3	80	19.9	-19.6	-3.5	85	32.3	-32.2	-2.8
30	278	11.4	11.3	-1.5	286	12.1	11.6	-3.4	284	9.4	9.1	-2.3	293	4.4	4.1	-1.7	72	9.0	-8.6	-2.8	82	20.0	-19.8	-2.8	89	27.5	-27.5	-0.3
31	269	11.1	11.1	0.1	289	10.9	10.3	-3.6	287	9.7	9.3	-2.8	283	3.5	3.4	-0.8	78	10.4	-10.2	-2.1	85	19.4	-19.3	-1.6	88	32.5	-32.5	-1.2

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	269	10.8	10.8	0.2	282	10.2	10.0	-2.2	288	8.7	8.3	-2.7	305	2.1	1.7	-1.2	78	7.3	-7.1	-1.5	88	18.4	-18.4	-0.8	90	32.0	-32.0	-0.1
2	274	11.1	11.1	-0.8	286	12.6	12.1	-3.4	287	7.8	7.5	-2.3	282	3.0	2.9	-0.6	79	7.2	-7.1	-1.4	85	20.9	-20.8	-1.9	88	29.9	-29.9	-0.9
3	271	11.4	11.4	-0.1	286	10.4	10.0	-2.8	286	8.7	8.4	-2.4	249	3.0	2.8	1.1	101	7.6	-7.4	1.5	86	21.5	-21.5	-1.4	81	31.7	-31.3	-4.9
4	269	10.0	10.0	0.2	277	10.4	10.3	-1.2	284	7.8	7.6	-1.9	279	3.2	3.2	-0.5	90	10.7	-10.7	0.0	78	22.2	-21.7	-4.5	87	28.5	-28.5	-1.5
5	261	8.9	8.8	1.4	284	9.1	8.8	-2.2	281	7.6	7.5	-1.5	335	1.4	0.6	-1.3	81	11.0	-10.9	-1.8	86	18.7	-18.6	-1.4	87	29.7	-29.7	-1.7
6	269	10.5	10.5	0.1	285	11.6	11.2	-3.0	292	6.9	6.4	-2.6	306	2.9	2.3	-1.7	74	7.8	-7.5	-2.2	81	18.4	-18.2	-2.8	89	28.7	-28.7	-0.6
7	259	11.8	11.6	2.3	285	11.2	10.8	-2.9	290	8.1	7.6	-2.7	284	4.0	3.9	-1.0	94	8.6	-8.6	0.6	86	17.6	-17.6	-1.3	90	30.6	-30.6	-0.2
8	282	11.3	11.1	-2.3	291	14.2	13.2	-5.1	285	11.0	10.6	-2.8	277	6.4	6.3	-0.8	97	6.7	-6.7	0.8	84	17.0	-16.9	-1.8	89	28.9	-28.9	-0.4
9	282	12.5	12.2	-2.5	292	13.2	12.2	-5.0	292	9.9	9.2	-3.7	308	4.6	3.6	-2.8	95	8.3	-8.3	0.7	91	18.1	-18.1	0.3	88	29.0	-29.0	-1.0
10	277	9.4	9.3	-1.1	287	9.4	9.0	-2.8	283	8.1	7.9	-1.8	266	1.3	1.3	0.1	90	9.6	-9.6	0.0	87	15.4	-15.4	-0.8	83	27.9	-27.7	-3.4
11	272	10.8	10.8	-0.4	287	13.4	12.8	-3.9	285	7.9	7.6	-2.0	292	1.8	1.7	-0.7	76	8.5	-8.3	-2.0	85	18.9	-18.8	-1.5	81	30.8	-30.4	-4.7
12	267	10.0	10.0	0.6	287	10.5	10.1	-3.0	282	10.2	10.0	-2.2	280	3.5	3.4	-0.6	77	7.7	-7.5	-1.8	90	23.1	-23.1	-0.1	87	30.9	-30.9	-1.5
13	274	9.5	9.5	-0.6	292	12.3	11.4	-4.7	289	9.9	9.4	-3.2	289	4.2	4.0	-1.4	97	9.5	-9.4	1.2	91	22.3	-22.3	0.2	94	35.1	-35.0	2.7
14	273	10.5	10.5	-0.6	295	12.4	11.3	-5.2	289	8.3	7.8	-2.7	295	4.0	3.6	-1.7	91	10.6	-10.6	0.2	81	19.5	-19.3	-2.9	86	26.9	-26.8	-2.1
15	269	9.0	9.0	0.1	293	11.0	10.1	-4.3	302	8.1	6.9	-4.3	307	3.1	2.5	-1.9	87	10.0	-10.0	-0.5	88	21.7	-21.7	-0.9	88	30.5	-30.5	-1.1
16	272	8.8	8.8	-0.3	294	12.1	11.0	-5.0	291	8.1	7.6	-2.9	316	3.3	2.3	-2.4	90	9.1	-9.1	0.0	84	21.3	-21.2	-2.4	84	30.1	-29.9	-3.2
17	272	9.8	9.8	-0.4	290	10.9	10.3	-3.7	289	9.1	8.6	-2.9	317	4.0	2.7	-2.9	85	7.9	-7.9	-0.7	85	17.9	-17.8	-1.6	90	30.8	-30.8	0.1
18	275	9.4	9.4	-0.8	288	10.8	10.2	-3.4	284	8.9	8.6	-2.1	274	4.8	4.8	-0.3	87	9.1	-9.1	-0.5	86	19.1	-19.1	-1.2	87	30.2	-30.2	-1.5
19	267	8.7	8.7	0.4	284	10.9	10.6	-2.6	278	8.6	8.5	-1.2	281	5.3	5.2	-1.0	96	9.7	-9.6	1.0	80	20.9	-20.6	-3.6	87	29.7	-29.7	-1.6
20	261	8.3	8.2	1.3	284	10.1	9.8	-2.4	283	7.7	7.5	-1.7	260	2.7	2.7	0.5	84	8.5	-8.5	-0.9	81	18.7	-18.5	-3.0	88	29.0	-29.0	-1.1
21	256	7.4	7.2	1.8	290	8.9	8.4	-3.0	288	7.6	7.2	-2.4	263	2.6	2.6	0.3	88	9.5	-9.5	-0.4	83	18.0	-17.9	-2.2	95	29.2	-29.1	2.3
22	265	7.1	7.1	0.6	286	9.2	8.9	-2.5	279	6.6	6.5	-1.0	249	1.7	1.6	0.6	89	7.9	-7.9	-0.1	88	18.7	-18.7	-0.6	98	26.6	-26.3	3.9
23	257	5.1	5.0	1.2	282	7.7	7.5	-1.6	275	6.4	6.4	-0.6	247	3.3	3.0	1.3	101	7.6	-7.5	1.5	84	18.7	-18.6	-1.8	89	29.4	-29.4	-0.7
24	260	6.7	6.6	1.2	276	8.0	8.0	-0.8	285	6.5	6.3	-1.7	267	1.8	1.8	0.1	95	10.4	-10.4	1.0	89	20.0	-20.0	-0.3	84	27.5	-27.3	-2.9
25	284	6.8	6.6	-1.6	290	8.7	8.2	-3.0	275	5.9	5.9	-0.5	278	1.4	1.4	-0.2	97	9.5	-9.4	1.2	88	19.4	-19.4	-0.7	83	30.4	-30.2	-3.5
26	276	8.8	8.8	-0.9	288	9.2	8.7	-2.9	288	7.4	7.0	-2.3	290	3.5	3.3	-1.2	77	7.9	-7.7	-1.8	94	19.2	-19.2	1.2	88	29.1	-29.1	-1.0
27	279	12.1	11.9	-1.9	286	11.5	11.0	-3.2	299	7.9	6.9	-3.9	323	4.6	2.8	-3.7	94	8.3	-8.3	0.6	84	18.4	-18.3	-1.9	93	26.8	-26.8	1.6
28	276	12.2	12.1	-1.2	288	10.7	10.2	-3.3	295	8.7	7.9	-3.7	282	4.2	4.1	-0.9	85	7.8	-7.8	-0.7	91	18.0	-18.0	0.2	95	22.5	-22.4	2.0
29	280	12.1	11.9	-2.0	300	10.3	8.9	-5.1	306	8.0	6.5	-4.7	272	3.0	3.0	-0.1	99	6.5	-6.4	1.0	85	17.8	-17.7	-1.5	93	29.9	-29.9	1.5
30	278	11.4	11.3	-1.6	288	11.1	10.5	-3.5	290	7.8	7.3	-2.7	281	3.2	3.1	-0.6	99	8.1	-8.0	1.2	93	18.6	-18.6	1.0	93	25.1	-25.1	1.3
31	271	9.8	9.8	-0.2	286	8.9	8.6	-2.4	288	7.2	6.9	-2.2	299	1.3	1.1	-0.6	102	10.7	-10.5	2.3	89	19.6	-19.6	-0.5	93	26.3	-26.3	1.2

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	261	9.8	9.7	1.5	279	9.0	8.9	-1.4	288	8.0	7.6	-2.4	283	3.6	3.5	-0.8	93	8.3	-8.3	0.5	87	19.6	-19.6	-1.0	85	24.1	-24.0	-2.0
2	259	10.9	10.7	2.0	274	8.3	8.3	-0.6	278	5.9	5.8	-0.8	274	3.9	3.9	-0.3	103	8.5	-8.3	1.9	81	19.6	-19.3	-3.2	88	22.9	-22.9	-0.7
3	278	11.1	11.0	-1.6	282	7.5	7.3	-1.5	293	7.6	7.0	-3.0	288	1.6	1.5	-0.5	96	7.8	-7.8	0.8	77	18.1	-17.6	-4.2	91	27.2	-27.2	0.4
4	280	9.8	9.7	-1.7	288	9.4	8.9	-2.9	295	6.8	6.2	-2.9	298	2.1	1.9	-1.0	89	7.8	-7.8	-0.1	88	19.6	-19.6	-0.6	93	26.3	-26.3	1.2
5	269	9.3	9.3	0.2	279	9.1	9.0	-1.4	289	6.5	6.1	-2.1	315	2.3	1.6	-1.6	101	6.0	-5.9	1.1	87	16.0	-16.0	-0.7	94	29.2	-29.1	1.9
6	261	9.1	9.0	1.4	280	8.5	8.4	-1.5	278	6.6	6.5	-0.9	259	1.6	1.6	0.3	95	8.2	-8.2	0.7	85	15.6	-15.5	-1.3	95	18.9	-18.8	1.7
7	274	9.1	9.1	-0.6	283	7.8	7.6	-1.7	287	6.2	5.9	-1.8	331	1.8	0.9	-1.6	81	6.7	-6.6	-1.1	83	17.1	-17.0	-2.0	87	23.3	-23.3	-1.1
8	262	9.0	8.9	1.2	286	8.1	7.8	-2.3	296	6.4	5.8	-2.8	274	1.5	1.5	-0.1	94	5.7	-5.7	0.4	90	15.9	-15.9	0.1	97	23.5	-23.3	2.9
9	271	7.4	7.4	-0.1	295	7.2	6.5	-3.0	302	5.9	5.0	-3.1	4	1.4	-0.1	-1.4	110	8.0	-7.5	2.7	90	16.7	-16.7	-0.1	91	21.3	-21.3	0.3
10	253	6.3	6.0	1.8	295	6.3	5.7	-2.6	316	3.9	2.7	-2.8	45	1.3	-0.9	-0.9	93	6.1	-6.1	0.3	83	15.5	-15.4	-1.8	97	19.6	-19.5	2.4
11	259	5.3	5.2	1.0	289	5.4	5.1	-1.8	301	4.4	3.8	-2.3	360	1.1	0.0	-1.1	99	5.4	-5.3	0.8	86	15.6	-15.6	-1.2	96	23.0	-22.9	2.6
12	263	6.2	6.1	0.8	286	5.9	5.7	-1.6	282	4.3	4.2	-0.9	305	1.2	1.0	-0.7	93	6.4	-6.4	0.3	88	17.5	-17.5	-0.5	93	24.3	-24.3	1.2
13	245	6.3	5.7	2.7	279	6.1	6.0	-0.9	291	4.7	4.4	-1.7	302	1.9	1.6	-1.0	95	7.5	-7.5	0.7	97	15.0	-14.9	1.8	92	21.9	-21.9	0.7
14	250	8.2	7.7	2.8	279	6.3	6.2	-1.0	300	4.4	3.8	-2.2	311	1.8	1.4	-1.2	99	7.1	-7.0	1.1	87	16.0	-16.0	-0.7	84	21.2	-21.1	-2.3
15	251	7.9	7.5	2.6	282	5.4	5.3	-1.1	300	5.4	4.7	-2.7	282	2.4	2.3	-0.5	89	4.9	-4.9	-0.1	92	16.9	-16.9	0.7	96	21.8	-21.7	2.1
16	258	6.7	6.6	1.4	285	6.7	6.5	-1.7	294	4.9	4.5	-2.0	90	1.3	-1.3	0.0	87	6.6	-6.6	-0.3	89	15.2	-15.2	-0.3	102	20.6	-20.1	4.3
17	259	6.2	6.1	1.2	283	5.9	5.8	-1.3	308	4.4	3.5	-2.7	45	0.4	-0.3	-0.3	116	4.8	-4.3	2.1	100	14.5	-14.3	2.5	89	23.7	-23.7	-0.6
18	262	6.7	6.6	0.9	287	5.6	5.4	-1.6	312	4.7	3.5	-3.2	23	1.5	-0.6	-1.4	95	7.6	-7.6	0.6	90	15.4	-15.4	-0.1	95	22.9	-22.8	2.0
19	279	6.6	6.5	-1.0	305	5.0	4.1	-2.9	322	3.4	2.1	-2.7	42	2.5	-1.7	-1.9	83	7.8	-7.7	-0.9	89	13.3	-13.3	-0.2	88	20.6	-20.6	-0.6
20	288	4.1	3.9	-1.3	323	3.6	2.2	-2.9	339	3.9	1.4	-3.6	63	2.2	-2.0	-1.0	100	8.1	-8.0	1.4	97	14.1	-14.0	1.7	93	19.7	-19.7	1.2
21	307	4.0	3.2	-2.4	312	4.0	3.0	-2.7	332	3.4	1.6	-3.0	70	2.0	-1.9	-0.7	100	6.3	-6.2	1.1	98	13.3	-13.2	1.8	95	23.1	-23.0	2.2
22	293	2.8	2.6	-1.1	286	4.0	3.8	-1.1	332	2.4	1.1	-2.1	68	2.2	-2.0	-0.8	117	6.7	-6.0	3.0	97	13.9	-13.8	1.7	93	19.9	-19.9	0.9
23	306	2.2	1.8	-1.3	321	0.6	0.4	-0.5	350	1.7	0.3	-1.7	65	2.3	-2.1	-1.0	99	9.1	-9.0	1.5	97	13.9	-13.8	1.7	93	22.3	-22.3	1.3
24	260	2.9	2.9	0.5	288	1.6	1.5	-0.5	353	1.6	0.2	-1.6	126	3.2	-2.6	1.9	91	6.7	-6.7	0.1	93	11.5	-11.5	0.6	95	20.1	-20.0	1.7
25	274	3.0	3.0	-0.2	326	1.1	0.6	-0.9	343	2.4	0.7	-2.3	118	1.7	-1.5	0.8	98	4.3	-4.3	0.6	98	13.0	-12.9	1.7	97	16.4	-16.3	1.9
26	241	2.9	2.5	1.4	279	1.3	1.3	-0.2	5	1.1	-0.1	-1.1	104	3.0	-2.9	0.7	92	5.8	-5.8	0.2	99	10.5	-10.4	1.7	92	18.8	-18.8	0.6
27	244	3.0	2.7	1.3	294	1.0	0.9	-0.4	326	1.1	0.6	-0.9	96	1.8	-1.8	0.2	95	7.9	-7.9	0.7	102	11.6	-11.3	2.4	91	18.4	-18.4	0.4
28	180	1.9	0.0	1.9	11	0.5	-0.1	-0.5	48	1.2	-0.9	-0.8	76	3.0	-2.9	-0.7	103	6.1	-5.9	1.4	105	9.9	-9.6	2.6	89	15.5	-15.5	-0.2
29	156	2.4	-1.0	2.2	45	0.8	-0.6	-0.6	55	1.9	-1.6	-1.1	97	2.5	-2.5	0.3	96	5.4	-5.4	0.6	111	8.7	-8.1	3.1	106	16.0	-15.4	4.4
30	119	1.8	-1.6	0.9	63	0.7	-0.6	-0.3	57	1.7	-1.4	-0.9	89	4.3	-4.3	-0.1	108	5.8	-5.5	1.8	107	10.4	-10.0	3.0	97	16.4	-16.3	1.9

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	76	1.6	-1.6	-0.4	28	3.0	-1.4	-2.6	43	3.8	-2.6	-2.8	99	3.6	-3.6	0.6	118	5.5	-4.9	2.6	120	7.5	-6.5	3.8	92	13.3	-13.3	0.4
2	144	1.7	-1.0	1.4	333	1.6	0.7	-1.4	22	1.6	-0.6	-1.5	104	3.3	-3.2	0.8	111	6.6	-6.2	2.4	113	11.2	-10.3	4.3	92	13.5	-13.5	0.5
3	210	0.8	0.4	0.7	351	1.2	0.2	-1.2	21	1.7	-0.6	-1.6	108	2.8	-2.7	0.9	124	5.4	-4.5	3.0	110	8.1	-7.6	2.7	106	18.1	-17.4	5.0
4	30	1.6	-0.8	-1.4	16	3.6	-1.0	-3.5	360	3.1	0.0	-3.1	90	1.9	-1.9	0.0	113	5.6	-5.1	2.2	106	11.8	-11.4	3.2	94	15.4	-15.4	1.0
5	19	2.4	-0.8	-2.3	353	2.4	0.3	-2.4	13	2.2	-0.5	-2.1	87	4.1	-4.1	-0.2	126	4.7	-3.8	2.8	107	7.0	-6.7	2.1	99	14.2	-14.0	2.3
6	180	0.3	0.0	0.3	234	0.9	0.7	0.5	8	0.7	-0.1	-0.7	151	2.3	-1.1	2.0	119	4.3	-3.8	2.1	119	8.0	-7.0	3.9	104	11.8	-11.4	2.9
7	134	2.9	-2.1	2.0	115	1.4	-1.3	0.6	24	1.0	-0.4	-0.9	121	2.7	-2.3	1.4	112	5.3	-4.9	2.0	97	8.6	-8.5	1.1	96	10.3	-10.2	1.1
8	47	5.2	-3.8	-3.6	72	2.9	-2.8	-0.9	59	2.6	-2.2	-1.3	102	2.4	-2.3	0.5	115	5.2	-4.7	2.2	128	10.3	-8.1	6.4	109	13.8	-13.0	4.5
9	78	2.4	-2.3	-0.5	90	2.2	-2.2	0.0	104	0.8	-0.8	0.2	140	2.6	-1.7	2.0	120	4.6	-4.0	2.3	106	7.1	-6.8	2.0	96	12.1	-12.0	1.2
10	145	4.4	-2.5	3.6	122	1.9	-1.6	1.0	114	1.0	-0.9	0.4	93	2.2	-2.2	0.1	125	5.2	-4.3	3.0	115	9.9	-9.0	4.2	97	10.0	-9.9	1.2
11	128	3.4	-2.7	2.1	117	0.2	-0.2	0.1	61	1.0	-0.9	-0.5	90	1.3	-1.3	0.0	123	4.0	-3.4	2.2	104	7.5	-7.3	1.8	94	12.6	-12.6	0.8
12	66	1.2	-1.1	-0.5	45	0.8	-0.6	-0.6	30	2.0	-1.0	-1.7	80	2.8	-2.8	-0.5	103	3.2	-3.1	0.7	112	6.3	-5.8	2.4	95	11.9	-11.9	1.0
13	73	1.7	-1.6	-0.5	9	2.4	-0.4	-2.4	11	2.1	-0.4	-2.1	74	2.6	-2.5	-0.7	85	4.3	-4.3	-0.4	115	5.9	-5.3	2.5	104	9.2	-8.9	2.2
14	29	3.3	-1.6	-2.9	20	3.7	-1.3	-3.5	25	3.3	-1.4	-3.0	95	2.1	-2.1	0.2	94	1.3	-1.3	0.1	136	6.9	-4.8	5.0	104	9.7	-9.4	2.4
15	35	2.4	-1.4	-2.0	27	2.7	-1.2	-2.4	17	3.1	-0.9	-3.0	73	1.7	-1.6	-0.5	149	3.7	-1.9	3.2	122	6.8	-5.8	3.6	107	7.5	-7.2	2.2
16	28	3.8	-1.8	-3.4	29	2.9	-1.4	-2.5	35	3.9	-2.2	-3.2	85	2.1	-2.1	-0.2	136	3.2	-2.2	2.3	126	3.9	-3.2	2.3	96	16.5	-16.4	1.7
17	31	3.5	-1.8	-3.0	50	2.6	-2.0	-1.7	29	2.3	-1.1	-2.0	111	2.5	-2.3	0.9	119	3.1	-2.7	1.5	109	6.0	-5.7	2.0	82	5.6	-5.5	-0.8
18	29	3.5	-1.7	-3.1	55	4.5	-3.7	-2.6	30	3.4	-1.7	-3.0	63	2.0	-1.8	-0.9	141	2.2	-1.4	1.7	140	6.2	-4.0	4.8	101	7.7	-7.6	1.5
19	52	2.3	-1.8	-1.4	58	3.1	-2.6	-1.6	51	1.3	-1.0	-0.8	194	1.2	0.3	1.2	108	1.3	-1.2	0.4	147	5.9	-3.2	4.9	110	9.3	-8.7	3.2
20	8	2.2	-0.3	-2.2	23	1.5	-0.6	-1.4	8	2.2	-0.3	-2.2	105	1.6	-1.5	0.4	83	0.8	-0.8	-0.1	141	4.5	-2.8	3.5	106	4.6	-4.4	1.3
21	51	2.2	-1.7	-1.4	62	2.4	-2.1	-1.1	52	1.8	-1.4	-1.1	90	0.7	-0.7	0.0	77	1.7	-1.7	-0.4	145	3.8	-2.2	3.1	108	7.3	-6.9	2.3
22	90	2.3	-2.3	0.0	73	3.4	-3.2	-1.0	45	1.4	-1.0	-1.0	74	0.7	-0.7	-0.2	174	1.8	-0.2	1.8	175	3.8	-0.3	3.8	108	6.9	-6.6	2.1
23	81	2.4	-2.4	-0.4	58	3.4	-2.9	-1.8	41	1.8	-1.2	-1.4	122	0.9	-0.8	0.5	197	1.0	0.3	1.0	163	2.8	-0.8	2.7	111	8.5	-7.9	3.0
24	83	3.5	-3.5	-0.4	62	4.4	-3.9	-2.1	45	1.6	-1.1	-1.1	114	2.0	-1.8	0.8	344	0.7	0.2	-0.7	187	3.3	0.4	3.3	131	4.3	-3.2	2.8
25	66	4.4	-4.0	-1.8	63	5.1	-4.5	-2.3	48	2.7	-2.0	-1.8	74	2.6	-2.5	-0.7	135	0.8	-0.6	0.6	157	4.0	-1.6	3.7	124	7.2	-6.0	4.0
26	64	4.9	-4.4	-2.1	58	5.3	-4.5	-2.8	57	4.3	-3.6	-2.3	56	2.5	-2.1	-1.4	169	1.0	-0.2	1.0	176	8.0	-0.6	8.0	69	1.7	-1.6	-0.6
27	44	5.0	-3.5	-3.6	55	6.1	-5.0	-3.5	47	4.4	-3.2	-3.0	39	1.9	-1.2	-1.5	197	1.4	0.4	1.3	196	4.1	1.1	3.9	137	2.3	-1.6	1.7
28	51	4.3	-3.3	-2.7	55	4.9	-4.0	-2.8	39	4.5	-2.8	-3.5	86	1.4	-1.4	-0.1	200	3.5	1.2	3.3	189	7.1	1.1	7.0	131	6.1	-4.6	4.0
29	27	5.6	-2.6	-5.0	66	6.0	-5.5	-2.5	46	4.9	-3.5	-3.4	72	0.6	-0.6	-0.2	198	0.6	0.2	0.6	195	5.1	1.3	4.9	89	4.9	-4.9	-0.1
30	41	5.5	-3.6	-4.1	66	6.1	-5.6	-2.5	78	3.0	-2.9	-0.6	326	0.7	0.4	-0.6	222	5.0	3.3	3.7	222	8.1	5.4	6.1	98	6.8	-6.7	0.9
31	56	2.2	-1.8	-1.2	58	5.2	-4.4	-2.7	82	2.9	-2.9	-0.4	132	1.3	-1.0	0.9	257	2.6	2.5	0.6	208	4.7	2.2	4.1	122	6.6	-5.6	3.5

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	55	3.3	-2.7	-1.9	65	6.0	-5.4	-2.5	101	3.3	-3.2	0.6	90	2.9	-2.9	0.0	222	3.1	2.1	2.3	173	2.4	-0.3	2.4	124	9.7	-8.0	5.4
2	81	6.4	-6.3	-1.0	77	6.1	-5.9	-1.4	86	3.9	-3.9	-0.3	51	2.1	-1.6	-1.3	227	4.0	2.9	2.7	198	6.1	1.9	5.8	106	2.2	-2.1	0.6
3	62	6.7	-5.9	-3.1	75	6.0	-5.8	-1.6	75	4.1	-4.0	-1.1	73	3.4	-3.2	-1.0	232	2.4	1.9	1.5	200	8.6	3.0	8.1	117	6.8	-6.1	3.1
4	59	7.0	-6.0	-3.6	79	5.3	-5.2	-1.0	96	4.1	-4.1	0.4	66	2.0	-1.8	-0.8	231	5.3	4.1	3.3	214	12.0	6.7	10.0	146	4.2	-2.4	3.5
5	51	7.0	-5.4	-4.4	56	5.3	-4.4	-3.0	45	2.4	-1.7	-1.7	81	2.0	-2.0	-0.3	246	5.1	4.7	2.1	212	9.2	4.8	7.8	144	2.7	-1.6	2.2
6	55	6.7	-5.5	-3.8	64	6.4	-5.7	-2.8	69	3.3	-3.1	-1.2	65	1.4	-1.3	-0.6	242	5.8	5.1	2.7	226	8.3	6.0	5.8	141	4.4	-2.8	3.4
7	73	7.2	-6.9	-2.1	73	7.0	-6.7	-2.0	90	2.8	-2.8	0.0	41	1.1	-0.7	-0.8	242	4.7	4.2	2.2	210	8.5	4.3	7.3	137	2.1	-1.4	1.5
8	83	7.5	-7.4	-0.9	73	5.3	-5.1	-1.6	83	2.4	-2.4	-0.3	21	1.4	-0.5	-1.3	251	3.1	2.9	1.0	203	7.4	2.9	6.8	159	4.0	-1.4	3.7
9	71	5.4	-5.1	-1.8	64	3.0	-2.7	-1.3	51	1.9	-1.5	-1.2	360	1.1	0.0	-1.1	237	2.7	2.3	1.5	219	5.8	3.7	4.5	6	2.0	-0.2	-2.0
10	83	4.6	-4.6	-0.6	68	4.6	-4.3	-1.7	43	1.9	-1.3	-1.4	360	0.2	0.0	-0.2	270	2.1	2.1	0.0	230	5.9	4.5	3.8	99	4.0	-4.0	0.6
11	79	5.6	-5.5	-1.1	63	5.3	-4.7	-2.4	66	2.4	-2.2	-1.0	27	1.3	-0.6	-1.2	263	2.5	2.5	0.3	192	6.2	1.3	6.1	150	1.4	-0.7	1.2
12	71	6.1	-5.8	-2.0	65	6.5	-5.9	-2.8	40	2.3	-1.5	-1.8	18	2.9	-0.9	-2.8	247	2.8	2.6	1.1	201	8.5	3.0	8.0	140	3.5	-2.3	2.7
13	67	5.2	-4.8	-2.0	72	7.1	-6.7	-2.2	59	4.2	-3.6	-2.2	87	1.8	-1.8	-0.1	265	3.2	3.2	0.3	215	7.5	4.3	6.1	209	2.1	1.0	1.8
14	67	6.6	-6.1	-2.6	73	6.1	-5.8	-1.8	91	4.4	-4.4	0.1	76	3.2	-3.1	-0.8	280	2.7	2.7	-0.5	221	6.7	4.4	5.1	104	2.5	-2.4	0.6
15	68	6.5	-6.0	-2.4	74	5.2	-5.0	-1.4	80	4.0	-3.9	-0.7	86	2.8	-2.8	-0.2	254	1.9	1.8	0.5	208	4.5	2.1	4.0	5	1.1	-0.1	-1.1
16	73	4.4	-4.2	-1.3	82	3.6	-3.6	-0.5	78	3.0	-2.9	-0.6	76	1.6	-1.6	-0.4	259	5.7	5.6	1.1	227	6.4	4.7	4.4	232	4.7	3.7	2.9
17	78	5.5	-5.4	-1.1	70	4.7	-4.4	-1.6	92	2.9	-2.9	0.1	82	0.7	-0.7	-0.1	263	7.1	7.0	0.9	212	8.8	4.6	7.5	118	2.4	-2.1	1.1
18	75	5.5	-5.3	-1.4	67	5.0	-4.6	-2.0	73	1.7	-1.6	-0.5	209	2.1	1.0	1.8	249	8.7	8.1	3.1	212	10.7	5.7	9.1	63	0.4	-0.4	-0.2
19	64	5.9	-5.3	-2.6	60	3.4	-3.0	-1.7	65	2.1	-1.9	-0.9	276	1.0	1.0	-0.1	247	9.2	8.5	3.6	224	11.9	8.2	8.6	213	1.7	0.9	1.4
20	77	5.7	-5.5	-1.3	67	4.4	-4.1	-1.7	52	1.6	-1.3	-1.0	315	0.7	0.5	-0.5	244	8.7	7.8	3.8	216	11.8	7.0	9.5	195	3.1	0.8	3.0
21	76	7.6	-7.4	-1.9	61	4.5	-3.9	-2.2	41	1.8	-1.2	-1.4	321	0.6	0.4	-0.5	243	11.0	9.8	5.1	227	13.4	9.8	9.2	225	2.3	1.6	1.6
22	80	7.6	-7.5	-1.3	71	5.2	-4.9	-1.7	95	2.5	-2.5	0.2	225	1.6	1.1	1.1	250	11.3	10.6	3.8	217	15.3	9.3	12.2	101	4.2	-4.1	0.8
23	76	6.8	-6.6	-1.6	66	5.5	-5.0	-2.2	142	1.6	-1.0	1.3	235	3.2	2.6	1.8	242	11.2	9.9	5.3	215	14.6	8.3	12.0	236	6.8	5.6	3.8
24	60	5.9	-5.1	-2.9	49	5.7	-4.3	-3.8	45	1.0	-0.7	-0.7	279	1.3	1.3	-0.2	247	7.8	7.2	3.0	218	14.4	8.8	11.4	227	2.2	1.6	1.5
25	54	5.8	-4.7	-3.4	44	5.0	-3.5	-3.6	63	2.7	-2.4	-1.2	329	1.2	0.6	-1.0	254	10.9	10.5	3.1	228	14.6	10.9	9.7	243	8.4	7.5	3.8
26	58	4.4	-3.7	-2.3	69	4.4	-4.1	-1.6	74	2.5	-2.4	-0.7	19	2.4	-0.8	-2.3	265	7.6	7.6	0.7	249	10.3	9.6	3.6	255	2.7	2.6	0.7
27	75	4.6	-4.4	-1.2	59	4.7	-4.0	-2.4	78	2.5	-2.4	-0.5	43	3.3	-2.2	-2.4	278	4.9	4.8	-0.7	232	9.5	7.5	5.8	247	2.5	2.3	1.0
28	75	5.7	-5.5	-1.5	66	6.4	-5.9	-2.6	60	3.2	-2.8	-1.6	21	1.9	-0.7	-1.8	256	6.8	6.6	1.6	235	12.1	9.9	6.9	348	1.4	0.3	-1.4
29	70	6.2	-5.8	-2.1	60	5.0	-4.3	-2.5	48	2.5	-1.9	-1.7	352	3.0	0.4	-3.0	263	8.0	7.9	1.0	234	12.9	10.5	7.5	285	5.4	5.2	-1.4
30	65	3.8	-3.4	-1.6	62	4.2	-3.7	-2.0	36	3.2	-1.9	-2.6	350	4.6	0.8	-4.5	274	8.4	8.4	-0.6	247	14.4	13.3	5.6	242	5.5	4.8	2.6

Daily Normals of Upper Air Winds (1971-2000)

MACHILIPATANAM **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	74	4.4	-4.2	-1.2	61	5.2	-4.6	-2.5	69	3.4	-3.2	-1.2	12	1.4	-0.3	-1.4	269	9.5	9.5	0.1	250	12.8	12.0	4.4	258	11.0	10.8	2.3
2	54	5.2	-4.2	-3.0	69	7.0	-6.5	-2.5	73	3.7	-3.5	-1.1	345	1.1	0.3	-1.1	264	8.9	8.8	1.0	225	13.8	9.7	9.8	245	7.7	7.0	3.2
3	66	6.9	-6.3	-2.8	82	5.7	-5.6	-0.8	87	3.4	-3.4	-0.2	325	2.4	1.4	-2.0	268	10.2	10.2	0.4	230	10.2	7.8	6.5	285	6.7	6.5	-1.8
4	67	7.8	-7.2	-3.1	62	6.4	-5.7	-3.0	69	4.3	-4.0	-1.5	11	2.1	-0.4	-2.1	259	6.5	6.4	1.2	229	12.8	9.7	8.4	167	5.2	-1.2	5.1
5	74	7.4	-7.1	-2.0	72	5.2	-5.0	-1.6	51	2.7	-2.1	-1.7	13	1.8	-0.4	-1.8	252	8.1	7.7	2.5	235	13.8	11.3	8.0	260	4.6	4.5	0.8
6	77	6.5	-6.3	-1.5	60	4.6	-4.0	-2.3	36	3.1	-1.8	-2.5	29	2.3	-1.1	-2.0	268	9.4	9.4	0.3	235	18.0	14.8	10.3	298	1.9	1.7	-0.9
7	70	6.6	-6.2	-2.3	62	5.3	-4.7	-2.5	56	4.2	-3.5	-2.4	62	2.4	-2.1	-1.1	252	8.3	7.9	2.5	234	13.5	10.9	8.0	239	5.4	4.6	2.8
8	74	5.5	-5.3	-1.5	84	3.8	-3.8	-0.4	83	4.7	-4.7	-0.6	55	1.2	-1.0	-0.7	259	11.3	11.1	2.2	240	12.6	10.9	6.4	109	4.0	-3.8	1.3
9	68	4.8	-4.5	-1.8	73	5.4	-5.2	-1.6	95	2.2	-2.2	0.2	259	0.5	0.5	0.1	271	9.1	9.1	-0.2	255	13.8	13.3	3.5	151	4.6	-2.2	4.0
10	70	4.5	-4.2	-1.5	80	4.5	-4.4	-0.8	52	1.6	-1.3	-1.0	227	2.1	1.5	1.4	263	7.7	7.6	0.9	237	9.8	8.3	5.3	176	2.7	-0.2	2.7
11	70	5.3	-5.0	-1.8	78	4.5	-4.4	-0.9	50	1.7	-1.3	-1.1	302	1.3	1.1	-0.7	266	12.5	12.5	0.9	239	16.4	14.0	8.5	269	5.2	5.2	0.1
12	70	5.9	-5.5	-2.0	76	5.4	-5.2	-1.3	66	3.2	-2.9	-1.3	175	2.4	-0.2	2.4	244	9.0	8.1	3.9	234	12.9	10.5	7.5	210	5.0	2.5	4.3
13	70	5.3	-5.0	-1.8	80	5.4	-5.3	-0.9	88	3.5	-3.5	-0.1	227	2.6	1.9	1.8	254	11.8	11.3	3.3	247	15.5	14.3	6.0	229	2.3	1.7	1.5
14	78	5.1	-5.0	-1.1	77	3.9	-3.8	-0.9	309	1.4	1.1	-0.9	276	4.0	4.0	-0.4	269	11.6	11.6	0.2	236	17.4	14.4	9.8	240	8.9	7.7	4.4
15	53	4.1	-3.3	-2.5	72	4.2	-4.0	-1.3	45	1.3	-0.9	-0.9	295	4.0	3.6	-1.7	261	9.9	9.8	1.6	253	13.0	12.4	3.9	265	10.5	10.5	0.9
16	74	5.3	-5.1	-1.5	78	4.9	-4.8	-1.0	35	3.8	-2.2	-3.1	289	3.7	3.5	-1.2	277	8.7	8.6	-1.0	262	11.1	11.0	1.6	220	3.8	2.4	2.9
17	67	5.7	-5.3	-2.2	72	5.4	-5.1	-1.7	56	3.4	-2.8	-1.9	308	1.1	0.9	-0.7	278	11.7	11.6	-1.6	242	17.0	15.0	8.1	236	4.7	3.9	2.6
18	62	5.5	-4.8	-2.6	68	4.3	-4.0	-1.6	68	2.2	-2.0	-0.8	273	1.9	1.9	-0.1	264	12.9	12.8	1.3	240	14.6	12.6	7.3	263	6.2	6.1	0.8
19	62	5.4	-4.8	-2.5	62	4.2	-3.7	-2.0	65	2.1	-1.9	-0.9	272	2.5	2.5	-0.1	265	11.4	11.4	0.9	242	15.6	13.8	7.3	254	5.0	4.8	1.4
20	76	5.4	-5.2	-1.3	76	4.9	-4.8	-1.2	61	2.9	-2.5	-1.4	313	3.3	2.4	-2.2	266	10.5	10.5	0.8	249	16.0	14.9	5.8	265	7.6	7.6	0.7
21	74	5.2	-5.0	-1.4	83	5.2	-5.2	-0.6	45	1.6	-1.1	-1.1	327	2.7	1.5	-2.3	278	12.1	12.0	-1.6	259	15.2	14.9	2.9	292	5.2	4.8	-1.9
22	84	3.8	-3.8	-0.4	67	6.0	-5.5	-2.3	32	2.2	-1.2	-1.9	325	1.9	1.1	-1.6	293	13.4	12.3	-5.2	263	20.0	19.8	2.5	265	6.1	6.1	0.5
23	83	4.0	-4.0	-0.5	72	4.5	-4.3	-1.4	33	3.0	-1.6	-2.5	294	4.2	3.8	-1.7	273	15.2	15.2	-0.7	261	19.0	18.7	3.1	268	4.7	4.7	0.2
24	85	4.6	-4.6	-0.4	73	4.8	-4.6	-1.4	353	1.7	0.2	-1.7	284	6.2	6.0	-1.5	263	17.2	17.1	2.1	247	21.0	19.4	8.1	200	5.9	2.0	5.5
25	93	4.0	-4.0	0.2	89	4.4	-4.4	-0.1	338	1.1	0.4	-1.0	290	6.8	6.4	-2.3	263	16.5	16.4	1.9	249	20.6	19.2	7.5	249	6.4	6.0	2.3
26	83	4.3	-4.3	-0.5	86	2.9	-2.9	-0.2	329	1.2	0.6	-1.0	285	5.3	5.1	-1.4	259	14.6	14.3	2.7	247	17.5	16.1	6.9	250	6.6	6.2	2.3
27	78	3.9	-3.8	-0.8	83	3.8	-3.8	-0.5	340	1.2	0.4	-1.1	261	3.9	3.9	0.6	262	15.8	15.6	2.3	259	19.8	19.4	3.8	253	8.7	8.3	2.5
28	82	5.3	-5.3	-0.7	67	4.4	-4.1	-1.7	186	0.9	0.1	0.9	282	6.0	5.9	-1.3	270	12.2	12.2	-0.1	253	18.4	17.6	5.5	258	5.9	5.8	1.2
29	85	6.1	-6.1	-0.5	68	4.8	-4.5	-1.8	333	0.4	0.2	-0.4	269	4.3	4.3	0.1	262	15.1	15.0	2.1	259	19.0	18.6	3.7	252	5.7	5.4	1.8
30	79	4.7	-4.6	-0.9	62	3.2	-2.8	-1.5	338	1.6	0.6	-1.5	277	5.9	5.9	-0.7	269	12.9	12.9	0.3	262	15.6	15.4	2.2	219	4.9	3.1	3.8
31	94	3.9	-3.9	0.3	68	3.5	-3.3	-1.3	9	1.3	-0.2	-1.3	271	6.7	6.7	-0.1	282	17.4	17.0	-3.6	252	20.2	19.2	6.4	253	10.1	9.6	3.0

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	100	5.0	-4.9	0.9	106	2.9	-2.8	0.8	90	1.9	-1.9	0.0	345	1.1	0.3	-1.1	265	8.5	8.5	0.7	252	11.8	11.2	3.6	313	1.6	1.2	-1.1
2	103	3.5	-3.4	0.8	114	3.2	-2.9	1.3	86	1.3	-1.3	-0.1	301	1.2	1.0	-0.6	258	9.3	9.1	1.9	239	12.0	10.3	6.2	242	1.9	1.7	0.9
3	100	6.6	-6.5	1.1	103	3.1	-3.0	0.7	162	0.9	-0.3	0.9	329	1.7	0.9	-1.5	256	7.6	7.4	1.8	248	10.8	10.0	4.1	261	3.2	3.2	0.5
4	99	5.2	-5.1	0.8	112	3.5	-3.3	1.3	71	2.8	-2.6	-0.9	270	0.8	0.8	0.0	252	6.6	6.3	2.1	248	10.6	9.8	4.0	258	1.9	1.9	0.4
5	84	2.0	-2.0	-0.2	111	3.3	-3.1	1.2	69	1.7	-1.6	-0.6	45	0.3	-0.2	-0.2	254	7.6	7.3	2.1	249	10.5	9.8	3.8	286	6.1	5.9	-1.7
6	83	3.3	-3.3	-0.4	99	2.6	-2.6	0.4	58	1.3	-1.1	-0.7	283	1.3	1.3	-0.3	246	10.1	9.2	4.1	248	10.5	9.8	3.9	212	1.9	1.0	1.6
7	100	4.0	-3.9	0.7	112	3.7	-3.4	1.4	309	0.6	0.5	-0.4	299	1.3	1.1	-0.6	264	9.4	9.3	1.0	248	11.4	10.6	4.3	277	7.1	7.0	-0.9
8	102	4.9	-4.8	1.0	119	3.8	-3.3	1.8	360	0.4	0.0	-0.4	351	1.3	0.2	-1.3	274	7.0	7.0	-0.5	253	13.0	12.4	3.9	253	7.1	6.8	2.1
9	98	2.2	-2.2	0.3	112	2.4	-2.2	0.9	56	1.1	-0.9	-0.6	317	2.2	1.5	-1.6	272	9.4	9.4	-0.4	273	10.4	10.4	-0.5	261	2.4	2.4	0.4
10	104	3.2	-3.1	0.8	117	2.8	-2.5	1.3	112	1.1	-1.0	0.4	322	1.8	1.1	-1.4	278	8.0	7.9	-1.1	266	8.7	8.7	0.6	171	0.6	-0.1	0.6
11	94	2.7	-2.7	0.2	141	2.6	-1.6	2.0	171	0.6	-0.1	0.6	281	3.8	3.7	-0.7	265	10.1	10.1	0.8	265	9.1	9.1	0.8	287	3.1	3.0	-0.9
12	27	1.8	-0.8	-1.6	117	1.1	-1.0	0.5	194	0.4	0.1	0.4	302	2.5	2.1	-1.3	276	10.2	10.2	-1.0	269	10.1	10.1	0.2	261	2.0	2.0	0.3
13	29	1.0	-0.5	-0.9	93	1.9	-1.9	0.1	120	1.4	-1.2	0.7	11	1.6	-0.3	-1.6	264	10.8	10.7	1.2	255	9.8	9.5	2.5	112	1.8	-1.7	0.7
14	101	0.5	-0.5	0.1	111	3.6	-3.4	1.3	111	1.9	-1.8	0.7	63	0.2	-0.2	-0.1	256	8.2	8.0	2.0	241	9.6	8.4	4.7	90	1.4	-1.4	0.0
15	70	1.5	-1.4	-0.5	121	2.1	-1.8	1.1	119	2.6	-2.3	1.3	304	1.8	1.5	-1.0	266	9.2	9.2	0.6	228	10.6	7.9	7.0	294	2.7	2.5	-1.1
16	59	2.6	-2.2	-1.3	105	2.7	-2.6	0.7	151	2.3	-1.1	2.0	225	2.1	1.5	1.5	260	9.6	9.5	1.6	238	9.2	7.8	4.9	270	1.6	1.6	0.0
17	76	0.8	-0.8	-0.2	110	4.0	-3.8	1.4	108	2.0	-1.9	0.6	220	2.5	1.6	1.9	262	8.2	8.1	1.1	246	9.2	8.4	3.8	52	1.8	-1.4	-1.1
18	101	2.0	-2.0	0.4	118	2.7	-2.4	1.3	174	1.0	-0.1	1.0	311	1.1	0.8	-0.7	263	6.5	6.5	0.8	236	10.2	8.5	5.7	279	2.6	2.6	-0.4
19	41	1.8	-1.2	-1.4	97	1.6	-1.6	0.2	90	0.4	-0.4	0.0	240	0.8	0.7	0.4	278	8.3	8.2	-1.1	248	11.7	10.8	4.4	325	1.2	0.7	-1.0
20	61	2.5	-2.2	-1.2	79	2.0	-2.0	-0.4	27	1.1	-0.5	-1.0	17	1.7	-0.5	-1.6	268	7.1	7.1	0.3	241	8.8	7.7	4.2	301	1.2	1.0	-0.6
21	2	2.8	-0.1	-2.8	82	2.7	-2.7	-0.4	18	0.9	-0.3	-0.9	323	2.0	1.2	-1.6	267	8.9	8.9	0.5	267	10.9	10.9	0.6	288	2.2	2.1	-0.7
22	94	3.0	-3.0	0.2	88	3.6	-3.6	-0.1	67	3.0	-2.8	-1.2	331	2.6	1.3	-2.3	267	7.3	7.3	0.4	243	8.3	7.4	3.8	282	2.4	2.3	-0.5
23	68	2.9	-2.7	-1.1	112	3.2	-3.0	1.2	67	3.0	-2.8	-1.2	4	2.7	-0.2	-2.7	277	8.8	8.7	-1.0	259	9.3	9.1	1.7	338	1.8	0.7	-1.7
24	89	4.7	-4.7	-0.1	101	3.8	-3.7	0.7	73	3.1	-3.0	-0.9	45	2.1	-1.5	-1.5	278	8.6	8.5	-1.2	269	7.3	7.3	0.1	175	4.4	-0.4	4.4
25	92	3.8	-3.8	0.1	106	4.1	-3.9	1.1	76	3.8	-3.7	-0.9	290	2.0	1.9	-0.7	287	6.5	6.2	-1.9	259	7.5	7.4	1.4	230	1.6	1.2	1.0
26	102	4.7	-4.6	1.0	103	4.0	-3.9	0.9	93	3.6	-3.6	0.2	51	2.2	-1.7	-1.4	299	8.2	7.2	-4.0	267	6.4	6.4	0.3	185	1.1	0.1	1.1
27	75	2.3	-2.2	-0.6	101	3.7	-3.6	0.7	83	2.5	-2.5	-0.3	79	1.0	-1.0	-0.2	299	4.9	4.3	-2.4	240	6.4	5.5	3.2	286	0.7	0.7	-0.2
28	74	3.3	-3.2	-0.9	91	4.1	-4.1	0.1	76	3.3	-3.2	-0.8	63	0.7	-0.6	-0.3	280	7.6	7.5	-1.3	256	10.2	9.9	2.5	297	1.6	1.4	-0.7
29	80	3.4	-3.3	-0.6	86	4.0	-4.0	-0.3	75	2.7	-2.6	-0.7	315	1.3	0.9	-0.9	282	8.0	7.8	-1.7	253	10.4	9.9	3.1	243	2.5	2.2	1.1
30	76	2.5	-2.4	-0.6	104	4.6	-4.5	1.1	79	2.6	-2.6	-0.5	330	2.2	1.1	-1.9	275	8.2	8.2	-0.7	252	10.3	9.8	3.1	262	3.5	3.5	0.5
31	88	3.3	-3.3	-0.1	107	3.7	-3.5	1.1	73	3.4	-3.3	-1.0	342	2.5	0.8	-2.4	261	10.1	10.0	1.5	259	12.1	11.9	2.3	266	3.2	3.2	0.2

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	90	3.2	-3.2	0.0	97	2.5	-2.5	0.3	74	2.9	-2.8	-0.8	330	3.9	2.0	-3.4	282	7.8	7.6	-1.6	271	11.2	11.2	-0.2	231	2.6	2.0	1.6
2	35	2.4	-1.4	-2.0	107	1.7	-1.6	0.5	72	2.2	-2.1	-0.7	279	2.6	2.6	-0.4	278	9.8	9.7	-1.4	261	11.8	11.7	1.8	292	4.1	3.8	-1.5
3	32	2.8	-1.5	-2.4	105	2.3	-2.2	0.6	103	2.2	-2.1	0.5	292	4.2	3.9	-1.6	270	11.0	11.0	0.0	264	12.5	12.4	1.2	279	4.5	4.4	-0.7
4	61	2.1	-1.8	-1.0	101	2.0	-2.0	0.4	102	2.9	-2.8	0.6	303	3.0	2.5	-1.6	284	10.0	9.7	-2.5	272	11.0	11.0	-0.4	245	1.4	1.3	0.6
5	59	2.1	-1.8	-1.1	80	2.8	-2.8	-0.5	108	1.3	-1.2	0.4	302	3.4	2.9	-1.8	282	9.3	9.1	-1.9	278	10.4	10.3	-1.5	290	5.6	5.3	-1.9
6	24	3.7	-1.5	-3.4	67	2.3	-2.1	-0.9	48	1.5	-1.1	-1.0	304	4.3	3.6	-2.4	275	9.7	9.7	-0.8	267	12.5	12.5	0.6	349	2.6	0.5	-2.6
7	57	2.0	-1.7	-1.1	70	2.0	-1.9	-0.7	62	1.5	-1.3	-0.7	325	2.8	1.6	-2.3	284	8.0	7.8	-1.9	280	10.7	10.5	-1.8	145	1.2	-0.7	1.0
8	332	2.6	1.2	-2.3	127	2.0	-1.6	1.2	95	1.1	-1.1	0.1	319	3.5	2.3	-2.6	266	10.2	10.2	0.7	269	9.4	9.4	0.1	54	1.9	-1.5	-1.1
9	348	4.0	0.8	-3.9	61	1.3	-1.1	-0.6	124	1.1	-0.9	0.6	328	3.9	2.1	-3.3	283	9.7	9.4	-2.2	283	9.8	9.5	-2.2	29	3.1	-1.5	-2.7
10	6	2.8	-0.3	-2.8	63	0.4	-0.4	-0.2	132	1.3	-1.0	0.9	313	4.8	3.5	-3.3	285	11.0	10.6	-2.9	274	10.4	10.4	-0.7	124	0.7	-0.6	0.4
11	18	0.9	-0.3	-0.9	107	1.7	-1.6	0.5	77	0.9	-0.9	-0.2	353	3.1	0.4	-3.1	303	8.2	6.9	-4.4	251	9.2	8.7	3.0	259	2.1	2.1	0.4
12	4	1.5	-0.1	-1.5	110	2.0	-1.9	0.7	72	2.2	-2.1	-0.7	346	3.2	0.8	-3.1	287	6.8	6.5	-2.0	257	6.5	6.3	1.5	328	0.9	0.5	-0.8
13	42	1.3	-0.9	-1.0	84	1.9	-1.9	-0.2	74	1.8	-1.7	-0.5	5	2.1	-0.2	-2.1	275	6.0	6.0	-0.5	245	8.0	7.2	3.4	319	2.1	1.4	-1.6
14	18	0.9	-0.3	-0.9	125	1.9	-1.6	1.1	111	2.2	-2.1	0.8	306	1.4	1.1	-0.8	267	8.6	8.6	0.5	237	9.1	7.6	5.0	346	0.4	0.1	-0.4
15	13	2.2	-0.5	-2.1	124	1.1	-0.9	0.6	156	1.2	-0.5	1.1	279	2.5	2.5	-0.4	266	9.2	9.2	0.6	245	11.6	10.5	4.9	207	1.1	0.5	1.0
16	8	2.9	-0.4	-2.9	72	0.6	-0.6	-0.2	140	1.7	-1.1	1.3	293	2.5	2.3	-1.0	254	9.2	8.8	2.6	255	7.9	7.6	2.1	219	1.3	0.8	1.0
17	6	3.6	-0.4	-3.6	30	1.4	-0.7	-1.2	144	1.4	-0.8	1.1	282	4.2	4.1	-0.9	263	8.7	8.6	1.1	236	9.3	7.7	5.2	225	2.3	1.6	1.6
18	360	3.5	0.0	-3.5	54	0.9	-0.7	-0.5	142	1.1	-0.7	0.9	289	3.7	3.5	-1.2	255	5.5	5.3	1.4	221	7.7	5.1	5.8	155	1.9	-0.8	1.7
19	346	2.9	0.7	-2.8	81	1.3	-1.3	-0.2	106	1.9	-1.8	0.5	312	1.5	1.1	-1.0	261	6.9	6.8	1.1	254	8.3	8.0	2.3	256	2.1	2.0	0.5
20	344	3.5	1.0	-3.4	90	1.2	-1.2	0.0	90	1.1	-1.1	0.0	312	2.7	2.0	-1.8	275	7.6	7.6	-0.6	246	6.2	5.7	2.5	290	4.1	3.9	-1.4
21	5	1.2	-0.1	-1.2	111	1.7	-1.6	0.6	72	2.3	-2.2	-0.7	305	2.1	1.7	-1.2	266	7.3	7.3	0.5	254	10.2	9.8	2.8	135	1.7	-1.2	1.2
22	346	3.6	0.9	-3.5	108	2.2	-2.1	0.7	69	3.3	-3.1	-1.2	330	0.8	0.4	-0.7	261	8.4	8.3	1.3	261	10.3	10.2	1.6	262	4.9	4.8	0.7
23	3	2.2	-0.1	-2.2	75	2.3	-2.2	-0.6	90	2.8	-2.8	0.0	332	1.7	0.8	-1.5	270	8.9	8.9	0.0	269	10.2	10.2	0.2	299	1.3	1.1	-0.6
24	6	2.7	-0.3	-2.7	71	2.1	-2.0	-0.7	100	3.5	-3.4	0.6	37	0.5	-0.3	-0.4	271	5.9	5.9	-0.1	272	7.0	7.0	-0.2	270	1.2	1.2	0.0
25	3	2.0	-0.1	-2.0	103	2.2	-2.1	0.5	93	4.1	-4.1	0.2	11	1.0	-0.2	-1.0	282	7.4	7.2	-1.5	273	8.8	8.8	-0.5	2	3.5	-0.1	-3.5
26	16	2.6	-0.7	-2.5	77	2.2	-2.1	-0.5	88	3.3	-3.3	-0.1	299	1.3	1.1	-0.6	268	9.5	9.5	0.3	278	8.4	8.3	-1.1	275	3.3	3.3	-0.3
27	31	3.1	-1.6	-2.7	81	3.1	-3.1	-0.5	79	4.1	-4.0	-0.8	286	1.9	1.8	-0.5	269	10.7	10.7	0.2	261	10.7	10.6	1.6	258	5.0	4.9	1.0
28	65	1.4	-1.3	-0.6	94	2.9	-2.9	0.2	79	5.1	-5.0	-1.0	322	1.8	1.1	-1.4	281	10.4	10.2	-2.0	257	12.0	11.7	2.6	292	4.8	4.4	-1.8
29	114	5.5	-5.0	2.2	67	1.5	-1.4	-0.6	108	8.9	-8.5	2.7	83	2.3	-2.3	-0.3	252	5.5	5.2	1.7	241	6.5	5.7	3.2	257	11.2	10.9	2.6

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	47	1.9	-1.4	-1.3	56	2.5	-2.1	-1.4	86	5.1	-5.1	-0.4	329	2.9	1.5	-2.5	282	6.6	6.5	-1.4	262	7.7	7.6	1.1	345	1.1	0.3	-1.1
2	40	1.6	-1.0	-1.2	80	2.3	-2.3	-0.4	91	5.1	-5.1	0.1	252	1.3	1.2	0.4	267	7.1	7.1	0.4	258	8.7	8.5	1.8	256	2.5	2.4	0.6
3	32	1.3	-0.7	-1.1	85	2.3	-2.3	-0.2	86	4.5	-4.5	-0.3	4	2.8	-0.2	-2.8	260	6.7	6.6	1.2	250	8.4	7.9	2.8	260	2.7	2.7	0.5
4	50	2.6	-2.0	-1.7	98	2.7	-2.7	0.4	85	4.4	-4.4	-0.4	60	3.2	-2.8	-1.6	280	5.6	5.5	-1.0	236	11.2	9.3	6.2	289	2.4	2.3	-0.8
5	34	1.8	-1.0	-1.5	92	2.8	-2.8	0.1	89	4.0	-4.0	-0.1	342	0.6	0.2	-0.6	272	6.8	6.8	-0.2	260	10.5	10.3	1.8	248	2.2	2.0	0.8
6	29	2.9	-1.4	-2.5	101	2.5	-2.5	0.5	91	4.7	-4.7	0.1	169	1.0	-0.2	1.0	266	7.8	7.8	0.5	260	7.7	7.6	1.3	298	1.7	1.5	-0.8
7	19	1.8	-0.6	-1.7	93	2.2	-2.2	0.1	86	4.7	-4.7	-0.3	117	0.4	-0.4	0.2	274	8.6	8.6	-0.6	265	9.0	9.0	0.8	312	2.7	2.0	-1.8
8	10	1.7	-0.3	-1.7	80	1.1	-1.1	-0.2	84	4.1	-4.1	-0.4	9	1.3	-0.2	-1.3	275	8.6	8.6	-0.8	284	9.8	9.5	-2.4	267	1.7	1.7	0.1
9	338	2.4	0.9	-2.2	54	1.4	-1.1	-0.8	88	5.1	-5.1	-0.2	6	1.0	-0.1	-1.0	278	9.7	9.6	-1.3	272	9.2	9.2	-0.3	307	2.0	1.6	-1.2
10	3	1.7	-0.1	-1.7	72	1.9	-1.8	-0.6	94	5.5	-5.5	0.4	290	1.2	1.1	-0.4	275	9.9	9.9	-0.9	276	10.2	10.2	-1.0	301	5.6	4.8	-2.9
11	5	1.2	-0.1	-1.2	65	1.9	-1.7	-0.8	104	4.9	-4.8	1.2	295	1.4	1.3	-0.6	283	7.3	7.1	-1.7	261	11.9	11.7	1.9	295	3.3	3.0	-1.4
12	354	2.0	0.2	-2.0	61	1.0	-0.9	-0.5	95	4.3	-4.3	0.4	319	1.1	0.7	-0.8	277	12.0	11.9	-1.5	273	12.0	12.0	-0.6	225	1.3	0.9	0.9
13	345	2.7	0.7	-2.6	32	1.5	-0.8	-1.3	89	4.5	-4.5	-0.1	327	1.7	0.9	-1.4	284	9.4	9.1	-2.3	282	11.3	11.0	-2.4	266	2.6	2.6	0.2
14	351	2.4	0.4	-2.4	107	1.7	-1.6	0.5	85	5.2	-5.2	-0.5	337	2.1	0.8	-1.9	270	12.5	12.5	0.0	277	13.0	12.9	-1.6	299	2.3	2.0	-1.1
15	357	1.7	0.1	-1.7	93	1.9	-1.9	0.1	85	6.0	-6.0	-0.5	44	3.6	-2.5	-2.6	291	6.6	6.1	-2.4	277	9.5	9.4	-1.1	270	1.5	1.5	0.0
16	335	3.1	1.3	-2.8	19	1.8	-0.6	-1.7	83	6.6	-6.6	-0.8	87	3.3	-3.3	-0.2	271	5.3	5.3	-0.1	283	7.7	7.5	-1.7	277	0.8	0.8	-0.1
17	2	2.4	-0.1	-2.4	63	0.9	-0.8	-0.4	81	6.5	-6.4	-1.0	86	1.6	-1.6	-0.1	256	8.2	8.0	2.0	258	10.3	10.1	2.1	240	3.4	3.0	1.7
18	354	2.7	0.3	-2.7	9	2.0	-0.3	-2.0	94	6.1	-6.1	0.4	126	0.9	-0.7	0.5	264	8.2	8.2	0.8	255	11.3	10.9	2.9	231	4.5	3.5	2.8
19	360	3.1	0.0	-3.1	24	1.7	-0.7	-1.6	91	5.7	-5.7	0.1	14	1.2	-0.3	-1.2	254	7.4	7.1	2.0	253	7.8	7.5	2.3	294	3.4	3.1	-1.4
20	121	0.6	-0.5	0.3	344	0.7	0.2	-0.7	79	5.1	-5.0	-1.0	69	3.0	-2.8	-1.1	265	9.0	9.0	0.8	268	12.2	12.2	0.4	315	3.1	2.2	-2.2
21	225	0.3	0.2	0.2	360	1.1	0.0	-1.1	80	5.9	-5.8	-1.0	65	1.7	-1.5	-0.7	274	8.9	8.9	-0.6	276	10.9	10.8	-1.1	333	0.2	0.1	-0.2
22	342	0.3	0.1	-0.3	360	2.2	0.0	-2.2	83	5.9	-5.9	-0.7	73	1.0	-1.0	-0.3	281	8.6	8.4	-1.6	271	9.5	9.5	-0.1	153	1.1	-0.5	1.0
23	164	0.7	-0.2	0.7	28	2.1	-1.0	-1.9	84	6.2	-6.2	-0.7	20	1.5	-0.5	-1.4	265	8.5	8.5	0.8	260	7.0	6.9	1.2	214	2.7	1.5	2.2
24	207	1.1	0.5	1.0	347	0.9	0.2	-0.9	86	5.1	-5.1	-0.4	322	1.1	0.7	-0.9	266	10.7	10.7	0.7	261	12.9	12.7	2.0	284	3.7	3.6	-0.9
25	330	2.0	1.0	-1.7	4	1.6	-0.1	-1.6	85	4.4	-4.4	-0.4	302	1.5	1.3	-0.8	271	11.8	11.8	-0.2	264	15.7	15.6	1.7	289	5.2	4.9	-1.7
26	350	1.7	0.3	-1.7	35	1.9	-1.1	-1.6	83	4.7	-4.7	-0.6	9	1.9	-0.3	-1.9	265	11.6	11.5	1.1	266	12.9	12.9	0.9	274	5.6	5.6	-0.4
27	360	0.9	0.0	-0.9	14	0.4	-0.1	-0.4	77	4.5	-4.4	-1.0	29	2.6	-1.3	-2.3	268	10.0	10.0	0.3	267	10.2	10.2	0.5	302	3.6	3.1	-1.9
28	337	2.1	0.8	-1.9	14	2.1	-0.5	-2.0	93	6.3	-6.3	0.3	23	2.3	-0.9	-2.1	276	7.5	7.5	-0.8	273	8.4	8.4	-0.5	273	2.0	2.0	-0.1
29	332	1.7	0.8	-1.5	21	0.9	-0.3	-0.8	84	5.6	-5.6	-0.6	61	3.1	-2.7	-1.5	285	7.6	7.3	-2.0	250	12.4	11.6	4.3	276	4.9	4.9	-0.5
30	324	0.9	0.5	-0.7	16	1.5	-0.4	-1.4	87	5.5	-5.5	-0.3	90	1.6	-1.6	0.0	274	6.8	6.8	-0.5	260	12.1	11.9	2.0	279	1.8	1.8	-0.3
31	304	1.8	1.5	-1.0	348	1.9	0.4	-1.9	79	6.0	-5.9	-1.1	71	1.8	-1.7	-0.6	249	7.9	7.4	2.8	257	9.1	8.9	2.1	258	1.9	1.9	0.4

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	338	2.9	1.1	-2.7	354	3.7	0.4	-3.7	82	6.4	-6.3	-0.9	44	3.6	-2.5	-2.6	264	7.0	7.0	0.7	256	8.6	8.3	2.1	301	1.7	1.5	-0.9
2	337	2.1	0.8	-1.9	358	2.4	0.1	-2.4	80	6.1	-6.0	-1.1	100	2.3	-2.3	0.4	253	8.4	8.0	2.4	242	9.5	8.4	4.5	253	3.0	2.9	0.9
3	14	1.2	-0.3	-1.2	21	1.4	-0.5	-1.3	88	5.9	-5.9	-0.2	113	1.3	-1.2	0.5	250	8.0	7.5	2.7	245	9.4	8.5	3.9	72	0.6	-0.6	-0.2
4	14	0.4	-0.1	-0.4	342	0.6	0.2	-0.6	84	5.7	-5.7	-0.6	180	0.5	0.0	0.5	251	8.7	8.2	2.8	249	10.8	10.1	3.8	119	2.3	-2.0	1.1
5	352	1.4	0.2	-1.4	3	1.9	-0.1	-1.9	87	5.8	-5.8	-0.3	309	0.6	0.5	-0.4	274	6.5	6.5	-0.5	237	9.8	8.3	5.3	256	3.2	3.1	0.8
6	324	2.2	1.3	-1.8	7	1.6	-0.2	-1.6	83	7.0	-7.0	-0.8	187	0.8	0.1	0.8	279	7.6	7.5	-1.2	253	7.7	7.4	2.3	84	1.9	-1.9	-0.2
7	298	1.5	1.3	-0.7	28	1.5	-0.7	-1.3	76	5.6	-5.4	-1.3	36	2.4	-1.4	-1.9	292	6.5	6.0	-2.4	249	5.6	5.2	2.0	360	1.9	0.0	-1.9
8	329	2.1	1.1	-1.8	349	2.5	0.5	-2.5	80	6.0	-5.9	-1.0	77	0.9	-0.9	-0.2	276	5.1	5.1	-0.5	257	8.2	8.0	1.9	171	1.2	-0.2	1.2
9	335	2.3	1.0	-2.1	350	2.7	0.5	-2.7	78	4.7	-4.6	-1.0	118	1.5	-1.3	0.7	266	4.9	4.9	0.3	258	11.2	10.9	2.4	223	4.0	2.7	2.9
10	347	0.9	0.2	-0.9	327	3.0	1.6	-2.5	83	4.6	-4.6	-0.6	97	1.6	-1.6	0.2	280	7.1	7.0	-1.2	273	10.2	10.2	-0.6	256	2.5	2.4	0.6
11	306	1.4	1.1	-0.8	339	1.9	0.7	-1.8	74	4.6	-4.4	-1.3	94	1.3	-1.3	0.1	291	3.3	3.1	-1.2	258	6.9	6.8	1.4	158	1.8	-0.7	1.7
12	310	1.6	1.2	-1.0	342	1.3	0.4	-1.2	76	5.5	-5.3	-1.3	96	1.8	-1.8	0.2	310	2.3	1.8	-1.5	255	5.0	4.8	1.3	142	3.7	-2.3	2.9
13	321	2.6	1.6	-2.0	348	1.4	0.3	-1.4	85	5.4	-5.4	-0.5	76	3.2	-3.1	-0.8	275	3.8	3.8	-0.3	234	6.0	4.9	3.5	264	2.0	2.0	0.2
14	360	2.5	0.0	-2.5	350	1.7	0.3	-1.7	87	6.3	-6.3	-0.3	101	3.3	-3.2	0.6	266	2.7	2.7	0.2	242	8.4	7.4	3.9	149	1.7	-0.9	1.5
15	317	1.6	1.1	-1.2	318	1.2	0.8	-0.9	82	6.2	-6.1	-0.9	288	0.6	0.6	-0.2	258	6.2	6.1	1.3	245	9.4	8.5	3.9	262	1.5	1.5	0.2
16	328	1.5	0.8	-1.3	330	0.8	0.4	-0.7	89	4.7	-4.7	-0.1	124	1.1	-0.9	0.6	260	8.2	8.1	1.5	253	9.8	9.4	2.9	212	1.3	0.7	1.1
17	320	2.5	1.6	-1.9	351	2.0	0.3	-2.0	90	5.2	-5.2	0.0	81	1.2	-1.2	-0.2	273	8.3	8.3	-0.4	260	12.1	11.9	2.1	225	3.0	2.1	2.1
18	307	1.5	1.2	-0.9	335	1.7	0.7	-1.5	93	6.2	-6.2	0.3	56	1.8	-1.5	-1.0	272	8.1	8.1	-0.3	251	12.3	11.6	4.0	310	1.7	1.3	-1.1
19	360	2.2	0.0	-2.2	349	2.0	0.4	-2.0	92	6.2	-6.2	0.2	85	2.2	-2.2	-0.2	267	7.2	7.2	0.4	225	13.4	9.4	9.5	240	1.4	1.2	0.7
20	322	3.4	2.1	-2.7	314	2.9	2.1	-2.0	84	6.4	-6.4	-0.7	85	2.3	-2.3	-0.2	261	9.4	9.3	1.4	239	12.9	11.1	6.6	137	4.2	-2.9	3.1
21	343	3.0	0.9	-2.9	351	1.2	0.2	-1.2	82	7.0	-6.9	-1.0	104	0.8	-0.8	0.2	258	8.0	7.8	1.7	245	11.2	10.2	4.7	176	2.9	-0.2	2.9
22	323	1.5	0.9	-1.2	315	2.3	1.6	-1.6	78	5.7	-5.6	-1.2	78	1.4	-1.4	-0.3	269	9.2	9.2	0.1	254	13.6	13.1	3.7	22	0.5	-0.2	-0.5
23	335	2.6	1.1	-2.4	360	2.6	0.0	-2.6	78	4.7	-4.6	-1.0	343	1.4	0.4	-1.3	255	7.5	7.3	1.9	257	13.0	12.6	3.0	275	5.0	5.0	-0.4
24	329	2.7	1.4	-2.3	349	2.0	0.4	-2.0	80	6.0	-5.9	-1.0	356	1.6	0.1	-1.6	261	9.9	9.8	1.5	250	12.1	11.4	4.1	18	2.2	-0.7	-2.1
25	339	3.0	1.1	-2.8	72	0.6	-0.6	-0.2	66	3.9	-3.6	-1.6	338	2.7	1.0	-2.5	276	11.0	10.9	-1.2	260	12.3	12.1	2.1	81	2.0	-2.0	-0.3
26	316	3.2	2.2	-2.3	320	1.7	1.1	-1.3	80	6.3	-6.2	-1.1	16	3.3	-0.9	-3.2	283	8.1	7.9	-1.8	255	10.6	10.3	2.7	127	0.5	-0.4	0.3
27	308	2.3	1.8	-1.4	320	1.7	1.1	-1.3	84	5.7	-5.7	-0.6	37	2.6	-1.6	-2.1	295	5.1	4.6	-2.1	245	8.6	7.8	3.7	81	4.4	-4.3	-0.7
28	327	2.4	1.3	-2.0	318	2.4	1.6	-1.8	82	6.4	-6.3	-0.9	52	3.1	-2.4	-1.9	287	5.4	5.2	-1.6	244	7.9	7.1	3.5	89	4.2	-4.2	-0.1
29	323	3.4	2.0	-2.7	316	2.9	2.0	-2.1	79	6.5	-6.4	-1.2	61	2.6	-2.3	-1.3	304	5.8	4.8	-3.2	265	8.2	8.2	0.7	92	4.6	-4.6	0.2
30	345	3.5	0.9	-3.4	329	2.1	1.1	-1.8	82	5.2	-5.2	-0.7	50	3.9	-3.0	-2.5	309	3.5	2.7	-2.2	267	5.9	5.9	0.3	107	6.5	-6.2	1.9

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	318	2.4	1.6	-1.8	331	3.9	1.9	-3.4	64	5.2	-4.7	-2.3	40	3.4	-2.2	-2.6	291	4.2	3.9	-1.5	261	6.7	6.6	1.0	315	0.7	0.5	-0.5
2	324	2.9	1.7	-2.3	360	2.8	0.0	-2.8	87	5.0	-5.0	-0.3	54	2.9	-2.3	-1.7	260	2.3	2.3	0.4	238	5.4	4.6	2.9	124	5.0	-4.2	2.8
3	309	2.2	1.7	-1.4	344	1.9	0.5	-1.8	75	4.9	-4.7	-1.3	79	3.1	-3.0	-0.6	281	2.1	2.1	-0.4	219	6.7	4.2	5.2	114	5.7	-5.2	2.3
4	332	2.1	1.0	-1.9	349	2.6	0.5	-2.6	78	4.2	-4.1	-0.9	81	2.5	-2.5	-0.4	264	1.9	1.9	0.2	228	5.7	4.2	3.8	107	3.7	-3.5	1.1
5	317	2.5	1.7	-1.8	318	2.7	1.8	-2.0	82	4.8	-4.7	-0.7	86	3.2	-3.2	-0.2	198	1.6	0.5	1.5	224	5.9	4.1	4.3	105	5.2	-5.0	1.3
6	322	3.6	2.2	-2.8	312	2.4	1.8	-1.6	84	5.9	-5.9	-0.6	78	3.3	-3.2	-0.7	283	2.6	2.5	-0.6	260	5.0	4.9	0.9	96	5.8	-5.8	0.6
7	347	2.2	0.5	-2.1	321	2.6	1.6	-2.0	87	5.8	-5.8	-0.3	73	3.1	-3.0	-0.9	299	3.5	3.1	-1.7	231	4.5	3.5	2.8	121	5.5	-4.7	2.8
8	297	2.8	2.5	-1.3	330	2.0	1.0	-1.7	89	5.5	-5.5	-0.1	70	4.1	-3.9	-1.4	279	2.4	2.4	-0.4	222	5.1	3.4	3.8	107	6.5	-6.2	1.9
9	322	3.7	2.3	-2.9	313	3.4	2.5	-2.3	84	5.5	-5.5	-0.6	61	3.1	-2.7	-1.5	32	0.9	-0.5	-0.8	175	2.5	-0.2	2.5	95	10.8	-10.8	1.0
10	321	3.5	2.2	-2.7	324	2.9	1.7	-2.3	88	4.8	-4.8	-0.2	87	3.6	-3.6	-0.2	135	0.1	-0.1	0.1	202	1.8	0.7	1.7	102	8.6	-8.4	1.8
11	310	2.5	1.9	-1.6	332	2.6	1.2	-2.3	76	4.0	-3.9	-1.0	56	3.2	-2.7	-1.8	174	0.9	-0.1	0.9	194	2.9	0.7	2.8	105	12.9	-12.4	3.4
12	314	3.3	2.4	-2.3	291	1.9	1.8	-0.7	65	4.3	-3.9	-1.8	86	3.9	-3.9	-0.3	262	0.7	0.7	0.1	188	2.1	0.3	2.1	106	10.8	-10.4	3.0
13	325	2.1	1.2	-1.7	307	2.0	1.6	-1.2	78	5.3	-5.2	-1.1	83	3.3	-3.3	-0.4	143	0.5	-0.3	0.4	181	4.1	0.1	4.1	101	8.0	-7.9	1.5
14	338	2.9	1.1	-2.7	293	2.3	2.1	-0.9	75	5.6	-5.4	-1.4	89	4.6	-4.6	-0.1	16	0.7	-0.2	-0.7	159	3.9	-1.4	3.6	106	10.6	-10.2	2.9
15	307	3.1	2.5	-1.9	261	1.3	1.3	0.2	71	4.3	-4.1	-1.4	87	3.9	-3.9	-0.2	127	2.6	-2.1	1.6	152	4.2	-2.0	3.7	98	13.9	-13.8	1.9
16	266	2.8	2.8	0.2	295	2.6	2.4	-1.1	78	4.5	-4.4	-0.9	85	5.7	-5.7	-0.5	150	1.4	-0.7	1.2	140	5.1	-3.3	3.9	111	12.0	-11.2	4.3
17	270	3.0	3.0	0.0	272	3.2	3.2	-0.1	79	4.1	-4.0	-0.8	93	5.3	-5.3	0.3	184	1.6	0.1	1.6	155	6.0	-2.5	5.4	122	11.3	-9.6	6.0
18	264	2.9	2.9	0.3	303	3.3	2.8	-1.8	71	2.4	-2.3	-0.8	88	2.5	-2.5	-0.1	103	1.3	-1.3	0.3	167	3.5	-0.8	3.4	108	8.9	-8.4	2.8
19	304	5.2	4.3	-2.9	308	4.4	3.5	-2.7	68	3.7	-3.4	-1.4	42	2.7	-1.8	-2.0	323	1.5	0.9	-1.2	123	4.0	-3.4	2.2	98	8.4	-8.3	1.1
20	320	5.2	3.4	-4.0	307	4.3	3.4	-2.6	61	3.5	-3.1	-1.7	62	4.2	-3.7	-2.0	198	0.6	0.2	0.6	178	7.6	-0.2	7.6	111	12.2	-11.4	4.3
21	312	4.3	3.2	-2.9	320	3.9	2.5	-3.0	58	4.0	-3.4	-2.1	58	4.6	-3.9	-2.4	180	1.5	0.0	1.5	174	4.6	-0.5	4.6	124	12.1	-10.0	6.8
22	307	3.1	2.5	-1.9	295	3.3	3.0	-1.4	68	3.2	-3.0	-1.2	55	3.2	-2.6	-1.8	239	2.6	2.2	1.3	131	4.3	-3.2	2.8	115	11.6	-10.5	5.0
23	295	3.1	2.8	-1.3	313	3.5	2.6	-2.4	78	2.5	-2.4	-0.5	52	2.3	-1.8	-1.4	169	0.5	-0.1	0.5	131	3.8	-2.9	2.5	109	13.9	-13.1	4.5
24	295	4.1	3.7	-1.7	297	3.9	3.5	-1.8	78	2.4	-2.3	-0.5	60	2.4	-2.1	-1.2	63	1.1	-1.0	-0.5	141	3.6	-2.3	2.8	103	14.2	-13.8	3.2
25	300	3.6	3.1	-1.8	302	3.9	3.3	-2.1	75	3.0	-2.9	-0.8	72	1.9	-1.8	-0.6	299	1.0	0.9	-0.5	153	4.6	-2.1	4.1	105	13.8	-13.3	3.5
26	311	3.5	2.6	-2.3	303	4.3	3.6	-2.3	78	3.5	-3.4	-0.7	67	4.3	-4.0	-1.7	58	2.2	-1.9	-1.2	128	3.9	-3.1	2.4	110	14.3	-13.4	4.9
27	312	3.6	2.7	-2.4	302	3.9	3.3	-2.1	55	1.9	-1.6	-1.1	82	3.5	-3.5	-0.5	58	2.8	-2.4	-1.5	111	5.1	-4.8	1.8	106	16.6	-15.9	4.6
28	286	4.1	3.9	-1.1	294	3.9	3.6	-1.6	39	2.8	-1.8	-2.2	66	1.7	-1.6	-0.7	106	3.5	-3.4	1.0	134	3.3	-2.4	2.3	97	15.5	-15.4	1.9
29	310	1.7	1.3	-1.1	304	5.5	4.6	-3.1	360	0.6	0.0	-0.6	144	0.9	-0.5	0.7	99	1.2	-1.2	0.2	114	4.7	-4.3	1.9	107	16.2	-15.5	4.7
30	296	2.5	2.3	-1.1	305	5.0	4.1	-2.9	23	2.1	-0.8	-1.9	83	2.3	-2.3	-0.3	130	0.8	-0.6	0.5	161	4.3	-1.4	4.1	107	14.7	-14.1	4.3
31	306	2.6	2.1	-1.5	284	4.9	4.7	-1.2	149	0.6	-0.3	0.5	145	1.2	-0.7	1.0	138	2.5	-1.7	1.9	123	5.7	-4.8	3.1	107	16.7	-15.9	5.0

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	299	3.3	2.9	-1.6	283	3.6	3.5	-0.8	149	0.6	-0.3	0.5	225	1.3	0.9	0.9	149	2.3	-1.2	2.0	108	5.6	-5.3	1.7	108	17.6	-16.8	5.4
2	315	3.5	2.5	-2.5	275	5.3	5.3	-0.5	273	1.9	1.9	-0.1	90	0.2	-0.2	0.0	120	2.2	-1.9	1.1	94	4.9	-4.9	0.3	110	20.4	-19.2	6.8
3	266	3.1	3.1	0.2	271	6.3	6.3	-0.1	287	2.1	2.0	-0.6	288	0.9	0.9	-0.3	122	3.2	-2.7	1.7	120	7.3	-6.3	3.7	107	23.5	-22.5	6.8
4	189	2.4	0.4	2.4	266	5.4	5.4	0.4	198	2.5	0.8	2.4	231	1.9	1.5	1.2	90	2.7	-2.7	0.0	105	8.3	-8.0	2.1	106	27.7	-26.6	7.7
5	230	1.7	1.3	1.1	278	5.2	5.2	-0.7	180	0.1	0.0	0.1	169	0.5	-0.1	0.5	114	3.0	-2.7	1.2	100	10.2	-10.1	1.7	100	24.2	-23.9	4.1
6	204	2.2	0.9	2.0	267	6.5	6.5	0.3	273	3.6	3.6	-0.2	228	2.5	1.9	1.7	91	4.5	-4.5	0.1	96	10.0	-10.0	1.0	111	27.6	-25.8	9.8
7	254	2.9	2.8	0.8	263	5.7	5.7	0.7	259	4.1	4.0	0.8	180	0.6	0.0	0.6	100	5.2	-5.1	0.9	90	12.2	-12.2	-0.1	98	25.6	-25.3	3.7
8	254	5.3	5.1	1.5	260	7.5	7.4	1.3	236	3.0	2.5	1.7	62	1.7	-1.5	-0.8	113	4.4	-4.1	1.7	112	9.2	-8.6	3.4	106	28.1	-27.1	7.6
9	245	5.0	4.5	2.1	268	8.1	8.1	0.3	262	5.6	5.5	0.8	104	0.4	-0.4	0.1	95	4.4	-4.4	0.4	93	12.0	-12.0	0.6	95	25.7	-25.6	2.2
10	229	5.7	4.3	3.7	276	8.3	8.3	-0.9	266	6.8	6.8	0.5	278	2.8	2.8	-0.4	103	5.8	-5.7	1.3	94	13.6	-13.6	1.0	97	25.5	-25.3	3.2
11	250	3.5	3.3	1.2	281	8.1	8.0	-1.5	285	6.7	6.5	-1.7	298	1.5	1.3	-0.7	86	5.9	-5.9	-0.4	93	11.0	-11.0	0.6	94	23.7	-23.6	1.8
12	285	3.8	3.7	-1.0	288	8.2	7.8	-2.6	285	6.0	5.8	-1.6	264	2.8	2.8	0.3	93	5.3	-5.3	0.3	95	13.3	-13.3	1.1	101	25.8	-25.3	5.0
13	283	5.4	5.3	-1.2	294	8.6	7.9	-3.5	296	8.1	7.3	-3.5	238	1.5	1.3	0.8	88	3.7	-3.7	-0.1	97	15.0	-14.9	1.8	102	28.5	-27.9	5.7
14	280	7.8	7.7	-1.4	287	9.2	8.8	-2.7	276	7.2	7.2	-0.8	263	5.6	5.6	0.7	87	5.5	-5.5	-0.3	87	11.4	-11.4	-0.6	99	28.6	-28.3	4.4
15	264	6.7	6.7	0.7	278	9.0	8.9	-1.3	275	9.3	9.3	-0.8	240	4.2	3.6	2.1	133	5.3	-3.9	3.6	91	15.8	-15.8	0.2	93	25.8	-25.8	1.5
16	257	9.2	9.0	2.0	275	12.0	12.0	-1.0	273	11.9	11.9	-0.6	262	5.9	5.8	0.8	80	5.7	-5.6	-1.0	81	12.1	-11.9	-1.9	96	26.5	-26.3	2.9
17	266	10.5	10.5	0.7	278	11.8	11.7	-1.6	280	11.1	10.9	-2.0	270	6.6	6.6	0.0	94	4.2	-4.2	0.3	80	17.5	-17.3	-2.9	93	25.5	-25.5	1.3
18	281	7.1	7.0	-1.4	283	11.1	10.8	-2.4	279	10.6	10.5	-1.7	276	7.1	7.1	-0.8	98	4.3	-4.3	0.6	91	15.7	-15.7	0.4	91	31.2	-31.2	0.6
19	267	6.5	6.5	0.3	273	11.2	11.2	-0.6	283	11.2	10.9	-2.5	269	10.1	10.1	0.1	85	5.7	-5.7	-0.5	95	14.3	-14.2	1.2	100	27.2	-26.8	4.5
20	258	7.7	7.5	1.6	286	11.1	10.7	-3.1	285	10.9	10.5	-2.8	278	6.9	6.8	-0.9	74	5.0	-4.8	-1.4	93	16.7	-16.7	1.0	93	23.3	-23.3	1.1
21	261	10.1	10.0	1.5	290	9.6	9.0	-3.2	292	8.7	8.0	-3.3	299	6.3	5.5	-3.1	102	6.1	-6.0	1.3	91	15.5	-15.5	0.2	99	24.1	-23.8	3.9
22	265	8.5	8.5	0.8	288	11.1	10.6	-3.4	285	9.5	9.2	-2.4	287	5.6	5.4	-1.6	85	6.8	-6.8	-0.6	98	17.5	-17.3	2.5	97	25.3	-25.1	3.2
23	288	7.1	6.7	-2.2	287	10.6	10.1	-3.1	282	8.9	8.7	-1.9	268	4.6	4.6	0.2	90	7.4	-7.4	0.0	96	18.9	-18.8	1.9	98	28.5	-28.2	3.9
24	275	8.4	8.4	-0.7	285	8.6	8.3	-2.3	285	8.8	8.5	-2.3	266	4.7	4.7	0.3	99	6.1	-6.0	1.0	98	22.7	-22.5	3.0	94	32.2	-32.1	2.4
25	277	10.5	10.4	-1.2	278	10.2	10.1	-1.5	272	9.4	9.4	-0.3	276	5.5	5.5	-0.6	95	6.7	-6.7	0.6	94	21.8	-21.8	1.4	97	32.4	-32.2	4.0
26	274	6.4	6.4	-0.4	280	11.0	10.8	-2.0	281	9.7	9.5	-1.9	276	6.2	6.2	-0.6	94	5.6	-5.6	0.4	94	20.1	-20.1	1.4	97	34.0	-33.8	4.0
27	277	8.5	8.4	-1.0	275	11.2	11.2	-1.0	277	10.8	10.7	-1.4	266	6.9	6.9	0.5	94	4.7	-4.7	0.3	96	18.6	-18.5	1.8	103	31.7	-30.9	7.0
28	275	8.5	8.5	-0.8	287	11.5	11.0	-3.4	283	10.4	10.1	-2.3	269	6.5	6.5	0.1	101	6.5	-6.4	1.3	86	20.3	-20.3	-1.3	96	34.2	-34.0	3.4
29	282	8.3	8.1	-1.7	281	10.6	10.4	-2.1	281	9.4	9.2	-1.8	266	4.4	4.4	0.3	106	7.0	-6.7	1.9	98	20.9	-20.7	2.8	94	31.7	-31.6	2.0
30	270	10.4	10.4	0.0	276	10.4	10.3	-1.1	279	9.0	8.9	-1.4	260	4.1	4.0	0.7	95	6.0	-6.0	0.5	92	18.4	-18.4	0.8	95	35.2	-35.0	3.3

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	260	8.7	8.6	1.5	278	11.0	10.9	-1.6	276	9.0	8.9	-1.0	274	3.1	3.1	-0.2	65	6.2	-5.6	-2.6	89	20.9	-20.9	-0.3	98	39.8	-39.4	5.8
2	267	6.3	6.3	0.3	285	10.6	10.2	-2.8	284	9.9	9.6	-2.4	262	4.3	4.3	0.6	87	6.7	-6.7	-0.4	98	21.5	-21.3	3.0	106	36.2	-34.9	9.8
3	279	7.4	7.3	-1.1	279	10.3	10.2	-1.7	277	10.1	10.0	-1.3	292	3.8	3.5	-1.4	69	7.4	-6.9	-2.7	92	21.3	-21.3	0.8	101	29.0	-28.5	5.6
4	305	6.3	5.2	-3.6	281	9.8	9.6	-1.9	292	8.0	7.4	-3.0	258	4.5	4.4	0.9	94	7.9	-7.9	0.5	103	19.4	-18.9	4.5	95	33.5	-33.4	2.8
5	282	6.4	6.3	-1.3	291	8.9	8.3	-3.2	286	8.1	7.8	-2.3	279	2.4	2.4	-0.4	90	8.8	-8.8	0.0	97	23.8	-23.6	2.9	102	30.5	-29.8	6.4
6	290	5.6	5.3	-1.9	294	9.5	8.7	-3.8	298	7.8	6.9	-3.7	279	4.5	4.4	-0.7	105	6.7	-6.5	1.7	95	17.9	-17.8	1.6	97	33.9	-33.6	4.4
7	268	5.1	5.1	0.2	297	9.0	8.0	-4.1	293	7.9	7.3	-3.1	272	2.4	2.4	-0.1	102	7.9	-7.7	1.6	99	20.1	-19.9	3.1	102	34.1	-33.4	6.9
8	259	7.0	6.9	1.4	292	10.5	9.8	-3.9	293	8.6	7.9	-3.4	268	2.6	2.6	0.1	98	7.4	-7.3	1.0	90	20.3	-20.3	0.0	100	35.1	-34.5	6.3
9	266	7.3	7.3	0.5	291	10.5	9.8	-3.8	291	9.0	8.4	-3.2	271	3.9	3.9	-0.1	101	6.4	-6.3	1.2	91	22.9	-22.9	0.5	94	35.2	-35.1	2.5
10	283	9.4	9.2	-2.1	294	9.7	8.8	-4.0	292	8.4	7.8	-3.2	269	4.2	4.2	0.1	84	6.0	-6.0	-0.6	98	21.0	-20.8	2.9	101	32.6	-32.0	6.2
11	270	8.0	8.0	0.0	293	10.6	9.7	-4.2	290	8.3	7.8	-2.9	297	1.6	1.4	-0.7	94	7.8	-7.8	0.5	94	20.3	-20.2	1.5	102	31.3	-30.6	6.7
12	265	10.3	10.3	0.9	288	11.2	10.6	-3.5	294	8.6	7.9	-3.5	307	2.5	2.0	-1.5	109	5.0	-4.7	1.6	103	19.6	-19.1	4.5	101	33.1	-32.5	6.4
13	276	12.9	12.8	-1.4	285	10.9	10.5	-2.9	291	8.7	8.1	-3.1	277	3.2	3.2	-0.4	81	4.9	-4.8	-0.8	95	19.8	-19.7	1.8	101	36.4	-35.8	6.7
14	269	11.5	11.5	0.3	285	12.0	11.6	-3.0	289	10.1	9.5	-3.3	251	5.8	5.5	1.9	51	3.3	-2.6	-2.1	96	18.3	-18.2	2.0	95	34.6	-34.5	2.8
15	277	12.6	12.5	-1.6	289	11.2	10.6	-3.7	292	9.2	8.6	-3.4	288	3.9	3.7	-1.2	109	7.2	-6.8	2.4	107	20.0	-19.2	5.7	98	31.8	-31.5	4.5
16	285	11.5	11.1	-2.9	287	10.7	10.2	-3.2	290	9.6	9.0	-3.2	306	3.7	3.0	-2.2	93	8.2	-8.2	0.5	101	19.1	-18.8	3.5	96	29.5	-29.3	3.0
17	283	9.4	9.2	-2.1	292	11.0	10.2	-4.2	293	10.6	9.8	-4.1	287	3.7	3.5	-1.1	93	7.8	-7.8	0.4	100	22.9	-22.6	3.8	101	31.1	-30.6	5.7
18	288	9.7	9.2	-3.0	290	12.3	11.6	-4.2	284	10.0	9.7	-2.4	285	2.3	2.2	-0.6	76	7.2	-7.0	-1.8	93	17.6	-17.6	0.9	97	38.8	-38.5	4.4
19	271	6.6	6.6	-0.1	286	11.0	10.6	-3.0	285	8.7	8.4	-2.3	299	2.5	2.2	-1.2	96	9.7	-9.6	1.0	97	19.4	-19.2	2.5	98	41.8	-41.4	5.7
20	267	7.1	7.1	0.4	283	11.0	10.7	-2.5	290	8.6	8.1	-3.0	217	0.5	0.3	0.4	89	8.5	-8.5	-0.1	98	21.5	-21.3	3.0	98	32.5	-32.2	4.3
21	289	9.0	8.5	-3.0	292	10.2	9.5	-3.8	289	8.3	7.8	-2.7	322	2.3	1.4	-1.8	98	7.6	-7.5	1.1	95	18.9	-18.8	1.7	101	33.6	-33.0	6.2
22	276	7.3	7.3	-0.8	295	12.5	11.4	-5.2	296	9.7	8.7	-4.2	275	3.5	3.5	-0.3	86	6.9	-6.9	-0.5	92	17.9	-17.9	0.7	97	34.9	-34.6	4.2
23	294	6.8	6.2	-2.8	298	12.0	10.6	-5.6	295	8.5	7.7	-3.6	308	3.9	3.1	-2.4	125	7.0	-5.7	4.0	97	21.7	-21.5	2.8	93	32.8	-32.7	2.0
24	294	8.0	7.3	-3.2	295	11.6	10.5	-4.9	297	9.2	8.2	-4.1	276	2.7	2.7	-0.3	101	6.6	-6.5	1.3	93	22.1	-22.1	1.0	94	39.2	-39.1	2.4
25	280	8.3	8.2	-1.4	295	11.6	10.5	-5.0	294	8.5	7.8	-3.4	275	2.5	2.5	-0.2	101	7.1	-7.0	1.4	95	19.7	-19.6	1.6	98	37.1	-36.8	4.9
26	287	11.7	11.2	-3.4	290	12.8	12.1	-4.3	285	10.9	10.5	-2.9	275	4.8	4.8	-0.4	102	10.9	-10.7	2.2	97	22.5	-22.3	2.7	91	36.2	-36.2	0.4
27	277	8.7	8.6	-1.0	293	10.0	9.2	-4.0	289	8.3	7.8	-2.7	266	2.9	2.9	0.2	109	7.9	-7.5	2.6	99	21.9	-21.6	3.5	105	33.3	-32.2	8.4
28	281	12.6	12.4	-2.5	293	12.1	11.1	-4.8	288	9.9	9.4	-3.1	288	4.3	4.1	-1.3	93	8.3	-8.3	0.5	95	22.4	-22.3	1.8	95	40.9	-40.7	3.7
29	293	10.2	9.4	-3.9	291	10.4	9.7	-3.8	287	9.3	8.9	-2.7	280	5.1	5.0	-0.9	84	8.1	-8.1	-0.8	91	19.0	-19.0	0.3	99	31.2	-30.8	5.1
30	289	10.8	10.2	-3.6	292	10.8	10.0	-4.0	288	9.4	8.9	-2.9	296	4.3	3.9	-1.9	98	6.3	-6.2	0.9	93	21.9	-21.9	1.2	104	31.6	-30.6	7.9
31	289	10.0	9.4	-3.3	297	11.5	10.3	-5.2	285	9.3	9.0	-2.4	285	4.2	4.1	-1.1	95	5.9	-5.9	0.5	94	20.1	-20.0	1.5	109	33.5	-31.6	11.0

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	279	9.1	9.0	-1.5	290	10.7	10.1	-3.6	288	9.6	9.1	-3.0	287	4.4	4.2	-1.3	81	6.4	-6.3	-1.0	99	23.2	-22.9	3.8	97	27.9	-27.7	3.2
2	298	9.0	8.0	-4.2	296	11.4	10.3	-5.0	297	10.3	9.2	-4.7	289	4.9	4.6	-1.6	94	4.4	-4.4	0.3	100	19.5	-19.2	3.3	91	34.8	-34.8	0.5
3	294	10.5	9.6	-4.2	298	10.8	9.6	-5.0	294	9.5	8.7	-3.9	292	4.0	3.7	-1.5	105	6.6	-6.4	1.7	93	19.0	-19.0	1.0	99	31.8	-31.4	4.8
4	282	10.9	10.7	-2.2	293	11.6	10.6	-4.6	290	10.2	9.6	-3.4	263	3.9	3.9	0.5	103	7.6	-7.4	1.7	100	21.9	-21.6	3.9	96	33.4	-33.2	3.2
5	286	6.9	6.6	-1.9	290	9.7	9.1	-3.3	288	8.8	8.4	-2.7	270	3.5	3.5	0.0	98	8.9	-8.8	1.2	90	24.3	-24.3	0.2	93	30.8	-30.8	1.7
6	288	7.0	6.6	-2.2	295	8.9	8.0	-3.8	295	9.0	8.2	-3.8	279	3.9	3.9	-0.6	99	5.6	-5.5	0.9	94	21.9	-21.8	1.5	100	23.9	-23.5	4.3
7	279	5.5	5.4	-0.9	295	9.9	9.0	-4.2	290	8.8	8.3	-3.0	285	3.0	2.9	-0.8	95	7.1	-7.1	0.6	93	20.9	-20.9	1.1	96	25.8	-25.6	2.9
8	284	6.0	5.8	-1.4	294	11.1	10.1	-4.5	293	10.7	9.8	-4.2	301	2.7	2.3	-1.4	87	5.2	-5.2	-0.3	97	16.3	-16.2	2.1	103	32.7	-31.9	7.1
9	293	7.5	6.9	-2.9	293	12.2	11.3	-4.7	297	8.9	8.0	-4.0	305	6.1	5.0	-3.5	95	6.4	-6.4	0.6	97	19.9	-19.8	2.3	89	27.9	-27.9	-0.5
10	280	9.6	9.5	-1.6	291	11.9	11.1	-4.2	294	10.9	9.9	-4.5	288	5.5	5.2	-1.7	78	5.4	-5.3	-1.1	95	23.4	-23.3	2.0	98	26.6	-26.4	3.5
11	271	7.5	7.5	-0.1	295	11.0	10.0	-4.6	292	9.3	8.6	-3.5	288	3.2	3.0	-1.0	88	6.4	-6.4	-0.2	92	18.7	-18.7	0.7	103	31.5	-30.7	7.1
12	274	6.1	6.1	-0.4	291	11.5	10.7	-4.2	296	10.9	9.8	-4.7	272	2.6	2.6	-0.1	106	7.5	-7.2	2.0	105	21.4	-20.7	5.6	94	35.0	-34.9	2.6
13	280	7.7	7.6	-1.3	291	11.8	11.0	-4.2	295	8.9	8.1	-3.8	293	3.0	2.8	-1.2	87	8.3	-8.3	-0.5	94	22.0	-21.9	1.6	101	34.4	-33.7	6.8
14	287	6.7	6.4	-2.0	294	10.2	9.3	-4.1	292	9.7	9.0	-3.6	261	2.6	2.6	0.4	95	6.1	-6.1	0.5	98	20.3	-20.1	2.9	103	29.4	-28.6	6.7
15	290	6.6	6.2	-2.3	297	10.9	9.7	-4.9	292	10.1	9.4	-3.8	302	4.5	3.8	-2.4	105	6.1	-5.9	1.6	96	22.5	-22.4	2.2	99	29.2	-28.9	4.4
16	292	7.1	6.6	-2.6	300	10.8	9.3	-5.4	296	8.8	7.9	-3.9	282	4.4	4.3	-0.9	102	5.4	-5.3	1.1	92	20.7	-20.7	0.9	97	33.5	-33.3	3.9
17	294	7.3	6.7	-3.0	297	10.3	9.2	-4.7	291	9.1	8.5	-3.2	293	4.8	4.4	-1.9	105	5.8	-5.6	1.5	94	20.1	-20.1	1.4	95	36.0	-35.9	3.1
18	298	6.1	5.4	-2.9	298	9.8	8.7	-4.6	291	8.8	8.2	-3.2	290	3.5	3.3	-1.2	110	6.5	-6.1	2.2	100	22.9	-22.6	3.9	97	30.7	-30.5	3.5
19	294	6.4	5.9	-2.6	296	8.3	7.5	-3.6	301	8.2	7.0	-4.2	306	0.9	0.7	-0.5	94	9.2	-9.2	0.6	101	21.8	-21.4	4.0	96	31.5	-31.3	3.4
20	288	7.1	6.7	-2.2	296	9.8	8.8	-4.2	298	8.4	7.4	-3.9	297	2.2	2.0	-1.0	112	7.4	-6.9	2.8	94	20.8	-20.8	1.3	93	35.7	-35.7	1.7
21	308	6.8	5.3	-4.2	296	10.7	9.6	-4.7	298	8.6	7.6	-4.1	272	3.8	3.8	-0.1	88	6.9	-6.9	-0.3	99	19.9	-19.7	3.0	102	27.9	-27.3	5.9
22	295	7.5	6.8	-3.2	300	9.2	8.0	-4.6	297	7.4	6.6	-3.4	299	2.3	2.0	-1.1	108	8.0	-7.6	2.4	99	19.7	-19.4	3.2	97	35.8	-35.5	4.6
23	294	8.0	7.3	-3.2	300	9.1	7.9	-4.5	295	7.8	7.1	-3.3	281	3.3	3.2	-0.6	115	8.4	-7.6	3.6	96	21.1	-21.0	2.2	101	31.0	-30.4	5.9
24	272	5.3	5.3	-0.2	295	8.8	8.0	-3.7	293	9.1	8.4	-3.5	277	3.9	3.9	-0.5	117	7.2	-6.4	3.2	100	22.2	-21.9	3.7	91	28.4	-28.4	0.5
25	284	8.9	8.6	-2.2	294	9.4	8.6	-3.8	291	7.5	7.0	-2.7	303	1.7	1.4	-0.9	94	8.6	-8.6	0.6	102	21.2	-20.7	4.4	92	26.8	-26.8	1.0
26	269	8.6	8.6	0.2	291	9.1	8.5	-3.2	288	8.3	7.9	-2.6	329	1.7	0.9	-1.5	94	8.5	-8.5	0.6	103	18.6	-18.1	4.2	106	30.8	-29.6	8.5
27	286	8.5	8.2	-2.3	296	8.5	7.7	-3.7	287	9.0	8.6	-2.7	298	4.4	3.9	-2.1	92	5.4	-5.4	0.2	97	21.7	-21.6	2.5	110	24.3	-22.9	8.2
28	287	9.4	9.0	-2.8	299	9.1	8.0	-4.4	289	7.8	7.4	-2.6	291	3.3	3.1	-1.2	108	5.7	-5.4	1.8	93	18.8	-18.8	1.0	100	28.4	-28.0	4.8
29	300	7.8	6.7	-3.9	295	9.5	8.6	-4.1	289	7.4	7.0	-2.4	290	2.0	1.9	-0.7	100	6.1	-6.0	1.1	95	20.4	-20.3	1.8	99	31.0	-30.6	4.9
30	292	7.9	7.3	-3.0	294	9.5	8.7	-3.9	286	8.1	7.8	-2.3	263	3.4	3.4	0.4	99	5.7	-5.6	0.9	92	18.0	-18.0	0.6	98	26.3	-26.0	3.8
31	292	7.4	6.8	-2.8	298	8.8	7.8	-4.1	288	6.8	6.5	-2.1	271	4.8	4.8	-0.1	93	6.8	-6.8	0.4	95	20.0	-19.9	1.9	99	27.1	-26.8	4.2

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	298	7.1	6.3	-3.3	295	7.3	6.6	-3.1	281	6.1	6.0	-1.2	295	3.1	2.8	-1.3	95	7.0	-7.0	0.6	98	21.9	-21.7	3.2	97	28.7	-28.5	3.5
2	284	7.5	7.3	-1.8	297	7.9	7.0	-3.6	290	7.6	7.1	-2.6	266	2.8	2.8	0.2	97	11.8	-11.7	1.4	93	21.6	-21.6	1.3	94	22.7	-22.7	1.5
3	279	8.3	8.2	-1.3	293	8.7	8.0	-3.4	284	6.5	6.3	-1.6	263	0.8	0.8	0.1	106	8.4	-8.1	2.3	102	21.6	-21.1	4.5	95	28.4	-28.3	2.3
4	303	6.2	5.2	-3.4	298	8.0	7.0	-3.8	290	6.3	5.9	-2.1	225	1.4	1.0	1.0	90	7.9	-7.9	0.0	98	20.8	-20.6	2.9	95	24.7	-24.6	2.3
5	306	4.6	3.7	-2.7	299	7.1	6.2	-3.5	300	5.4	4.7	-2.7	263	0.8	0.8	0.1	103	8.2	-8.0	1.9	98	20.7	-20.5	3.0	99	24.9	-24.6	3.9
6	295	5.7	5.2	-2.4	306	7.9	6.4	-4.6	286	6.1	5.9	-1.7	294	3.0	2.7	-1.2	96	7.0	-7.0	0.7	104	18.0	-17.5	4.4	91	19.8	-19.8	0.4
7	286	6.4	6.1	-1.8	297	7.4	6.6	-3.4	288	6.0	5.7	-1.8	303	2.7	2.3	-1.5	92	6.9	-6.9	0.2	103	18.0	-17.5	4.2	105	24.7	-23.9	6.3
8	288	3.9	3.7	-1.2	304	6.9	5.7	-3.9	303	5.5	4.6	-3.0	304	1.1	0.9	-0.6	95	8.9	-8.9	0.8	105	20.2	-19.5	5.2	98	22.4	-22.2	3.1
9	289	4.9	4.6	-1.6	309	7.1	5.5	-4.5	310	3.9	3.0	-2.5	188	0.7	0.1	0.7	97	7.8	-7.7	0.9	102	17.2	-16.8	3.7	104	26.8	-26.0	6.7
10	299	4.7	4.1	-2.3	311	6.5	4.9	-4.3	306	5.2	4.2	-3.0	325	1.2	0.7	-1.0	98	6.0	-5.9	0.8	102	18.2	-17.8	3.7	100	23.5	-23.2	4.0
11	302	3.6	3.1	-1.9	310	6.7	5.2	-4.3	309	4.3	3.3	-2.7	328	1.9	1.0	-1.6	99	6.5	-6.4	1.0	107	19.3	-18.5	5.5	95	23.5	-23.4	2.0
12	302	4.5	3.8	-2.4	307	6.0	4.8	-3.6	285	3.5	3.4	-0.9	338	0.5	0.2	-0.5	106	7.5	-7.2	2.1	102	17.3	-16.9	3.5	100	21.0	-20.7	3.8
13	306	2.9	2.3	-1.7	302	4.5	3.8	-2.4	286	3.3	3.2	-0.9	249	1.4	1.3	0.5	110	6.6	-6.2	2.2	101	15.9	-15.6	3.0	103	19.8	-19.3	4.4
14	300	3.9	3.4	-2.0	297	5.7	5.1	-2.6	287	3.4	3.3	-1.0	180	0.3	0.0	0.3	91	6.6	-6.6	0.1	102	15.5	-15.1	3.3	107	23.7	-22.6	7.1
15	311	4.9	3.7	-3.2	309	4.3	3.3	-2.7	347	1.7	0.4	-1.7	45	0.1	-0.1	-0.1	97	6.1	-6.1	0.7	108	13.5	-12.8	4.2	103	18.0	-17.6	4.0
16	315	5.4	3.8	-3.8	311	5.0	3.8	-3.3	325	2.1	1.2	-1.7	346	0.8	0.2	-0.8	101	6.4	-6.3	1.2	107	12.9	-12.4	3.7	104	19.2	-18.6	4.8
17	320	6.1	3.9	-4.7	315	4.7	3.3	-3.3	322	1.1	0.7	-0.9	45	1.1	-0.8	-0.8	105	7.2	-6.9	1.9	100	16.0	-15.8	2.8	104	25.8	-25.0	6.2
18	310	4.0	3.1	-2.6	303	4.8	4.0	-2.6	287	2.4	2.3	-0.7	180	0.2	0.0	0.2	99	7.3	-7.2	1.1	97	15.9	-15.8	1.9	98	23.4	-23.2	3.2
19	306	3.1	2.5	-1.8	294	3.9	3.6	-1.6	297	3.3	2.9	-1.5	325	1.2	0.7	-1.0	100	7.9	-7.8	1.4	99	15.4	-15.2	2.5	102	21.0	-20.5	4.5
20	313	4.0	2.9	-2.7	300	4.4	3.8	-2.2	318	1.2	0.8	-0.9	21	1.7	-0.6	-1.6	106	6.0	-5.8	1.7	102	13.1	-12.8	2.7	107	18.7	-17.9	5.4
21	327	5.0	2.7	-4.2	303	3.8	3.2	-2.1	291	2.6	2.4	-0.9	308	1.6	1.3	-1.0	100	6.1	-6.0	1.1	104	15.6	-15.1	3.8	106	21.9	-21.0	6.2
22	327	4.4	2.4	-3.7	312	4.3	3.2	-2.9	306	1.9	1.5	-1.1	276	0.9	0.9	-0.1	94	6.6	-6.6	0.5	98	13.5	-13.4	2.0	104	22.2	-21.6	5.3
23	315	2.8	2.0	-2.0	309	3.6	2.8	-2.3	253	1.0	1.0	0.3	281	0.5	0.5	-0.1	109	7.0	-6.6	2.3	106	12.7	-12.2	3.5	109	19.4	-18.3	6.3
24	324	4.2	2.5	-3.4	312	3.6	2.7	-2.4	319	2.3	1.5	-1.7	126	2.4	-1.9	1.4	110	7.8	-7.3	2.7	102	14.9	-14.6	3.0	112	21.2	-19.6	8.0
25	320	2.6	1.7	-2.0	311	3.2	2.4	-2.1	339	1.4	0.5	-1.3	99	3.0	-3.0	0.5	103	7.3	-7.1	1.7	101	14.8	-14.5	2.8	98	14.8	-14.7	2.1
26	315	2.7	1.9	-1.9	297	2.0	1.8	-0.9	326	0.4	0.2	-0.3	118	3.6	-3.2	1.7	100	6.6	-6.5	1.1	94	10.9	-10.9	0.7	109	19.2	-18.1	6.4
27	285	2.7	2.6	-0.7	296	2.5	2.3	-1.1	225	1.0	0.7	0.7	204	1.0	0.4	0.9	103	6.9	-6.7	1.6	98	11.5	-11.4	1.6	98	16.9	-16.7	2.3
28	207	1.6	0.7	1.4	284	2.9	2.8	-0.7	288	0.6	0.6	-0.2	315	0.6	0.4	-0.4	98	6.5	-6.4	0.9	92	14.0	-14.0	0.6	106	17.4	-16.7	4.8
29	189	2.0	0.3	2.0	313	1.9	1.4	-1.3	300	0.8	0.7	-0.4	117	1.1	-1.0	0.5	117	5.5	-4.9	2.5	101	12.6	-12.4	2.4	109	18.9	-17.8	6.3
30	220	2.6	1.7	2.0	306	2.6	2.1	-1.5	352	1.5	0.2	-1.5	90	0.5	-0.5	0.0	103	5.0	-4.9	1.1	88	12.6	-12.6	-0.5	107	17.3	-16.6	5.0

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	207	2.2	1.0	2.0	320	3.0	1.9	-2.3	55	1.2	-1.0	-0.7	85	1.1	-1.1	-0.1	96	6.2	-6.2	0.6	105	11.5	-11.1	2.9	96	14.8	-14.7	1.6
2	165	1.1	-0.3	1.1	315	1.6	1.1	-1.1	299	1.0	0.9	-0.5	20	1.2	-0.4	-1.1	97	5.0	-5.0	0.6	95	11.8	-11.8	1.0	111	16.7	-15.5	6.1
3	242	2.1	1.9	1.0	299	2.3	2.0	-1.1	321	1.9	1.2	-1.5	338	0.5	0.2	-0.5	102	4.8	-4.7	1.0	104	12.3	-11.9	3.0	102	17.9	-17.5	3.8
4	268	2.4	2.4	0.1	303	3.0	2.5	-1.6	321	1.3	0.8	-1.0	304	0.4	0.3	-0.2	95	3.5	-3.5	0.3	98	11.2	-11.1	1.5	110	14.3	-13.4	5.0
5	245	1.7	1.5	0.7	319	1.8	1.2	-1.4	304	0.4	0.3	-0.2	112	0.5	-0.5	0.2	102	3.4	-3.3	0.7	108	11.2	-10.6	3.5	112	16.1	-14.9	6.0
6	284	1.2	1.2	-0.3	302	1.5	1.3	-0.8	63	0.9	-0.8	-0.4	171	0.6	-0.1	0.6	103	4.5	-4.4	1.0	107	9.8	-9.4	2.8	95	13.2	-13.2	1.1
7	285	1.6	1.5	-0.4	312	1.2	0.9	-0.8	65	1.4	-1.3	-0.6	180	1.4	0.0	1.4	117	2.8	-2.5	1.3	107	11.7	-11.2	3.5	97	14.7	-14.6	1.9
8	173	0.8	-0.1	0.8	60	1.6	-1.4	-0.8	98	2.2	-2.2	0.3	66	1.0	-0.9	-0.4	115	4.5	-4.1	1.9	123	10.2	-8.6	5.5	102	15.8	-15.5	3.3
9	171	2.0	-0.3	2.0	45	0.6	-0.4	-0.4	56	1.1	-0.9	-0.6	96	1.0	-1.0	0.1	101	4.1	-4.0	0.8	112	8.1	-7.5	3.1	98	13.6	-13.5	1.9
10	187	2.5	0.3	2.5	90	0.5	-0.5	0.0	69	2.5	-2.3	-0.9	111	1.9	-1.8	0.7	96	3.6	-3.6	0.4	115	7.9	-7.2	3.3	116	11.2	-10.1	4.9
11	198	2.2	0.7	2.1	124	0.4	-0.3	0.2	90	0.6	-0.6	0.0	128	1.8	-1.4	1.1	96	3.7	-3.7	0.4	120	8.0	-6.9	4.0	96	9.7	-9.6	1.0
12	188	4.2	0.6	4.2	131	0.9	-0.7	0.6	90	1.9	-1.9	0.0	103	1.8	-1.8	0.4	107	3.8	-3.6	1.1	111	7.2	-6.7	2.6	95	12.2	-12.2	1.1
13	201	2.6	0.9	2.4	61	1.0	-0.9	-0.5	126	1.9	-1.5	1.1	112	2.2	-2.0	0.8	120	3.2	-2.8	1.6	128	6.1	-4.8	3.8	113	8.3	-7.7	3.2
14	223	1.8	1.2	1.3	77	0.9	-0.9	-0.2	79	2.1	-2.1	-0.4	82	2.8	-2.8	-0.4	112	3.5	-3.3	1.3	114	8.5	-7.7	3.5	96	9.8	-9.7	1.1
15	135	0.4	-0.3	0.3	56	2.2	-1.8	-1.2	64	4.1	-3.7	-1.8	52	2.9	-2.3	-1.8	109	3.9	-3.7	1.3	121	10.3	-8.8	5.3	109	11.9	-11.3	3.8
16	243	1.1	1.0	0.5	65	2.1	-1.9	-0.9	60	3.0	-2.6	-1.5	47	2.3	-1.7	-1.6	103	4.7	-4.6	1.1	122	9.7	-8.3	5.1	105	10.2	-9.8	2.7
17	225	0.6	0.4	0.4	4	1.5	-0.1	-1.5	74	2.5	-2.4	-0.7	60	2.4	-2.1	-1.2	107	3.8	-3.6	1.1	120	8.6	-7.4	4.3	100	12.4	-12.2	2.2
18	344	0.7	0.2	-0.7	59	2.1	-1.8	-1.1	102	1.4	-1.4	0.3	93	2.1	-2.1	0.1	109	4.0	-3.8	1.3	115	9.0	-8.2	3.8	112	10.9	-10.1	4.0
19	338	1.8	0.7	-1.7	40	1.6	-1.0	-1.2	102	1.9	-1.9	0.4	85	2.1	-2.1	-0.2	107	2.8	-2.7	0.8	116	8.5	-7.7	3.7	108	9.5	-9.0	2.9
20	180	0.8	0.0	0.8	105	2.3	-2.2	0.6	83	3.2	-3.2	-0.4	98	1.4	-1.4	0.2	118	3.8	-3.4	1.8	150	6.7	-3.3	5.8	104	7.9	-7.7	1.9
21	67	0.8	-0.7	-0.3	92	3.4	-3.4	0.1	95	3.5	-3.5	0.3	92	2.5	-2.5	0.1	105	3.4	-3.3	0.9	125	6.0	-4.9	3.4	103	11.9	-11.6	2.7
22	159	1.9	-0.7	1.8	117	3.0	-2.7	1.4	98	4.1	-4.1	0.6	96	2.0	-2.0	0.2	129	3.2	-2.5	2.0	141	6.7	-4.2	5.2	111	7.7	-7.2	2.8
23	202	1.1	0.4	1.0	117	2.9	-2.6	1.3	115	2.9	-2.6	1.2	111	2.6	-2.4	0.9	121	4.3	-3.7	2.2	131	5.7	-4.3	3.7	105	13.4	-12.9	3.5
24	184	1.4	0.1	1.4	99	2.6	-2.6	0.4	88	2.7	-2.7	-0.1	101	2.6	-2.6	0.5	102	3.8	-3.7	0.8	128	6.7	-5.3	4.1	116	5.5	-4.9	2.4
25	9	1.2	-0.2	-1.2	79	3.1	-3.0	-0.6	104	2.9	-2.8	0.7	121	4.4	-3.8	2.3	93	4.4	-4.4	0.2	140	4.3	-2.8	3.3	124	7.8	-6.5	4.4
26	343	1.4	0.4	-1.3	92	2.4	-2.4	0.1	131	2.8	-2.1	1.8	99	3.3	-3.3	0.5	104	2.9	-2.8	0.7	143	6.0	-3.6	4.8	110	6.6	-6.2	2.3
27	63	1.6	-1.4	-0.7	91	3.9	-3.9	0.1	80	3.9	-3.8	-0.7	83	3.4	-3.4	-0.4	121	2.6	-2.2	1.3	151	6.0	-2.9	5.3	105	6.0	-5.8	1.5
28	117	1.8	-1.6	0.8	97	3.4	-3.4	0.4	89	4.4	-4.4	-0.1	83	4.1	-4.1	-0.5	138	2.8	-1.9	2.1	162	5.2	-1.6	4.9	106	6.0	-5.8	1.7
29	112	1.8	-1.7	0.7	103	2.8	-2.7	0.6	80	2.7	-2.7	-0.5	99	3.2	-3.2	0.5	131	1.8	-1.4	1.2	139	4.5	-3.0	3.4	123	5.6	-4.7	3.0
30	51	1.4	-1.1	-0.9	102	3.0	-2.9	0.6	82	3.4	-3.4	-0.5	96	2.9	-2.9	0.3	45	0.4	-0.3	-0.3	165	4.1	-1.1	4.0	114	6.2	-5.7	2.5
31	15	2.0	-0.5	-1.9	83	3.4	-3.4	-0.4	80	3.4	-3.3	-0.6	76	2.9	-2.8	-0.7	159	2.6	-0.9	2.4	165	6.0	-1.5	5.8	94	3.9	-3.9	0.3

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	36	1.7	-1.0	-1.4	79	3.6	-3.5	-0.7	101	2.5	-2.5	0.5	65	3.3	-3.0	-1.4	202	2.9	1.1	2.7	192	6.3	1.3	6.2	63	2.8	-2.5	-1.3
2	60	1.4	-1.2	-0.7	92	3.1	-3.1	0.1	86	2.8	-2.8	-0.2	64	4.6	-4.1	-2.0	141	1.3	-0.8	1.0	173	5.8	-0.7	5.8	99	6.1	-6.0	0.9
3	55	1.6	-1.3	-0.9	87	3.4	-3.4	-0.2	95	3.8	-3.8	0.3	79	5.1	-5.0	-1.0	115	1.9	-1.7	0.8	158	6.2	-2.3	5.8	100	10.0	-9.8	1.8
4	20	1.5	-0.5	-1.4	81	3.2	-3.2	-0.5	85	3.2	-3.2	-0.3	90	4.8	-4.8	0.0	77	1.8	-1.8	-0.4	167	7.4	-1.7	7.2	114	7.0	-6.4	2.9
5	23	3.4	-1.3	-3.1	81	2.4	-2.4	-0.4	87	3.6	-3.6	-0.2	81	4.6	-4.5	-0.7	99	1.9	-1.9	0.3	169	4.6	-0.9	4.5	115	6.5	-5.9	2.7
6	61	3.5	-3.1	-1.7	96	4.6	-4.6	0.5	90	4.6	-4.6	0.0	86	4.4	-4.4	-0.3	101	2.0	-2.0	0.4	155	6.2	-2.6	5.6	90	5.3	-5.3	0.0
7	62	3.6	-3.2	-1.7	84	4.8	-4.8	-0.5	94	4.6	-4.6	0.3	92	5.3	-5.3	0.2	108	2.9	-2.8	0.9	174	6.8	-0.7	6.8	123	5.6	-4.7	3.0
8	87	3.3	-3.3	-0.2	96	3.9	-3.9	0.4	90	4.5	-4.5	0.0	82	4.3	-4.3	-0.6	113	3.3	-3.0	1.3	148	7.9	-4.2	6.7	104	5.3	-5.1	1.3
9	98	3.4	-3.4	0.5	103	4.5	-4.4	1.0	88	4.6	-4.6	-0.2	95	3.8	-3.8	0.3	112	3.1	-2.9	1.2	171	5.1	-0.8	5.0	107	5.8	-5.5	1.7
10	96	2.7	-2.7	0.3	90	3.6	-3.6	0.0	94	4.0	-4.0	0.3	105	3.8	-3.7	1.0	81	2.0	-2.0	-0.3	162	6.5	-2.0	6.2	110	5.5	-5.2	1.9
11	93	5.1	-5.1	0.3	97	4.9	-4.9	0.6	100	4.8	-4.7	0.8	80	5.5	-5.4	-1.0	119	3.3	-2.9	1.6	167	6.5	-1.5	6.3	135	2.3	-1.6	1.6
12	92	3.2	-3.2	0.1	90	4.4	-4.4	0.0	87	4.4	-4.4	-0.2	79	6.5	-6.4	-1.3	112	3.8	-3.5	1.4	145	6.4	-3.7	5.2	117	7.7	-6.9	3.5
13	87	3.3	-3.3	-0.2	97	4.6	-4.6	0.6	95	3.4	-3.4	0.3	73	5.3	-5.1	-1.6	82	3.7	-3.7	-0.5	159	5.5	-2.0	5.1	105	3.9	-3.8	1.0
14	68	1.8	-1.7	-0.7	97	3.2	-3.2	0.4	112	2.7	-2.5	1.0	91	4.0	-4.0	0.1	115	2.3	-2.1	1.0	156	4.4	-1.8	4.0	98	4.9	-4.8	0.7
15	89	4.8	-4.8	-0.1	111	4.7	-4.4	1.7	93	3.4	-3.4	0.2	88	5.1	-5.1	-0.2	104	3.2	-3.1	0.8	154	7.9	-3.5	7.1	123	4.5	-3.8	2.5
16	80	6.6	-6.5	-1.2	111	4.4	-4.1	1.6	97	3.3	-3.3	0.4	103	5.0	-4.9	1.1	122	2.2	-1.9	1.2	159	7.1	-2.5	6.6	97	4.7	-4.7	0.6
17	143	3.8	-2.3	3.0	121	4.2	-3.6	2.2	130	2.6	-2.0	1.7	98	2.9	-2.9	0.4	138	3.1	-2.1	2.3	157	7.4	-2.9	6.8	104	5.7	-5.5	1.4
18	127	2.1	-1.7	1.3	101	2.1	-2.1	0.4	122	2.5	-2.1	1.3	151	1.0	-0.5	0.9	205	3.1	1.3	2.8	187	6.8	0.8	6.8	115	1.9	-1.7	0.8
19	122	2.8	-2.4	1.5	97	3.1	-3.1	0.4	88	3.6	-3.6	-0.1	58	3.6	-3.0	-1.9	228	3.1	2.3	2.1	201	6.2	2.2	5.8	117	0.2	-0.2	0.1
20	97	3.8	-3.8	0.5	87	3.9	-3.9	-0.2	86	3.1	-3.1	-0.2	69	4.0	-3.7	-1.4	240	3.2	2.8	1.6	202	8.3	3.1	7.7	53	0.5	-0.4	-0.3
21	93	3.6	-3.6	0.2	100	4.2	-4.1	0.7	88	3.3	-3.3	-0.1	76	3.7	-3.6	-0.9	232	3.1	2.4	1.9	209	8.7	4.2	7.6	50	1.6	-1.2	-1.0
22	97	5.1	-5.1	0.6	107	2.4	-2.3	0.7	114	2.2	-2.0	0.9	85	2.4	-2.4	-0.2	222	3.0	2.0	2.2	194	10.0	2.5	9.7	131	3.7	-2.8	2.4
23	94	6.1	-6.1	0.4	110	4.5	-4.2	1.5	101	2.6	-2.6	0.5	87	2.0	-2.0	-0.1	231	2.8	2.2	1.8	199	9.1	3.0	8.6	148	2.8	-1.5	2.4
24	94	6.8	-6.8	0.5	87	3.8	-3.8	-0.2	94	3.0	-3.0	0.2	75	3.5	-3.4	-0.9	186	2.0	0.2	2.0	188	8.0	1.1	7.9	101	3.3	-3.2	0.6
25	86	4.2	-4.2	-0.3	100	4.7	-4.6	0.8	73	2.8	-2.7	-0.8	74	3.6	-3.5	-1.0	161	2.1	-0.7	2.0	181	6.8	0.1	6.8	106	3.3	-3.2	0.9
26	92	2.4	-2.4	0.1	93	3.5	-3.5	0.2	106	2.9	-2.8	0.8	101	4.4	-4.3	0.8	207	2.5	1.1	2.2	205	5.7	2.4	5.2	114	3.4	-3.1	1.4
27	95	3.5	-3.5	0.3	97	3.4	-3.4	0.4	105	2.3	-2.2	0.6	76	4.6	-4.5	-1.1	99	0.6	-0.6	0.1	199	6.1	2.0	5.8	143	3.4	-2.0	2.7
28	96	3.1	-3.1	0.3	88	2.5	-2.5	-0.1	77	2.6	-2.5	-0.6	88	3.1	-3.1	-0.1	233	1.5	1.2	0.9	179	8.7	-0.2	8.7	61	2.3	-2.0	-1.1
29	83	3.2	-3.2	-0.4	98	4.3	-4.3	0.6	86	3.2	-3.2	-0.2	77	5.7	-5.5	-1.3	220	1.7	1.1	1.3	219	7.7	4.9	6.0	110	1.5	-1.4	0.5
30	67	3.8	-3.5	-1.5	94	4.7	-4.7	0.3	79	3.8	-3.7	-0.7	69	5.3	-4.9	-1.9	256	2.1	2.0	0.5	207	8.7	4.0	7.7	233	1.0	0.8	0.6

Daily Normals of Upper Air Winds (1971-2000)

MANGLORE **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	77	3.7	-3.6	-0.8	104	3.4	-3.3	0.8	90	3.9	-3.9	0.0	87	6.8	-6.8	-0.3	204	1.0	0.4	0.9	202	7.4	2.8	6.9	270	0.6	0.6	0.0
2	87	5.1	-5.1	-0.3	98	5.2	-5.2	0.7	95	4.4	-4.4	0.4	89	5.7	-5.7	-0.1	249	2.8	2.6	1.0	228	7.9	5.8	5.3	289	2.1	2.0	-0.7
3	95	5.4	-5.4	0.5	108	6.0	-5.7	1.8	103	4.8	-4.7	1.1	84	4.7	-4.7	-0.5	240	3.8	3.3	1.9	222	8.6	5.7	6.4	218	1.8	1.1	1.4
4	86	3.9	-3.9	-0.3	104	5.0	-4.9	1.2	95	4.3	-4.3	0.4	81	5.6	-5.5	-0.9	238	2.2	1.9	1.2	215	6.0	3.4	4.9	225	1.3	0.9	0.9
5	93	4.2	-4.2	0.2	96	5.0	-5.0	0.5	79	3.7	-3.6	-0.7	81	3.0	-3.0	-0.5	243	3.6	3.2	1.6	211	8.2	4.2	7.1	180	3.1	0.0	3.1
6	106	5.0	-4.8	1.4	111	5.0	-4.7	1.8	81	3.1	-3.1	-0.5	68	3.5	-3.3	-1.3	243	1.8	1.6	0.8	226	5.7	4.1	4.0	75	1.1	-1.1	-0.3
7	95	4.5	-4.5	0.4	98	4.4	-4.4	0.6	73	3.4	-3.2	-1.0	87	3.6	-3.6	-0.2	274	2.9	2.9	-0.2	219	6.9	4.3	5.4	262	3.4	3.4	0.5
8	98	5.3	-5.3	0.7	102	4.0	-3.9	0.8	81	3.8	-3.8	-0.6	97	2.5	-2.5	0.3	252	6.4	6.1	2.0	211	9.3	4.8	8.0	215	1.9	1.1	1.6
9	103	5.5	-5.4	1.2	101	3.7	-3.6	0.7	99	3.2	-3.2	0.5	84	1.8	-1.8	-0.2	257	4.1	4.0	0.9	228	8.6	6.4	5.8	227	4.0	2.9	2.7
10	69	3.6	-3.4	-1.3	90	4.1	-4.1	0.0	109	2.4	-2.3	0.8	112	1.6	-1.5	0.6	237	4.8	4.0	2.6	223	8.1	5.5	5.9	228	2.4	1.8	1.6
11	97	7.0	-6.9	0.9	115	4.4	-4.0	1.9	110	3.3	-3.1	1.1	90	2.6	-2.6	0.0	226	4.9	3.5	3.4	218	9.0	5.6	7.1	140	0.8	-0.5	0.6
12	111	7.1	-6.6	2.5	118	4.4	-3.9	2.1	108	2.3	-2.2	0.7	92	3.2	-3.2	0.1	237	7.5	6.3	4.1	245	12.6	11.4	5.3	254	5.6	5.4	1.5
13	97	5.8	-5.8	0.7	110	5.1	-4.8	1.7	101	3.6	-3.5	0.7	88	3.1	-3.1	-0.1	249	7.0	6.5	2.5	230	12.1	9.3	7.7	156	1.0	-0.4	0.9
14	108	6.0	-5.7	1.8	112	4.8	-4.4	1.8	115	2.9	-2.6	1.2	78	2.4	-2.3	-0.5	271	6.9	6.9	-0.1	236	11.0	9.1	6.1	269	4.5	4.5	0.1
15	104	5.6	-5.4	1.3	102	4.0	-3.9	0.8	95	3.5	-3.5	0.3	62	2.6	-2.3	-1.2	279	6.6	6.5	-1.0	247	10.2	9.4	4.0	299	2.6	2.3	-1.3
16	99	6.0	-5.9	0.9	104	3.6	-3.5	0.9	86	3.2	-3.2	-0.2	76	2.1	-2.0	-0.5	265	6.5	6.5	0.6	234	8.9	7.2	5.3	273	2.0	2.0	-0.1
17	97	5.4	-5.4	0.7	112	3.7	-3.4	1.4	92	3.1	-3.1	0.1	86	2.6	-2.6	-0.2	257	7.8	7.6	1.7	241	12.8	11.2	6.1	192	2.4	0.5	2.3
18	97	4.9	-4.9	0.6	110	4.6	-4.3	1.6	90	3.3	-3.3	0.0	99	1.3	-1.3	0.2	275	6.3	6.3	-0.6	231	11.1	8.6	7.0	299	3.5	3.1	-1.7
19	93	3.8	-3.8	0.2	112	3.5	-3.2	1.3	87	2.2	-2.2	-0.1	110	2.3	-2.2	0.8	272	5.9	5.9	-0.2	229	12.1	9.1	8.0	270	2.1	2.1	0.0
20	87	4.5	-4.5	-0.2	103	4.4	-4.3	1.0	93	3.5	-3.5	0.2	94	1.4	-1.4	0.1	272	5.9	5.9	-0.2	247	9.8	9.0	3.8	281	4.1	4.0	-0.8
21	95	6.3	-6.3	0.6	106	5.0	-4.8	1.4	92	2.8	-2.8	0.1	83	2.5	-2.5	-0.3	263	7.0	6.9	0.9	239	10.4	8.9	5.3	279	5.8	5.7	-0.9
22	98	5.7	-5.6	0.8	117	4.2	-3.8	1.9	95	3.2	-3.2	0.3	74	1.8	-1.7	-0.5	261	6.8	6.7	1.1	253	11.9	11.4	3.5	276	4.9	4.9	-0.5
23	91	4.9	-4.9	0.1	124	2.9	-2.4	1.6	96	3.1	-3.1	0.3	56	2.2	-1.8	-1.2	273	7.3	7.3	-0.4	245	11.9	10.8	5.1	253	2.8	2.7	0.8
24	88	3.7	-3.7	-0.1	114	4.4	-4.0	1.8	88	2.8	-2.8	-0.1	62	1.5	-1.3	-0.7	270	8.0	8.0	0.0	235	10.8	8.9	6.2	291	5.5	5.1	-2.0
25	108	3.9	-3.7	1.2	122	3.8	-3.2	2.0	92	2.4	-2.4	0.1	319	0.9	0.6	-0.7	265	7.4	7.4	0.6	244	11.7	10.5	5.2	236	8.5	7.1	4.7
26	96	4.8	-4.8	0.5	117	3.3	-2.9	1.5	98	2.2	-2.2	0.3	247	0.8	0.7	0.3	263	8.7	8.6	1.0	251	13.9	13.1	4.5	239	5.2	4.5	2.7
27	109	4.6	-4.3	1.5	114	2.2	-2.0	0.9	77	1.8	-1.8	-0.4	222	1.3	0.9	1.0	260	8.8	8.7	1.5	247	11.9	11.0	4.6	268	9.6	9.6	0.4
28	104	4.1	-4.0	1.0	107	3.1	-3.0	0.9	94	1.5	-1.5	0.1	245	1.7	1.5	0.7	250	7.5	7.0	2.6	249	11.6	10.9	4.1	278	5.6	5.5	-0.8
29	109	5.7	-5.4	1.9	113	2.8	-2.6	1.1	99	2.0	-2.0	0.3	208	1.7	0.8	1.5	273	8.7	8.7	-0.5	258	12.4	12.1	2.5	258	3.3	3.2	0.7
30	114	5.1	-4.7	2.1	114	3.2	-2.9	1.3	113	1.3	-1.2	0.5	317	1.8	1.2	-1.3	266	8.6	8.6	0.6	246	12.6	11.5	5.1	256	4.5	4.4	1.1
31	118	4.0	-3.5	1.9	123	3.1	-2.6	1.7	97	2.4	-2.4	0.3	27	0.7	-0.3	-0.6	272	7.1	7.1	-0.3	247	12.1	11.2	4.7	252	3.2	3.0	1.0

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	75	3.1	-3.0	-0.8	87	4.5	-4.5	-0.2	93	4.1	-4.1	0.2	104	7.0	-6.8	1.7	121	3.1	-2.7	1.6	180	7.2	0.0	7.2	115	4.5	-4.1	1.9
2	63	3.9	-3.5	-1.8	75	4.1	-4.0	-1.1	81	4.0	-4.0	-0.6	81	5.1	-5.0	-0.8	128	3.4	-2.7	2.1	164	6.6	-1.8	6.3	79	4.4	-4.3	-0.8
3	49	4.3	-3.2	-2.8	76	4.4	-4.3	-1.1	88	3.3	-3.3	-0.1	63	5.6	-5.0	-2.5	138	4.7	-3.2	3.5	172	5.8	-0.8	5.7	96	4.9	-4.9	0.5
4	70	3.7	-3.5	-1.3	77	3.6	-3.5	-0.8	83	2.4	-2.4	-0.3	74	5.0	-4.8	-1.4	137	4.4	-3.0	3.2	151	7.3	-3.5	6.4	24	1.2	-0.5	-1.1
5	90	4.0	-4.0	0.0	82	4.1	-4.1	-0.6	98	3.4	-3.4	0.5	89	4.8	-4.8	-0.1	130	3.0	-2.3	1.9	230	2.3	1.8	1.5	95	2.2	-2.2	0.2
6	55	4.7	-3.9	-2.7	77	4.3	-4.2	-1.0	71	2.8	-2.6	-0.9	100	3.6	-3.5	0.6	163	2.4	-0.7	2.3	182	3.2	0.1	3.2	261	0.6	0.6	0.1
7	58	3.6	-3.1	-1.9	81	4.5	-4.4	-0.7	72	2.6	-2.5	-0.8	78	2.5	-2.4	-0.5	173	2.4	-0.3	2.4	202	2.9	1.1	2.7	65	2.9	-2.6	-1.2
8	66	3.9	-3.6	-1.6	86	4.5	-4.5	-0.3	65	2.3	-2.1	-1.0	81	4.0	-4.0	-0.6	151	2.5	-1.2	2.2	205	4.7	2.0	4.2	137	4.4	-3.0	3.2
9	78	3.4	-3.3	-0.7	94	4.6	-4.6	0.3	88	2.9	-2.9	-0.1	72	4.8	-4.6	-1.5	130	0.8	-0.6	0.5	191	4.1	0.8	4.0	110	2.7	-2.5	0.9
10	53	4.0	-3.2	-2.4	84	3.9	-3.9	-0.4	119	2.5	-2.2	1.2	77	5.4	-5.3	-1.2	180	2.2	0.0	2.2	229	2.9	2.2	1.9	36	1.9	-1.1	-1.5
11	65	3.5	-3.2	-1.5	77	3.5	-3.4	-0.8	111	2.5	-2.3	0.9	80	2.2	-2.2	-0.4	113	1.5	-1.4	0.6	191	3.2	0.6	3.1	80	2.9	-2.9	-0.5
12	44	3.6	-2.5	-2.6	71	3.4	-3.2	-1.1	76	2.9	-2.8	-0.7	87	3.6	-3.6	-0.2	135	1.0	-0.7	0.7	169	4.4	-0.8	4.3	62	2.7	-2.4	-1.3
13	54	2.4	-1.9	-1.4	74	3.6	-3.5	-1.0	99	1.3	-1.3	0.2	73	5.9	-5.6	-1.7	180	2.7	0.0	2.7	187	5.6	0.7	5.6	98	7.3	-7.2	1.0
14	31	2.6	-1.3	-2.2	72	4.2	-4.0	-1.3	35	1.6	-0.9	-1.3	85	5.0	-5.0	-0.4	183	1.7	0.1	1.7	153	6.8	-3.1	6.0	131	5.3	-4.0	3.5
15	65	3.1	-2.8	-1.3	76	4.0	-3.9	-1.0	117	1.1	-1.0	0.5	83	4.6	-4.6	-0.6	262	1.5	1.5	0.2	165	4.1	-1.1	4.0	121	2.1	-1.8	1.1
16	47	3.4	-2.5	-2.3	75	4.3	-4.2	-1.1	87	1.7	-1.7	-0.1	89	4.8	-4.8	-0.1	196	2.2	0.6	2.1	184	3.2	0.2	3.2	71	2.8	-2.6	-0.9
17	79	2.5	-2.5	-0.5	88	5.3	-5.3	-0.2	101	3.1	-3.0	0.6	72	5.4	-5.1	-1.7	156	3.4	-1.4	3.1	181	4.8	0.1	4.8	99	5.5	-5.4	0.9
18	76	3.0	-2.9	-0.7	92	5.0	-5.0	0.2	108	4.0	-3.8	1.2	84	5.0	-5.0	-0.5	129	2.6	-2.0	1.6	171	3.3	-0.5	3.3	131	2.3	-1.7	1.5
19	59	4.5	-3.9	-2.3	84	5.8	-5.8	-0.6	98	4.1	-4.1	0.6	72	2.9	-2.8	-0.9	167	2.2	-0.5	2.1	147	4.6	-2.5	3.9	71	3.1	-2.9	-1.0
20	50	2.6	-2.0	-1.7	90	4.6	-4.6	0.0	104	2.1	-2.0	0.5	89	7.1	-7.1	-0.1	96	1.9	-1.9	0.2	182	4.8	0.2	4.8	77	3.6	-3.5	-0.8
21	23	3.4	-1.3	-3.1	70	4.0	-3.8	-1.4	74	1.9	-1.8	-0.5	76	6.2	-6.0	-1.5	123	2.7	-2.3	1.5	168	4.8	-1.0	4.7	344	1.9	0.5	-1.8
22	43	3.3	-2.2	-2.4	83	4.6	-4.6	-0.6	68	2.4	-2.2	-0.9	72	4.8	-4.6	-1.5	142	2.3	-1.4	1.8	174	6.1	-0.6	6.1	50	2.5	-1.9	-1.6
23	55	3.9	-3.2	-2.2	82	4.1	-4.1	-0.6	79	2.5	-2.5	-0.5	72	5.2	-5.0	-1.6	129	0.6	-0.5	0.4	174	5.8	-0.6	5.8	101	4.8	-4.7	0.9
24	67	3.6	-3.3	-1.4	81	4.5	-4.4	-0.7	79	3.8	-3.7	-0.7	89	6.7	-6.7	-0.1	198	0.3	0.1	0.3	139	5.6	-3.7	4.2	145	3.8	-2.2	3.1
25	71	4.6	-4.3	-1.5	80	5.0	-4.9	-0.9	96	3.7	-3.7	0.4	88	6.5	-6.5	-0.2	80	2.7	-2.7	-0.5	140	5.0	-3.2	3.8	50	1.7	-1.3	-1.1
26	64	5.3	-4.8	-2.3	82	5.3	-5.3	-0.7	83	3.3	-3.3	-0.4	83	4.7	-4.7	-0.6	68	1.6	-1.5	-0.6	142	4.7	-2.9	3.7	138	3.1	-2.1	2.3
27	81	4.0	-4.0	-0.6	86	5.5	-5.5	-0.4	85	3.5	-3.5	-0.3	93	5.2	-5.2	0.3	103	2.8	-2.7	0.6	153	5.3	-2.4	4.7	246	3.6	3.3	1.5
28	87	3.7	-3.7	-0.2	81	5.2	-5.1	-0.8	92	3.8	-3.8	0.1	90	5.0	-5.0	0.0	25	1.4	-0.6	-1.3	149	3.7	-1.9	3.2	4	3.1	-0.2	-3.1
29	34	3.4	-1.9	-2.8	84	5.3	-5.3	-0.6	94	4.1	-4.1	0.3	84	5.9	-5.9	-0.6	84	2.8	-2.8	-0.3	131	3.5	-2.6	2.3	47	3.4	-2.5	-2.3
30	79	3.1	-3.0	-0.6	89	5.1	-5.1	-0.1	94	2.8	-2.8	0.2	79	5.1	-5.0	-1.0	151	2.5	-1.2	2.2	185	5.0	0.4	5.0	97	1.6	-1.6	0.2
31	47	3.3	-2.4	-2.2	87	3.8	-3.8	-0.2	87	3.4	-3.4	-0.2	77	6.2	-6.0	-1.4	112	3.2	-3.0	1.2	238	2.6	2.2	1.4	243	1.8	1.6	0.8

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	41	2.9	-1.9	-2.2	87	3.9	-3.9	-0.2	88	2.8	-2.8	-0.1	77	5.7	-5.5	-1.3	225	0.3	0.2	0.2	246	4.2	3.8	1.7	69	2.5	-2.3	-0.9
2	58	3.4	-2.9	-1.8	76	4.9	-4.8	-1.2	97	4.0	-4.0	0.5	71	3.7	-3.5	-1.2	247	2.1	1.9	0.8	207	1.1	0.5	1.0	329	0.6	0.3	-0.5
3	58	3.6	-3.1	-1.9	91	4.2	-4.2	0.1	90	2.6	-2.6	0.0	77	2.3	-2.2	-0.5	327	1.7	0.9	-1.4	170	5.4	-0.9	5.3	74	0.7	-0.7	-0.2
4	62	3.8	-3.4	-1.8	91	5.6	-5.6	0.1	100	2.9	-2.9	0.5	66	2.0	-1.8	-0.8	72	0.3	-0.3	-0.1	200	3.2	1.1	3.0	45	0.4	-0.3	-0.3
5	71	3.7	-3.5	-1.2	89	4.7	-4.7	-0.1	104	2.9	-2.8	0.7	110	1.2	-1.1	0.4	236	1.4	1.2	0.8	231	1.9	1.5	1.2	284	0.4	0.4	-0.1
6	46	4.7	-3.4	-3.3	93	6.1	-6.1	0.3	86	3.9	-3.9	-0.3	76	1.2	-1.2	-0.3	184	2.6	0.2	2.6	197	5.4	1.6	5.2	298	4.7	4.1	-2.2
7	46	2.8	-2.0	-1.9	88	4.8	-4.8	-0.2	98	2.2	-2.2	0.3	64	2.8	-2.5	-1.2	153	2.8	-1.3	2.5	217	3.5	2.1	2.8	79	6.4	-6.3	-1.2
8	30	3.4	-1.7	-3.0	83	4.8	-4.8	-0.6	80	2.2	-2.2	-0.4	44	2.9	-2.0	-2.1	222	1.3	0.9	1.0	220	3.9	2.5	3.0	167	2.7	-0.6	2.6
9	32	2.5	-1.3	-2.1	97	3.5	-3.5	0.4	101	1.5	-1.5	0.3	71	4.9	-4.6	-1.6	243	2.0	1.8	0.9	222	3.8	2.5	2.8	99	4.7	-4.6	0.7
10	36	2.4	-1.4	-1.9	77	4.1	-4.0	-0.9	75	2.0	-1.9	-0.5	68	3.5	-3.3	-1.3	322	1.1	0.7	-0.9	230	1.7	1.3	1.1	153	1.1	-0.5	1.0
11	70	2.9	-2.7	-1.0	92	4.8	-4.8	0.2	92	2.8	-2.8	0.1	86	5.3	-5.3	-0.4	341	2.8	0.9	-2.6	207	2.7	1.2	2.4	70	2.7	-2.5	-0.9
12	58	2.8	-2.4	-1.5	77	4.6	-4.5	-1.0	92	2.9	-2.9	0.1	74	4.3	-4.1	-1.2	178	2.4	-0.1	2.4	178	5.9	-0.2	5.9	68	3.5	-3.2	-1.3
13	65	3.5	-3.2	-1.5	81	4.6	-4.5	-0.7	101	2.0	-2.0	0.4	75	3.5	-3.4	-0.9	111	1.4	-1.3	0.5	142	5.3	-3.3	4.2	55	3.3	-2.7	-1.9
14	18	1.6	-0.5	-1.5	82	4.3	-4.3	-0.6	87	2.2	-2.2	-0.1	82	3.5	-3.5	-0.5	167	1.3	-0.3	1.3	155	9.2	-3.9	8.3	68	5.4	-5.0	-2.0
15	26	2.5	-1.1	-2.3	85	4.2	-4.2	-0.4	120	2.2	-1.9	1.1	98	3.4	-3.4	0.5	137	1.9	-1.3	1.4	155	4.5	-1.9	4.1	70	4.9	-4.6	-1.7
16	22	2.4	-0.9	-2.2	92	2.9	-2.9	0.1	119	2.3	-2.0	1.1	112	3.1	-2.9	1.2	107	3.4	-3.2	1.0	140	5.7	-3.7	4.4	95	3.7	-3.7	0.3
17	25	3.5	-1.5	-3.2	80	3.6	-3.5	-0.6	100	2.2	-2.2	0.4	100	2.8	-2.8	0.5	121	2.9	-2.5	1.5	143	8.4	-5.0	6.7	123	4.0	-3.4	2.2
18	33	3.7	-2.0	-3.1	88	5.0	-5.0	-0.2	105	3.1	-3.0	0.8	90	3.7	-3.7	0.0	117	4.7	-4.2	2.1	142	7.6	-4.7	6.0	107	3.9	-3.7	1.1
19	8	2.9	-0.4	-2.9	97	4.1	-4.1	0.5	97	3.1	-3.1	0.4	79	3.8	-3.7	-0.7	122	3.4	-2.9	1.8	132	6.2	-4.6	4.2	69	4.0	-3.7	-1.4
20	11	2.6	-0.5	-2.6	84	4.1	-4.1	-0.4	100	2.9	-2.9	0.5	73	3.8	-3.6	-1.1	87	4.5	-4.5	-0.2	136	7.8	-5.4	5.6	50	2.3	-1.8	-1.5
21	30	2.0	-1.0	-1.7	113	4.0	-3.7	1.6	92	3.4	-3.4	0.1	75	5.0	-4.8	-1.3	80	2.8	-2.8	-0.5	149	6.6	-3.4	5.6	105	2.4	-2.3	0.6
22	49	2.3	-1.7	-1.5	98	4.4	-4.4	0.6	90	3.0	-3.0	0.0	73	4.4	-4.2	-1.3	119	2.6	-2.3	1.3	137	4.8	-3.3	3.5	8	3.4	-0.5	-3.4
23	95	2.2	-2.2	0.2	92	5.1	-5.1	0.2	111	4.3	-4.0	1.5	99	4.5	-4.4	0.7	103	1.8	-1.8	0.4	162	3.8	-1.2	3.6	75	6.0	-5.8	-1.5
24	84	3.0	-3.0	-0.3	98	5.2	-5.2	0.7	95	3.5	-3.5	0.3	98	4.4	-4.4	0.6	92	2.8	-2.8	0.1	131	4.3	-3.2	2.8	80	3.5	-3.4	-0.6
25	66	2.7	-2.5	-1.1	99	5.8	-5.7	0.9	104	4.9	-4.7	1.2	89	5.7	-5.7	-0.1	112	3.5	-3.2	1.3	187	2.6	0.3	2.6	64	4.1	-3.7	-1.8
26	43	2.6	-1.8	-1.9	98	4.8	-4.7	0.7	83	3.1	-3.1	-0.4	86	4.8	-4.8	-0.3	129	2.7	-2.1	1.7	169	3.2	-0.6	3.1	111	1.9	-1.8	0.7
27	13	1.7	-0.4	-1.7	87	3.4	-3.4	-0.2	86	4.6	-4.6	-0.3	100	3.5	-3.4	0.6	169	2.1	-0.4	2.1	167	2.6	-0.6	2.5	94	3.1	-3.1	0.2
28	45	1.3	-0.9	-0.9	89	4.1	-4.1	-0.1	97	3.3	-3.3	0.4	86	4.1	-4.1	-0.3	187	3.2	0.4	3.2	141	1.4	-0.9	1.1	31	3.9	-2.0	-3.3
29	83	5.2	-5.2	-0.6	84	7.0	-7.0	-0.7	88	7.6	-7.6	-0.2	97	4.9	-4.9	0.6	173	5.5	-0.7	5.5	167	7.3	-1.6	7.1	242	5.2	4.6	2.4

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	48	3.0	-2.2	-2.0	97	5.0	-5.0	0.6	102	4.3	-4.2	0.9	83	4.1	-4.1	-0.5	124	2.5	-2.1	1.4	164	1.5	-0.4	1.4	93	3.4	-3.4	0.2
2	62	3.4	-3.0	-1.6	89	5.3	-5.3	-0.1	95	4.8	-4.8	0.4	77	5.1	-5.0	-1.2	78	2.5	-2.4	-0.5	188	1.4	0.2	1.4	102	7.6	-7.4	1.6
3	62	1.9	-1.7	-0.9	92	6.0	-6.0	0.2	73	4.4	-4.2	-1.3	70	4.7	-4.4	-1.6	104	1.2	-1.2	0.3	185	3.7	0.3	3.7	141	1.4	-0.9	1.1
4	57	2.4	-2.0	-1.3	89	5.1	-5.1	-0.1	86	4.4	-4.4	-0.3	68	5.4	-5.0	-2.0	346	0.8	0.2	-0.8	175	2.4	-0.2	2.4	70	2.9	-2.7	-1.0
5	68	2.9	-2.7	-1.1	85	4.5	-4.5	-0.4	87	3.9	-3.9	-0.2	74	5.2	-5.0	-1.4	180	1.8	0.0	1.8	203	3.0	1.2	2.8	126	4.4	-3.6	2.6
6	41	2.3	-1.5	-1.7	86	4.4	-4.4	-0.3	113	4.0	-3.7	1.6	83	5.1	-5.1	-0.6	341	1.8	0.6	-1.7	187	1.7	0.2	1.7	100	1.7	-1.7	0.3
7	29	2.6	-1.3	-2.3	94	3.9	-3.9	0.3	98	2.9	-2.9	0.4	109	4.6	-4.3	1.5	90	1.4	-1.4	0.0	185	2.2	0.2	2.2	50	0.8	-0.6	-0.5
8	58	2.5	-2.1	-1.3	89	4.1	-4.1	-0.1	104	4.4	-4.3	1.1	79	5.9	-5.8	-1.1	198	2.0	0.6	1.9	286	3.2	3.1	-0.9	89	4.6	-4.6	-0.1
9	8	2.2	-0.3	-2.2	79	3.8	-3.7	-0.7	71	4.2	-4.0	-1.4	62	2.6	-2.3	-1.2	205	1.4	0.6	1.3	135	1.0	-0.7	0.7	106	4.4	-4.2	1.2
10	35	2.8	-1.6	-2.3	82	4.4	-4.4	-0.6	94	5.1	-5.1	0.4	83	4.6	-4.6	-0.6	328	1.3	0.7	-1.1	270	1.1	1.1	0.0	69	6.0	-5.6	-2.2
11	57	2.0	-1.7	-1.1	92	5.0	-5.0	0.2	97	5.2	-5.2	0.6	67	3.6	-3.3	-1.4	252	2.0	1.9	0.6	187	3.9	0.5	3.9	90	2.3	-2.3	0.0
12	77	3.2	-3.1	-0.7	93	5.4	-5.4	0.3	93	5.4	-5.4	0.3	66	3.9	-3.6	-1.6	233	1.5	1.2	0.9	168	2.4	-0.5	2.3	120	3.4	-3.0	1.7
13	34	2.7	-1.5	-2.2	89	5.1	-5.1	-0.1	91	4.2	-4.2	0.1	75	2.8	-2.7	-0.7	299	2.3	2.0	-1.1	223	1.9	1.3	1.4	119	1.0	-0.9	0.5
14	14	2.9	-0.7	-2.8	89	5.6	-5.6	-0.1	86	5.3	-5.3	-0.4	69	3.9	-3.6	-1.4	230	3.0	2.3	1.9	253	1.4	1.3	0.4	32	0.9	-0.5	-0.8
15	27	2.2	-1.0	-2.0	87	5.7	-5.7	-0.3	87	7.3	-7.3	-0.4	82	6.4	-6.3	-0.9	315	0.7	0.5	-0.5	217	4.6	2.8	3.7	197	1.0	0.3	1.0
16	39	2.1	-1.3	-1.6	89	5.1	-5.1	-0.1	89	8.0	-8.0	-0.1	83	7.0	-6.9	-0.9	217	2.6	1.6	2.1	242	5.5	4.8	2.6	111	2.5	-2.3	0.9
17	31	1.7	-0.9	-1.5	94	4.8	-4.8	0.3	85	5.9	-5.9	-0.5	79	5.8	-5.7	-1.1	235	3.8	3.1	2.2	220	5.7	3.7	4.4	161	3.1	-1.0	2.9
18	358	2.3	0.1	-2.3	79	4.6	-4.5	-0.9	97	6.8	-6.8	0.8	86	4.5	-4.5	-0.3	219	3.6	2.3	2.8	224	5.9	4.1	4.2	148	1.9	-1.0	1.6
19	33	3.1	-1.7	-2.6	86	5.4	-5.4	-0.4	90	6.1	-6.1	0.0	80	5.3	-5.2	-0.9	234	3.7	3.0	2.2	255	4.7	4.5	1.2	122	4.0	-3.4	2.1
20	34	1.4	-0.8	-1.2	89	4.8	-4.8	-0.1	85	7.3	-7.3	-0.7	76	4.2	-4.1	-1.0	245	4.2	3.8	1.8	281	6.3	6.2	-1.2	356	1.5	0.1	-1.5
21	47	1.8	-1.3	-1.2	88	5.0	-5.0	-0.2	91	8.4	-8.4	0.2	79	4.7	-4.6	-0.9	234	3.2	2.6	1.9	241	4.1	3.6	2.0	60	4.2	-3.6	-2.1
22	27	2.5	-1.1	-2.2	87	4.3	-4.3	-0.2	86	7.9	-7.9	-0.6	72	4.6	-4.4	-1.4	235	3.7	3.0	2.1	238	6.0	5.1	3.2	35	3.2	-1.8	-2.6
23	37	2.5	-1.5	-2.0	84	4.6	-4.6	-0.5	88	8.6	-8.6	-0.3	77	4.3	-4.2	-1.0	267	5.8	5.8	0.3	249	5.6	5.2	2.0	42	1.5	-1.0	-1.1
24	148	0.9	-0.5	0.8	87	4.3	-4.3	-0.2	88	7.9	-7.9	-0.3	92	3.0	-3.0	0.1	256	3.8	3.7	0.9	219	4.8	3.0	3.7	206	2.8	1.2	2.5
25	103	1.7	-1.7	0.4	86	4.4	-4.4	-0.3	87	6.6	-6.6	-0.4	62	3.0	-2.6	-1.4	267	4.4	4.4	0.2	216	6.3	3.7	5.1	60	3.4	-2.9	-1.7
26	29	2.9	-1.4	-2.5	74	4.5	-4.3	-1.2	87	7.5	-7.5	-0.4	73	2.8	-2.7	-0.8	253	6.9	6.6	2.0	258	4.8	4.7	1.0	53	2.5	-2.0	-1.5
27	315	0.7	0.5	-0.5	91	4.8	-4.8	0.1	90	6.4	-6.4	0.0	51	2.7	-2.1	-1.7	256	4.0	3.9	1.0	232	5.3	4.2	3.3	60	5.9	-5.1	-2.9
28	320	3.8	2.4	-2.9	86	4.7	-4.7	-0.3	96	5.7	-5.7	0.6	81	3.9	-3.9	-0.6	210	2.8	1.4	2.4	243	5.7	5.1	2.6	127	3.4	-2.7	2.0
29	336	1.7	0.7	-1.6	84	5.1	-5.1	-0.5	88	6.9	-6.9	-0.3	74	7.0	-6.7	-1.9	253	2.7	2.6	0.8	237	5.9	5.0	3.2	94	3.1	-3.1	0.2
30	344	3.5	1.0	-3.4	91	3.9	-3.9	0.1	103	7.5	-7.3	1.7	75	4.9	-4.7	-1.3	103	2.6	-2.5	0.6	217	2.6	1.6	2.1	77	3.9	-3.8	-0.9
31	356	1.6	0.1	-1.6	76	3.2	-3.1	-0.8	90	5.9	-5.9	0.0	96	2.7	-2.7	0.3	186	2.9	0.3	2.9	228	4.2	3.1	2.8	52	2.9	-2.3	-1.8

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	296	2.5	2.3	-1.1	82	3.5	-3.5	-0.5	80	7.6	-7.5	-1.3	73	4.5	-4.3	-1.3	182	3.6	0.1	3.6	160	4.8	-1.6	4.5	85	1.1	-1.1	-0.1
2	315	4.0	2.8	-2.8	49	3.2	-2.4	-2.1	84	6.2	-6.2	-0.7	88	3.3	-3.3	-0.1	199	3.6	1.2	3.4	196	4.1	1.1	3.9	86	2.6	-2.6	-0.2
3	348	1.9	0.4	-1.9	96	2.8	-2.8	0.3	84	7.2	-7.2	-0.8	91	5.2	-5.2	0.1	155	3.1	-1.3	2.8	177	6.7	-0.4	6.7	58	1.5	-1.3	-0.8
4	65	1.7	-1.5	-0.7	86	2.7	-2.7	-0.2	83	7.5	-7.4	-0.9	87	2.1	-2.1	-0.1	197	2.4	0.7	2.3	168	6.0	-1.3	5.9	97	7.8	-7.7	0.9
5	104	0.4	-0.4	0.1	83	3.2	-3.2	-0.4	91	6.2	-6.2	0.1	74	2.5	-2.4	-0.7	210	2.2	1.1	1.9	176	2.9	-0.2	2.9	69	6.0	-5.6	-2.1
6	20	2.7	-0.9	-2.5	77	3.5	-3.4	-0.8	90	6.2	-6.2	0.0	80	3.5	-3.4	-0.6	162	2.0	-0.6	1.9	153	5.4	-2.4	4.8	107	5.7	-5.4	1.7
7	67	2.5	-2.3	-1.0	76	4.0	-3.9	-1.0	83	7.9	-7.8	-1.0	95	4.2	-4.2	0.4	51	1.4	-1.1	-0.9	150	4.8	-2.4	4.2	77	3.1	-3.0	-0.7
8	301	1.2	1.0	-0.6	75	3.0	-2.9	-0.8	86	6.7	-6.7	-0.5	81	4.4	-4.3	-0.7	112	3.1	-2.9	1.2	144	4.8	-2.8	3.9	103	7.9	-7.7	1.8
9	10	2.2	-0.4	-2.2	85	3.8	-3.8	-0.3	87	7.1	-7.1	-0.4	87	4.2	-4.2	-0.2	85	1.2	-1.2	-0.1	170	3.4	-0.6	3.3	139	3.3	-2.2	2.5
10	277	1.7	1.7	-0.2	83	2.3	-2.3	-0.3	85	7.4	-7.4	-0.6	87	4.5	-4.5	-0.2	144	1.9	-1.1	1.5	147	4.5	-2.5	3.8	103	3.7	-3.6	0.8
11	295	1.9	1.7	-0.8	65	1.9	-1.7	-0.8	86	6.6	-6.6	-0.5	85	6.4	-6.4	-0.6	103	2.3	-2.2	0.5	146	4.7	-2.6	3.9	140	4.5	-2.9	3.4
12	301	2.1	1.8	-1.1	60	1.6	-1.4	-0.8	79	7.1	-7.0	-1.3	91	6.2	-6.2	0.1	89	3.9	-3.9	-0.1	94	4.4	-4.4	0.3	64	3.0	-2.7	-1.3
13	333	2.5	1.1	-2.2	72	1.9	-1.8	-0.6	88	7.0	-7.0	-0.3	84	4.6	-4.6	-0.5	125	2.4	-2.0	1.4	137	6.0	-4.1	4.4	68	1.8	-1.7	-0.7
14	323	3.0	1.8	-2.4	94	1.6	-1.6	0.1	83	6.3	-6.2	-0.8	87	3.4	-3.4	-0.2	100	2.2	-2.2	0.4	156	3.5	-1.4	3.2	167	1.3	-0.3	1.3
15	347	1.7	0.4	-1.7	74	1.5	-1.4	-0.4	83	6.2	-6.1	-0.8	70	3.8	-3.6	-1.3	192	2.5	0.5	2.4	203	3.3	1.3	3.0	78	1.9	-1.9	-0.4
16	323	2.0	1.2	-1.6	38	1.8	-1.1	-1.4	79	6.5	-6.4	-1.2	92	3.6	-3.6	0.1	231	4.5	3.5	2.8	239	4.2	3.6	2.2	113	3.0	-2.8	1.2
17	333	3.3	1.5	-2.9	21	2.5	-0.9	-2.3	79	6.5	-6.4	-1.2	84	2.8	-2.8	-0.3	293	3.4	3.1	-1.3	230	5.6	4.3	3.6	191	2.1	0.4	2.1
18	327	2.0	1.1	-1.7	73	2.1	-2.0	-0.6	87	7.4	-7.4	-0.4	90	3.3	-3.3	0.0	258	3.9	3.8	0.8	229	5.8	4.4	3.8	125	2.9	-2.4	1.7
19	317	1.6	1.1	-1.2	55	2.1	-1.7	-1.2	79	7.6	-7.5	-1.4	96	3.7	-3.7	0.4	259	4.7	4.6	0.9	223	6.7	4.5	4.9	99	1.3	-1.3	0.2
20	352	2.2	0.3	-2.2	62	1.7	-1.5	-0.8	81	8.1	-8.0	-1.2	111	4.0	-3.7	1.4	242	4.5	4.0	2.1	240	7.8	6.7	3.9	110	5.0	-4.7	1.7
21	327	3.0	1.6	-2.5	90	2.1	-2.1	0.0	81	8.1	-8.0	-1.2	107	4.2	-4.0	1.2	243	4.6	4.1	2.1	241	8.1	7.1	4.0	74	1.9	-1.8	-0.5
22	312	2.8	2.1	-1.9	63	1.6	-1.4	-0.7	78	7.1	-6.9	-1.5	115	2.9	-2.6	1.2	252	5.5	5.2	1.7	236	8.5	7.0	4.8	90	4.1	-4.1	0.0
23	347	3.2	0.7	-3.1	59	1.7	-1.5	-0.9	81	5.2	-5.1	-0.8	120	1.4	-1.2	0.7	236	4.2	3.5	2.4	235	4.5	3.7	2.6	104	4.4	-4.3	1.1
24	321	2.6	1.6	-2.0	45	2.1	-1.5	-1.5	80	6.6	-6.5	-1.2	288	0.3	0.3	-0.1	244	5.3	4.8	2.3	222	5.5	3.7	4.1	89	9.4	-9.4	-0.1
25	311	4.1	3.1	-2.7	69	0.9	-0.8	-0.3	81	6.1	-6.0	-1.0	27	0.9	-0.4	-0.8	284	4.2	4.1	-1.0	210	3.4	1.7	2.9	87	5.6	-5.6	-0.3
26	326	3.6	2.0	-3.0	15	1.6	-0.4	-1.5	85	6.2	-6.2	-0.5	15	1.1	-0.3	-1.1	257	2.7	2.6	0.6	224	4.7	3.3	3.4	86	6.6	-6.6	-0.5
27	342	3.6	1.1	-3.4	21	1.9	-0.7	-1.8	75	5.5	-5.3	-1.4	45	3.3	-2.3	-2.3	275	2.3	2.3	-0.2	178	3.8	-0.1	3.8	89	8.2	-8.2	-0.1
28	319	2.9	1.9	-2.2	45	1.1	-0.8	-0.8	78	6.6	-6.4	-1.4	67	3.0	-2.8	-1.2	315	1.4	1.0	-1.0	158	4.3	-1.6	4.0	126	3.1	-2.5	1.8
29	326	2.7	1.5	-2.2	10	1.7	-0.3	-1.7	83	6.3	-6.2	-0.8	78	2.4	-2.3	-0.5	297	1.8	1.6	-0.8	204	4.7	1.9	4.3	93	7.2	-7.2	0.4
30	318	2.5	1.7	-1.9	17	1.7	-0.5	-1.6	87	5.2	-5.2	-0.3	87	1.7	-1.7	-0.1	98	0.7	-0.7	0.1	134	5.0	-3.6	3.5	92	7.3	-7.3	0.3

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	298	2.6	2.3	-1.2	333	1.1	0.5	-1.0	80	4.5	-4.4	-0.8	109	2.1	-2.0	0.7	61	1.0	-0.9	-0.5	179	5.7	-0.1	5.7	99	5.5	-5.4	0.9
2	338	3.7	1.4	-3.4	349	3.1	0.6	-3.0	74	4.4	-4.2	-1.2	122	1.9	-1.6	1.0	261	0.6	0.6	0.1	137	5.4	-3.7	4.0	111	5.8	-5.4	2.1
3	318	3.9	2.6	-2.9	346	1.6	0.4	-1.6	76	4.6	-4.5	-1.1	129	0.6	-0.5	0.4	225	0.8	0.6	0.6	153	4.2	-1.9	3.8	81	8.5	-8.4	-1.3
4	325	4.7	2.7	-3.8	2	2.3	-0.1	-2.3	67	4.4	-4.1	-1.7	35	1.2	-0.7	-1.0	161	2.8	-0.9	2.6	139	6.5	-4.3	4.9	100	7.1	-7.0	1.2
5	308	4.1	3.2	-2.5	315	1.0	0.7	-0.7	63	4.7	-4.2	-2.1	82	1.4	-1.4	-0.2	149	2.3	-1.2	2.0	119	6.3	-5.5	3.0	98	8.4	-8.3	1.1
6	325	4.7	2.7	-3.8	330	3.2	1.6	-2.8	61	4.5	-3.9	-2.2	83	1.7	-1.7	-0.2	100	4.1	-4.0	0.7	120	5.2	-4.5	2.6	91	9.4	-9.4	0.1
7	289	3.1	2.9	-1.0	324	2.6	1.5	-2.1	69	3.6	-3.4	-1.3	85	2.1	-2.1	-0.2	152	1.7	-0.8	1.5	104	4.9	-4.7	1.2	91	9.2	-9.2	0.2
8	280	5.9	5.8	-1.0	313	1.6	1.2	-1.1	74	3.3	-3.2	-0.9	90	2.1	-2.1	0.0	119	1.8	-1.6	0.9	118	4.1	-3.6	1.9	92	11.4	-11.4	0.4
9	296	5.3	4.8	-2.3	304	2.2	1.8	-1.2	66	6.0	-5.5	-2.4	103	1.3	-1.3	0.3	81	1.8	-1.8	-0.3	93	6.8	-6.8	0.4	109	6.7	-6.3	2.2
10	299	5.5	4.8	-2.7	306	3.6	2.9	-2.1	71	5.8	-5.5	-1.9	81	1.8	-1.8	-0.3	90	2.5	-2.5	0.0	130	6.4	-4.9	4.1	66	6.0	-5.5	-2.4
11	294	4.5	4.1	-1.8	313	3.5	2.6	-2.4	70	4.4	-4.1	-1.5	76	2.1	-2.0	-0.5	163	2.1	-0.6	2.0	119	6.4	-5.6	3.1	100	12.0	-11.8	2.1
12	297	5.6	5.0	-2.5	308	2.8	2.2	-1.7	65	3.8	-3.5	-1.6	81	1.9	-1.9	-0.3	162	1.3	-0.4	1.2	117	4.2	-3.8	1.9	97	9.3	-9.2	1.1
13	292	5.7	5.3	-2.1	292	3.2	3.0	-1.2	74	2.9	-2.8	-0.8	54	1.4	-1.1	-0.8	135	1.1	-0.8	0.8	114	8.8	-8.0	3.6	59	12.8	-11.0	-6.6
14	275	5.6	5.6	-0.5	307	2.1	1.7	-1.3	63	3.0	-2.7	-1.4	98	2.1	-2.1	0.3	113	1.5	-1.4	0.6	123	6.8	-5.7	3.7	95	14.3	-14.2	1.2
15	283	6.9	6.7	-1.5	293	4.0	3.7	-1.6	45	2.1	-1.5	-1.5	112	0.5	-0.5	0.2	75	2.3	-2.2	-0.6	97	7.8	-7.7	1.0	100	14.9	-14.7	2.5
16	273	5.4	5.4	-0.3	277	3.4	3.4	-0.4	79	1.6	-1.6	-0.3	207	1.3	0.6	1.2	140	1.6	-1.0	1.2	109	7.2	-6.8	2.3	91	11.5	-11.5	0.3
17	272	6.5	6.5	-0.2	270	3.2	3.2	0.0	90	0.9	-0.9	0.0	107	1.4	-1.3	0.4	118	2.6	-2.3	1.2	105	7.4	-7.2	1.9	92	10.6	-10.6	0.3
18	278	7.3	7.2	-1.0	285	4.8	4.6	-1.2	90	0.9	-0.9	0.0	129	0.6	-0.5	0.4	134	4.2	-3.0	2.9	96	6.9	-6.9	0.7	99	13.5	-13.3	2.2
19	286	8.1	7.8	-2.2	291	5.1	4.8	-1.8	352	0.7	0.1	-0.7	14	1.2	-0.3	-1.2	127	1.0	-0.8	0.6	128	6.5	-5.1	4.0	105	8.5	-8.2	2.2
20	295	4.7	4.3	-2.0	301	4.3	3.7	-2.2	347	1.8	0.4	-1.8	294	1.7	1.6	-0.7	90	0.9	-0.9	0.0	119	6.3	-5.5	3.0	106	12.7	-12.2	3.4
21	314	5.7	4.1	-3.9	306	4.7	3.8	-2.8	18	2.0	-0.6	-1.9	264	1.8	1.8	0.2	68	2.4	-2.2	-0.9	112	8.2	-7.6	3.1	103	11.3	-11.0	2.6
22	310	5.5	4.2	-3.5	302	5.5	4.7	-2.9	42	1.5	-1.0	-1.1	270	1.3	1.3	0.0	113	0.8	-0.7	0.3	90	7.4	-7.4	0.0	105	18.0	-17.4	4.6
23	297	4.7	4.2	-2.1	309	4.5	3.5	-2.8	68	1.1	-1.0	-0.4	299	2.9	2.5	-1.4	176	1.3	-0.1	1.3	106	8.6	-8.3	2.4	90	12.5	-12.5	-0.1
24	282	7.1	6.9	-1.5	292	5.4	5.0	-2.0	27	0.2	-0.1	-0.2	346	1.2	0.3	-1.2	87	2.1	-2.1	-0.1	98	6.6	-6.5	0.9	99	12.8	-12.6	2.1
25	284	9.0	8.7	-2.2	286	6.2	6.0	-1.7	295	2.1	1.9	-0.9	281	0.5	0.5	-0.1	84	2.0	-2.0	-0.2	97	9.7	-9.6	1.2	88	19.1	-19.1	-0.7
26	281	8.1	7.9	-1.6	280	5.7	5.6	-1.0	309	2.1	1.6	-1.3	297	2.0	1.8	-0.9	74	3.3	-3.2	-0.9	96	10.9	-10.8	1.1	94	19.6	-19.6	1.4
27	279	7.9	7.8	-1.3	290	6.6	6.2	-2.2	304	2.3	1.9	-1.3	292	1.8	1.7	-0.7	63	4.2	-3.8	-1.9	84	12.6	-12.5	-1.4	96	18.2	-18.1	1.9
28	285	8.2	7.9	-2.1	296	6.4	5.7	-2.8	306	2.7	2.2	-1.6	308	1.1	0.9	-0.7	102	2.9	-2.8	0.6	87	10.5	-10.5	-0.6	91	20.0	-20.0	0.4
29	294	8.6	7.9	-3.5	291	6.0	5.6	-2.1	298	2.6	2.3	-1.2	270	3.3	3.3	0.0	84	1.8	-1.8	-0.2	89	10.9	-10.9	-0.1	99	14.3	-14.1	2.3
30	293	8.2	7.6	-3.2	290	8.9	8.4	-3.0	297	4.4	3.9	-2.0	241	2.5	2.2	1.2	113	3.9	-3.6	1.5	93	10.0	-10.0	0.6	98	17.6	-17.4	2.3
31	297	6.9	6.2	-3.1	274	6.8	6.8	-0.5	275	4.5	4.5	-0.4	257	1.7	1.7	0.4	103	1.8	-1.8	0.4	80	9.6	-9.5	-1.6	97	15.8	-15.7	2.0

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	282	7.9	7.7	-1.7	278	8.9	8.8	-1.2	274	5.1	5.1	-0.4	259	3.2	3.1	0.6	70	2.9	-2.7	-1.0	85	10.6	-10.6	-0.9	109	15.1	-14.3	4.9
2	280	8.3	8.2	-1.4	278	9.4	9.3	-1.3	267	6.0	6.0	0.3	272	2.6	2.6	-0.1	90	4.9	-4.9	0.0	90	11.1	-11.1	0.0	95	19.4	-19.3	1.6
3	275	9.2	9.2	-0.8	282	9.4	9.2	-2.0	274	6.1	6.1	-0.4	254	3.5	3.4	1.0	88	3.3	-3.3	-0.1	68	11.7	-10.9	-4.3	98	20.4	-20.2	2.8
4	275	9.3	9.3	-0.8	280	10.6	10.4	-1.8	276	8.0	7.9	-0.9	263	5.4	5.4	0.7	71	3.9	-3.7	-1.3	90	12.8	-12.8	-0.1	89	16.6	-16.6	-0.3
5	278	10.2	10.1	-1.5	281	10.0	9.8	-1.9	271	8.5	8.5	-0.2	272	6.1	6.1	-0.2	83	5.1	-5.1	-0.6	81	13.3	-13.1	-2.0	97	25.5	-25.3	3.2
6	263	10.9	10.8	1.4	275	10.2	10.2	-0.9	272	9.3	9.3	-0.4	261	7.3	7.2	1.2	61	4.1	-3.6	-2.0	75	17.4	-16.8	-4.6	98	21.8	-21.6	3.1
7	263	11.0	10.9	1.3	279	10.9	10.8	-1.7	273	8.9	8.9	-0.5	271	7.6	7.6	-0.1	83	7.4	-7.3	-0.9	79	15.7	-15.4	-3.1	100	27.9	-27.5	4.8
8	265	12.1	12.0	1.1	278	12.5	12.4	-1.8	274	9.0	9.0	-0.6	270	6.4	6.4	0.0	58	6.6	-5.6	-3.5	82	16.5	-16.3	-2.4	96	24.8	-24.7	2.4
9	270	12.5	12.5	0.0	283	12.4	12.1	-2.9	273	10.5	10.5	-0.6	270	6.1	6.1	0.0	83	7.5	-7.4	-0.9	84	17.7	-17.6	-2.0	91	23.9	-23.9	0.6
10	276	14.2	14.1	-1.4	285	13.6	13.1	-3.5	282	11.7	11.4	-2.5	268	5.4	5.4	0.2	75	8.5	-8.2	-2.2	88	20.8	-20.8	-0.9	104	25.1	-24.3	6.2
11	276	13.2	13.1	-1.4	285	14.0	13.5	-3.6	287	12.1	11.6	-3.5	278	5.7	5.6	-0.8	48	7.0	-5.2	-4.7	84	19.6	-19.5	-2.2	86	24.1	-24.1	-1.5
12	287	13.9	13.3	-4.0	290	14.2	13.3	-4.9	285	10.9	10.5	-2.8	273	7.2	7.2	-0.4	86	7.0	-7.0	-0.5	85	19.9	-19.8	-1.9	95	31.3	-31.2	2.7
13	278	12.6	12.5	-1.8	291	13.5	12.6	-4.9	288	9.8	9.3	-3.0	284	7.6	7.4	-1.8	84	6.0	-6.0	-0.6	90	19.7	-19.7	-0.1	97	23.0	-22.8	2.7
14	275	14.1	14.0	-1.2	281	13.9	13.6	-2.7	281	10.8	10.6	-2.1	276	7.6	7.6	-0.8	82	6.3	-6.2	-0.9	87	20.2	-20.2	-0.9	95	29.5	-29.4	2.5
15	275	12.4	12.4	-1.0	280	13.8	13.6	-2.4	276	10.6	10.5	-1.1	265	7.5	7.5	0.6	82	7.8	-7.7	-1.1	85	22.9	-22.8	-1.9	97	29.5	-29.3	3.6
16	273	11.3	11.3	-0.6	278	13.2	13.1	-1.9	272	11.5	11.5	-0.5	272	7.2	7.2	-0.2	74	7.1	-6.8	-1.9	79	19.7	-19.4	-3.7	94	22.5	-22.5	1.4
17	266	12.5	12.5	0.8	271	12.9	12.9	-0.3	276	10.5	10.4	-1.1	282	8.0	7.8	-1.6	86	9.1	-9.1	-0.7	83	19.6	-19.4	-2.5	95	26.0	-25.9	2.4
18	267	12.0	12.0	0.7	279	14.2	14.0	-2.3	274	11.8	11.8	-0.8	270	8.6	8.6	0.0	85	7.6	-7.6	-0.7	79	24.4	-23.9	-4.7	97	28.8	-28.6	3.3
19	265	12.1	12.1	1.1	282	14.2	13.9	-3.0	279	12.0	11.8	-1.9	271	7.7	7.7	-0.1	72	9.6	-9.1	-2.9	86	24.9	-24.8	-1.9	91	27.9	-27.9	0.6
20	262	12.2	12.1	1.6	283	13.4	13.1	-3.0	282	10.8	10.6	-2.2	277	6.4	6.3	-0.8	94	9.9	-9.9	0.7	85	22.4	-22.3	-1.9	91	22.9	-22.9	0.2
21	281	11.0	10.8	-2.1	286	13.2	12.7	-3.7	280	10.2	10.0	-1.8	274	5.4	5.4	-0.4	79	8.6	-8.5	-1.6	87	24.5	-24.5	-1.1	99	28.3	-28.0	4.3
22	282	11.8	11.5	-2.5	286	12.3	11.8	-3.3	279	10.3	10.2	-1.7	282	5.9	5.8	-1.2	85	8.0	-8.0	-0.7	88	23.2	-23.2	-0.7	99	23.1	-22.8	3.7
23	286	11.2	10.8	-3.0	289	14.1	13.4	-4.5	282	11.0	10.8	-2.3	265	5.0	5.0	0.4	95	7.5	-7.5	0.7	88	23.7	-23.7	-0.8	98	29.0	-28.7	3.9
24	283	10.1	9.8	-2.3	287	13.2	12.6	-3.8	285	10.9	10.5	-2.8	257	5.4	5.3	1.2	90	7.7	-7.7	0.0	90	24.7	-24.7	0.2	97	24.2	-24.0	2.9
25	291	10.0	9.3	-3.6	288	13.6	13.0	-4.1	276	10.0	9.9	-1.0	257	6.5	6.3	1.4	79	6.3	-6.2	-1.2	89	23.6	-23.6	-0.4	94	29.4	-29.3	2.3
26	292	9.5	8.8	-3.5	283	14.2	13.9	-3.1	279	9.8	9.7	-1.5	267	7.5	7.5	0.4	75	8.2	-7.9	-2.1	80	22.9	-22.6	-3.8	97	26.1	-25.9	3.3
27	286	9.8	9.4	-2.7	285	13.3	12.9	-3.4	284	10.6	10.3	-2.6	272	6.9	6.9	-0.2	89	6.8	-6.8	-0.1	82	24.7	-24.5	-3.5	97	22.8	-22.7	2.6
28	287	10.5	10.1	-3.0	285	12.0	11.6	-3.1	284	9.4	9.1	-2.3	271	7.6	7.6	-0.1	85	6.6	-6.6	-0.6	87	26.4	-26.4	-1.3	97	30.1	-29.9	3.8
29	270	11.9	11.9	0.0	282	13.0	12.7	-2.7	279	9.8	9.7	-1.6	268	5.5	5.5	0.2	99	8.5	-8.4	1.3	82	25.1	-24.9	-3.3	96	28.1	-28.0	2.9
30	267	13.9	13.9	0.7	284	15.9	15.4	-3.8	285	10.6	10.2	-2.8	273	4.3	4.3	-0.2	91	9.3	-9.3	0.2	85	24.2	-24.1	-2.3	90	28.3	-28.3	-0.1

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	275	15.6	15.5	-1.3	283	16.6	16.2	-3.8	277	11.8	11.7	-1.4	257	2.8	2.7	0.6	92	9.3	-9.3	0.4	84	27.2	-27.1	-2.8	95	30.7	-30.6	2.6
2	271	12.2	12.2	-0.3	289	13.3	12.6	-4.4	281	10.4	10.2	-2.0	256	3.3	3.2	0.8	84	12.6	-12.5	-1.4	91	25.5	-25.5	0.3	99	23.5	-23.2	3.6
3	282	11.4	11.1	-2.4	287	13.1	12.5	-3.9	276	10.7	10.6	-1.2	275	5.2	5.2	-0.5	91	9.5	-9.5	0.2	90	24.1	-24.1	-0.1	98	28.9	-28.6	4.1
4	282	11.4	11.1	-2.4	293	13.5	12.5	-5.2	282	9.0	8.8	-1.8	262	1.4	1.4	0.2	89	10.0	-10.0	-0.2	87	25.2	-25.2	-1.4	99	28.1	-27.7	4.5
5	286	12.4	11.9	-3.5	295	13.7	12.4	-5.8	290	8.3	7.8	-2.9	277	3.1	3.1	-0.4	93	12.0	-12.0	0.6	89	23.8	-23.8	-0.6	101	21.9	-21.5	4.1
6	284	13.5	13.1	-3.2	291	14.5	13.5	-5.3	288	10.5	10.0	-3.2	282	3.4	3.3	-0.7	87	10.9	-10.9	-0.5	84	25.9	-25.8	-2.5	96	28.6	-28.5	2.8
7	282	12.4	12.1	-2.5	293	14.4	13.2	-5.7	291	10.8	10.1	-3.8	283	5.5	5.4	-1.2	78	11.9	-11.7	-2.4	87	24.4	-24.4	-1.4	92	33.1	-33.1	1.4
8	278	12.0	11.9	-1.7	292	13.0	12.0	-4.9	287	9.1	8.7	-2.7	285	3.0	2.9	-0.8	96	12.7	-12.6	1.4	87	26.3	-26.3	-1.5	95	32.1	-32.0	3.0
9	278	10.5	10.4	-1.5	294	14.0	12.8	-5.6	288	10.9	10.4	-3.3	268	3.2	3.2	0.1	87	14.7	-14.7	-0.7	86	26.3	-26.2	-1.8	91	26.8	-26.8	0.3
10	284	13.5	13.1	-3.2	294	13.2	12.1	-5.3	290	9.5	8.9	-3.3	272	3.4	3.4	-0.1	85	10.7	-10.7	-1.0	84	20.5	-20.4	-2.1	93	29.3	-29.3	1.4
11	281	13.7	13.4	-2.7	288	13.1	12.5	-4.0	284	10.5	10.2	-2.5	281	2.1	2.1	-0.4	84	10.9	-10.8	-1.1	81	22.2	-21.9	-3.6	97	25.5	-25.3	3.1
12	283	14.0	13.6	-3.2	292	13.5	12.5	-5.0	284	9.4	9.1	-2.3	284	3.6	3.5	-0.9	93	10.2	-10.2	0.5	87	24.6	-24.6	-1.2	99	24.7	-24.4	3.9
13	277	15.2	15.1	-1.9	283	13.8	13.4	-3.2	280	10.0	9.8	-1.8	260	5.4	5.3	0.9	88	8.9	-8.9	-0.3	88	22.7	-22.7	-0.7	100	24.3	-24.0	4.1
14	277	13.2	13.1	-1.6	291	15.0	14.0	-5.3	289	10.6	10.0	-3.4	275	3.4	3.4	-0.3	84	10.9	-10.8	-1.1	93	24.8	-24.8	1.1	89	25.7	-25.7	-0.5
15	283	13.8	13.5	-3.0	293	14.6	13.5	-5.6	285	10.3	9.9	-2.7	264	3.8	3.8	0.4	90	11.3	-11.3	0.0	87	25.4	-25.4	-1.2	91	26.1	-26.1	0.6
16	282	14.0	13.7	-2.9	290	15.5	14.6	-5.3	284	11.0	10.7	-2.7	275	5.0	5.0	-0.4	84	10.9	-10.8	-1.1	86	20.4	-20.4	-1.3	99	20.9	-20.7	3.1
17	281	12.6	12.4	-2.5	291	15.4	14.4	-5.5	282	10.7	10.5	-2.3	269	6.0	6.0	0.1	86	8.3	-8.3	-0.6	88	24.2	-24.2	-0.8	92	30.3	-30.3	1.1
18	280	13.1	12.9	-2.3	290	14.6	13.7	-5.1	285	9.9	9.6	-2.6	283	3.6	3.5	-0.8	91	8.9	-8.9	0.1	85	23.5	-23.4	-2.1	92	25.4	-25.4	0.9
19	282	15.0	14.7	-3.0	293	14.8	13.6	-5.8	287	8.8	8.4	-2.5	252	3.2	3.0	1.0	99	11.8	-11.7	1.8	89	25.7	-25.7	-0.5	91	21.6	-21.6	0.5
20	281	14.2	14.0	-2.6	289	14.2	13.4	-4.7	291	8.2	7.7	-2.9	276	3.7	3.7	-0.4	97	9.5	-9.4	1.2	90	24.6	-24.6	-0.2	93	27.6	-27.6	1.6
21	282	12.8	12.5	-2.7	290	15.0	14.1	-5.0	281	9.6	9.4	-1.9	257	3.7	3.6	0.8	85	11.3	-11.3	-1.0	87	24.0	-24.0	-1.1	100	24.6	-24.2	4.2
22	292	10.5	9.7	-3.9	296	13.7	12.3	-6.0	292	9.6	8.9	-3.6	272	3.2	3.2	-0.1	82	12.0	-11.9	-1.6	85	26.5	-26.4	-2.1	95	26.1	-26.0	2.1
23	291	11.1	10.4	-4.0	297	15.0	13.4	-6.7	291	8.5	7.9	-3.1	263	1.6	1.6	0.2	92	10.6	-10.6	0.3	87	24.2	-24.2	-1.2	96	24.8	-24.6	2.8
24	295	12.2	11.0	-5.2	296	14.3	12.8	-6.3	281	10.1	9.9	-2.0	279	3.9	3.9	-0.6	90	8.3	-8.3	0.0	85	22.0	-21.9	-2.1	98	30.0	-29.7	4.1
25	287	11.7	11.2	-3.4	295	14.1	12.8	-5.9	287	9.3	8.9	-2.8	261	5.3	5.2	0.8	86	8.9	-8.9	-0.7	85	23.5	-23.4	-2.0	97	24.7	-24.5	2.9
26	293	12.0	11.1	-4.6	298	13.6	12.0	-6.3	283	9.2	9.0	-2.0	267	4.5	4.5	0.2	88	8.5	-8.5	-0.3	87	21.8	-21.8	-1.0	87	25.9	-25.9	-1.3
27	280	12.8	12.6	-2.3	293	12.7	11.7	-4.9	285	8.8	8.5	-2.3	277	4.1	4.1	-0.5	97	10.1	-10.0	1.2	93	25.7	-25.7	1.5	95	27.7	-27.6	2.4
28	291	12.9	12.0	-4.6	295	13.0	11.8	-5.4	286	9.6	9.2	-2.6	257	3.5	3.4	0.8	94	9.3	-9.3	0.6	92	26.2	-26.2	0.8	94	24.0	-23.9	1.6
29	286	13.2	12.7	-3.7	292	12.6	11.6	-4.8	290	9.6	9.0	-3.2	276	3.8	3.8	-0.4	98	9.6	-9.5	1.4	91	23.7	-23.7	0.6	98	24.6	-24.3	3.6
30	286	12.9	12.4	-3.6	294	13.6	12.4	-5.6	285	9.9	9.6	-2.6	272	3.6	3.6	-0.1	92	9.2	-9.2	0.3	90	23.3	-23.3	0.2	92	17.4	-17.4	0.5
31	285	13.0	12.6	-3.3	295	14.0	12.7	-6.0	292	9.2	8.6	-3.4	250	3.2	3.0	1.1	100	8.6	-8.5	1.5	83	22.8	-22.6	-2.8	96	21.0	-20.9	2.2

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	289	13.2	12.5	-4.3	294	13.5	12.3	-5.6	288	9.3	8.8	-2.9	253	4.9	4.7	1.4	88	10.7	-10.7	-0.3	89	24.7	-24.7	-0.4	92	25.9	-25.9	1.1
2	291	10.8	10.1	-3.9	293	12.4	11.4	-4.9	286	9.4	9.0	-2.6	268	3.3	3.3	0.1	89	12.2	-12.2	-0.2	90	25.8	-25.8	-0.1	96	18.8	-18.7	1.9
3	293	12.6	11.6	-4.9	299	13.1	11.4	-6.4	293	8.9	8.2	-3.4	258	3.5	3.4	0.7	100	10.6	-10.4	1.8	92	26.2	-26.2	1.0	94	22.6	-22.6	1.4
4	294	12.2	11.2	-4.9	298	11.5	10.2	-5.4	288	9.1	8.7	-2.8	207	1.8	0.8	1.6	99	11.3	-11.2	1.7	92	25.3	-25.3	0.7	93	25.9	-25.9	1.4
5	287	11.3	10.8	-3.3	301	13.0	11.1	-6.7	293	8.0	7.4	-3.1	215	1.2	0.7	1.0	101	10.4	-10.2	1.9	90	25.9	-25.9	0.2	92	20.2	-20.2	0.6
6	293	10.0	9.2	-4.0	300	10.9	9.4	-5.5	284	7.2	7.0	-1.7	274	2.8	2.8	-0.2	96	10.9	-10.8	1.2	89	23.0	-23.0	-0.5	89	18.6	-18.6	-0.4
7	289	10.5	9.9	-3.5	295	11.0	10.0	-4.7	281	8.5	8.3	-1.6	255	2.0	1.9	0.5	99	10.6	-10.5	1.6	90	24.0	-24.0	0.2	100	18.7	-18.4	3.4
8	292	11.4	10.6	-4.2	294	12.0	11.0	-4.8	281	9.1	8.9	-1.7	250	4.5	4.2	1.5	84	9.3	-9.2	-1.0	84	24.6	-24.5	-2.4	92	26.6	-26.6	1.1
9	300	10.0	8.7	-5.0	301	11.7	10.1	-6.0	295	9.5	8.6	-4.0	289	3.9	3.7	-1.3	99	7.4	-7.3	1.1	92	27.3	-27.3	1.1	97	22.7	-22.5	2.8
10	294	10.7	9.8	-4.3	292	12.6	11.6	-4.8	292	10.1	9.4	-3.8	271	4.1	4.1	-0.1	98	8.7	-8.6	1.2	85	25.6	-25.5	-2.1	103	22.2	-21.7	4.9
11	291	10.3	9.6	-3.6	296	11.9	10.7	-5.3	290	8.7	8.2	-3.0	259	2.6	2.6	0.5	100	9.4	-9.2	1.7	89	22.8	-22.8	-0.3	94	25.1	-25.0	1.8
12	298	8.4	7.4	-3.9	300	10.7	9.2	-5.4	284	8.2	8.0	-2.0	247	3.3	3.0	1.3	92	9.8	-9.8	0.3	90	23.0	-23.0	0.2	91	25.1	-25.1	0.6
13	288	8.9	8.5	-2.8	296	10.9	9.8	-4.7	293	8.3	7.7	-3.2	262	3.7	3.7	0.5	87	8.5	-8.5	-0.5	92	23.8	-23.8	1.0	94	20.6	-20.6	1.4
14	302	9.2	7.8	-4.9	294	12.1	11.0	-5.0	291	9.0	8.4	-3.2	281	3.7	3.6	-0.7	103	11.1	-10.8	2.5	94	25.0	-24.9	1.6	85	23.1	-23.0	-1.9
15	303	7.4	6.2	-4.0	298	12.2	10.7	-5.8	286	8.2	7.9	-2.3	281	2.5	2.5	-0.5	106	12.5	-12.0	3.4	96	23.0	-22.9	2.5	92	28.3	-28.3	1.2
16	300	8.7	7.5	-4.4	301	11.7	10.1	-6.0	292	9.4	8.7	-3.6	252	0.9	0.9	0.3	103	11.3	-11.0	2.6	94	26.9	-26.8	2.1	95	25.1	-25.0	2.2
17	288	10.3	9.8	-3.2	301	11.4	9.8	-5.8	289	7.3	6.9	-2.4	270	1.1	1.1	0.0	94	11.1	-11.1	0.8	95	25.4	-25.3	2.0	91	20.6	-20.6	0.5
18	292	9.6	8.9	-3.6	299	11.3	9.9	-5.4	296	8.1	7.3	-3.6	302	1.3	1.1	-0.7	90	9.7	-9.7	0.0	98	22.4	-22.2	3.3	96	29.4	-29.2	3.3
19	297	9.7	8.7	-4.4	295	11.4	10.3	-4.9	296	7.5	6.7	-3.3	225	1.3	0.9	0.9	86	8.1	-8.1	-0.6	93	27.0	-27.0	1.6	99	18.2	-18.0	2.9
20	296	10.6	9.5	-4.7	300	11.2	9.7	-5.5	295	8.6	7.8	-3.6	260	2.9	2.9	0.5	98	8.0	-7.9	1.1	100	27.1	-26.7	4.6	93	20.2	-20.2	0.9
21	306	12.7	10.3	-7.5	302	12.9	10.9	-6.9	293	8.8	8.1	-3.4	286	2.6	2.5	-0.7	91	7.5	-7.5	0.1	93	22.1	-22.1	1.1	99	24.0	-23.7	3.6
22	302	12.0	10.1	-6.4	306	11.8	9.6	-6.9	296	9.2	8.3	-4.0	283	2.8	2.7	-0.6	97	7.6	-7.5	0.9	88	23.9	-23.9	-0.7	94	22.2	-22.1	1.7
23	291	13.2	12.3	-4.7	303	11.8	9.9	-6.5	289	9.1	8.6	-2.9	265	2.2	2.2	0.2	87	5.7	-5.7	-0.3	86	21.4	-21.3	-1.5	107	17.8	-17.0	5.2
24	295	11.5	10.4	-4.9	296	11.0	9.9	-4.8	293	8.9	8.2	-3.5	262	3.5	3.5	0.5	96	9.0	-8.9	1.0	92	22.5	-22.5	0.6	100	21.0	-20.7	3.8
25	286	11.3	10.9	-3.1	299	11.1	9.7	-5.4	294	8.9	8.1	-3.6	288	2.2	2.1	-0.7	94	10.4	-10.4	0.7	95	25.6	-25.5	2.4	92	18.3	-18.3	0.6
26	287	9.7	9.3	-2.8	300	9.9	8.5	-5.0	295	6.8	6.2	-2.9	313	2.6	1.9	-1.8	92	10.1	-10.1	0.3	96	24.9	-24.8	2.4	93	24.3	-24.3	1.1
27	285	9.8	9.5	-2.6	300	9.5	8.2	-4.8	281	6.3	6.2	-1.2	263	3.2	3.2	0.4	91	8.6	-8.6	0.1	93	27.1	-27.1	1.4	92	20.7	-20.7	0.8
28	283	12.6	12.3	-2.8	299	10.0	8.7	-4.9	290	7.7	7.2	-2.6	273	3.4	3.4	-0.2	93	11.0	-11.0	0.6	93	24.3	-24.3	1.4	97	15.7	-15.6	1.9
29	289	12.5	11.8	-4.0	296	11.7	10.5	-5.2	290	8.0	7.5	-2.7	272	2.8	2.8	-0.1	105	8.4	-8.1	2.2	90	24.8	-24.8	-0.2	90	18.7	-18.7	0.1
30	290	10.9	10.3	-3.7	296	11.0	9.9	-4.9	293	7.8	7.2	-3.1	283	3.6	3.5	-0.8	92	7.5	-7.5	0.3	94	24.8	-24.7	1.7	89	22.4	-22.4	-0.4
31	285	10.9	10.5	-2.8	295	10.2	9.2	-4.3	294	7.6	6.9	-3.1	280	3.4	3.3	-0.6	86	9.8	-9.8	-0.7	91	24.4	-24.4	0.3	97	23.7	-23.5	2.9

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	290	10.9	10.2	-3.8	302	9.2	7.8	-4.8	281	6.1	6.0	-1.2	265	3.6	3.6	0.3	82	8.4	-8.3	-1.2	93	22.2	-22.2	1.2	103	20.3	-19.8	4.6
2	293	9.8	9.0	-3.9	301	8.4	7.2	-4.3	290	6.3	5.9	-2.1	290	3.0	2.8	-1.0	96	10.1	-10.0	1.1	96	26.8	-26.6	2.9	100	20.4	-20.1	3.7
3	291	9.3	8.7	-3.3	297	8.5	7.6	-3.8	293	7.1	6.5	-2.8	268	2.8	2.8	0.1	103	11.2	-10.9	2.6	90	27.3	-27.3	0.2	96	17.2	-17.1	1.9
4	293	9.8	9.0	-3.9	299	9.0	7.9	-4.3	289	7.2	6.8	-2.4	266	1.4	1.4	0.1	110	8.9	-8.4	3.0	91	26.5	-26.5	0.3	111	15.1	-14.1	5.3
5	292	9.2	8.5	-3.4	299	7.8	6.8	-3.8	293	5.6	5.1	-2.2	259	1.5	1.5	0.3	96	9.2	-9.2	0.9	94	25.7	-25.6	1.8	93	13.8	-13.8	0.8
6	292	9.6	8.9	-3.6	299	7.6	6.6	-3.7	284	6.5	6.3	-1.6	281	1.0	1.0	-0.2	106	9.3	-8.9	2.6	94	22.7	-22.6	1.7	87	17.4	-17.4	-0.9
7	301	8.4	7.2	-4.4	306	7.7	6.2	-4.5	289	7.2	6.8	-2.3	279	1.8	1.8	-0.3	101	7.0	-6.9	1.4	98	25.2	-25.0	3.3	95	19.0	-18.9	1.7
8	302	8.1	6.9	-4.3	305	7.5	6.1	-4.3	290	7.5	7.0	-2.6	310	1.6	1.2	-1.0	93	7.3	-7.3	0.4	93	21.3	-21.3	1.0	83	13.3	-13.2	-1.7
9	303	9.8	8.3	-5.3	305	8.2	6.7	-4.7	292	8.3	7.7	-3.1	309	1.4	1.1	-0.9	100	7.7	-7.6	1.3	96	20.3	-20.2	2.0	90	13.9	-13.9	0.1
10	306	7.2	5.8	-4.2	309	7.8	6.1	-4.9	293	7.3	6.7	-2.9	311	2.0	1.5	-1.3	102	9.6	-9.4	2.0	97	23.7	-23.5	2.8	106	22.6	-21.8	6.1
11	315	7.1	5.0	-5.0	306	7.9	6.4	-4.6	293	5.3	4.9	-2.1	338	0.5	0.2	-0.5	107	9.0	-8.6	2.6	100	21.8	-21.5	3.6	102	13.5	-13.2	2.8
12	307	6.9	5.5	-4.1	302	7.3	6.2	-3.9	292	6.1	5.6	-2.3	180	0.2	0.0	0.2	101	10.1	-9.9	1.9	99	23.0	-22.7	3.5	99	18.2	-18.0	2.7
13	311	6.5	4.9	-4.3	308	6.8	5.4	-4.2	283	4.9	4.8	-1.1	62	1.5	-1.3	-0.7	108	11.4	-10.8	3.5	100	18.9	-18.6	3.4	99	25.8	-25.5	4.2
14	310	6.0	4.6	-3.8	306	6.2	5.0	-3.6	288	5.1	4.8	-1.6	56	1.1	-0.9	-0.6	105	11.0	-10.6	2.8	102	21.5	-21.0	4.6	91	13.8	-13.8	0.3
15	303	6.1	5.1	-3.3	311	6.2	4.7	-4.1	296	4.3	3.9	-1.9	117	0.7	-0.6	0.3	102	10.7	-10.4	2.3	102	18.5	-18.1	3.9	93	13.1	-13.1	0.7
16	293	7.1	6.5	-2.8	301	6.6	5.6	-3.4	294	5.1	4.7	-2.1	45	1.1	-0.8	-0.8	100	9.4	-9.2	1.7	98	17.4	-17.2	2.4	102	10.8	-10.6	2.3
17	305	7.8	6.4	-4.5	302	7.0	5.9	-3.7	292	4.1	3.8	-1.5	78	1.4	-1.4	-0.3	101	9.7	-9.5	1.8	99	20.0	-19.8	3.1	99	20.4	-20.1	3.3
18	295	6.8	6.2	-2.9	300	6.7	5.8	-3.4	288	5.4	5.1	-1.7	335	1.7	0.7	-1.5	99	8.0	-7.9	1.3	102	18.9	-18.5	3.8	101	12.6	-12.4	2.5
19	311	6.6	5.0	-4.3	301	7.4	6.4	-3.8	291	6.6	6.2	-2.4	309	1.4	1.1	-0.9	101	7.1	-7.0	1.4	101	15.3	-15.0	2.8	99	17.9	-17.7	2.9
20	313	7.6	5.6	-5.2	298	7.8	6.9	-3.7	286	6.0	5.8	-1.7	341	1.8	0.6	-1.7	107	8.4	-8.0	2.4	100	16.4	-16.2	2.8	99	19.3	-19.1	3.0
21	307	10.2	8.2	-6.1	296	7.6	6.8	-3.3	283	6.4	6.2	-1.4	338	0.5	0.2	-0.5	107	9.0	-8.6	2.7	98	17.7	-17.5	2.5	107	22.8	-21.9	6.5
22	306	8.9	7.2	-5.3	294	8.4	7.7	-3.4	285	6.2	6.0	-1.6	302	1.5	1.3	-0.8	102	7.9	-7.7	1.7	95	17.9	-17.8	1.7	106	12.8	-12.3	3.5
23	307	7.4	5.9	-4.4	295	8.8	8.0	-3.7	290	6.6	6.2	-2.3	310	1.7	1.3	-1.1	100	9.4	-9.3	1.6	100	17.2	-16.9	3.1	100	12.4	-12.2	2.2
24	310	6.0	4.6	-3.9	299	7.9	6.9	-3.8	284	6.8	6.6	-1.6	328	0.9	0.5	-0.8	98	9.7	-9.6	1.4	94	18.4	-18.3	1.4	92	17.9	-17.9	0.6
25	303	5.5	4.6	-3.0	300	6.4	5.5	-3.2	292	6.3	5.8	-2.4	23	1.5	-0.6	-1.4	103	8.6	-8.4	1.9	96	17.6	-17.5	1.7	94	14.3	-14.3	0.9
26	307	6.0	4.8	-3.6	299	6.8	6.0	-3.3	285	4.7	4.5	-1.2	193	1.3	0.3	1.3	102	7.9	-7.7	1.6	86	17.3	-17.3	-1.2	96	16.6	-16.5	1.6
27	297	5.6	5.0	-2.6	291	6.6	6.1	-2.4	282	5.5	5.4	-1.1	286	0.7	0.7	-0.2	104	7.6	-7.4	1.9	92	18.1	-18.1	0.5	95	13.7	-13.7	1.1
28	296	6.0	5.4	-2.6	295	6.8	6.1	-2.9	290	6.2	5.8	-2.1	288	0.9	0.9	-0.3	101	9.1	-8.9	1.7	90	17.3	-17.3	0.0	87	8.7	-8.7	-0.4
29	292	8.2	7.6	-3.1	297	6.7	6.0	-3.0	285	5.0	4.8	-1.3	288	1.3	1.2	-0.4	101	7.5	-7.4	1.4	96	20.0	-19.9	2.1	97	10.3	-10.2	1.2
30	286	6.4	6.1	-1.8	295	6.5	5.9	-2.7	292	5.7	5.3	-2.1	261	1.3	1.3	0.2	104	6.1	-5.9	1.5	92	18.0	-18.0	0.7	106	13.9	-13.3	3.9

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	278	5.2	5.2	-0.7	290	8.0	7.5	-2.7	294	3.9	3.6	-1.6	261	1.3	1.3	0.2	97	5.1	-5.1	0.6	94	14.7	-14.7	1.1	90	13.2	-13.2	0.0
2	287	5.2	5.0	-1.5	288	5.6	5.3	-1.7	275	4.5	4.5	-0.4	274	1.5	1.5	-0.1	103	6.9	-6.7	1.6	90	17.5	-17.5	-0.1	100	10.9	-10.7	1.9
3	290	4.5	4.2	-1.5	279	5.8	5.7	-0.9	279	4.4	4.3	-0.7	240	2.2	1.9	1.1	97	6.0	-6.0	0.7	91	17.4	-17.4	0.3	86	10.4	-10.4	-0.8
4	279	5.4	5.3	-0.8	291	7.3	6.8	-2.6	284	5.4	5.2	-1.3	270	1.8	1.8	0.0	110	7.2	-6.8	2.5	85	16.5	-16.4	-1.5	98	13.9	-13.8	1.9
5	277	7.4	7.3	-0.9	292	6.8	6.3	-2.6	293	5.0	4.6	-2.0	283	1.3	1.3	-0.3	105	7.7	-7.4	2.0	90	12.5	-12.5	0.0	99	10.5	-10.4	1.6
6	288	9.4	8.9	-2.9	290	6.5	6.1	-2.2	285	5.1	4.9	-1.3	276	1.8	1.8	-0.2	103	6.6	-6.4	1.5	93	17.3	-17.3	0.8	112	6.8	-6.3	2.5
7	278	7.6	7.5	-1.1	288	5.5	5.2	-1.7	294	4.9	4.5	-2.0	276	0.9	0.9	-0.1	108	5.8	-5.5	1.8	96	16.0	-15.9	1.7	100	9.1	-9.0	1.6
8	276	9.8	9.7	-1.0	286	6.4	6.1	-1.8	295	4.2	3.8	-1.8	315	0.3	0.2	-0.2	113	5.4	-5.0	2.1	99	13.3	-13.1	2.0	93	10.5	-10.5	0.5
9	289	6.8	6.4	-2.2	296	5.3	4.8	-2.3	298	4.7	4.1	-2.2	153	0.2	-0.1	0.2	108	6.9	-6.6	2.1	94	15.3	-15.3	1.0	97	10.7	-10.6	1.3
10	262	6.9	6.8	1.0	286	4.0	3.8	-1.1	286	3.3	3.2	-0.9	150	0.8	-0.4	0.7	96	6.6	-6.6	0.7	91	15.3	-15.3	0.3	93	11.5	-11.5	0.6
11	279	5.8	5.7	-0.9	292	3.5	3.2	-1.3	304	2.2	1.8	-1.2	143	1.0	-0.6	0.8	98	5.9	-5.8	0.8	96	14.9	-14.8	1.6	92	9.6	-9.6	0.3
12	272	6.7	6.7	-0.2	277	3.1	3.1	-0.4	268	2.6	2.6	0.1	106	1.5	-1.4	0.4	102	6.2	-6.1	1.3	89	12.8	-12.8	-0.3	95	8.4	-8.4	0.7
13	252	3.2	3.0	1.0	292	2.4	2.2	-0.9	306	1.4	1.1	-0.8	121	0.6	-0.5	0.3	106	6.3	-6.1	1.7	90	14.8	-14.8	0.0	99	5.4	-5.3	0.8
14	264	4.6	4.6	0.5	283	2.7	2.6	-0.6	295	2.3	2.1	-1.0	333	0.4	0.2	-0.4	104	5.7	-5.5	1.4	102	15.4	-15.0	3.3	96	11.0	-10.9	1.1
15	296	5.3	4.8	-2.3	319	3.0	2.0	-2.3	312	2.5	1.9	-1.7	25	1.4	-0.6	-1.3	97	6.2	-6.1	0.8	100	16.0	-15.8	2.7	102	11.2	-11.0	2.3
16	278	7.1	7.0	-1.0	287	3.9	3.7	-1.1	286	4.4	4.2	-1.2	27	1.3	-0.6	-1.2	104	4.9	-4.7	1.2	103	15.0	-14.6	3.5	98	9.8	-9.7	1.4
17	287	6.5	6.2	-1.9	291	4.3	4.0	-1.5	284	3.8	3.7	-0.9	346	0.4	0.1	-0.4	99	6.4	-6.3	1.0	101	12.3	-12.1	2.4	93	8.5	-8.5	0.4
18	275	6.3	6.3	-0.5	288	4.6	4.4	-1.4	295	3.5	3.2	-1.5	38	1.1	-0.7	-0.9	107	5.6	-5.4	1.6	105	14.4	-13.9	3.7	89	14.1	-14.1	-0.2
19	297	5.4	4.8	-2.4	290	2.9	2.7	-1.0	311	2.8	2.1	-1.8	31	1.2	-0.6	-1.0	102	7.4	-7.2	1.5	104	16.0	-15.5	3.8	99	8.7	-8.6	1.3
20	298	4.7	4.1	-2.2	292	3.1	2.9	-1.2	303	2.7	2.3	-1.5	84	2.0	-2.0	-0.2	108	5.8	-5.5	1.8	104	12.9	-12.5	3.2	98	7.9	-7.8	1.1
21	270	2.9	2.9	0.0	292	1.6	1.5	-0.6	286	1.8	1.7	-0.5	116	3.0	-2.7	1.3	104	4.9	-4.7	1.2	91	10.7	-10.7	0.2	122	11.2	-9.5	5.9
22	276	3.8	3.8	-0.4	265	1.2	1.2	0.1	270	1.1	1.1	0.0	146	1.1	-0.6	0.9	108	4.7	-4.5	1.5	97	14.2	-14.1	1.8	86	9.6	-9.6	-0.7
23	287	3.8	3.6	-1.1	312	1.2	0.9	-0.8	291	1.4	1.3	-0.5	72	0.6	-0.6	-0.2	108	5.2	-4.9	1.6	101	14.4	-14.1	2.8	110	7.2	-6.7	2.5
24	287	2.7	2.6	-0.8	338	1.1	0.4	-1.0	302	1.5	1.3	-0.8	95	1.2	-1.2	0.1	108	6.0	-5.7	1.8	107	13.2	-12.6	3.8	94	7.2	-7.2	0.5
25	312	2.7	2.0	-1.8	360	0.9	0.0	-0.9	6	0.9	-0.1	-0.9	111	1.4	-1.3	0.5	100	6.8	-6.7	1.2	102	13.0	-12.7	2.7	82	6.6	-6.5	-0.9
26	323	2.6	1.6	-2.1	322	1.1	0.7	-0.9	339	0.9	0.3	-0.8	90	3.2	-3.2	0.0	108	5.9	-5.6	1.8	99	11.9	-11.7	1.9	105	7.0	-6.8	1.8
27	329	3.7	1.9	-3.2	302	0.9	0.8	-0.5	337	0.8	0.3	-0.7	106	1.8	-1.7	0.5	108	3.5	-3.3	1.1	110	9.0	-8.4	3.1	86	5.1	-5.1	-0.4
28	289	3.1	2.9	-1.0	274	1.4	1.4	-0.1	124	0.4	-0.3	0.2	104	1.6	-1.6	0.4	97	5.9	-5.9	0.7	113	12.4	-11.4	4.8	80	4.8	-4.7	-0.8
29	290	2.9	2.7	-1.0	249	0.9	0.8	0.3	270	0.4	0.4	0.0	9	0.6	-0.1	-0.6	100	5.2	-5.1	0.9	115	10.7	-9.7	4.5	104	8.1	-7.8	2.0
30	305	2.8	2.3	-1.6	15	1.6	-0.4	-1.5	322	1.1	0.7	-0.9	47	2.2	-1.6	-1.5	107	4.8	-4.6	1.4	120	9.3	-8.0	4.7	106	4.7	-4.5	1.3
31	308	3.7	2.9	-2.3	331	1.0	0.5	-0.9	317	1.9	1.3	-1.4	76	1.2	-1.2	-0.3	118	3.8	-3.4	1.8	112	7.2	-6.7	2.7	101	6.6	-6.5	1.3

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	317	3.3	2.2	-2.4	311	1.1	0.8	-0.7	315	1.0	0.7	-0.7	71	1.8	-1.7	-0.6	117	4.2	-3.7	1.9	123	7.6	-6.4	4.1	97	8.0	-7.9	1.0
2	298	2.4	2.1	-1.1	302	0.9	0.8	-0.5	—	—	—	—	80	4.2	-4.1	-0.7	102	5.9	-5.8	1.2	111	7.4	-6.9	2.6	89	5.3	-5.3	-0.1
3	300	2.4	2.1	-1.2	325	1.2	0.7	-1.0	338	0.5	0.2	-0.5	71	2.4	-2.3	-0.8	87	3.9	-3.9	-0.2	115	8.1	-7.3	3.4	101	8.8	-8.6	1.7
4	282	1.4	1.4	-0.3	355	1.2	0.1	-1.2	360	0.9	0.0	-0.9	79	3.6	-3.5	-0.7	99	5.2	-5.1	0.8	117	11.2	-10.0	5.0	108	9.6	-9.1	2.9
5	332	3.0	1.4	-2.6	16	1.5	-0.4	-1.4	34	1.1	-0.6	-0.9	88	2.8	-2.8	-0.1	91	4.2	-4.2	0.1	117	11.0	-9.8	4.9	98	6.8	-6.7	1.0
6	5	3.4	-0.3	-3.4	344	1.9	0.5	-1.8	5	2.4	-0.2	-2.4	55	2.1	-1.7	-1.2	103	5.1	-5.0	1.2	109	8.9	-8.4	2.9	101	8.1	-7.9	1.6
7	7	2.3	-0.3	-2.3	4	1.4	-0.1	-1.4	360	1.1	0.0	-1.1	37	2.1	-1.3	-1.7	95	4.5	-4.5	0.4	105	12.1	-11.7	3.2	106	6.0	-5.8	1.7
8	347	2.3	0.5	-2.2	315	0.4	0.3	-0.3	306	0.9	0.7	-0.5	48	1.5	-1.1	-1.0	94	5.8	-5.8	0.4	114	10.8	-9.9	4.4	113	6.2	-5.7	2.4
9	6	0.9	-0.1	-0.9	339	0.9	0.3	-0.8	333	1.3	0.6	-1.2	80	1.1	-1.1	-0.2	96	6.2	-6.2	0.7	116	8.7	-7.8	3.8	93	6.7	-6.7	0.3
10	360	2.9	0.0	-2.9	30	1.6	-0.8	-1.4	38	1.1	-0.7	-0.9	93	1.9	-1.9	0.1	95	5.6	-5.6	0.5	113	8.2	-7.6	3.2	98	6.5	-6.4	0.9
11	171	0.6	-0.1	0.6	48	1.3	-1.0	-0.9	60	0.8	-0.7	-0.4	67	3.4	-3.1	-1.3	86	4.7	-4.7	-0.3	117	6.9	-6.2	3.1	97	6.3	-6.2	0.8
12	360	0.3	0.0	-0.3	34	1.1	-0.6	-0.9	90	1.3	-1.3	0.0	81	3.9	-3.9	-0.6	109	6.7	-6.3	2.2	110	10.5	-9.9	3.6	107	5.6	-5.4	1.6
13	350	1.1	0.2	-1.1	39	0.6	-0.4	-0.5	148	0.9	-0.5	0.8	101	3.3	-3.2	0.6	91	5.5	-5.5	0.1	122	9.1	-7.7	4.9	100	7.1	-7.0	1.2
14	3	2.0	-0.1	-2.0	120	0.8	-0.7	0.4	113	0.8	-0.7	0.3	102	2.4	-2.3	0.5	101	5.6	-5.5	1.1	116	8.0	-7.2	3.5	106	7.6	-7.3	2.1
15	360	1.4	0.0	-1.4	61	2.1	-1.8	-1.0	90	0.5	-0.5	0.0	122	1.3	-1.1	0.7	113	5.3	-4.9	2.1	114	10.4	-9.5	4.2	91	8.0	-8.0	0.2
16	255	1.1	1.1	0.3	39	1.3	-0.8	-1.0	50	0.8	-0.6	-0.5	102	3.5	-3.4	0.7	117	5.1	-4.6	2.3	119	8.4	-7.3	4.1	100	5.3	-5.2	0.9
17	326	1.1	0.6	-0.9	54	0.9	-0.7	-0.5	101	0.5	-0.5	0.1	126	2.9	-2.3	1.7	117	4.2	-3.8	1.9	132	8.7	-6.5	5.8	102	5.3	-5.2	1.1
18	333	1.6	0.7	-1.4	72	1.9	-1.8	-0.6	90	1.2	-1.2	0.0	121	3.3	-2.8	1.7	118	3.8	-3.4	1.8	139	7.2	-4.7	5.4	110	2.7	-2.5	0.9
19	344	1.9	0.5	-1.8	63	1.8	-1.6	-0.8	72	0.9	-0.9	-0.3	73	3.0	-2.9	-0.9	110	4.0	-3.8	1.4	140	8.3	-5.3	6.4	111	3.9	-3.6	1.4
20	10	2.7	-0.5	-2.7	31	1.2	-0.6	-1.0	180	0.7	0.0	0.7	88	2.3	-2.3	-0.1	124	4.0	-3.3	2.2	141	9.0	-5.7	7.0	135	1.3	-0.9	0.9
21	32	2.5	-1.3	-2.1	65	1.7	-1.5	-0.7	360	1.1	0.0	-1.1	44	3.0	-2.1	-2.2	120	4.3	-3.7	2.1	139	5.5	-3.6	4.1	85	5.4	-5.4	-0.5
22	7	2.5	-0.3	-2.5	35	2.4	-1.4	-2.0	336	2.0	0.8	-1.8	67	2.5	-2.3	-1.0	129	2.6	-2.0	1.6	164	7.0	-1.9	6.7	104	3.2	-3.1	0.8
23	39	3.2	-2.0	-2.5	59	2.7	-2.3	-1.4	73	1.4	-1.3	-0.4	86	2.9	-2.9	-0.2	90	2.1	-2.1	0.0	134	6.4	-4.6	4.4	121	2.9	-2.5	1.5
24	71	1.8	-1.7	-0.6	69	1.9	-1.8	-0.7	90	0.2	-0.2	0.0	92	3.0	-3.0	0.1	118	3.4	-3.0	1.6	143	5.6	-3.4	4.5	98	4.4	-4.4	0.6
25	45	1.3	-0.9	-0.9	55	2.1	-1.7	-1.2	54	0.9	-0.7	-0.5	54	3.6	-2.9	-2.1	111	4.0	-3.7	1.4	125	7.1	-5.8	4.1	98	4.1	-4.1	0.6
26	38	1.6	-1.0	-1.3	39	1.4	-0.9	-1.1	28	2.1	-1.0	-1.9	91	5.1	-5.1	0.1	88	4.7	-4.7	-0.2	129	8.5	-6.6	5.3	98	5.3	-5.3	0.7
27	22	3.7	-1.4	-3.4	55	1.9	-1.6	-1.1	96	1.8	-1.8	0.2	88	4.7	-4.7	-0.2	120	3.9	-3.4	2.0	126	6.2	-5.0	3.6	109	3.1	-2.9	1.0
28	24	1.2	-0.5	-1.1	60	3.0	-2.6	-1.5	79	1.6	-1.6	-0.3	84	5.6	-5.6	-0.6	139	2.3	-1.5	1.7	150	8.6	-4.3	7.5	74	3.3	-3.2	-0.9
29	20	2.3	-0.8	-2.2	69	3.4	-3.2	-1.2	75	2.8	-2.7	-0.7	71	6.2	-5.9	-2.0	117	4.2	-3.8	1.9	132	7.1	-5.3	4.7	93	4.4	-4.4	0.2
30	11	3.8	-0.7	-3.7	76	3.2	-3.1	-0.8	67	2.1	-1.9	-0.8	75	6.6	-6.4	-1.7	81	3.3	-3.3	-0.5	138	9.5	-6.3	7.1	100	8.2	-8.1	1.4

Daily Normals of Upper Air Winds (1971-2000)

MINICOY **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	14	2.1	-0.5	-2.0	62	3.0	-2.6	-1.4	54	1.9	-1.5	-1.1	76	7.2	-7.0	-1.8	133	4.1	-3.0	2.8	150	4.4	-2.2	3.8	94	5.8	-5.8	0.4
2	82	2.8	-2.8	-0.4	78	4.9	-4.8	-1.0	72	4.2	-4.0	-1.3	92	7.5	-7.5	0.2	119	4.8	-4.2	2.3	165	5.7	-1.5	5.5	65	1.9	-1.7	-0.8
3	79	2.6	-2.6	-0.5	82	4.5	-4.5	-0.6	97	3.2	-3.2	0.4	100	7.4	-7.3	1.3	125	5.5	-4.5	3.2	167	6.1	-1.4	5.9	100	4.1	-4.0	0.7
4	84	2.9	-2.9	-0.3	75	3.1	-3.0	-0.8	88	3.2	-3.2	-0.1	89	5.9	-5.9	-0.1	133	4.4	-3.2	3.0	148	6.4	-3.4	5.4	99	3.7	-3.7	0.6
5	64	2.5	-2.3	-1.1	88	3.6	-3.6	-0.1	90	2.9	-2.9	0.0	87	5.9	-5.9	-0.3	135	4.5	-3.2	3.2	163	6.7	-2.0	6.4	95	6.4	-6.4	0.6
6	66	3.6	-3.3	-1.5	79	4.3	-4.2	-0.8	68	2.7	-2.5	-1.0	86	4.9	-4.9	-0.3	117	4.0	-3.6	1.8	125	6.3	-5.2	3.6	91	8.1	-8.1	0.1
7	15	3.0	-0.8	-2.9	51	2.7	-2.1	-1.7	77	2.7	-2.6	-0.6	75	5.5	-5.3	-1.4	135	3.0	-2.1	2.1	145	6.7	-3.9	5.5	38	4.9	-3.0	-3.9
8	30	2.4	-1.2	-2.1	57	3.1	-2.6	-1.7	63	1.8	-1.6	-0.8	87	3.7	-3.7	-0.2	149	1.7	-0.9	1.5	159	8.3	-3.0	7.7	76	3.6	-3.5	-0.9
9	33	2.0	-1.1	-1.7	53	1.5	-1.2	-0.9	130	0.8	-0.6	0.5	77	4.4	-4.3	-1.0	130	3.3	-2.5	2.1	159	6.2	-2.2	5.8	90	2.0	-2.0	0.0
10	53	3.0	-2.4	-1.8	72	2.5	-2.4	-0.8	90	0.6	-0.6	0.0	97	3.4	-3.4	0.4	154	4.6	-2.0	4.1	154	5.0	-2.2	4.5	79	4.6	-4.5	-0.9
11	53	2.0	-1.6	-1.2	73	2.7	-2.6	-0.8	86	2.7	-2.7	-0.2	94	4.2	-4.2	0.3	138	3.8	-2.5	2.8	160	7.4	-2.5	7.0	100	4.6	-4.5	0.8
12	85	3.4	-3.4	-0.3	85	4.5	-4.5	-0.4	103	4.4	-4.3	1.0	92	5.8	-5.8	0.2	149	4.8	-2.5	4.1	192	4.4	0.9	4.3	336	1.2	0.5	-1.1
13	87	1.8	-1.8	-0.1	92	3.5	-3.5	0.1	101	3.2	-3.1	0.6	90	5.0	-5.0	0.0	169	4.2	-0.8	4.1	175	5.6	-0.5	5.6	150	2.8	-1.4	2.4
14	85	2.3	-2.3	-0.2	81	3.9	-3.9	-0.6	104	3.7	-3.6	0.9	96	6.1	-6.1	0.6	186	2.7	0.3	2.7	207	4.9	2.2	4.4	95	2.5	-2.5	0.2
15	117	0.7	-0.6	0.3	83	4.3	-4.3	-0.5	92	3.8	-3.8	0.1	90	5.6	-5.6	0.0	225	0.6	0.4	0.4	229	6.0	4.5	3.9	185	1.2	0.1	1.2
16	41	1.8	-1.2	-1.4	75	3.4	-3.3	-0.9	90	3.6	-3.6	0.0	93	6.0	-6.0	0.3	113	0.8	-0.7	0.3	254	2.5	2.4	0.7	58	2.8	-2.4	-1.5
17	75	2.7	-2.6	-0.7	79	5.4	-5.3	-1.0	89	4.4	-4.4	-0.1	94	6.2	-6.2	0.4	120	2.4	-2.1	1.2	152	5.1	-2.4	4.5	114	3.7	-3.4	1.5
18	62	3.6	-3.2	-1.7	72	5.1	-4.8	-1.6	83	4.8	-4.8	-0.6	83	5.2	-5.2	-0.6	79	2.1	-2.1	-0.4	157	4.4	-1.7	4.1	346	4.1	1.0	-4.0
19	87	3.5	-3.5	-0.2	83	4.2	-4.2	-0.5	93	3.9	-3.9	0.2	93	5.7	-5.7	0.3	112	4.0	-3.7	1.5	165	3.5	-0.9	3.4	123	3.7	-3.1	2.0
20	90	3.6	-3.6	0.0	88	4.9	-4.9	-0.2	95	3.8	-3.8	0.3	103	5.0	-4.9	1.1	167	2.7	-0.6	2.6	183	7.4	0.4	7.4	131	1.8	-1.4	1.2
21	70	4.1	-3.9	-1.4	81	4.0	-4.0	-0.6	109	3.1	-2.9	1.0	101	5.9	-5.8	1.1	145	3.8	-2.2	3.1	214	3.0	1.7	2.5	40	3.4	-2.2	-2.6
22	69	3.1	-2.9	-1.1	68	3.7	-3.4	-1.4	84	3.1	-3.1	-0.3	95	5.6	-5.6	0.5	152	4.7	-2.2	4.1	186	4.8	0.5	4.8	82	2.1	-2.1	-0.3
23	56	4.1	-3.4	-2.3	66	3.6	-3.3	-1.5	94	2.6	-2.6	0.2	89	4.8	-4.8	-0.1	138	2.7	-1.8	2.0	190	4.7	0.8	4.6	278	1.5	1.5	-0.2
24	69	2.6	-2.4	-0.9	61	3.5	-3.1	-1.7	92	2.3	-2.3	0.1	82	3.6	-3.6	-0.5	170	2.9	-0.5	2.9	201	4.9	1.8	4.6	299	3.8	3.3	-1.8
25	62	2.6	-2.3	-1.2	78	4.2	-4.1	-0.9	100	2.8	-2.8	0.5	95	4.4	-4.4	0.4	145	4.2	-2.4	3.4	152	8.4	-4.0	7.4	159	1.4	-0.5	1.3
26	41	3.3	-2.2	-2.5	70	3.5	-3.3	-1.2	104	2.9	-2.8	0.7	105	5.1	-4.9	1.3	162	2.6	-0.8	2.5	193	6.3	1.4	6.1	159	2.2	-0.8	2.1
27	59	2.9	-2.5	-1.5	62	3.6	-3.2	-1.7	96	1.9	-1.9	0.2	93	3.8	-3.8	0.2	166	3.2	-0.8	3.1	187	6.0	0.7	6.0	67	6.2	-5.7	-2.4
28	78	3.9	-3.8	-0.8	70	3.8	-3.6	-1.3	97	2.5	-2.5	0.3	87	5.3	-5.3	-0.3	117	4.2	-3.7	1.9	170	5.7	-1.0	5.6	117	4.2	-3.8	1.9
29	75	3.5	-3.4	-0.9	73	3.4	-3.3	-1.0	90	2.9	-2.9	0.0	112	5.1	-4.7	1.9	192	2.9	0.6	2.8	162	3.6	-1.1	3.4	124	3.2	-2.7	1.8
30	72	3.5	-3.3	-1.1	79	3.6	-3.5	-0.7	108	2.2	-2.1	0.7	104	5.7	-5.5	1.4	130	3.1	-2.4	2.0	169	6.0	-1.1	5.9	107	2.4	-2.3	0.7
31	85	2.5	-2.5	-0.2	88	3.8	-3.8	-0.1	101	4.1	-4.0	0.8	91	5.7	-5.7	0.1	135	2.1	-1.5	1.5	190	6.8	1.2	6.7	99	3.8	-3.8	0.6

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	45	1.7	-1.2	-1.2	66	1.2	-1.1	-0.5	264	1.0	1.0	0.1	265	17.1	17.0	1.5	267	51.4	51.3	3.1	265	55.9	55.7	4.9	270	36.8	36.8	0.0
2	47	2.2	-1.6	-1.5	69	1.7	-1.6	-0.6	231	0.6	0.5	0.4	290	10.0	9.4	-3.5	277	41.9	41.6	-5.0	275	54.2	54.0	-4.7	273	34.3	34.2	-2.0
3	27	1.6	-0.7	-1.4	58	1.3	-1.1	-0.7	204	1.2	0.5	1.1	284	11.9	11.5	-2.9	278	41.3	40.9	-5.5	270	44.8	44.8	0.2	268	34.0	34.0	1.2
4	48	1.2	-0.9	-0.8	42	1.2	-0.8	-0.9	45	0.4	-0.3	-0.3	283	15.6	15.2	-3.5	274	40.3	40.2	-2.7	264	50.4	50.1	5.2	270	27.8	27.8	0.1
5	54	2.7	-2.2	-1.6	80	2.2	-2.2	-0.4	171	1.9	-0.3	1.9	261	20.2	20.0	3.1	263	37.0	36.7	4.4	266	55.9	55.7	4.3	270	34.0	34.0	0.0
6	60	2.2	-1.9	-1.1	62	1.5	-1.3	-0.7	125	1.2	-1.0	0.7	270	19.3	19.3	0.0	279	38.0	37.5	-6.1	268	55.7	55.7	1.7	253	22.0	21.0	6.4
7	59	2.9	-2.5	-1.5	90	1.0	-1.0	0.0	232	1.6	1.3	1.0	269	18.8	18.8	0.4	290	31.4	29.4	-10.9	260	53.0	52.2	9.2	—	—	—	—
8	55	1.9	-1.6	-1.1	72	2.2	-2.1	-0.7	212	2.2	1.2	1.9	274	17.6	17.6	-1.1	275	43.1	42.9	-3.6	269	56.9	56.9	0.5	281	30.0	29.4	-5.8
9	49	2.3	-1.7	-1.5	56	0.7	-0.6	-0.4	203	3.3	1.3	3.0	272	14.4	14.4	-0.5	260	32.7	32.2	5.5	269	46.0	46.0	0.8	267	29.0	29.0	1.4
10	45	1.7	-1.2	-1.2	58	0.9	-0.8	-0.5	219	2.6	1.6	2.0	259	17.0	16.7	3.1	262	33.3	32.9	4.9	245	37.8	34.3	16.0	258	37.7	36.9	7.6
11	69	1.7	-1.6	-0.6	129	1.3	-1.0	0.8	218	2.4	1.5	1.9	258	20.9	20.4	4.4	261	54.9	54.3	8.2	267	54.6	54.5	2.8	254	25.0	24.0	6.9
12	57	3.1	-2.6	-1.7	100	1.7	-1.7	0.3	213	3.8	2.1	3.2	252	19.6	18.7	6.0	267	41.1	41.0	2.1	252	54.3	51.6	16.9	278	48.0	47.5	-6.6
13	82	1.4	-1.4	-0.2	143	1.0	-0.6	0.8	249	1.4	1.3	0.5	266	20.6	20.6	1.4	251	43.7	41.3	14.4	254	56.7	54.5	15.8	265	43.4	43.2	3.8
14	79	1.0	-1.0	-0.2	101	0.5	-0.5	0.1	245	2.9	2.6	1.2	264	20.3	20.2	2.2	273	44.9	44.8	-2.2	244	53.9	48.5	23.6	263	23.5	23.3	2.7
15	78	1.4	-1.4	-0.3	104	0.8	-0.8	0.2	243	1.1	1.0	0.5	275	18.8	18.7	-1.7	277	46.6	46.2	-5.8	265	44.5	44.3	3.8	275	28.0	27.9	-2.5
16	39	1.9	-1.2	-1.5	95	1.1	-1.1	0.1	159	1.4	-0.5	1.3	271	17.6	17.6	-0.2	272	41.0	41.0	-1.7	277	45.0	44.6	-5.8	—	—	—	—
17	52	1.8	-1.4	-1.1	227	2.3	1.7	1.6	236	3.6	3.0	2.0	272	18.2	18.2	-0.5	276	42.7	42.4	-4.8	268	51.3	51.3	1.7	276	42.5	42.2	-4.8
18	45	2.0	-1.4	-1.4	131	1.1	-0.8	0.7	229	3.2	2.4	2.1	266	24.3	24.2	1.7	274	54.1	54.0	-3.8	269	63.7	63.7	1.0	—	—	—	—
19	41	3.2	-2.1	-2.4	34	0.4	-0.2	-0.3	198	2.2	0.7	2.1	263	21.0	20.8	2.7	260	41.2	40.5	7.4	258	67.9	66.3	14.6	—	—	—	—
20	63	1.6	-1.4	-0.7	45	0.6	-0.4	-0.4	273	1.7	1.7	-0.1	275	17.3	17.2	-1.5	265	52.9	52.7	4.2	253	51.6	49.2	15.5	257	31.9	31.1	7.1
21	67	3.0	-2.8	-1.2	104	1.2	-1.2	0.3	222	2.8	1.9	2.1	268	18.7	18.7	0.5	273	30.2	30.1	-1.8	272	62.9	62.9	-1.7	247	23.6	21.7	9.2
22	38	1.6	-1.0	-1.3	104	0.8	-0.8	0.2	293	1.3	1.2	-0.5	272	19.0	19.0	-0.6	265	48.2	48.0	4.1	268	48.5	48.5	1.4	—	—	—	—
23	51	1.4	-1.1	-0.9	90	0.6	-0.6	0.0	218	2.4	1.5	1.9	270	23.6	23.6	0.0	267	39.0	39.0	1.9	256	45.5	44.1	11.1	250	30.4	28.6	10.4
24	29	1.3	-0.6	-1.1	211	0.6	0.3	0.5	226	2.8	2.0	1.9	264	16.5	16.4	1.8	252	36.2	34.5	11.0	265	81.0	80.7	7.1	—	—	—	—
25	45	1.6	-1.1	-1.1	34	0.7	-0.4	-0.6	260	1.1	1.1	0.2	278	18.5	18.3	-2.7	272	38.2	38.2	-1.3	262	46.2	45.8	6.1	266	26.7	26.6	2.0
26	11	0.5	-0.1	-0.5	53	1.5	-1.2	-0.9	214	1.1	0.6	0.9	273	15.4	15.4	-0.7	270	33.3	33.3	0.0	277	42.6	42.2	-5.5	265	24.1	24.0	2.0
27	54	1.7	-1.4	-1.0	66	1.0	-0.9	-0.4	180	1.5	0.0	1.5	264	16.3	16.2	1.7	269	34.3	34.3	0.6	261	45.5	45.0	6.8	268	30.5	30.5	1.3
28	45	0.4	-0.3	-0.3	346	0.4	0.1	-0.4	230	1.7	1.3	1.1	276	17.9	17.8	-1.8	278	35.3	34.9	-5.0	258	39.7	38.8	8.2	243	39.2	34.8	18.1
29	48	2.4	-1.8	-1.6	56	0.4	-0.3	-0.2	229	4.1	3.1	2.7	266	23.2	23.1	1.7	270	43.6	43.6	-0.3	261	48.3	47.7	7.9	239	28.0	24.0	14.4
30	58	2.6	-2.2	-1.4	198	1.3	0.4	1.2	248	5.3	4.9	2.0	263	20.3	20.2	2.4	254	50.4	48.6	13.5	256	57.4	55.7	14.0	266	29.2	29.1	1.9
31	56	2.2	-1.8	-1.2	194	2.1	0.5	2.0	234	5.9	4.8	3.5	259	20.1	19.7	4.0	268	38.8	38.8	1.3	264	52.9	52.6	5.9	270	37.0	37.0	0.0

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	51	1.4	-1.1	-0.9	188	2.1	0.3	2.1	241	4.1	3.6	2.0	262	19.1	18.9	2.6	249	36.7	34.4	12.9	249	49.8	46.4	18.1	270	23.3	23.3	0.1
2	56	3.2	-2.7	-1.8	171	0.6	-0.1	0.6	236	4.6	3.8	2.6	257	22.0	21.5	4.8	257	35.3	34.4	8.0	260	45.1	44.5	7.6	255	29.4	28.5	7.4
3	60	2.2	-1.9	-1.1	198	0.3	0.1	0.3	232	3.6	2.8	2.2	266	21.8	21.8	1.4	274	42.3	42.2	-3.1	259	54.1	53.1	10.2	262	32.2	31.9	4.2
4	70	2.0	-1.9	-0.7	180	1.1	0.0	1.1	253	4.4	4.2	1.3	268	12.9	12.9	0.5	269	35.8	35.8	0.8	264	38.8	38.6	4.2	275	37.2	37.1	-3.0
5	52	4.1	-3.2	-2.5	180	1.3	0.0	1.3	244	6.6	5.9	2.9	267	19.1	19.1	1.0	261	36.0	35.5	5.7	259	52.2	51.2	10.4	243	19.0	16.9	8.6
6	30	1.4	-0.7	-1.2	207	1.8	0.8	1.6	242	6.1	5.4	2.9	265	19.7	19.6	1.6	262	41.9	41.5	5.9	251	49.9	47.1	16.5	260	26.0	25.6	4.5
7	45	2.8	-2.0	-2.0	185	1.1	0.1	1.1	244	5.3	4.8	2.3	272	20.1	20.1	-0.6	270	40.6	40.6	-0.3	272	36.1	36.1	-1.0	268	23.5	23.5	1.0
8	58	2.5	-2.1	-1.3	191	0.5	0.1	0.5	229	4.8	3.6	3.1	266	17.2	17.2	1.1	275	35.4	35.3	-2.9	271	46.3	46.3	-0.9	297	11.0	9.8	-5.0
9	50	2.6	-2.0	-1.7	180	1.1	0.0	1.1	250	3.7	3.5	1.3	272	17.4	17.4	-0.5	260	35.1	34.6	5.8	281	41.0	40.3	-7.8	—	—	—	—
10	95	1.1	-1.1	0.1	288	0.3	0.3	-0.1	234	3.2	2.6	1.9	282	14.3	14.0	-3.0	273	32.2	32.2	-1.7	259	43.4	42.7	8.0	262	19.8	19.6	2.9
11	62	2.4	-2.1	-1.1	180	0.8	0.0	0.8	253	3.8	3.6	1.1	267	15.4	15.4	0.9	267	29.2	29.2	1.7	278	42.8	42.4	-5.6	274	12.5	12.5	-0.9
12	55	1.6	-1.3	-0.9	219	1.4	0.9	1.1	246	3.5	3.2	1.4	268	15.5	15.5	0.6	261	33.4	33.0	5.0	264	48.0	47.7	4.9	282	21.8	21.4	-4.4
13	34	1.1	-0.6	-0.9	221	0.9	0.6	0.7	226	3.2	2.3	2.2	274	12.9	12.9	-0.8	284	28.5	27.6	-7.0	273	38.3	38.3	-1.7	265	24.0	23.9	2.1
14	28	1.5	-0.7	-1.3	185	1.2	0.1	1.2	226	3.9	2.8	2.7	273	17.7	17.7	-0.8	275	44.0	43.8	-3.7	275	52.2	52.0	-4.4	273	18.5	18.5	-0.9
15	40	2.6	-1.7	-2.0	104	1.2	-1.2	0.3	248	2.4	2.2	0.9	269	17.9	17.9	0.2	272	58.3	58.3	-2.2	272	50.5	50.5	-1.9	281	40.0	39.3	-7.6
16	111	1.4	-1.3	0.5	222	4.3	2.9	3.2	234	7.4	6.0	4.3	252	17.7	16.9	5.4	265	36.2	36.1	2.9	256	47.7	46.3	11.6	232	38.0	29.9	23.4
17	60	3.0	-2.6	-1.5	192	2.9	0.6	2.8	247	5.8	5.3	2.3	267	19.2	19.2	1.1	268	42.5	42.5	1.4	271	51.7	51.7	-0.5	273	23.9	23.9	-1.1
18	65	2.3	-2.1	-1.0	223	3.3	2.2	2.4	244	7.0	6.3	3.1	254	19.8	19.0	5.5	275	54.2	54.0	-4.5	263	35.8	35.6	4.1	—	—	—	—
19	65	3.1	-2.8	-1.3	230	2.6	2.0	1.7	230	5.2	4.0	3.4	267	18.4	18.4	0.9	274	45.2	45.1	-3.2	266	57.3	57.1	4.3	275	20.0	19.9	-1.7
20	70	2.3	-2.2	-0.8	199	1.8	0.6	1.7	241	4.6	4.0	2.2	267	19.5	19.5	1.1	263	44.3	44.0	5.3	262	49.1	48.6	7.2	263	33.0	32.8	4.0
21	73	2.8	-2.7	-0.8	198	2.5	0.8	2.4	234	7.9	6.4	4.7	267	21.6	21.6	1.1	265	44.0	43.9	3.6	264	55.1	54.8	6.2	287	16.0	15.3	-4.7
22	275	1.1	1.1	-0.1	215	3.7	2.1	3.0	242	7.1	6.3	3.3	261	21.1	20.8	3.3	258	45.7	44.7	9.7	269	47.8	47.8	1.2	263	23.5	23.3	2.9
23	59	3.1	-2.7	-1.6	209	2.9	1.4	2.5	238	8.4	7.1	4.5	256	19.6	19.0	4.9	262	37.8	37.5	5.1	270	50.0	50.0	0.3	278	26.0	25.7	-3.6
24	39	4.4	-2.8	-3.4	198	0.9	0.3	0.9	250	3.8	3.6	1.3	264	19.7	19.6	2.0	268	36.9	36.9	1.4	263	51.4	51.0	6.7	275	38.0	37.9	-3.3
25	40	1.6	-1.0	-1.2	166	0.8	-0.2	0.8	238	4.7	4.0	2.5	261	20.4	20.1	3.2	271	33.2	33.2	-0.6	255	52.2	50.5	13.3	265	27.2	27.1	2.3
26	51	2.6	-2.0	-1.6	201	0.9	0.3	0.8	242	4.5	4.0	2.1	272	17.2	17.2	-0.7	260	38.3	37.7	6.7	260	46.3	45.7	7.7	268	25.4	25.4	1.0
27	70	1.2	-1.1	-0.4	216	2.9	1.7	2.3	235	6.4	5.2	3.7	262	17.6	17.4	2.3	279	32.4	32.0	-5.0	281	39.4	38.7	-7.5	286	19.1	18.3	-5.3
28	73	1.4	-1.3	-0.4	221	3.2	2.1	2.4	238	7.5	6.4	4.0	260	21.9	21.6	3.8	262	38.6	38.2	5.3	264	53.8	53.5	6.0	267	35.7	35.6	2.0
29	46	4.5	-3.2	-3.1	49	2.1	-1.6	-1.4	246	4.2	3.8	1.7	279	19.7	19.4	-3.2	269	42.2	42.2	1.1	248	59.0	54.7	22.1	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	54	3.2	-2.6	-1.9	199	1.8	0.6	1.7	241	7.1	6.2	3.5	267	15.3	15.3	0.8	262	43.3	42.9	6.1	274	55.0	54.9	-3.5	262	24.0	23.8	3.3
2	36	3.9	-2.3	-3.2	216	2.9	1.7	2.3	248	6.2	5.8	2.3	264	17.8	17.7	1.8	269	43.6	43.6	0.5	259	52.6	51.7	9.7	257	30.8	30.0	6.8
3	53	2.1	-1.7	-1.3	225	1.7	1.2	1.2	243	5.9	5.2	2.7	272	16.8	16.8	-0.7	270	31.0	31.0	-0.1	264	48.1	47.8	4.9	259	22.7	22.3	4.4
4	72	2.6	-2.5	-0.8	216	1.7	1.0	1.4	248	4.8	4.4	1.8	268	16.1	16.1	0.7	274	38.6	38.5	-3.0	274	43.4	43.3	-2.7	270	25.8	25.8	0.2
5	67	3.0	-2.8	-1.2	159	0.9	-0.3	0.8	245	5.3	4.8	2.2	267	17.2	17.2	0.9	276	30.6	30.4	-3.1	271	45.6	45.6	-0.8	270	22.6	22.6	0.0
6	49	3.0	-2.3	-2.0	217	1.0	0.6	0.8	240	6.4	5.6	3.2	273	19.7	19.7	-1.0	278	35.6	35.3	-4.8	271	46.6	46.6	-0.5	266	25.0	24.9	1.7
7	76	3.4	-3.3	-0.8	200	2.0	0.7	1.9	242	7.5	6.6	3.5	271	16.7	16.7	-0.4	261	43.6	43.1	6.7	255	50.4	48.6	13.2	271	33.5	33.5	-0.5
8	76	3.0	-2.9	-0.7	189	1.9	0.3	1.9	236	7.0	5.8	3.9	276	14.2	14.1	-1.6	270	18.9	18.9	0.1	254	48.6	46.8	13.1	254	31.3	30.0	8.8
9	71	2.4	-2.3	-0.8	211	3.3	1.7	2.8	245	8.2	7.4	3.5	274	16.4	16.4	-1.1	256	39.3	38.2	9.2	247	50.6	46.7	19.5	229	29.4	22.2	19.2
10	110	1.5	-1.4	0.5	207	3.7	1.7	3.3	237	7.4	6.2	4.1	265	19.7	19.6	1.8	260	37.8	37.3	6.4	257	57.7	56.1	13.4	261	36.3	35.8	5.9
11	63	2.7	-2.4	-1.2	138	1.3	-0.9	1.0	231	6.2	4.8	3.9	265	19.7	19.6	1.8	256	39.1	37.9	9.5	256	55.7	54.0	13.7	262	37.4	37.0	5.2
12	62	3.0	-2.6	-1.4	202	1.8	0.7	1.7	241	7.3	6.4	3.5	255	22.7	21.9	5.9	264	40.6	40.4	4.2	254	49.4	47.5	13.7	248	26.7	24.7	10.2
13	54	4.7	-3.8	-2.8	214	4.5	2.5	3.7	242	11.2	9.9	5.2	261	17.8	17.6	2.8	261	37.5	37.0	5.8	256	51.0	49.4	12.5	261	33.0	32.6	5.3
14	65	2.9	-2.6	-1.2	212	2.8	1.5	2.4	242	10.1	8.9	4.8	267	18.4	18.4	1.0	257	38.1	37.2	8.3	253	43.7	41.8	12.7	249	25.4	23.7	9.2
15	87	3.4	-3.4	-0.2	208	2.7	1.3	2.4	243	10.2	9.1	4.6	261	15.5	15.3	2.3	265	28.0	27.9	2.2	267	37.1	37.1	1.7	273	33.1	33.0	-1.9
16	104	1.6	-1.6	0.4	213	2.7	1.5	2.3	245	8.1	7.3	3.4	264	20.1	20.0	2.2	283	28.3	27.5	-6.5	274	39.9	39.8	-2.7	270	25.4	25.4	0.0
17	60	3.9	-3.4	-2.0	185	2.2	0.2	2.2	239	7.1	6.1	3.7	269	16.8	16.8	0.2	266	41.7	41.6	2.9	256	60.1	58.3	14.6	257	28.0	27.2	6.5
18	49	3.0	-2.3	-2.0	207	1.1	0.5	1.0	251	8.7	8.2	2.9	278	13.2	13.1	-1.9	268	30.7	30.7	0.9	270	41.0	41.0	0.1	263	25.5	25.3	3.1
19	78	4.8	-4.7	-1.0	224	3.0	2.1	2.2	245	8.6	7.8	3.6	264	13.0	12.9	1.3	282	32.9	32.2	-6.9	267	47.0	46.9	2.6	285	16.8	16.2	-4.4
20	108	2.3	-2.2	0.7	211	3.1	1.6	2.7	242	10.9	9.6	5.1	262	21.4	21.2	3.0	271	33.0	33.0	-0.4	272	44.6	44.6	-1.3	—	—	—	—
21	143	0.5	-0.3	0.4	203	2.5	1.0	2.3	245	9.8	8.9	4.1	273	19.0	19.0	-1.0	269	28.0	28.0	0.3	283	37.3	36.4	-8.2	280	33.0	32.5	-5.6
22	78	3.8	-3.7	-0.8	220	3.0	1.9	2.3	244	8.4	7.5	3.7	273	14.2	14.2	-0.7	269	25.9	25.9	0.6	264	40.2	40.0	4.4	265	23.0	22.9	2.0
23	86	3.0	-3.0	-0.2	214	4.3	2.4	3.6	245	9.3	8.4	4.0	269	18.0	18.0	0.2	264	30.1	29.9	3.4	265	36.9	36.8	3.0	259	28.9	28.4	5.3
24	76	2.5	-2.4	-0.6	201	3.3	1.2	3.1	248	12.2	11.3	4.6	259	21.3	20.9	3.9	262	31.0	30.7	4.3	259	45.8	45.0	8.6	260	13.0	12.8	2.3
25	55	3.9	-3.2	-2.2	207	3.3	1.5	2.9	234	10.3	8.4	6.0	264	12.7	12.6	1.3	262	34.9	34.6	4.6	256	43.9	42.7	10.3	252	27.6	26.2	8.6
26	76	4.6	-4.5	-1.1	187	0.8	0.1	0.8	243	10.3	9.2	4.7	265	17.1	17.0	1.6	250	22.8	21.4	7.8	256	39.7	38.5	9.8	265	23.8	23.7	2.2
27	65	3.8	-3.5	-1.6	201	2.6	0.9	2.4	241	9.8	8.6	4.8	260	13.2	13.0	2.4	244	31.8	28.5	14.1	254	44.2	42.6	11.9	272	22.8	22.8	-0.7
28	60	4.6	-4.0	-2.3	231	2.6	2.0	1.6	253	6.8	6.5	2.0	276	12.4	12.3	-1.2	279	16.1	15.9	-2.4	286	32.6	31.4	-8.8	258	26.5	26.0	5.3
29	48	3.6	-2.7	-2.4	170	1.1	-0.2	1.1	241	6.8	6.0	3.3	273	11.9	11.9	-0.6	285	24.3	23.5	-6.2	276	34.0	33.8	-3.5	265	26.8	26.7	2.2
30	23	3.0	-1.2	-2.8	200	1.5	0.5	1.4	250	7.1	6.7	2.4	280	12.7	12.5	-2.3	274	26.8	26.7	-2.1	272	33.0	33.0	-1.1	259	27.6	27.1	5.1
31	90	2.4	-2.4	0.0	218	1.8	1.1	1.4	241	8.8	7.7	4.3	266	13.7	13.7	1.0	257	18.6	18.1	4.1	277	34.5	34.2	-4.3	276	31.2	31.1	-3.0

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	74	2.6	-2.5	-0.7	208	2.7	1.3	2.4	241	9.0	7.9	4.4	257	14.7	14.3	3.3	255	17.8	17.2	4.7	288	34.4	32.7	-10.7	287	14.7	14.1	-4.3
2	81	3.8	-3.8	-0.6	189	2.0	0.3	2.0	245	8.8	8.0	3.7	267	15.5	15.5	0.8	260	30.8	30.4	5.1	274	40.6	40.5	-3.0	260	17.9	17.6	3.2
3	52	3.7	-2.9	-2.3	201	0.9	0.3	0.8	236	7.2	6.0	4.0	266	12.7	12.7	0.8	279	23.8	23.5	-3.9	254	33.9	32.5	9.5	275	22.0	21.9	-1.9
4	74	3.6	-3.5	-1.0	195	2.4	0.6	2.3	254	9.6	9.2	2.7	262	16.7	16.6	2.2	268	32.2	32.2	1.3	267	38.6	38.5	2.0	299	15.0	13.1	-7.3
5	80	3.5	-3.4	-0.6	202	3.2	1.2	3.0	239	11.0	9.4	5.7	273	15.5	15.5	-0.9	269	38.8	38.8	0.6	255	38.1	36.8	9.7	252	25.0	23.8	7.7
6	62	3.0	-2.6	-1.4	203	2.6	1.0	2.4	237	10.3	8.6	5.6	253	18.1	17.3	5.4	259	39.7	38.9	7.8	266	58.6	58.5	3.8	270	20.0	20.0	0.0
7	79	4.1	-4.0	-0.8	177	1.7	-0.1	1.7	238	7.5	6.4	4.0	264	13.5	13.4	1.5	248	29.4	27.3	10.9	268	37.6	37.6	1.1	270	23.9	23.9	-0.1
8	57	4.5	-3.8	-2.5	197	1.0	0.3	1.0	252	7.2	6.9	2.2	279	8.4	8.3	-1.3	280	21.9	21.6	-3.8	278	30.7	30.4	-4.1	268	19.2	19.2	0.6
9	73	3.4	-3.3	-1.0	205	3.1	1.3	2.8	242	8.6	7.6	4.1	273	11.0	11.0	-0.5	272	20.7	20.7	-0.9	266	30.7	30.6	2.1	284	27.5	26.7	-6.5
10	79	2.0	-2.0	-0.4	204	2.4	1.0	2.2	243	8.2	7.3	3.8	267	11.2	11.2	0.6	269	22.2	22.2	0.2	274	40.5	40.4	-2.8	282	23.6	23.1	-5.0
11	57	3.8	-3.2	-2.1	195	1.1	0.3	1.1	251	8.1	7.7	2.6	260	18.3	18.0	3.2	261	29.7	29.3	4.6	269	39.8	39.8	1.0	277	33.7	33.5	-3.9
12	56	2.5	-2.1	-1.4	208	3.4	1.6	3.0	243	9.1	8.1	4.1	246	13.2	12.1	5.3	259	22.2	21.8	4.4	251	44.3	41.8	14.8	269	27.0	27.0	0.5
13	133	2.1	-1.5	1.4	212	3.6	1.9	3.1	244	9.8	8.8	4.3	261	10.9	10.8	1.8	300	17.7	15.3	-8.8	294	24.0	21.9	-9.8	303	7.0	5.9	-3.8
14	61	3.9	-3.4	-1.9	192	1.4	0.3	1.4	252	8.1	7.7	2.5	272	9.7	9.7	-0.4	277	25.8	25.6	-3.3	259	38.0	37.4	7.0	275	26.4	26.3	-2.4
15	13	1.3	-0.3	-1.3	256	1.2	1.2	0.3	249	6.2	5.8	2.2	266	7.2	7.2	0.5	269	24.6	24.6	0.4	270	34.4	34.4	-0.2	275	13.8	13.7	-1.3
16	58	2.6	-2.2	-1.4	218	1.1	0.7	0.9	246	7.2	6.6	3.0	259	11.3	11.1	2.2	270	27.5	27.5	-0.2	267	45.4	45.3	2.7	267	24.6	24.6	1.3
17	90	2.5	-2.5	0.0	198	0.6	0.2	0.6	245	9.7	8.8	4.1	246	9.4	8.6	3.9	260	21.7	21.3	3.9	259	39.9	39.2	7.5	305	25.0	20.5	-14.3
18	77	3.1	-3.0	-0.7	202	2.7	1.0	2.5	245	7.5	6.8	3.1	271	11.9	11.9	-0.2	271	21.7	21.7	-0.3	274	27.3	27.2	-2.0	286	15.7	15.1	-4.3
19	56	4.8	-4.0	-2.7	194	0.8	0.2	0.8	249	5.8	5.4	2.1	265	8.0	8.0	0.7	270	18.9	18.9	0.1	273	26.5	26.5	-1.5	272	15.4	15.4	-0.5
20	53	4.0	-3.2	-2.4	195	1.1	0.3	1.1	244	4.6	4.1	2.0	307	3.6	2.9	-2.2	269	20.4	20.4	0.5	274	28.2	28.1	-2.2	270	12.5	12.5	0.0
21	56	1.4	-1.2	-0.8	169	0.5	-0.1	0.5	247	4.1	3.8	1.6	264	2.7	2.7	0.3	289	11.8	11.2	-3.8	269	23.8	23.8	0.5	265	17.9	17.8	1.5
22	66	3.9	-3.6	-1.6	165	1.1	-0.3	1.1	249	3.4	3.2	1.2	277	5.7	5.7	-0.7	277	19.1	18.9	-2.4	267	21.3	21.3	1.0	259	18.3	18.0	3.5
23	90	1.9	-1.9	0.0	156	1.7	-0.7	1.6	248	6.6	6.1	2.5	265	3.8	3.8	0.3	272	20.9	20.9	-0.7	268	34.5	34.5	1.0	277	23.9	23.7	-2.9
24	82	4.1	-4.1	-0.6	195	2.8	0.7	2.7	243	9.7	8.7	4.4	247	9.0	8.3	3.5	255	22.7	22.0	5.7	259	33.5	32.9	6.1	235	17.6	14.3	10.2
25	73	5.1	-4.9	-1.5	209	2.9	1.4	2.5	251	7.4	7.0	2.4	291	5.6	5.2	-2.0	278	15.8	15.6	-2.2	264	41.5	41.3	4.3	267	18.2	18.2	1.0
26	61	3.9	-3.4	-1.9	172	2.1	-0.3	2.1	229	5.7	4.3	3.8	240	8.5	7.4	4.2	263	19.2	19.1	2.2	256	37.9	36.8	9.2	259	9.1	8.9	1.8
27	45	2.7	-1.9	-1.9	104	0.4	-0.4	0.1	241	5.2	4.6	2.5	246	3.5	3.2	1.4	257	9.3	9.1	2.1	269	31.7	31.7	0.5	284	16.9	16.4	-4.0
28	64	3.9	-3.5	-1.7	191	1.5	0.3	1.5	251	6.9	6.5	2.2	267	2.2	2.2	0.1	273	13.1	13.1	-0.6	270	28.2	28.2	-0.1	266	11.8	11.8	0.8
29	78	2.5	-2.4	-0.5	202	2.2	0.8	2.0	236	4.6	3.8	2.6	276	5.6	5.6	-0.6	263	16.6	16.5	2.0	260	27.5	27.1	4.8	277	19.3	19.2	-2.2
30	90	1.5	-1.5	0.0	220	3.1	2.0	2.4	246	6.1	5.6	2.5	255	5.6	5.4	1.4	261	15.9	15.7	2.4	261	24.3	24.0	3.9	259	15.1	14.8	2.9

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	88	3.1	-3.1	-0.1	196	1.9	0.5	1.8	240	6.7	5.8	3.4	282	5.6	5.5	-1.2	271	15.1	15.1	-0.2	276	28.8	28.6	-3.2	292	12.2	11.3	-4.6
2	95	2.3	-2.3	0.2	183	1.7	0.1	1.7	241	4.1	3.6	2.0	281	6.1	6.0	-1.2	264	16.4	16.3	1.6	275	25.6	25.5	-2.3	276	14.5	14.4	-1.5
3	58	4.9	-4.1	-2.6	87	1.7	-1.7	-0.1	252	4.1	3.9	1.3	273	4.2	4.2	-0.2	274	11.5	11.5	-0.9	260	19.1	18.8	3.2	259	9.2	9.0	1.8
4	76	1.6	-1.6	-0.4	138	1.5	-1.0	1.1	257	3.7	3.6	0.8	297	1.3	1.2	-0.6	272	16.4	16.4	-0.6	277	24.5	24.3	-3.1	308	15.0	11.8	-9.2
5	50	4.5	-3.4	-2.9	191	2.0	0.4	2.0	244	6.0	5.4	2.6	271	6.2	6.2	-0.1	270	17.2	17.2	-0.1	266	35.4	35.3	2.3	293	8.8	8.1	-3.4
6	98	2.9	-2.9	0.4	201	2.8	1.0	2.6	234	7.1	5.7	4.2	249	6.9	6.4	2.5	268	13.9	13.9	0.4	269	34.1	34.1	0.6	284	12.1	11.7	-3.0
7	76	2.5	-2.4	-0.6	204	1.0	0.4	0.9	226	3.6	2.6	2.5	259	6.2	6.1	1.2	256	18.7	18.1	4.5	256	32.0	31.0	7.8	265	13.8	13.8	1.1
8	52	4.3	-3.4	-2.7	101	2.0	-2.0	0.4	238	4.1	3.5	2.2	256	7.0	6.8	1.7	260	20.0	19.7	3.6	262	34.2	33.8	5.0	274	13.0	13.0	-1.0
9	47	1.8	-1.3	-1.2	211	1.2	0.6	1.0	244	3.2	2.9	1.4	260	5.3	5.2	0.9	263	17.5	17.4	2.2	258	27.8	27.2	5.6	273	10.8	10.8	-0.5
10	101	2.0	-2.0	0.4	235	2.4	2.0	1.4	253	6.7	6.4	2.0	269	4.9	4.9	0.1	271	18.4	18.4	-0.3	271	30.8	30.8	-0.5	294	8.5	7.8	-3.5
11	67	2.1	-1.9	-0.8	239	2.6	2.2	1.3	254	5.9	5.7	1.6	256	7.6	7.4	1.9	265	17.7	17.6	1.4	251	33.3	31.5	10.9	269	7.9	7.9	0.2
12	180	0.6	0.0	0.6	218	3.6	2.2	2.8	241	7.4	6.5	3.6	249	9.9	9.2	3.6	252	22.4	21.3	6.8	255	25.5	24.6	6.7	251	11.6	11.0	3.8
13	73	1.7	-1.6	-0.5	207	1.6	0.7	1.4	246	5.2	4.8	2.1	276	7.2	7.2	-0.7	266	17.9	17.9	1.3	249	22.2	20.8	7.8	249	6.0	5.6	2.1
14	171	0.6	-0.1	0.6	210	1.6	0.8	1.4	244	4.6	4.1	2.0	263	11.3	11.2	1.3	262	17.0	16.8	2.4	262	28.2	27.9	3.8	267	13.1	13.1	0.7
15	72	3.5	-3.3	-1.1	157	2.3	-0.9	2.1	229	4.6	3.5	3.0	256	7.8	7.6	1.9	268	18.6	18.6	0.5	279	27.2	26.9	-4.1	276	12.8	12.7	-1.4
16	79	2.0	-2.0	-0.4	191	0.5	0.1	0.5	231	5.8	4.5	3.7	260	10.8	10.6	1.9	257	15.5	15.1	3.5	263	19.8	19.6	2.5	267	10.2	10.2	0.6
17	37	2.6	-1.6	-2.1	189	1.2	0.2	1.2	238	4.6	3.9	2.4	242	7.1	6.3	3.3	260	22.4	22.0	4.0	271	31.2	31.2	-0.4	275	16.0	15.9	-1.5
18	104	2.9	-2.8	0.7	207	2.7	1.2	2.4	226	5.9	4.3	4.1	248	8.7	8.1	3.2	253	16.3	15.6	4.7	266	21.7	21.6	1.6	289	7.4	7.0	-2.4
19	92	3.3	-3.3	0.1	194	2.5	0.6	2.4	231	6.4	5.0	4.0	244	10.6	9.6	4.6	253	23.9	22.9	7.0	249	28.9	27.0	10.2	274	15.6	15.6	-1.0
20	59	5.4	-4.6	-2.8	169	1.5	-0.3	1.5	209	2.5	1.2	2.2	261	7.9	7.8	1.2	259	23.3	22.9	4.5	262	26.7	26.4	3.9	289	15.1	14.3	-4.8
21	76	4.0	-3.9	-1.0	153	1.1	-0.5	1.0	244	4.9	4.4	2.1	251	5.6	5.3	1.8	263	19.1	18.9	2.4	256	26.7	25.9	6.4	262	6.2	6.1	0.9
22	61	2.6	-2.3	-1.3	204	2.0	0.8	1.8	220	5.2	3.3	4.0	253	9.1	8.7	2.7	255	20.4	19.7	5.2	255	26.9	25.9	7.1	257	18.8	18.3	4.1
23	62	2.4	-2.1	-1.1	249	0.9	0.8	0.3	238	4.1	3.5	2.2	255	6.7	6.5	1.8	249	20.0	18.7	7.2	259	23.3	22.9	4.4	283	12.5	12.2	-2.8
24	54	1.9	-1.5	-1.1	191	1.6	0.3	1.6	228	3.9	2.9	2.6	251	7.5	7.1	2.5	258	13.7	13.4	2.8	275	25.0	24.9	-2.1	288	9.5	9.0	-2.9
25	124	1.1	-0.9	0.6	180	1.2	0.0	1.2	241	3.9	3.4	1.9	247	6.6	6.1	2.6	253	18.1	17.3	5.4	258	22.8	22.3	4.7	331	14.2	6.8	-12.5
26	93	2.1	-2.1	0.1	207	0.7	0.3	0.6	236	4.0	3.3	2.2	252	7.1	6.7	2.2	252	12.3	11.7	3.9	282	23.0	22.5	-4.8	302	8.5	7.2	-4.5
27	83	4.1	-4.1	-0.5	187	2.5	0.3	2.5	239	4.7	4.0	2.4	253	5.3	5.1	1.6	261	13.1	12.9	2.0	265	15.8	15.7	1.3	298	4.7	4.2	-2.2
28	69	3.1	-2.9	-1.1	192	1.4	0.3	1.4	229	4.6	3.5	3.0	269	5.6	5.6	0.1	258	14.0	13.7	2.8	264	21.5	21.4	2.4	315	5.4	3.8	-3.8
29	81	1.9	-1.9	-0.3	204	1.7	0.7	1.6	238	4.1	3.5	2.2	260	5.2	5.1	0.9	263	14.6	14.5	1.7	269	22.6	22.6	0.4	282	4.8	4.7	-1.0
30	63	4.4	-3.9	-2.0	209	1.8	0.9	1.6	226	3.0	2.2	2.1	247	6.1	5.6	2.4	245	18.7	17.0	7.9	260	17.8	17.5	3.1	90	2.8	-2.8	0.0
31	82	2.9	-2.9	-0.4	210	2.0	1.0	1.7	255	5.4	5.2	1.4	286	5.9	5.7	-1.6	251	15.1	14.3	4.8	253	16.7	16.0	4.9	15	2.7	-0.7	-2.6

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	103	1.8	-1.8	0.4	189	1.2	0.2	1.2	228	3.0	2.2	2.0	258	3.4	3.3	0.7	262	12.6	12.5	1.7	269	16.4	16.4	0.3	214	2.3	1.3	1.9
2	88	3.1	-3.1	-0.1	145	1.9	-1.1	1.6	223	3.5	2.4	2.6	257	6.3	6.1	1.4	266	10.3	10.3	0.8	264	13.7	13.6	1.4	262	4.3	4.3	0.6
3	80	2.3	-2.3	-0.4	135	0.4	-0.3	0.3	237	5.5	4.6	3.0	227	4.8	3.5	3.3	244	8.8	7.9	3.8	234	7.9	6.4	4.6	356	4.1	0.3	-4.1
4	92	2.3	-2.3	0.1	202	1.8	0.7	1.7	222	3.6	2.4	2.7	243	6.6	5.9	3.0	251	9.4	8.9	3.0	251	15.6	14.7	5.1	264	3.0	3.0	0.3
5	114	1.0	-0.9	0.4	207	3.1	1.4	2.8	235	5.2	4.3	3.0	250	8.2	7.7	2.8	258	13.7	13.4	2.9	262	16.8	16.6	2.3	274	6.6	6.6	-0.5
6	73	2.8	-2.7	-0.8	213	3.0	1.6	2.5	246	5.8	5.3	2.4	253	7.6	7.3	2.2	263	11.4	11.3	1.4	265	11.3	11.3	1.0	338	5.0	1.9	-4.6
7	165	1.6	-0.4	1.5	215	2.8	1.6	2.3	232	5.4	4.3	3.3	246	8.0	7.3	3.3	263	8.9	8.8	1.1	286	8.5	8.2	-2.3	25	7.2	-3.0	-6.5
8	108	2.0	-1.9	0.6	217	3.1	1.9	2.5	227	4.4	3.2	3.0	268	4.9	4.9	0.2	279	13.2	13.0	-2.1	285	19.0	18.4	-4.9	11	7.6	-1.5	-7.4
9	121	0.6	-0.5	0.3	233	2.1	1.7	1.3	229	4.3	3.2	2.8	263	5.0	5.0	0.6	250	13.1	12.3	4.4	265	14.4	14.4	1.2	356	6.3	0.4	-6.3
10	236	0.4	0.3	0.2	191	2.5	0.5	2.5	227	4.8	3.5	3.3	244	5.2	4.7	2.3	260	10.1	10.0	1.7	288	13.6	12.9	-4.3	354	11.5	1.1	-11.4
11	76	4.4	-4.3	-1.1	200	2.0	0.7	1.9	238	4.9	4.2	2.6	236	5.7	4.7	3.2	260	6.6	6.5	1.1	262	15.9	15.7	2.2	19	6.1	-2.0	-5.8
12	87	3.6	-3.6	-0.2	203	2.3	0.9	2.1	212	3.4	1.8	2.9	240	4.8	4.2	2.4	248	7.6	7.1	2.8	267	8.6	8.6	0.4	51	7.7	-6.0	-4.9
13	80	2.9	-2.9	-0.5	202	1.8	0.7	1.7	253	4.1	3.9	1.2	274	6.1	6.1	-0.4	252	8.6	8.2	2.6	244	19.9	17.9	8.6	144	5.1	-3.0	4.1
14	106	1.8	-1.7	0.5	217	4.0	2.4	3.2	242	6.4	5.7	3.0	248	4.2	3.9	1.6	301	5.4	4.6	-2.8	298	8.5	7.5	-4.0	26	4.1	-1.8	-3.7
15	63	3.1	-2.8	-1.4	196	1.9	0.5	1.8	231	4.0	3.1	2.5	254	4.8	4.6	1.3	271	5.5	5.5	-0.1	266	8.2	8.2	0.6	13	3.6	-0.8	-3.5
16	117	0.2	-0.2	0.1	234	1.7	1.4	1.0	234	5.2	4.2	3.0	240	6.1	5.3	3.0	271	6.0	6.0	-0.1	233	4.1	3.3	2.5	91	6.0	-6.0	0.1
17	88	2.6	-2.6	-0.1	234	1.4	1.1	0.8	223	5.4	3.7	4.0	245	5.1	4.6	2.1	260	3.6	3.5	0.6	288	12.6	12.0	-4.0	352	4.2	0.6	-4.2
18	61	1.3	-1.1	-0.6	187	1.6	0.2	1.6	226	6.2	4.5	4.3	235	7.0	5.8	4.0	245	3.3	3.0	1.4	293	3.0	2.8	-1.2	34	8.3	-4.6	-6.9
19	68	1.8	-1.7	-0.7	180	0.7	0.0	0.7	202	3.5	1.3	3.2	222	7.0	4.7	5.2	231	5.8	4.5	3.6	269	4.3	4.3	0.1	27	10.0	-4.6	-8.9
20	166	1.2	-0.3	1.2	193	1.8	0.4	1.8	222	3.0	2.0	2.2	232	5.6	4.4	3.4	259	6.2	6.1	1.2	303	4.8	4.0	-2.6	16	6.8	-1.9	-6.5
21	112	1.8	-1.7	0.7	212	3.2	1.7	2.7	220	4.2	2.7	3.2	223	5.2	3.5	3.8	225	4.5	3.2	3.2	278	2.2	2.2	-0.3	72	7.1	-6.7	-2.2
22	119	2.1	-1.8	1.0	225	5.9	4.2	4.2	221	4.5	3.0	3.4	252	7.1	6.8	2.2	262	4.9	4.9	0.7	273	2.1	2.1	-0.1	14	6.4	-1.5	-6.2
23	166	1.6	-0.4	1.6	232	4.1	3.2	2.5	238	6.5	5.5	3.4	243	5.9	5.3	2.7	249	5.1	4.8	1.8	267	7.1	7.1	0.4	5	7.7	-0.7	-7.7
24	167	0.9	-0.2	0.9	217	4.5	2.7	3.6	236	6.2	5.1	3.5	244	7.6	6.8	3.3	262	6.0	5.9	0.8	322	7.8	4.8	-6.1	6	14.6	-1.4	-14.5
25	156	1.7	-0.7	1.6	208	2.7	1.3	2.4	229	4.8	3.6	3.1	258	4.0	3.9	0.8	240	3.6	3.1	1.8	268	3.0	3.0	0.1	25	9.2	-3.9	-8.3
26	108	2.5	-2.4	0.8	207	2.0	0.9	1.8	228	4.7	3.5	3.1	227	3.4	2.5	2.3	243	9.1	8.1	4.2	289	6.5	6.2	-2.1	1	6.0	-0.1	-6.0
27	75	2.8	-2.7	-0.7	191	2.0	0.4	2.0	228	4.7	3.5	3.1	251	2.4	2.3	0.8	235	3.3	2.7	1.9	316	6.1	4.2	-4.4	40	10.1	-6.5	-7.7
28	148	1.3	-0.7	1.1	211	4.1	2.1	3.5	237	5.7	4.8	3.1	267	5.0	5.0	0.3	301	1.7	1.5	-0.9	198	2.6	0.8	2.5	58	14.0	-11.8	-7.5
29	215	2.8	1.6	2.3	230	4.3	3.3	2.8	238	3.9	3.3	2.1	276	1.8	1.8	-0.2	274	3.1	3.1	-0.2	239	1.2	1.0	0.6	335	5.0	2.1	-4.5
30	158	3.2	-1.2	3.0	221	5.5	3.6	4.2	232	6.8	5.3	4.2	234	7.9	6.4	4.6	279	5.4	5.3	-0.8	304	5.0	4.1	-2.8	50	10.4	-8.0	-6.7

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	173	3.1	-0.4	3.1	208	3.8	1.8	3.4	224	5.2	3.6	3.7	241	5.6	4.9	2.7	241	3.1	2.7	1.5	180	2.1	0.0	2.1	55	10.8	-8.8	-6.2
2	92	2.9	-2.9	0.1	184	2.6	0.2	2.6	247	7.9	7.3	3.1	223	6.8	4.6	5.0	209	1.3	0.6	1.1	300	2.4	2.1	-1.2	78	9.0	-8.8	-1.8
3	221	2.1	1.4	1.6	224	6.8	4.7	4.9	231	6.5	5.1	4.1	238	4.9	4.1	2.6	264	5.0	5.0	0.5	299	1.3	1.1	-0.6	53	10.2	-8.1	-6.2
4	187	2.5	0.3	2.5	220	3.9	2.5	3.0	233	5.0	4.0	3.0	245	5.5	5.0	2.3	197	1.0	0.3	1.0	70	1.2	-1.1	-0.4	78	12.5	-12.2	-2.7
5	199	2.8	0.9	2.6	234	4.1	3.3	2.4	235	4.7	3.8	2.7	225	2.4	1.7	1.7	259	3.7	3.6	0.7	249	0.9	0.8	0.3	52	7.2	-5.7	-4.4
6	150	2.2	-1.1	1.9	234	2.6	2.1	1.5	227	3.8	2.8	2.6	277	3.2	3.2	-0.4	222	1.5	1.0	1.1	302	2.5	2.1	-1.3	—	—	—	—
7	180	3.0	0.0	3.0	218	5.1	3.1	4.0	269	3.9	3.9	0.1	285	3.9	3.8	-1.0	319	3.0	2.0	-2.3	330	2.4	1.2	-2.1	29	11.1	-5.4	-9.7
8	213	3.3	1.8	2.8	221	6.0	3.9	4.5	234	5.7	4.6	3.4	304	1.1	0.9	-0.6	294	3.0	2.7	-1.2	5	2.4	-0.2	-2.4	47	9.2	-6.7	-6.3
9	217	3.5	2.1	2.8	236	5.7	4.7	3.2	253	5.5	5.3	1.6	227	2.1	1.5	1.4	22	2.9	-1.1	-2.7	40	4.5	-2.9	-3.4	56	17.2	-14.2	-9.7
10	191	0.5	0.1	0.5	236	3.0	2.5	1.7	225	2.7	1.9	1.9	265	2.4	2.4	0.2	30	5.9	-3.0	-5.1	342	6.6	2.1	-6.3	53	17.3	-13.8	-10.5
11	110	1.2	-1.1	0.4	219	2.7	1.7	2.1	218	3.7	2.3	2.9	198	1.3	0.4	1.2	60	2.8	-2.4	-1.4	47	6.6	-4.8	-4.5	41	13.0	-8.5	-9.9
12	104	2.1	-2.0	0.5	196	1.8	0.5	1.7	241	2.3	2.0	1.1	259	1.6	1.6	0.3	90	0.8	-0.8	0.0	9	5.2	-0.8	-5.1	85	16.9	-16.8	-1.4
13	75	1.1	-1.1	-0.3	239	5.1	4.4	2.6	238	4.9	4.1	2.6	241	4.1	3.6	2.0	332	4.2	2.0	-3.7	33	4.0	-2.2	-3.4	58	20.0	-16.9	-10.7
14	111	0.9	-0.8	0.3	220	4.0	2.6	3.1	239	2.6	2.2	1.3	243	3.3	2.9	1.5	77	2.7	-2.6	-0.6	66	9.3	-8.5	-3.7	60	12.9	-11.2	-6.5
15	148	0.9	-0.5	0.8	217	3.8	2.3	3.0	242	6.2	5.5	2.9	260	5.0	4.9	0.9	54	3.9	-3.2	-2.3	73	7.3	-7.0	-2.1	58	14.2	-12.1	-7.5
16	208	2.7	1.3	2.4	230	3.4	2.6	2.2	230	4.5	3.4	2.9	267	3.8	3.8	0.2	63	5.6	-5.0	-2.6	69	7.9	-7.4	-2.8	68	13.6	-12.6	-5.0
17	210	1.6	0.8	1.4	223	3.7	2.5	2.7	246	4.2	3.8	1.7	294	1.0	0.9	-0.4	81	1.2	-1.2	-0.2	5	2.5	-0.2	-2.5	66	12.0	-11.0	-4.8
18	148	1.3	-0.7	1.1	226	3.6	2.6	2.5	252	3.9	3.7	1.2	268	3.6	3.6	0.1	227	2.3	1.7	1.6	177	2.1	-0.1	2.1	66	6.4	-5.8	-2.6
19	218	3.4	2.1	2.7	227	5.3	3.9	3.6	253	5.8	5.5	1.7	249	5.0	4.7	1.8	270	2.7	2.7	0.0	10	2.2	-0.4	-2.2	21	5.3	-1.9	-5.0
20	183	2.0	0.1	2.0	210	3.0	1.5	2.6	225	3.1	2.2	2.2	281	2.0	2.0	-0.4	273	4.5	4.5	-0.2	306	2.7	2.2	-1.6	94	6.9	-6.9	0.5
21	215	1.9	1.1	1.6	211	3.1	1.6	2.7	221	4.8	3.1	3.6	196	0.7	0.2	0.7	320	3.0	1.9	-2.3	309	1.3	1.0	-0.8	72	9.9	-9.4	-3.0
22	214	2.5	1.4	2.1	197	3.0	0.9	2.9	232	1.8	1.4	1.1	249	1.9	1.8	0.7	354	1.0	0.1	-1.0	22	3.8	-1.4	-3.5	56	13.2	-11.0	-7.3
23	166	2.5	-0.6	2.4	227	4.5	3.3	3.1	242	5.0	4.4	2.3	229	2.8	2.1	1.8	61	5.1	-4.5	-2.5	16	8.4	-2.3	-8.1	66	13.4	-12.3	-5.4
24	56	0.7	-0.6	-0.4	219	3.3	2.1	2.6	234	5.2	4.2	3.0	217	3.8	2.3	3.0	77	3.7	-3.6	-0.8	23	7.8	-3.0	-7.2	42	13.5	-9.0	-10.0
25	103	2.3	-2.2	0.5	221	4.5	3.0	3.4	243	4.6	4.1	2.1	239	2.7	2.3	1.4	50	1.7	-1.3	-1.1	48	6.0	-4.5	-4.0	64	17.2	-15.4	-7.6
26	106	1.8	-1.7	0.5	210	3.9	2.0	3.4	202	3.1	1.2	2.9	153	0.4	-0.2	0.4	19	2.4	-0.8	-2.3	67	4.9	-4.5	-1.9	63	17.1	-15.2	-7.9
27	56	1.4	-1.2	-0.8	220	3.8	2.4	2.9	240	4.3	3.7	2.1	8	0.7	-0.1	-0.7	63	2.8	-2.5	-1.3	63	9.2	-8.2	-4.2	63	16.0	-14.2	-7.3
28	195	1.6	0.4	1.5	228	4.3	3.2	2.9	238	5.1	4.3	2.7	231	3.2	2.5	2.0	85	2.4	-2.4	-0.2	78	5.1	-5.0	-1.1	58	18.7	-15.9	-9.8
29	124	1.8	-1.5	1.0	217	3.0	1.8	2.4	230	4.5	3.4	2.9	246	2.7	2.5	1.1	360	1.4	0.0	-1.4	22	5.4	-2.0	-5.0	67	15.5	-14.3	-6.0
30	81	2.0	-2.0	-0.3	144	0.9	-0.5	0.7	167	1.8	-0.4	1.8	321	2.2	1.4	-1.7	34	3.7	-2.1	-3.1	28	6.2	-2.9	-5.5	69	15.9	-14.9	-5.6
31	135	0.4	-0.3	0.3	112	1.1	-1.0	0.4	185	2.2	0.2	2.2	98	0.7	-0.7	0.1	38	3.6	-2.2	-2.8	48	5.0	-3.7	-3.3	65	15.3	-13.9	-6.5

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	74	1.5	-1.4	-0.4	143	0.5	-0.3	0.4	176	1.5	-0.1	1.5	232	1.6	1.3	1.0	16	2.2	-0.6	-2.1	50	5.7	-4.4	-3.7	66	17.6	-16.1	-7.1
2	79	2.1	-2.1	-0.4	180	0.8	0.0	0.8	217	1.5	0.9	1.2	157	0.8	-0.3	0.7	80	2.2	-2.2	-0.4	314	2.9	2.1	-2.0	64	14.1	-12.7	-6.1
3	160	1.5	-0.5	1.4	215	2.1	1.2	1.7	196	2.9	0.8	2.8	236	0.7	0.6	0.4	55	2.8	-2.3	-1.6	38	3.4	-2.1	-2.7	36	9.2	-5.4	-7.5
4	195	3.1	0.8	3.0	221	1.8	1.2	1.4	234	1.4	1.1	0.8	158	1.1	-0.4	1.0	78	4.7	-4.6	-1.0	76	7.2	-7.0	-1.8	71	16.1	-15.2	-5.3
5	108	1.6	-1.5	0.5	183	1.7	0.1	1.7	225	3.1	2.2	2.2	122	1.9	-1.6	1.0	87	3.5	-3.5	-0.2	81	5.5	-5.4	-0.9	72	14.0	-13.3	-4.4
6	183	1.7	0.1	1.7	202	1.1	0.4	1.0	231	0.6	0.5	0.4	83	1.7	-1.7	-0.2	96	5.7	-5.7	0.6	84	10.1	-10.1	-1.0	70	14.7	-13.8	-5.1
7	237	2.0	1.7	1.1	242	1.5	1.3	0.7	188	1.5	0.2	1.5	135	1.0	-0.7	0.7	83	6.7	-6.7	-0.8	65	8.9	-8.1	-3.8	57	13.8	-11.5	-7.6
8	225	2.4	1.7	1.7	206	2.5	1.1	2.3	230	5.2	4.0	3.3	333	0.2	0.1	-0.2	82	5.2	-5.2	-0.7	58	13.1	-11.1	-7.0	75	15.2	-14.7	-3.9
9	138	1.3	-0.9	1.0	207	1.1	0.5	1.0	188	2.8	0.4	2.8	158	0.5	-0.2	0.5	70	6.9	-6.5	-2.4	80	5.0	-4.9	-0.9	62	13.6	-12.0	-6.4
10	130	0.8	-0.6	0.5	252	1.6	1.5	0.5	250	2.3	2.2	0.8	171	1.8	-0.3	1.8	304	2.3	1.9	-1.3	333	4.0	1.8	-3.6	46	6.0	-4.3	-4.2
11	192	3.3	0.7	3.2	220	2.5	1.6	1.9	205	3.3	1.4	3.0	321	2.2	1.4	-1.7	348	1.4	0.3	-1.4	310	5.1	3.9	-3.3	75	16.4	-15.8	-4.3
12	180	0.5	0.0	0.5	207	0.9	0.4	0.8	237	2.0	1.7	1.1	105	2.4	-2.3	0.6	350	1.7	0.3	-1.7	88	7.4	-7.4	-0.3	86	12.9	-12.9	-0.8
13	131	2.3	-1.7	1.5	153	1.6	-0.7	1.4	213	4.2	2.3	3.5	238	3.2	2.7	1.7	149	0.6	-0.3	0.5	92	6.6	-6.6	0.2	57	16.0	-13.4	-8.7
14	95	2.3	-2.3	0.2	139	0.9	-0.6	0.7	231	3.5	2.7	2.2	236	3.6	3.0	2.0	306	1.4	1.1	-0.8	54	5.8	-4.7	-3.4	72	12.0	-11.4	-3.6
15	111	0.9	-0.8	0.3	204	2.7	1.1	2.5	248	0.5	0.5	0.2	176	1.6	-0.1	1.6	8	2.2	-0.3	-2.2	21	9.3	-3.3	-8.7	67	12.7	-11.7	-5.0
16	117	1.1	-1.0	0.5	211	1.7	0.9	1.5	220	3.9	2.5	3.0	242	2.7	2.4	1.3	328	0.9	0.5	-0.8	50	2.6	-2.0	-1.7	71	10.3	-9.8	-3.3
17	225	1.3	0.9	0.9	221	4.4	2.9	3.3	226	4.2	3.0	2.9	243	1.6	1.4	0.7	36	3.1	-1.8	-2.5	38	7.4	-4.6	-5.8	68	15.1	-14.0	-5.6
18	79	1.5	-1.5	-0.3	236	0.7	0.6	0.4	211	2.9	1.5	2.5	226	2.8	2.0	1.9	97	3.5	-3.5	0.4	45	5.5	-3.9	-3.9	80	16.3	-16.0	-2.9
19	201	1.7	0.6	1.6	207	1.6	0.7	1.4	191	2.0	0.4	2.0	195	2.4	0.6	2.3	39	0.6	-0.4	-0.5	16	5.3	-1.5	-5.1	75	12.2	-11.8	-3.2
20	112	1.1	-1.0	0.4	202	0.5	0.2	0.5	207	2.2	1.0	2.0	260	5.0	4.9	0.9	331	1.8	0.9	-1.6	296	3.2	2.9	-1.4	115	6.7	-6.1	2.8
21	217	1.5	0.9	1.2	230	1.6	1.2	1.0	196	2.9	0.8	2.8	242	2.4	2.1	1.1	18	1.6	-0.5	-1.5	8	5.6	-0.8	-5.5	70	17.9	-16.9	-6.0
22	232	1.6	1.3	1.0	228	1.5	1.1	1.0	225	2.3	1.6	1.6	246	2.7	2.5	1.1	356	1.4	0.1	-1.4	41	2.3	-1.5	-1.7	101	8.2	-8.0	1.6
23	176	1.5	-0.1	1.5	225	1.0	0.7	0.7	221	3.8	2.5	2.9	249	3.1	2.9	1.1	273	1.7	1.7	-0.1	304	1.4	1.2	-0.8	38	10.5	-6.5	-8.2
24	184	1.4	0.1	1.4	219	2.1	1.3	1.6	218	2.3	1.4	1.8	180	1.9	0.0	1.9	323	2.0	1.2	-1.6	93	3.8	-3.8	0.2	88	12.8	-12.8	-0.5
25	90	1.8	-1.8	0.0	218	1.6	1.0	1.3	232	3.4	2.7	2.1	234	0.9	0.7	0.5	285	1.1	1.1	-0.3	344	2.6	0.7	-2.5	62	11.8	-10.4	-5.5
26	210	2.0	1.0	1.7	191	0.5	0.1	0.5	215	2.8	1.6	2.3	217	2.6	1.6	2.1	274	2.9	2.9	-0.2	65	6.5	-5.9	-2.7	78	10.9	-10.7	-2.2
27	53	2.0	-1.6	-1.2	66	1.0	-0.9	-0.4	204	1.7	0.7	1.6	197	2.4	0.7	2.3	133	1.8	-1.3	1.2	39	3.5	-2.2	-2.7	81	15.3	-15.1	-2.5
28	143	1.0	-0.6	0.8	189	0.6	0.1	0.6	223	4.0	2.7	2.9	270	3.7	3.7	0.0	360	1.2	0.0	-1.2	50	3.4	-2.6	-2.2	72	11.9	-11.3	-3.7
29	87	2.0	-2.0	-0.1	159	1.4	-0.5	1.3	214	2.5	1.4	2.1	162	0.9	-0.3	0.9	121	2.1	-1.8	1.1	35	2.9	-1.7	-2.4	56	8.3	-6.9	-4.6
30	50	1.7	-1.3	-1.1	201	1.4	0.5	1.3	222	2.7	1.8	2.0	262	1.5	1.5	0.2	288	2.2	2.1	-0.7	329	4.3	2.2	-3.7	50	8.5	-6.5	-5.5
31	86	1.5	-1.5	-0.1	214	1.1	0.6	0.9	193	1.7	0.4	1.7	246	1.0	0.9	0.4	312	2.8	2.1	-1.9	340	3.5	1.2	-3.3	45	10.6	-7.5	-7.5

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	108	1.6	-1.5	0.5	205	1.7	0.7	1.5	202	3.5	1.3	3.2	360	2.6	0.0	-2.6	333	3.5	1.6	-3.1	356	7.1	0.5	-7.1	72	15.0	-14.3	-4.6
2	85	2.1	-2.1	-0.2	153	1.3	-0.6	1.2	214	2.3	1.3	1.9	227	2.2	1.6	1.5	156	1.2	-0.5	1.1	16	7.6	-2.1	-7.3	42	9.8	-6.6	-7.3
3	159	2.5	-0.9	2.3	176	1.5	-0.1	1.5	207	3.8	1.7	3.4	225	4.4	3.1	3.1	250	4.5	4.2	1.5	331	6.3	3.1	-5.5	33	6.4	-3.5	-5.4
4	31	1.7	-0.9	-1.5	90	0.5	-0.5	0.0	213	3.5	1.9	2.9	271	5.4	5.4	-0.1	310	4.2	3.2	-2.7	324	8.0	4.7	-6.5	24	8.2	-3.3	-7.5
5	99	2.0	-2.0	0.3	217	3.1	1.9	2.5	223	4.9	3.3	3.6	244	7.1	6.4	3.1	345	2.3	0.6	-2.2	341	3.7	1.2	-3.5	72	11.4	-10.8	-3.5
6	47	2.1	-1.5	-1.4	186	1.8	0.2	1.8	224	3.6	2.5	2.6	215	1.2	0.7	1.0	24	3.6	-1.5	-3.3	35	8.3	-4.7	-6.8	59	11.5	-9.9	-5.9
7	69	1.4	-1.3	-0.5	189	1.2	0.2	1.2	201	3.1	1.1	2.9	208	1.7	0.8	1.5	353	0.8	0.1	-0.8	336	3.7	1.5	-3.4	37	11.5	-6.9	-9.2
8	135	0.6	-0.4	0.4	197	1.0	0.3	1.0	203	2.6	1.0	2.4	263	0.8	0.8	0.1	285	4.2	4.1	-1.1	57	4.3	-3.6	-2.3	50	8.7	-6.6	-5.6
9	203	0.8	0.3	0.7	148	0.9	-0.5	0.8	207	2.5	1.1	2.2	259	0.5	0.5	0.1	121	2.3	-2.0	1.2	32	6.2	-3.3	-5.3	49	6.6	-5.0	-4.3
10	203	0.8	0.3	0.7	127	1.0	-0.8	0.6	163	2.1	-0.6	2.0	243	0.7	0.6	0.3	58	3.8	-3.2	-2.0	20	7.4	-2.5	-7.0	95	8.4	-8.4	0.8
11	98	0.7	-0.7	0.1	163	1.4	-0.4	1.3	227	3.4	2.5	2.3	226	4.6	3.3	3.2	297	1.8	1.6	-0.8	325	5.1	2.9	-4.2	59	7.1	-6.1	-3.6
12	243	0.7	0.6	0.3	210	2.8	1.4	2.4	212	4.0	2.1	3.4	251	4.9	4.6	1.6	239	5.5	4.7	2.8	244	2.8	2.5	1.2	325	2.4	1.4	-2.0
13	219	0.6	0.4	0.5	209	2.6	1.3	2.3	219	3.8	2.4	3.0	244	4.8	4.3	2.1	90	1.2	-1.2	0.0	261	3.9	3.9	0.6	69	3.3	-3.1	-1.2
14	63	3.3	-2.9	-1.5	223	4.1	2.8	3.0	232	4.9	3.9	3.0	245	5.3	4.8	2.2	264	9.0	8.9	1.0	261	9.5	9.4	1.5	301	5.1	4.4	-2.6
15	233	0.5	0.4	0.3	221	1.8	1.2	1.4	225	4.4	3.1	3.1	215	3.9	2.2	3.2	229	5.7	4.3	3.7	279	4.0	4.0	-0.6	43	3.4	-2.3	-2.5
16	79	2.0	-2.0	-0.4	193	0.9	0.2	0.9	230	5.0	3.8	3.2	238	4.5	3.8	2.4	253	7.0	6.7	2.0	272	7.6	7.6	-0.3	301	2.3	2.0	-1.2
17	59	4.5	-3.9	-2.3	117	0.2	-0.2	0.1	194	2.9	0.7	2.8	246	6.4	5.9	2.6	241	6.3	5.5	3.0	283	9.1	8.9	-2.0	356	2.6	0.2	-2.6
18	162	0.3	-0.1	0.3	135	1.4	-1.0	1.0	205	3.8	1.6	3.4	259	4.6	4.5	0.9	255	7.2	6.9	1.9	271	11.4	11.4	-0.1	308	2.4	1.9	-1.5
19	213	1.7	0.9	1.4	180	1.0	0.0	1.0	228	2.7	2.0	1.8	276	3.6	3.6	-0.4	273	6.3	6.3	-0.3	281	9.6	9.4	-1.9	320	5.6	3.6	-4.3
20	70	2.3	-2.2	-0.8	180	0.5	0.0	0.5	236	4.0	3.3	2.2	254	4.3	4.1	1.2	248	5.4	5.0	2.0	272	7.0	7.0	-0.3	263	0.8	0.8	0.1
21	69	2.2	-2.1	-0.8	186	1.9	0.2	1.9	224	4.2	2.9	3.0	242	5.2	4.6	2.4	265	8.1	8.1	0.7	268	11.2	11.2	0.4	285	2.8	2.7	-0.7
22	68	2.2	-2.0	-0.8	216	1.4	0.8	1.1	228	3.8	2.8	2.5	251	6.0	5.7	2.0	268	9.1	9.1	0.3	275	14.9	14.8	-1.3	280	3.5	3.4	-0.6
23	71	1.8	-1.7	-0.6	135	0.7	-0.5	0.5	220	3.0	1.9	2.3	277	6.4	6.4	-0.8	272	9.6	9.6	-0.4	278	15.8	15.6	-2.3	330	5.4	2.7	-4.7
24	66	1.0	-0.9	-0.4	209	1.0	0.5	0.9	225	3.5	2.5	2.5	254	5.2	5.0	1.4	263	8.7	8.6	1.0	271	11.3	11.3	-0.1	267	9.0	9.0	0.5
25	64	3.2	-2.9	-1.4	158	1.8	-0.7	1.7	219	4.1	2.6	3.2	275	10.9	10.9	-1.0	278	10.4	10.3	-1.4	299	11.4	10.0	-5.5	298	6.0	5.3	-2.8
26	79	3.1	-3.0	-0.6	194	0.8	0.2	0.8	224	3.6	2.5	2.6	254	7.8	7.5	2.2	275	8.6	8.6	-0.7	281	13.6	13.3	-2.6	293	3.0	2.8	-1.2
27	107	1.7	-1.6	0.5	201	1.4	0.5	1.3	228	3.6	2.7	2.4	274	4.1	4.1	-0.3	262	13.1	13.0	1.8	284	20.4	19.8	-5.0	321	5.3	3.3	-4.1
28	66	2.2	-2.0	-0.9	183	1.8	0.1	1.8	220	3.9	2.5	3.0	247	7.1	6.5	2.8	266	10.8	10.8	0.7	273	15.6	15.6	-0.8	300	2.2	1.9	-1.1
29	68	1.8	-1.7	-0.7	189	2.4	0.4	2.4	212	4.7	2.5	4.0	243	7.6	6.8	3.5	254	10.1	9.7	2.7	253	9.8	9.4	2.9	249	2.8	2.6	1.0
30	76	0.4	-0.4	-0.1	162	0.9	-0.3	0.9	226	3.6	2.6	2.5	253	7.3	7.0	2.2	266	11.1	11.1	0.8	272	16.3	16.3	-0.5	284	5.9	5.7	-1.4

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	87	1.7	-1.7	-0.1	190	1.7	0.3	1.7	233	5.1	4.1	3.1	254	7.8	7.5	2.2	263	9.0	8.9	1.1	283	13.1	12.8	-2.9	318	4.7	3.2	-3.5
2	63	1.8	-1.6	-0.8	360	0.7	0.0	-0.7	228	3.6	2.7	2.4	237	9.8	8.2	5.4	261	9.4	9.3	1.4	258	11.2	11.0	2.3	248	4.5	4.2	1.7
3	48	2.8	-2.1	-1.9	187	0.8	0.1	0.8	214	3.4	1.9	2.8	247	6.0	5.5	2.3	257	10.6	10.3	2.4	262	15.2	15.0	2.2	243	5.5	4.9	2.5
4	58	1.5	-1.3	-0.8	270	0.2	0.2	0.0	232	3.3	2.6	2.0	254	7.7	7.4	2.1	254	14.7	14.1	4.1	268	17.3	17.3	0.7	254	7.5	7.2	2.0
5	27	2.7	-1.2	-2.4	63	0.7	-0.6	-0.3	217	2.5	1.5	2.0	252	8.0	7.6	2.5	264	13.3	13.2	1.4	276	17.5	17.4	-1.7	278	8.4	8.3	-1.1
6	69	1.4	-1.3	-0.5	214	1.1	0.6	0.9	242	4.7	4.1	2.2	249	9.2	8.6	3.3	267	13.9	13.9	0.7	260	18.4	18.1	3.2	273	6.0	6.0	-0.3
7	80	1.7	-1.7	-0.3	215	1.6	0.9	1.3	243	5.3	4.7	2.4	265	8.5	8.5	0.8	260	17.0	16.7	3.0	276	20.7	20.6	-2.0	273	6.5	6.5	-0.3
8	28	1.5	-0.7	-1.3	166	0.4	-0.1	0.4	229	3.2	2.4	2.1	264	10.8	10.7	1.2	271	19.2	19.2	-0.4	278	21.0	20.8	-2.8	283	7.8	7.6	-1.8
9	75	1.1	-1.1	-0.3	202	0.5	0.2	0.5	231	3.5	2.7	2.2	261	8.3	8.2	1.3	263	18.9	18.8	2.3	267	24.5	24.5	1.4	267	10.6	10.6	0.5
10	117	1.3	-1.2	0.6	141	0.6	-0.4	0.5	237	4.2	3.5	2.3	256	11.5	11.2	2.8	274	21.9	21.9	-1.4	266	22.4	22.3	1.5	257	7.8	7.6	1.7
11	29	1.3	-0.6	-1.1	84	0.9	-0.9	-0.1	230	4.5	3.4	2.9	250	11.0	10.4	3.7	269	19.8	19.8	0.4	268	24.1	24.1	0.9	251	11.1	10.5	3.6
12	70	1.5	-1.4	-0.5	124	0.7	-0.6	0.4	222	5.0	3.3	3.7	255	12.6	12.2	3.2	255	20.2	19.5	5.2	253	28.3	27.1	8.1	267	12.7	12.7	0.6
13	40	2.3	-1.5	-1.8	76	0.8	-0.8	-0.2	211	3.3	1.7	2.8	257	11.3	11.0	2.6	265	18.5	18.4	1.7	261	22.7	22.4	3.5	263	11.5	11.4	1.5
14	53	2.1	-1.7	-1.3	90	1.1	-1.1	0.0	209	3.1	1.5	2.7	254	11.4	10.9	3.2	253	25.2	24.1	7.2	259	27.5	27.0	5.1	265	12.5	12.5	1.1
15	57	2.7	-2.3	-1.5	74	1.5	-1.4	-0.4	214	1.8	1.0	1.5	256	15.1	14.6	3.7	258	22.3	21.8	4.8	266	32.1	32.0	2.5	260	14.5	14.3	2.4
16	56	3.6	-3.0	-2.0	86	1.3	-1.3	-0.1	231	4.1	3.2	2.6	248	13.2	12.3	4.9	258	28.0	27.4	5.6	263	28.1	27.9	3.2	270	15.5	15.5	-0.1
17	41	2.1	-1.4	-1.6	117	0.9	-0.8	0.4	222	2.4	1.6	1.8	257	10.3	10.0	2.4	263	26.3	26.1	3.1	267	29.4	29.4	1.6	267	18.0	18.0	1.0
18	65	4.1	-3.7	-1.7	139	0.9	-0.6	0.7	220	3.1	2.0	2.4	258	11.4	11.2	2.3	268	26.3	26.3	0.9	270	27.5	27.5	0.0	275	13.4	13.3	-1.2
19	99	1.9	-1.9	0.3	210	0.8	0.4	0.7	231	4.5	3.5	2.8	265	11.9	11.9	1.0	266	28.4	28.3	1.9	265	28.6	28.5	2.7	250	12.4	11.6	4.3
20	75	2.4	-2.3	-0.6	207	1.1	0.5	1.0	224	5.2	3.6	3.7	261	14.2	14.0	2.2	262	24.2	24.0	3.2	264	28.8	28.6	3.0	270	16.7	16.7	-0.1
21	44	3.3	-2.3	-2.4	185	1.1	0.1	1.1	228	5.9	4.4	3.9	252	18.2	17.3	5.7	259	28.1	27.6	5.3	258	33.1	32.4	6.9	272	14.6	14.6	-0.4
22	49	2.1	-1.6	-1.4	90	0.3	-0.3	0.0	228	3.6	2.7	2.4	250	13.2	12.4	4.5	259	25.0	24.5	4.8	265	31.1	31.0	2.7	281	12.0	11.8	-2.4
23	45	2.0	-1.4	-1.4	63	1.6	-1.4	-0.7	227	1.9	1.4	1.3	266	11.8	11.8	0.8	256	25.4	24.7	6.1	267	33.0	33.0	1.8	284	13.2	12.8	-3.1
24	44	3.2	-2.2	-2.3	51	0.6	-0.5	-0.4	220	2.6	1.7	2.0	255	12.3	11.9	3.3	259	25.1	24.7	4.7	264	30.0	29.8	3.1	261	15.9	15.7	2.5
25	34	3.0	-1.7	-2.5	49	1.1	-0.8	-0.7	219	2.7	1.7	2.1	251	11.4	10.8	3.8	260	28.3	27.9	5.0	264	37.2	37.0	3.6	270	13.9	13.9	-0.1
26	49	3.2	-2.4	-2.1	63	1.1	-1.0	-0.5	204	3.0	1.2	2.7	257	15.3	14.9	3.5	262	30.7	30.4	4.1	263	37.5	37.2	4.6	268	18.6	18.6	0.6
27	39	4.5	-2.8	-3.5	83	0.8	-0.8	-0.1	210	2.0	1.0	1.7	262	12.3	12.2	1.7	253	27.2	26.0	8.0	259	33.2	32.6	6.3	260	21.2	20.9	3.7
28	44	4.0	-2.8	-2.9	63	2.0	-1.8	-0.9	197	1.7	0.5	1.6	258	12.6	12.3	2.6	268	29.7	29.7	1.2	266	36.1	36.0	2.6	274	17.0	17.0	-1.1
29	37	4.1	-2.5	-3.3	55	2.4	-2.0	-1.4	187	0.8	0.1	0.8	256	12.6	12.2	3.0	259	31.3	30.7	5.9	261	37.3	36.8	6.0	286	17.0	16.3	-4.7
30	58	3.8	-3.2	-2.0	70	2.0	-1.9	-0.7	215	1.6	0.9	1.3	261	12.7	12.6	1.9	262	25.1	24.8	3.7	262	33.5	33.2	4.4	257	14.0	13.6	3.2
31	44	2.9	-2.0	-2.1	65	2.1	-1.9	-0.9	207	1.3	0.6	1.2	265	13.4	13.4	1.1	264	30.1	29.9	3.1	274	34.5	34.4	-2.6	287	21.2	20.3	-6.1

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	44	3.6	-2.5	-2.6	72	1.9	-1.8	-0.6	236	0.4	0.3	0.2	250	12.1	11.3	4.2	256	31.6	30.7	7.5	275	34.0	33.9	-2.9	283	21.9	21.3	-5.0
2	38	3.1	-1.9	-2.4	75	2.0	-1.9	-0.5	248	1.6	1.5	0.6	254	13.0	12.5	3.6	261	30.3	29.9	4.9	269	35.4	35.4	0.8	282	19.2	18.8	-3.9
3	21	1.4	-0.5	-1.3	56	2.2	-1.8	-1.2	237	2.4	2.0	1.3	255	14.3	13.8	3.8	254	24.0	23.1	6.5	273	35.5	35.5	-1.8	269	27.2	27.2	0.3
4	45	3.7	-2.6	-2.6	77	1.8	-1.8	-0.4	227	2.2	1.6	1.5	265	12.6	12.5	1.2	264	32.6	32.4	3.3	289	45.4	42.9	-14.8	277	22.7	22.5	-2.9
5	35	3.9	-2.2	-3.2	57	1.7	-1.4	-0.9	215	1.2	0.7	1.0	259	12.6	12.4	2.3	269	30.3	30.3	0.6	268	36.7	36.7	1.0	252	20.1	19.2	6.1
6	48	3.1	-2.3	-2.1	72	0.6	-0.6	-0.2	221	2.3	1.5	1.7	257	14.5	14.1	3.3	266	33.9	33.8	2.2	268	38.5	38.5	1.4	274	18.1	18.1	-1.2
7	43	2.6	-1.8	-1.9	149	0.6	-0.3	0.5	227	2.3	1.7	1.6	263	14.9	14.8	1.8	263	38.3	38.0	4.4	261	44.1	43.6	6.6	261	20.3	20.0	3.2
8	37	3.4	-2.0	-2.7	51	1.4	-1.1	-0.9	243	0.2	0.2	0.1	273	13.2	13.2	-0.6	269	38.3	38.3	0.5	272	42.1	42.1	-1.3	255	17.1	16.6	4.3
9	46	2.8	-2.0	-1.9	60	2.4	-2.1	-1.2	143	0.5	-0.3	0.4	262	10.7	10.6	1.4	259	33.7	33.1	6.3	270	42.4	42.4	0.1	267	24.8	24.8	1.1
10	30	3.4	-1.7	-2.9	56	2.7	-2.2	-1.5	225	0.3	0.2	0.2	258	14.3	14.0	2.9	268	36.6	36.6	1.4	259	41.4	40.7	7.8	210	26.1	13.1	22.6
11	48	4.5	-3.3	-3.0	47	2.2	-1.6	-1.5	267	1.8	1.8	0.1	268	14.2	14.2	0.4	267	31.3	31.3	1.4	269	39.8	39.8	0.6	264	19.5	19.4	2.1
12	43	2.6	-1.8	-1.9	75	2.3	-2.2	-0.6	243	0.9	0.8	0.4	268	11.9	11.9	0.5	277	26.5	26.3	-3.1	267	36.8	36.8	1.7	265	22.4	22.3	2.1
13	41	3.5	-2.3	-2.6	56	2.2	-1.8	-1.2	221	0.9	0.6	0.7	280	11.7	11.5	-2.0	268	28.8	28.8	1.0	281	36.3	35.6	-7.2	274	22.1	22.0	-1.5
14	43	3.4	-2.3	-2.5	56	2.2	-1.8	-1.2	319	0.9	0.6	-0.7	276	11.7	11.6	-1.3	274	30.3	30.2	-2.2	279	46.1	45.5	-7.3	—	—	—	—
15	44	3.6	-2.5	-2.6	71	2.1	-2.0	-0.7	180	0.4	0.0	0.4	288	11.1	10.6	-3.4	277	35.0	34.7	-4.3	278	43.9	43.5	-5.9	275	19.8	19.7	-1.8
16	38	3.9	-2.4	-3.1	53	2.0	-1.6	-1.2	297	0.4	0.4	-0.2	278	14.4	14.3	-1.9	277	28.4	28.2	-3.7	277	45.3	45.0	-5.4	274	25.5	25.4	-1.7
17	38	4.1	-2.5	-3.2	63	0.7	-0.6	-0.3	117	0.7	-0.6	0.3	281	9.9	9.7	-1.8	265	30.8	30.7	2.7	273	39.1	39.1	-1.9	281	28.2	27.7	-5.3
18	47	3.7	-2.7	-2.5	87	2.0	-2.0	-0.1	192	1.4	0.3	1.4	261	13.8	13.6	2.1	270	35.3	35.3	0.0	282	32.5	31.8	-6.8	276	16.8	16.7	-1.8
19	38	3.9	-2.4	-3.1	78	1.4	-1.4	-0.3	200	1.5	0.5	1.4	266	16.9	16.9	1.3	267	30.7	30.6	1.8	277	36.3	36.0	-4.5	268	14.6	14.6	0.6
20	44	4.7	-3.3	-3.4	117	0.4	-0.4	0.2	220	3.5	2.3	2.7	258	18.0	17.6	3.6	259	29.7	29.2	5.6	256	39.2	38.1	9.2	269	22.8	22.8	0.3
21	42	5.1	-3.4	-3.8	65	2.9	-2.6	-1.2	225	1.8	1.3	1.3	257	14.1	13.7	3.2	265	29.9	29.8	2.5	266	37.0	36.9	2.5	288	31.0	29.5	-9.6
22	40	3.5	-2.3	-2.7	71	1.8	-1.7	-0.6	187	0.8	0.1	0.8	263	13.2	13.1	1.5	263	38.5	38.2	4.6	256	47.3	45.8	11.8	273	23.6	23.6	-1.2
23	48	3.8	-2.8	-2.5	56	2.3	-1.9	-1.3	209	1.0	0.5	0.9	262	20.0	19.8	2.9	258	38.9	38.0	8.2	255	46.3	44.8	11.8	258	23.4	22.9	4.8
24	49	2.9	-2.2	-1.9	90	0.8	-0.8	0.0	250	5.4	5.1	1.9	261	19.6	19.4	3.0	259	36.7	36.0	7.0	248	51.4	47.6	19.3	255	24.1	23.3	6.1
25	63	3.7	-3.3	-1.7	84	2.7	-2.7	-0.3	215	1.6	0.9	1.3	263	20.4	20.2	2.5	273	34.2	34.2	-1.8	273	36.5	36.4	-2.1	286	25.0	24.0	-6.9
26	44	2.9	-2.0	-2.1	86	1.3	-1.3	-0.1	207	2.7	1.2	2.4	266	19.6	19.6	1.3	269	36.8	36.8	0.7	281	42.5	41.8	-7.8	283	29.6	28.8	-6.8
27	48	4.0	-3.0	-2.7	86	1.5	-1.5	-0.1	228	2.4	1.8	1.6	265	20.4	20.3	1.9	269	33.9	33.9	0.8	267	46.6	46.5	2.2	280	28.0	27.6	-5.0
28	57	4.9	-4.1	-2.7	83	1.6	-1.6	-0.2	144	1.4	-0.8	1.1	263	16.3	16.2	2.1	271	39.8	39.8	-0.4	269	45.8	45.8	0.8	275	29.8	29.7	-2.5
29	33	3.7	-2.0	-3.1	69	1.4	-1.3	-0.5	253	1.4	1.3	0.4	268	19.0	19.0	0.5	260	38.4	37.8	6.7	264	45.4	45.2	4.6	270	18.8	18.8	0.0
30	52	3.6	-2.8	-2.2	77	2.2	-2.1	-0.5	212	0.9	0.5	0.8	271	16.0	16.0	-0.4	264	33.9	33.7	3.4	259	48.4	47.5	9.4	260	23.6	23.3	4.0

Daily Normals of Upper Air Winds (1971-2000)

MOHANBARI **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	50	3.9	-3.0	-2.5	87	2.0	-2.0	-0.1	214	1.4	0.8	1.2	275	17.0	16.9	-1.6	261	34.7	34.3	5.4	250	35.8	33.6	12.5	269	23.5	23.5	0.3
2	47	4.1	-3.0	-2.8	58	1.5	-1.3	-0.8	229	3.5	2.6	2.3	265	19.9	19.8	1.8	265	36.7	36.5	3.4	264	50.3	50.0	5.5	275	28.4	28.3	-2.3
3	59	3.5	-3.0	-1.8	56	2.5	-2.1	-1.4	67	0.8	-0.7	-0.3	275	14.3	14.2	-1.2	272	34.8	34.8	-1.1	267	43.8	43.7	2.6	263	21.7	21.5	2.7
4	39	3.2	-2.0	-2.5	62	2.6	-2.3	-1.2	124	0.7	-0.6	0.4	274	13.4	13.4	-1.0	272	39.0	39.0	-1.7	269	47.9	47.9	1.1	268	25.6	25.6	0.8
5	31	4.3	-2.2	-3.7	83	2.5	-2.5	-0.3	252	0.3	0.3	0.1	274	16.1	16.1	-1.2	265	38.3	38.1	3.5	258	42.4	41.4	9.1	268	27.3	27.3	1.1
6	27	3.5	-1.6	-3.1	55	2.4	-2.0	-1.4	49	2.0	-1.5	-1.3	286	13.1	12.6	-3.5	267	33.2	33.2	1.8	258	52.1	51.0	10.7	275	25.0	24.9	-2.0
7	41	3.5	-2.3	-2.6	48	3.0	-2.2	-2.0	194	0.8	0.2	0.8	266	13.6	13.6	0.9	271	29.8	29.8	-0.5	265	40.9	40.7	3.8	273	29.2	29.2	-1.3
8	43	4.0	-2.7	-2.9	62	2.6	-2.3	-1.2	200	2.0	0.7	1.9	263	18.1	18.0	2.2	269	36.9	36.9	0.4	267	45.4	45.4	2.1	267	25.5	25.5	1.2
9	53	2.0	-1.6	-1.2	64	2.5	-2.3	-1.1	90	1.5	-1.5	0.0	268	16.1	16.1	0.5	270	35.2	35.2	-0.3	260	45.9	45.2	8.0	243	33.4	29.8	15.1
10	48	2.5	-1.9	-1.7	69	1.7	-1.6	-0.6	198	0.9	0.3	0.9	261	16.8	16.6	2.5	264	37.5	37.3	3.9	260	46.8	46.1	8.1	263	31.2	31.0	3.7
11	36	2.9	-1.7	-2.3	72	2.2	-2.1	-0.7	216	1.4	0.8	1.1	265	17.7	17.6	1.6	267	41.6	41.5	2.3	265	46.6	46.4	4.2	273	30.7	30.7	-1.4
12	62	3.8	-3.4	-1.8	90	1.9	-1.9	0.0	189	1.2	0.2	1.2	271	15.9	15.9	-0.3	267	39.8	39.8	1.8	265	49.6	49.4	4.5	257	34.9	34.1	7.6
13	45	4.2	-3.0	-3.0	67	2.1	-1.9	-0.8	106	1.8	-1.7	0.5	268	15.9	15.9	0.5	272	36.1	36.1	-1.0	264	42.6	42.3	4.7	265	23.5	23.4	2.2
14	48	3.9	-2.9	-2.6	63	2.7	-2.4	-1.2	145	2.1	-1.2	1.7	279	14.5	14.3	-2.2	274	41.3	41.2	-3.1	266	45.0	44.9	3.5	270	23.5	23.5	-0.2
15	36	2.4	-1.4	-1.9	61	2.3	-2.0	-1.1	211	0.6	0.3	0.5	269	16.8	16.8	0.3	265	35.3	35.2	3.0	257	42.5	41.5	9.3	285	32.4	31.3	-8.3
16	43	3.7	-2.5	-2.7	94	1.4	-1.4	0.1	208	1.9	0.9	1.7	274	13.1	13.1	-0.9	272	36.6	36.6	-1.3	267	49.5	49.4	2.6	270	38.0	38.0	0.1
17	46	3.9	-2.8	-2.7	90	1.9	-1.9	0.0	210	1.6	0.8	1.4	276	16.5	16.4	-1.7	282	36.3	35.5	-7.8	269	52.8	52.8	0.5	273	22.5	22.5	-1.3
18	47	3.5	-2.6	-2.4	73	1.7	-1.6	-0.5	127	0.5	-0.4	0.3	280	14.5	14.3	-2.6	269	37.3	37.3	0.6	259	40.9	40.1	7.8	262	28.4	28.1	4.0
19	36	3.2	-1.9	-2.6	72	1.3	-1.2	-0.4	231	1.9	1.5	1.2	271	12.6	12.6	-0.3	272	30.2	30.2	-1.0	271	66.8	66.8	-1.6	267	38.0	37.9	2.0
20	32	3.1	-1.6	-2.6	90	0.8	-0.8	0.0	117	0.7	-0.6	0.3	272	12.9	12.9	-0.4	270	33.7	33.7	0.1	264	42.1	41.9	4.2	273	34.1	34.1	-1.6
21	52	2.8	-2.2	-1.7	92	2.3	-2.3	0.1	218	1.6	1.0	1.3	269	18.0	18.0	0.4	267	45.2	45.1	2.3	263	45.3	45.0	5.4	—	—	—	—
22	37	2.6	-1.6	-2.1	56	2.2	-1.8	-1.2	329	1.2	0.6	-1.0	279	16.1	15.9	-2.4	263	44.4	44.1	5.1	254	52.0	50.0	14.3	263	53.0	52.6	6.5
23	25	2.6	-1.1	-2.4	65	2.3	-2.1	-1.0	175	1.2	-0.1	1.2	270	15.0	15.0	-0.1	266	42.5	42.4	2.7	270	55.7	55.7	-0.1	272	36.5	36.5	-1.1
24	60	3.2	-2.8	-1.6	166	0.4	-0.1	0.4	193	0.9	0.2	0.9	266	19.4	19.3	1.4	268	43.9	43.9	1.9	266	48.9	48.8	3.0	264	25.8	25.7	2.7
25	46	3.0	-2.2	-2.1	67	2.3	-2.1	-0.9	246	1.7	1.6	0.7	260	17.2	16.9	3.1	257	47.2	45.9	10.9	259	57.5	56.5	10.6	259	29.9	29.4	5.7
26	43	1.9	-1.3	-1.4	66	2.7	-2.5	-1.1	354	0.9	0.1	-0.9	266	19.4	19.4	1.3	263	40.3	40.0	4.9	262	52.2	51.7	7.1	257	35.0	34.1	8.0
27	39	4.1	-2.6	-3.2	59	2.1	-1.8	-1.1	270	0.2	0.2	0.0	267	22.4	22.4	1.1	265	49.8	49.6	4.2	263	54.4	54.0	6.4	256	52.0	50.5	12.6
28	62	2.1	-1.9	-1.0	60	1.6	-1.4	-0.8	151	1.0	-0.5	0.9	271	18.8	18.8	-0.3	265	48.0	47.8	3.8	262	52.8	52.3	7.0	260	33.4	32.9	5.8
29	47	1.8	-1.3	-1.2	70	1.5	-1.4	-0.5	60	0.8	-0.7	-0.4	272	17.5	17.5	-0.7	264	42.0	41.8	4.3	257	54.1	52.6	12.5	263	32.6	32.4	4.0
30	33	2.4	-1.3	-2.0	67	0.8	-0.7	-0.3	201	1.9	0.7	1.8	272	17.8	17.8	-0.7	264	46.4	46.2	4.5	262	61.1	60.5	8.3	273	40.0	40.0	-1.8
31	16	1.9	-0.5	-1.8	112	0.5	-0.5	0.2	223	3.7	2.5	2.7	263	15.9	15.8	2.0	272	46.2	46.2	-1.6	269	56.7	56.7	0.7	284	17.0	16.5	-4.1

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	105	4.3	-4.2	1.1	180	1.2	0.0	1.2	250	4.0	3.8	1.4	272	11.5	11.5	-0.5	261	23.5	23.2	3.6	252	25.4	24.1	7.9	251	11.7	11.1	3.8
2	99	2.6	-2.6	0.4	189	1.2	0.2	1.2	268	3.4	3.4	0.1	270	12.1	12.1	0.0	259	23.3	22.9	4.3	250	25.9	24.3	9.0	245	14.0	12.7	6.0
3	75	2.4	-2.3	-0.6	162	2.0	-0.6	1.9	288	2.9	2.8	-0.9	274	9.8	9.8	-0.7	261	23.6	23.3	3.8	254	24.0	23.0	6.8	254	12.3	11.8	3.3
4	76	2.1	-2.0	-0.5	159	3.6	-1.3	3.4	252	2.8	2.7	0.9	265	11.1	11.1	0.9	259	22.6	22.2	4.3	254	27.4	26.4	7.4	265	15.0	14.9	1.3
5	71	2.4	-2.3	-0.8	149	2.3	-1.2	2.0	251	3.7	3.5	1.2	274	11.5	11.5	-0.9	263	22.1	21.9	2.7	259	24.7	24.2	4.9	265	9.5	9.5	0.8
6	56	1.8	-1.5	-1.0	159	1.4	-0.5	1.3	263	4.0	4.0	0.5	269	10.9	10.9	0.2	260	24.5	24.1	4.3	258	24.6	24.0	5.2	263	14.4	14.3	1.8
7	63	1.8	-1.6	-0.8	180	1.6	0.0	1.6	251	4.2	4.0	1.4	270	13.1	13.1	0.1	264	23.7	23.6	2.4	259	26.7	26.2	4.9	262	15.3	15.2	2.1
8	105	2.3	-2.2	0.6	174	1.9	-0.2	1.9	240	4.4	3.8	2.2	272	14.6	14.6	-0.5	265	28.5	28.4	2.4	260	28.0	27.6	5.0	248	16.7	15.5	6.2
9	104	3.0	-2.9	0.7	141	2.2	-1.4	1.7	252	5.2	4.9	1.6	271	13.7	13.7	-0.3	266	24.9	24.8	1.7	266	24.7	24.6	1.6	272	15.0	15.0	-0.6
10	82	2.1	-2.1	-0.3	177	2.2	-0.1	2.2	267	4.3	4.3	0.2	270	13.3	13.3	0.1	263	23.4	23.2	2.7	259	26.7	26.2	5.0	262	12.8	12.7	1.8
11	32	2.5	-1.3	-2.1	197	1.0	0.3	1.0	260	4.6	4.5	0.8	276	14.7	14.6	-1.6	263	24.5	24.3	2.8	251	25.7	24.3	8.3	269	10.0	10.0	0.1
12	35	1.2	-0.7	-1.0	221	0.9	0.6	0.7	269	4.5	4.5	0.1	277	13.8	13.7	-1.6	259	24.7	24.3	4.6	249	28.4	26.5	10.3	265	12.3	12.3	1.0
13	27	2.8	-1.3	-2.5	187	1.6	0.2	1.6	276	4.5	4.5	-0.5	274	13.1	13.1	-1.0	267	23.8	23.8	1.3	252	27.5	26.2	8.4	272	14.0	14.0	-0.4
14	75	1.6	-1.5	-0.4	177	2.0	-0.1	2.0	259	4.9	4.8	0.9	268	13.9	13.9	0.5	272	26.6	26.6	-0.8	263	26.0	25.8	3.0	264	14.1	14.0	1.5
15	355	2.4	0.2	-2.4	216	1.9	1.1	1.5	254	5.8	5.6	1.6	272	15.5	15.5	-0.5	266	26.9	26.8	1.8	261	30.1	29.7	4.7	271	15.5	15.5	-0.2
16	13	3.1	-0.7	-3.0	247	0.8	0.7	0.3	253	4.7	4.5	1.4	269	12.9	12.9	0.2	265	26.0	25.9	2.2	261	25.4	25.1	4.0	267	11.5	11.5	0.6
17	100	2.9	-2.9	0.5	176	2.7	-0.2	2.7	259	4.6	4.5	0.9	264	12.3	12.2	1.2	259	23.1	22.7	4.3	265	26.2	26.1	2.2	255	13.5	13.0	3.5
18	81	1.3	-1.3	-0.2	171	2.4	-0.4	2.4	251	5.3	5.0	1.7	276	11.1	11.0	-1.2	263	25.9	25.7	3.1	270	25.9	25.9	0.2	266	11.0	11.0	0.8
19	42	2.4	-1.6	-1.8	197	1.0	0.3	1.0	274	5.3	5.3	-0.4	267	13.9	13.9	0.8	264	26.7	26.6	2.6	259	27.6	27.1	5.2	259	14.5	14.2	2.8
20	356	2.8	0.2	-2.8	286	1.5	1.4	-0.4	272	5.1	5.1	-0.2	274	13.5	13.5	-0.9	267	23.9	23.9	1.4	261	26.7	26.4	4.1	265	17.3	17.2	1.5
21	13	2.3	-0.5	-2.2	223	2.1	1.4	1.5	276	5.6	5.6	-0.6	272	13.9	13.9	-0.5	265	26.4	26.3	2.1	255	27.0	26.1	6.9	265	17.0	16.9	1.6
22	41	2.8	-1.8	-2.1	209	1.8	0.9	1.6	264	5.1	5.1	0.5	275	13.4	13.3	-1.2	262	25.4	25.2	3.5	254	27.1	26.1	7.4	255	13.8	13.3	3.5
23	27	3.3	-1.5	-2.9	196	1.5	0.4	1.4	279	4.0	4.0	-0.6	273	14.2	14.2	-0.8	263	24.1	23.9	3.1	258	26.5	25.9	5.6	266	14.0	14.0	1.0
24	51	3.2	-2.5	-2.0	180	1.3	0.0	1.3	260	3.6	3.5	0.6	272	13.5	13.5	-0.4	268	23.9	23.9	0.9	256	24.8	24.0	6.1	256	14.6	14.2	3.6
25	64	3.7	-3.3	-1.6	157	1.3	-0.5	1.2	257	4.1	4.0	0.9	271	12.5	12.5	-0.2	267	24.0	24.0	1.2	262	25.4	25.1	3.7	263	14.5	14.4	1.7
26	49	1.8	-1.4	-1.2	219	2.2	1.4	1.7	255	4.3	4.2	1.1	277	12.1	12.0	-1.4	268	23.6	23.6	0.9	257	26.1	25.5	5.7	247	12.9	11.9	5.0
27	48	2.8	-2.1	-1.9	188	1.4	0.2	1.4	259	4.4	4.3	0.8	277	13.0	12.9	-1.5	266	23.0	22.9	1.7	254	27.2	26.1	7.5	259	16.7	16.4	3.1
28	45	3.7	-2.6	-2.6	225	1.3	0.9	0.9	270	3.9	3.9	0.0	278	14.3	14.2	-1.9	267	25.1	25.1	1.1	264	27.3	27.2	2.8	264	16.2	16.1	1.6
29	44	4.2	-2.9	-3.0	198	0.6	0.2	0.6	273	4.2	4.2	-0.2	280	13.1	12.9	-2.3	271	24.8	24.8	-0.5	263	26.2	26.0	3.2	274	13.5	13.5	-0.9
30	59	2.1	-1.8	-1.1	202	2.2	0.8	2.0	262	4.9	4.8	0.7	276	12.9	12.8	-1.3	259	24.8	24.4	4.6	259	25.7	25.3	4.7	265	14.2	14.1	1.3
31	15	2.7	-0.7	-2.6	216	1.7	1.0	1.4	263	5.0	5.0	0.6	277	14.6	14.5	-1.9	269	24.2	24.2	0.5	268	26.1	26.1	0.7	275	15.4	15.3	-1.3

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	2	2.4	-0.1	-2.4	263	2.4	2.4	0.3	260	5.5	5.4	1.0	275	13.9	13.8	-1.2	268	25.3	25.3	0.9	271	27.1	27.1	-0.7	275	14.7	14.7	-1.2
2	6	2.9	-0.3	-2.9	270	1.5	1.5	0.0	263	4.7	4.7	0.6	274	12.9	12.9	-1.0	271	29.3	29.3	-0.6	259	25.3	24.9	4.7	262	15.4	15.3	2.1
3	28	2.4	-1.1	-2.1	255	2.4	2.3	0.6	266	4.8	4.8	0.3	272	13.4	13.4	-0.4	272	27.0	27.0	-0.8	263	27.8	27.6	3.4	254	17.1	16.5	4.6
4	31	2.9	-1.5	-2.5	238	1.9	1.6	1.0	265	5.2	5.2	0.5	268	14.2	14.2	0.6	272	25.8	25.8	-0.8	265	27.0	26.9	2.3	264	15.1	15.0	1.5
5	13	4.5	-1.0	-4.4	277	2.3	2.3	-0.3	267	6.2	6.2	0.3	274	15.0	15.0	-1.0	272	27.2	27.2	-0.8	261	28.3	27.9	4.6	263	14.0	13.9	1.7
6	67	2.8	-2.6	-1.1	239	1.7	1.5	0.9	250	4.1	3.9	1.4	283	13.7	13.4	-3.0	265	26.2	26.1	2.2	261	26.5	26.1	4.3	256	10.5	10.2	2.5
7	48	3.9	-2.9	-2.6	232	1.6	1.3	1.0	258	4.3	4.2	0.9	287	12.5	12.0	-3.6	270	23.5	23.5	-0.2	264	25.4	25.2	2.8	260	12.1	11.9	2.0
8	3	3.6	-0.2	-3.6	273	1.9	1.9	-0.1	257	4.1	4.0	0.9	278	13.6	13.5	-2.0	272	25.2	25.2	-1.1	262	26.0	25.8	3.6	269	17.1	17.1	0.4
9	25	5.0	-2.1	-4.5	270	0.6	0.6	0.0	287	4.2	4.0	-1.2	287	12.6	12.1	-3.6	279	24.7	24.4	-4.0	272	26.6	26.6	-0.7	269	13.0	13.0	0.3
10	30	3.6	-1.8	-3.1	360	0.4	0.0	-0.4	267	3.4	3.4	0.2	287	11.8	11.3	-3.5	274	22.3	22.2	-1.5	271	25.5	25.5	-0.3	270	13.7	13.7	0.1
11	37	4.4	-2.6	-3.5	143	0.5	-0.3	0.4	271	4.1	4.1	-0.1	281	11.7	11.5	-2.2	272	23.3	23.3	-0.9	269	23.8	23.8	0.5	254	12.1	11.6	3.3
12	61	3.1	-2.7	-1.5	175	1.2	-0.1	1.2	248	3.2	3.0	1.2	272	12.4	12.4	-0.4	272	25.1	25.1	-0.7	260	25.9	25.5	4.5	259	15.2	14.9	3.0
13	45	2.1	-1.5	-1.5	207	1.3	0.6	1.2	238	5.3	4.5	2.8	267	13.1	13.1	0.8	263	24.4	24.2	2.9	256	25.9	25.1	6.4	262	16.6	16.4	2.4
14	47	1.9	-1.4	-1.3	248	2.2	2.0	0.8	236	6.1	5.1	3.4	266	15.2	15.2	1.0	265	26.8	26.7	2.4	252	26.4	25.2	8.0	258	14.9	14.6	3.1
15	27	2.8	-1.3	-2.5	305	2.1	1.7	-1.2	238	6.2	5.2	3.3	270	14.7	14.7	0.1	268	25.8	25.8	1.1	263	28.5	28.3	3.6	263	13.8	13.7	1.8
16	15	2.3	-0.6	-2.2	290	2.7	2.5	-0.9	231	4.8	3.7	3.0	264	15.6	15.5	1.5	258	27.3	26.7	5.9	251	27.5	26.0	9.0	249	12.9	12.0	4.6
17	354	3.8	0.4	-3.8	299	1.8	1.6	-0.9	241	5.0	4.4	2.4	264	15.3	15.2	1.5	259	26.6	26.1	4.9	252	28.4	27.0	8.9	260	13.8	13.6	2.3
18	348	4.5	0.9	-4.4	288	1.6	1.5	-0.5	242	6.0	5.3	2.8	273	16.8	16.8	-0.9	260	27.2	26.8	4.9	251	29.3	27.7	9.5	258	15.6	15.2	3.3
19	353	3.3	0.4	-3.3	280	2.2	2.2	-0.4	245	6.3	5.7	2.7	269	15.3	15.3	0.3	263	24.8	24.6	2.9	255	25.2	24.3	6.6	252	15.6	14.8	4.9
20	354	5.6	0.6	-5.6	302	3.2	2.7	-1.7	247	4.9	4.5	1.9	273	14.9	14.9	-0.7	264	25.0	24.9	2.5	253	23.9	22.9	6.8	265	9.4	9.4	0.9
21	356	4.0	0.3	-4.0	336	1.7	0.7	-1.6	254	4.3	4.1	1.2	274	14.4	14.4	-1.0	266	25.8	25.7	2.0	259	26.4	25.9	5.0	269	13.9	13.9	0.3
22	17	4.2	-1.2	-4.0	328	1.3	0.7	-1.1	268	3.3	3.3	0.1	277	13.9	13.8	-1.7	269	21.5	21.5	0.4	263	22.5	22.3	2.9	265	13.2	13.1	1.2
23	52	2.3	-1.8	-1.4	301	1.2	1.0	-0.6	250	3.0	2.8	1.0	280	13.3	13.1	-2.2	272	20.9	20.9	-0.7	268	24.4	24.4	1.0	264	11.7	11.6	1.2
24	5	2.4	-0.2	-2.4	308	1.6	1.3	-1.0	228	4.2	3.1	2.8	271	12.6	12.6	-0.2	270	21.9	21.9	0.0	261	23.2	22.9	3.7	261	12.4	12.3	1.9
25	358	3.4	0.1	-3.4	301	1.7	1.5	-0.9	231	4.6	3.6	2.9	279	11.0	10.9	-1.7	270	20.8	20.8	0.1	261	21.2	20.9	3.3	263	11.8	11.7	1.4
26	7	4.0	-0.5	-4.0	299	2.5	2.2	-1.2	251	4.6	4.3	1.5	271	12.7	12.7	-0.2	268	22.9	22.9	0.8	268	24.6	24.6	1.0	259	15.6	15.3	2.9
27	5	4.2	-0.4	-4.2	324	2.7	1.6	-2.2	251	4.9	4.6	1.6	276	12.6	12.5	-1.4	264	25.7	25.6	2.7	265	25.1	25.0	2.0	263	15.5	15.4	1.9
28	22	4.8	-1.8	-4.4	275	2.1	2.1	-0.2	236	4.5	3.7	2.5	275	11.2	11.2	-1.0	272	25.8	25.8	-0.8	266	24.9	24.8	1.6	256	12.2	11.8	2.9
29	52	3.6	-2.8	-2.2	155	1.4	-0.6	1.3	224	2.9	2.0	2.1	265	8.5	8.5	0.7	255	19.9	19.2	5.1	242	23.3	20.5	11.1	256	17.1	16.6	4.0

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	39	3.3	-2.1	-2.6	337	2.1	0.8	-1.9	240	4.4	3.8	2.2	280	12.1	11.9	-2.1	268	25.4	25.4	0.8	261	25.6	25.3	4.1	262	13.7	13.6	2.0
2	42	3.1	-2.1	-2.3	351	2.6	0.4	-2.6	250	2.9	2.7	1.0	276	11.4	11.3	-1.2	271	20.9	20.9	-0.5	265	24.5	24.4	2.3	257	13.1	12.8	3.0
3	24	4.3	-1.7	-3.9	344	2.2	0.6	-2.1	232	2.9	2.3	1.8	277	10.6	10.5	-1.2	272	22.8	22.8	-0.8	269	25.8	25.8	0.4	261	12.9	12.7	2.0
4	23	4.0	-1.6	-3.7	351	1.2	0.2	-1.2	230	3.1	2.4	2.0	273	10.8	10.8	-0.6	270	21.7	21.7	0.0	267	22.1	22.1	1.2	261	7.9	7.8	1.3
5	359	6.1	0.1	-6.1	335	2.9	1.2	-2.6	240	4.2	3.6	2.1	269	10.6	10.6	0.1	270	20.8	20.8	-0.1	265	21.6	21.5	1.7	266	12.0	12.0	0.9
6	4	5.1	-0.4	-5.1	333	2.9	1.3	-2.6	220	4.3	2.8	3.3	274	11.3	11.3	-0.7	266	21.2	21.2	1.3	267	21.9	21.9	1.3	261	11.0	10.9	1.7
7	353	4.2	0.5	-4.2	324	2.2	1.3	-1.8	228	5.0	3.7	3.3	268	11.1	11.1	0.3	267	22.8	22.8	1.1	262	24.6	24.4	3.3	266	14.8	14.8	1.1
8	20	5.3	-1.8	-5.0	340	2.0	0.7	-1.9	211	4.4	2.3	3.8	265	12.2	12.2	1.1	261	25.5	25.2	4.0	262	27.5	27.2	3.9	262	13.9	13.8	2.0
9	4	4.0	-0.3	-4.0	324	3.2	1.9	-2.6	209	5.0	2.4	4.4	267	12.2	12.2	0.7	262	26.0	25.7	3.8	263	27.0	26.8	3.4	259	15.3	15.0	2.9
10	17	4.2	-1.2	-4.0	337	2.6	1.0	-2.4	202	5.7	2.1	5.3	258	12.3	12.0	2.6	265	24.6	24.5	2.3	265	28.1	28.0	2.6	262	10.8	10.7	1.5
11	6	5.0	-0.5	-5.0	313	3.5	2.6	-2.4	219	5.0	3.2	3.9	267	11.5	11.5	0.6	270	24.9	24.9	0.2	263	26.5	26.3	3.3	252	11.4	10.9	3.5
12	4	3.1	-0.2	-3.1	323	3.1	1.9	-2.5	225	4.7	3.3	3.3	279	11.6	11.5	-1.8	271	22.8	22.8	-0.3	268	26.9	26.9	1.0	271	16.1	16.1	-0.3
13	351	5.0	0.8	-4.9	337	2.5	1.0	-2.3	219	5.0	3.2	3.9	278	11.7	11.6	-1.7	269	24.9	24.9	0.4	264	27.2	27.1	2.8	263	14.7	14.6	1.7
14	11	5.3	-1.0	-5.2	357	4.0	0.2	-4.0	210	4.2	2.1	3.6	273	10.2	10.2	-0.6	275	20.7	20.6	-1.7	265	23.4	23.3	2.2	270	12.1	12.1	0.1
15	360	4.2	0.0	-4.2	314	2.8	2.0	-1.9	213	3.5	1.9	2.9	282	9.2	9.0	-1.9	268	20.0	20.0	0.6	266	23.2	23.2	1.5	261	10.3	10.2	1.7
16	2	3.4	-0.1	-3.4	322	3.1	1.9	-2.4	214	4.7	2.6	3.9	273	9.9	9.9	-0.6	266	17.9	17.8	1.4	258	21.0	20.6	4.3	251	9.4	8.9	3.1
17	3	4.4	-0.2	-4.4	324	3.6	2.1	-2.9	197	5.8	1.7	5.5	267	10.9	10.9	0.5	268	23.6	23.6	1.0	254	27.2	26.1	7.6	264	13.6	13.5	1.5
18	359	4.8	0.1	-4.8	322	3.7	2.3	-2.9	213	4.4	2.4	3.7	271	9.6	9.6	-0.1	267	19.4	19.4	0.9	255	21.2	20.5	5.4	261	10.6	10.5	1.6
19	13	6.1	-1.4	-5.9	337	3.6	1.4	-3.3	211	4.4	2.3	3.8	274	10.0	10.0	-0.7	261	20.2	19.9	3.2	259	22.9	22.5	4.4	255	13.3	12.9	3.4
20	18	5.2	-1.6	-5.0	325	3.3	1.9	-2.7	222	5.0	3.3	3.7	275	8.8	8.8	-0.7	267	20.1	20.1	1.1	263	24.6	24.4	3.0	277	9.3	9.2	-1.2
21	7	6.1	-0.7	-6.1	321	5.1	3.2	-4.0	226	4.7	3.4	3.3	278	9.9	9.8	-1.3	279	19.0	18.8	-2.9	265	21.8	21.7	1.9	277	9.6	9.5	-1.1
22	354	5.0	0.5	-5.0	324	3.9	2.3	-3.2	227	6.0	4.4	4.1	281	9.4	9.2	-1.8	271	20.4	20.4	-0.3	262	22.6	22.4	3.0	286	9.7	9.3	-2.7
23	11	5.6	-1.1	-5.5	341	4.3	1.4	-4.1	227	4.7	3.4	3.2	283	9.1	8.9	-2.1	273	20.4	20.4	-1.1	267	22.1	22.1	1.1	266	10.9	10.9	0.8
24	1	4.9	-0.1	-4.9	321	3.2	2.0	-2.5	241	3.7	3.2	1.8	283	8.8	8.6	-2.0	274	18.7	18.6	-1.4	268	22.1	22.1	0.8	248	7.3	6.8	2.7
25	360	3.3	0.0	-3.3	339	3.1	1.1	-2.9	257	4.5	4.4	1.0	281	8.5	8.3	-1.6	285	19.3	18.7	-4.9	271	24.9	24.9	-0.5	274	12.8	12.8	-0.8
26	3	6.3	-0.3	-6.3	347	3.5	0.8	-3.4	221	4.0	2.6	3.0	289	9.3	8.8	-3.0	287	19.7	18.8	-5.9	268	21.8	21.8	0.8	258	9.9	9.7	2.0
27	27	4.2	-1.9	-3.8	9	3.3	-0.5	-3.3	219	1.4	0.9	1.1	298	7.0	6.2	-3.3	282	17.4	17.0	-3.7	272	21.4	21.4	-0.9	272	10.9	10.9	-0.4
28	30	2.8	-1.4	-2.4	349	3.3	0.6	-3.2	146	0.7	-0.4	0.6	288	7.1	6.8	-2.2	283	17.6	17.1	-4.1	266	19.7	19.6	1.5	252	8.2	7.8	2.5
29	19	4.6	-1.5	-4.4	10	3.5	-0.6	-3.4	161	2.1	-0.7	2.0	279	6.5	6.4	-1.0	274	17.6	17.6	-1.2	261	22.1	21.8	3.6	241	6.8	6.0	3.3
30	7	4.2	-0.5	-4.2	327	3.5	1.9	-2.9	207	2.7	1.2	2.4	272	7.2	7.2	-0.2	266	18.4	18.4	1.2	260	21.9	21.5	3.9	253	8.3	7.9	2.4
31	359	5.3	0.1	-5.3	342	4.4	1.4	-4.2	231	4.5	3.5	2.8	265	7.4	7.4	0.6	264	20.0	19.9	2.0	256	20.6	20.0	5.0	275	8.2	8.2	-0.7

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	5	4.7	-0.4	-4.7	343	3.1	0.9	-3.0	207	3.5	1.6	3.1	273	7.9	7.9	-0.4	265	18.1	18.0	1.7	261	20.7	20.5	3.2	276	10.0	10.0	-1.0
2	13	5.3	-1.2	-5.2	337	4.4	1.7	-4.1	202	4.2	1.6	3.9	263	8.1	8.0	1.0	259	19.3	19.0	3.6	263	19.4	19.3	2.3	257	4.5	4.4	1.0
3	346	4.9	1.2	-4.8	341	4.0	1.3	-3.8	211	4.7	2.4	4.0	263	8.0	7.9	1.0	261	19.9	19.7	3.0	261	22.3	22.0	3.6	265	8.2	8.2	0.7
4	357	3.8	0.2	-3.8	339	5.0	1.8	-4.7	203	4.7	1.8	4.3	257	7.3	7.1	1.7	265	21.0	20.9	1.9	258	22.1	21.6	4.7	265	5.6	5.6	0.5
5	354	3.7	0.4	-3.7	346	3.7	0.9	-3.6	201	3.9	1.4	3.6	263	7.6	7.5	0.9	264	18.8	18.7	2.1	252	21.2	20.2	6.5	237	6.8	5.7	3.7
6	9	3.9	-0.6	-3.9	337	3.6	1.4	-3.3	199	4.3	1.4	4.1	285	6.1	5.9	-1.6	269	18.9	18.9	0.3	264	20.0	19.9	2.2	265	9.0	9.0	0.8
7	4	4.1	-0.3	-4.1	324	4.1	2.4	-3.3	205	4.2	1.8	3.8	278	6.7	6.6	-0.9	270	18.0	18.0	0.1	259	22.1	21.7	4.4	247	7.8	7.2	3.0
8	358	5.6	0.2	-5.6	320	5.0	3.2	-3.8	214	3.2	1.8	2.7	272	7.8	7.8	-0.3	264	20.8	20.7	2.0	254	23.3	22.3	6.6	246	10.5	9.6	4.3
9	331	4.6	2.2	-4.0	317	5.4	3.7	-3.9	225	4.4	3.1	3.1	274	7.9	7.9	-0.5	264	19.6	19.5	1.9	256	22.5	21.8	5.6	252	8.7	8.3	2.7
10	325	3.5	2.0	-2.9	320	4.5	2.9	-3.5	220	4.8	3.1	3.7	278	7.3	7.2	-1.0	268	18.6	18.6	0.8	260	22.0	21.6	4.0	268	8.8	8.8	0.3
11	345	4.9	1.3	-4.7	323	4.5	2.7	-3.6	228	4.7	3.5	3.2	279	6.1	6.0	-1.0	272	17.9	17.9	-0.5	265	20.1	20.0	1.7	272	7.1	7.1	-0.2
12	350	4.5	0.8	-4.4	340	4.6	1.6	-4.3	211	3.1	1.6	2.7	289	5.5	5.2	-1.8	269	15.5	15.5	0.4	262	18.0	17.8	2.5	258	8.5	8.3	1.7
13	347	4.1	0.9	-4.0	343	4.8	1.4	-4.6	212	2.6	1.4	2.2	267	6.8	6.8	0.3	259	17.2	16.9	3.3	255	19.7	19.1	5.0	255	7.0	6.8	1.8
14	338	2.9	1.1	-2.7	326	4.1	2.3	-3.4	205	4.1	1.7	3.7	261	8.0	7.9	1.3	258	17.1	16.7	3.7	249	22.1	20.6	8.1	246	9.9	9.1	4.0
15	345	4.3	1.1	-4.2	310	4.5	3.5	-2.9	227	4.7	3.4	3.2	272	7.4	7.4	-0.2	262	19.6	19.4	2.6	255	24.9	24.0	6.6	268	9.2	9.2	0.3
16	347	4.1	0.9	-4.0	328	4.9	2.6	-4.1	213	4.8	2.6	4.0	275	5.6	5.6	-0.5	267	17.5	17.5	0.8	254	22.7	21.8	6.4	269	8.0	8.0	0.1
17	338	4.8	1.8	-4.5	316	4.0	2.8	-2.9	226	4.2	3.0	2.9	285	5.0	4.8	-1.3	265	14.8	14.8	1.2	258	20.9	20.5	4.3	245	4.5	4.1	1.9
18	340	3.7	1.3	-3.5	325	4.0	2.3	-3.3	199	4.0	1.3	3.8	279	5.8	5.7	-0.9	273	15.1	15.1	-0.7	261	20.1	19.8	3.2	269	4.0	4.0	0.1
19	344	5.2	1.4	-5.0	327	5.1	2.8	-4.3	205	3.1	1.3	2.8	287	4.5	4.3	-1.3	268	14.6	14.6	0.5	256	20.5	19.9	5.0	272	4.8	4.8	-0.2
20	342	5.2	1.6	-4.9	337	5.6	2.2	-5.2	196	2.6	0.7	2.5	276	4.5	4.5	-0.5	259	15.3	15.0	2.8	251	19.6	18.5	6.4	245	5.9	5.3	2.5
21	352	5.2	0.7	-5.2	344	6.2	1.7	-6.0	197	1.4	0.4	1.3	280	4.7	4.6	-0.8	259	14.9	14.6	2.8	254	19.6	18.8	5.4	267	7.7	7.7	0.4
22	332	4.0	1.9	-3.5	346	5.6	1.3	-5.4	186	1.8	0.2	1.8	285	5.4	5.2	-1.4	265	17.0	16.9	1.4	260	19.3	19.0	3.3	266	3.0	3.0	0.2
23	348	4.9	1.0	-4.8	346	4.2	1.0	-4.1	192	2.9	0.6	2.8	283	4.4	4.3	-1.0	255	13.7	13.2	3.6	258	18.1	17.7	3.8	269	7.2	7.2	0.1
24	340	4.0	1.4	-3.8	332	4.2	2.0	-3.7	224	3.0	2.1	2.2	290	4.7	4.4	-1.6	268	13.5	13.5	0.5	249	18.3	17.1	6.6	318	3.0	2.0	-2.2
25	332	4.2	2.0	-3.7	328	3.8	2.0	-3.2	189	1.8	0.3	1.8	291	5.5	5.1	-2.0	274	14.9	14.9	-1.0	267	16.9	16.9	0.9	256	4.2	4.1	1.0
26	344	4.8	1.3	-4.6	339	5.3	1.9	-5.0	193	1.7	0.4	1.7	309	5.0	3.9	-3.2	278	13.3	13.2	-1.9	264	16.3	16.2	1.7	237	4.6	3.9	2.5
27	348	4.2	0.9	-4.1	345	4.8	1.2	-4.6	185	2.4	0.2	2.4	303	4.2	3.5	-2.3	274	13.5	13.5	-0.9	249	15.0	14.0	5.3	153	0.2	-0.1	0.2
28	314	3.3	2.4	-2.3	336	4.7	1.9	-4.3	192	1.9	0.4	1.9	310	3.8	2.9	-2.4	273	12.9	12.9	-0.6	255	13.9	13.5	3.5	234	2.4	1.9	1.4
29	301	3.1	2.7	-1.6	309	4.5	3.5	-2.8	203	1.5	0.6	1.4	321	4.9	3.1	-3.8	276	13.5	13.4	-1.5	257	14.7	14.3	3.2	257	2.2	2.1	0.5
30	334	3.0	1.3	-2.7	325	3.9	2.2	-3.2	229	2.9	2.2	1.9	309	4.3	3.3	-2.7	265	13.4	13.4	1.1	254	15.6	15.0	4.2	211	2.9	1.5	2.5

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	320	3.3	2.1	-2.5	322	4.3	2.7	-3.4	230	3.5	2.7	2.3	298	4.0	3.5	-1.9	268	12.6	12.6	0.5	260	13.3	13.1	2.2	190	3.6	0.6	3.5
2	328	2.5	1.3	-2.1	313	5.0	3.7	-3.4	280	2.2	2.2	-0.4	282	4.8	4.7	-1.0	262	15.0	14.8	2.2	254	16.9	16.2	4.7	228	4.6	3.4	3.1
3	340	3.8	1.3	-3.6	320	4.8	3.1	-3.7	223	2.6	1.8	1.9	307	3.0	2.4	-1.8	261	15.4	15.2	2.4	247	16.8	15.4	6.6	266	4.4	4.4	0.3
4	325	3.2	1.8	-2.6	331	5.3	2.6	-4.6	219	2.8	1.8	2.2	294	3.2	2.9	-1.3	267	13.0	13.0	0.7	247	16.7	15.3	6.6	197	4.2	1.2	4.0
5	342	3.9	1.2	-3.7	341	5.3	1.7	-5.0	169	1.6	-0.3	1.6	292	4.0	3.7	-1.5	260	12.4	12.2	2.1	254	16.6	16.0	4.6	206	3.9	1.7	3.5
6	346	4.9	1.2	-4.8	339	6.0	2.1	-5.6	176	2.6	-0.2	2.6	296	4.1	3.7	-1.8	267	11.7	11.7	0.7	245	13.9	12.6	5.8	214	2.5	1.4	2.1
7	353	3.4	0.4	-3.4	329	5.1	2.6	-4.4	191	2.1	0.4	2.1	321	2.1	1.3	-1.6	269	8.8	8.8	0.2	249	11.6	10.9	4.1	172	1.5	-0.2	1.5
8	297	2.5	2.2	-1.1	329	4.5	2.3	-3.9	208	1.9	0.9	1.7	329	2.7	1.4	-2.3	267	9.0	9.0	0.4	247	10.5	9.7	4.1	173	2.5	-0.3	2.5
9	293	3.4	3.1	-1.3	319	4.8	3.1	-3.6	238	1.9	1.6	1.0	340	2.9	1.0	-2.7	268	10.0	10.0	0.3	251	10.5	9.9	3.4	106	1.8	-1.7	0.5
10	296	3.2	2.9	-1.4	314	5.8	4.2	-4.0	247	3.0	2.8	1.2	297	3.7	3.3	-1.7	269	10.8	10.8	0.1	253	11.0	10.5	3.3	239	2.1	1.8	1.1
11	292	3.1	2.9	-1.2	309	5.3	4.1	-3.3	264	2.0	2.0	0.2	326	4.5	2.5	-3.7	278	10.1	10.0	-1.4	261	10.2	10.1	1.6	171	2.6	-0.4	2.6
12	303	2.7	2.3	-1.5	312	4.6	3.4	-3.1	275	1.1	1.1	-0.1	357	4.3	0.2	-4.3	279	7.6	7.5	-1.2	257	8.6	8.4	2.0	129	2.2	-1.7	1.4
13	331	3.3	1.6	-2.9	323	6.0	3.6	-4.8	236	0.4	0.3	0.2	356	4.3	0.3	-4.3	268	7.7	7.7	0.3	249	8.7	8.1	3.1	115	2.3	-2.1	1.0
14	311	3.5	2.6	-2.3	317	5.4	3.7	-3.9	315	0.6	0.4	-0.4	355	3.4	0.3	-3.4	269	5.0	5.0	0.1	238	7.5	6.4	4.0	129	4.4	-3.4	2.8
15	300	3.2	2.8	-1.6	302	4.7	4.0	-2.5	280	1.7	1.7	-0.3	23	3.0	-1.2	-2.8	267	5.4	5.4	0.3	250	7.7	7.3	2.6	143	2.5	-1.5	2.0
16	263	2.6	2.6	0.3	311	4.0	3.0	-2.6	220	0.8	0.5	0.6	323	2.6	1.6	-2.1	258	5.7	5.6	1.2	221	6.1	4.0	4.6	118	5.9	-5.2	2.8
17	243	2.5	2.2	1.1	307	4.1	3.3	-2.5	214	1.1	0.6	0.9	349	1.5	0.3	-1.5	271	5.6	5.6	-0.1	238	7.3	6.2	3.9	124	4.7	-3.9	2.6
18	262	2.9	2.9	0.4	297	3.7	3.3	-1.7	197	1.0	0.3	1.0	338	2.2	0.8	-2.0	268	5.8	5.8	0.2	244	9.5	8.5	4.2	109	2.1	-2.0	0.7
19	249	5.3	4.9	1.9	281	4.3	4.2	-0.8	261	2.0	2.0	0.3	345	3.5	0.9	-3.4	269	6.5	6.5	0.1	230	5.3	4.1	3.4	116	5.5	-5.0	2.4
20	241	5.8	5.1	2.8	287	4.2	4.0	-1.2	294	1.7	1.6	-0.7	341	4.0	1.3	-3.8	283	4.3	4.2	-1.0	234	6.3	5.1	3.7	108	6.0	-5.7	1.9
21	268	3.3	3.3	0.1	303	3.7	3.1	-2.0	302	0.9	0.8	-0.5	342	3.3	1.0	-3.1	302	2.8	2.4	-1.5	233	3.5	2.8	2.1	97	7.6	-7.5	0.9
22	289	2.4	2.3	-0.8	306	4.3	3.5	-2.5	27	0.2	-0.1	-0.2	355	2.3	0.2	-2.3	276	4.5	4.5	-0.5	221	6.6	4.3	5.0	109	5.0	-4.7	1.6
23	270	2.6	2.6	0.0	291	3.9	3.6	-1.4	259	0.5	0.5	0.1	27	3.4	-1.5	-3.0	289	4.0	3.8	-1.3	246	4.8	4.4	2.0	111	6.0	-5.6	2.2
24	266	3.1	3.1	0.2	295	3.3	3.0	-1.4	270	0.2	0.2	0.0	3	3.5	-0.2	-3.5	281	3.3	3.2	-0.6	226	3.9	2.8	2.7	108	4.4	-4.2	1.4
25	276	2.7	2.7	-0.3	292	3.7	3.4	-1.4	34	0.4	-0.2	-0.3	18	5.7	-1.8	-5.4	354	2.8	0.3	-2.8	208	2.7	1.3	2.4	99	8.1	-8.0	1.3
26	257	3.9	3.8	0.9	298	4.1	3.6	-1.9	356	1.4	0.1	-1.4	23	5.1	-2.0	-4.7	344	1.9	0.5	-1.8	189	3.3	0.5	3.3	102	10.9	-10.7	2.2
27	260	2.9	2.9	0.5	290	4.4	4.1	-1.5	309	0.6	0.5	-0.4	24	4.3	-1.7	-3.9	336	2.2	0.9	-2.0	209	2.6	1.3	2.3	103	10.9	-10.6	2.5
28	262	2.9	2.9	0.4	294	3.4	3.1	-1.4	257	0.9	0.9	0.2	17	3.1	-0.9	-3.0	288	0.9	0.9	-0.3	182	3.6	0.1	3.6	112	10.2	-9.5	3.8
29	259	3.6	3.5	0.7	272	3.2	3.2	-0.1	352	0.7	0.1	-0.7	37	2.0	-1.2	-1.6	264	1.8	1.8	0.2	199	3.1	1.0	2.9	125	8.1	-6.6	4.7
30	239	5.2	4.5	2.7	276	2.9	2.9	-0.3	255	1.1	1.1	0.3	5	2.2	-0.2	-2.2	263	2.4	2.4	0.3	215	3.5	2.0	2.9	103	12.6	-12.3	2.8
31	250	4.8	4.5	1.6	287	3.1	3.0	-0.9	170	2.2	-0.4	2.2	355	1.2	0.1	-1.2	245	1.7	1.5	0.7	163	2.4	-0.7	2.3	100	9.4	-9.3	1.6

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	252	2.3	2.2	0.7	274	3.2	3.2	-0.2	8	0.7	-0.1	-0.7	270	0.5	0.5	0.0	221	2.0	1.3	1.5	176	3.9	-0.3	3.9	98	14.1	-14.0	1.9
2	312	4.2	3.1	-2.8	301	2.9	2.5	-1.5	350	1.1	0.2	-1.1	360	0.9	0.0	-0.9	250	2.0	1.9	0.7	169	3.8	-0.7	3.7	104	13.2	-12.8	3.3
3	290	4.1	3.9	-1.4	277	3.1	3.1	-0.4	13	1.3	-0.3	-1.3	41	2.8	-1.8	-2.1	166	0.8	-0.2	0.8	137	3.7	-2.5	2.7	95	13.2	-13.2	1.1
4	310	3.5	2.7	-2.3	280	2.7	2.7	-0.5	61	1.8	-1.6	-0.9	48	3.8	-2.8	-2.5	120	0.8	-0.7	0.4	150	4.6	-2.3	4.0	90	15.3	-15.3	0.0
5	302	3.6	3.0	-1.9	268	3.5	3.5	0.1	24	1.0	-0.4	-0.9	23	2.1	-0.8	-1.9	153	1.1	-0.5	1.0	124	5.0	-4.1	2.8	96	14.4	-14.3	1.4
6	87	1.9	-1.9	-0.1	217	2.0	1.2	1.6	87	2.2	-2.2	-0.1	39	3.3	-2.1	-2.6	113	2.6	-2.4	1.0	137	5.2	-3.5	3.8	100	16.1	-15.8	2.9
7	217	3.9	2.3	3.1	230	3.9	3.0	2.5	94	1.4	-1.4	0.1	40	2.5	-1.6	-1.9	118	2.1	-1.9	1.0	114	5.7	-5.2	2.3	89	18.1	-18.1	-0.3
8	257	3.2	3.1	0.7	234	4.4	3.6	2.6	315	0.7	0.5	-0.5	79	1.5	-1.5	-0.3	121	3.3	-2.8	1.7	121	6.3	-5.4	3.3	89	17.1	-17.1	-0.4
9	249	3.9	3.6	1.4	233	4.8	3.8	2.9	232	1.8	1.4	1.1	180	0.4	0.0	0.4	81	2.5	-2.5	-0.4	108	4.8	-4.6	1.5	97	15.5	-15.4	1.8
10	262	4.9	4.9	0.7	230	6.0	4.6	3.9	216	1.4	0.8	1.1	45	0.6	-0.4	-0.4	91	4.0	-4.0	0.1	96	8.6	-8.6	0.9	89	18.1	-18.1	-0.3
11	247	4.9	4.5	1.9	233	6.3	5.0	3.8	231	0.6	0.5	0.4	81	2.0	-2.0	-0.3	102	4.3	-4.2	0.9	94	8.5	-8.5	0.6	84	18.4	-18.3	-1.8
12	254	5.2	5.0	1.4	252	5.4	5.1	1.7	333	0.7	0.3	-0.6	39	1.3	-0.8	-1.0	115	3.8	-3.4	1.6	108	7.3	-6.9	2.3	92	18.3	-18.3	0.7
13	256	4.9	4.7	1.2	252	5.1	4.8	1.6	231	1.3	1.0	0.8	217	1.0	0.6	0.8	127	5.0	-4.0	3.0	95	9.5	-9.5	0.9	85	19.7	-19.6	-1.7
14	272	4.6	4.6	-0.2	252	5.6	5.3	1.7	238	1.3	1.1	0.7	158	1.1	-0.4	1.0	79	3.8	-3.7	-0.7	92	10.5	-10.5	0.4	84	21.7	-21.6	-2.2
15	249	4.9	4.6	1.8	255	4.6	4.4	1.2	262	1.5	1.5	0.2	84	0.9	-0.9	-0.1	84	4.4	-4.4	-0.5	85	10.6	-10.6	-1.0	87	19.8	-19.8	-1.2
16	235	5.4	4.4	3.1	254	5.6	5.4	1.5	328	0.9	0.5	-0.8	58	0.9	-0.8	-0.5	93	4.5	-4.5	0.2	84	9.4	-9.3	-1.0	91	20.8	-20.8	0.5
17	244	7.4	6.7	3.2	253	6.8	6.5	2.0	289	1.8	1.7	-0.6	360	0.4	0.0	-0.4	89	5.3	-5.3	-0.1	91	11.7	-11.7	0.3	87	21.2	-21.2	-1.1
18	238	6.1	5.2	3.2	235	6.6	5.4	3.8	263	3.4	3.4	0.4	205	1.7	0.7	1.5	90	5.4	-5.4	0.0	85	12.1	-12.1	-1.0	92	22.0	-22.0	0.9
19	253	8.8	8.4	2.5	244	7.6	6.8	3.3	282	3.5	3.4	-0.7	344	0.7	0.2	-0.7	81	5.0	-4.9	-0.8	95	11.4	-11.4	0.9	89	22.3	-22.3	-0.2
20	239	8.6	7.4	4.4	249	9.2	8.6	3.3	266	4.3	4.3	0.3	311	0.9	0.7	-0.6	84	4.0	-4.0	-0.4	94	12.9	-12.9	1.0	86	23.5	-23.4	-1.6
21	249	8.6	8.0	3.1	249	8.7	8.1	3.1	259	5.2	5.1	1.0	270	1.5	1.5	0.0	89	4.6	-4.6	-0.1	92	13.3	-13.3	0.5	86	23.7	-23.6	-1.6
22	245	9.8	8.9	4.1	248	9.1	8.4	3.4	260	4.5	4.4	0.8	45	0.3	-0.2	-0.2	85	5.3	-5.3	-0.5	88	14.6	-14.6	-0.4	86	23.0	-22.9	-1.6
23	254	10.1	9.7	2.8	255	8.4	8.1	2.2	273	4.4	4.4	-0.2	304	0.4	0.3	-0.2	84	7.2	-7.2	-0.7	86	14.5	-14.5	-1.0	88	26.3	-26.3	-1.0
24	254	9.6	9.2	2.7	250	8.4	7.9	2.9	257	5.1	5.0	1.2	258	1.9	1.9	0.4	84	4.8	-4.8	-0.5	89	14.9	-14.9	-0.2	85	25.2	-25.1	-2.1
25	251	8.8	8.3	2.8	252	8.5	8.1	2.7	256	5.8	5.6	1.4	242	1.5	1.3	0.7	84	5.8	-5.8	-0.6	92	15.0	-15.0	0.5	84	25.8	-25.7	-2.6
26	243	7.7	6.9	3.5	240	8.7	7.6	4.3	259	5.6	5.5	1.1	63	0.4	-0.4	-0.2	77	6.8	-6.6	-1.5	84	16.5	-16.4	-1.6	87	25.7	-25.7	-1.2
27	244	8.8	7.9	3.8	248	8.1	7.5	3.0	255	5.2	5.0	1.3	360	1.1	0.0	-1.1	81	7.3	-7.2	-1.2	80	16.7	-16.4	-2.9	86	26.7	-26.6	-1.8
28	252	8.5	8.1	2.6	245	8.2	7.4	3.5	252	5.4	5.1	1.7	343	3.0	0.9	-2.9	75	7.1	-6.9	-1.8	82	17.6	-17.4	-2.6	81	27.1	-26.8	-4.2
29	260	8.9	8.8	1.6	248	9.8	9.1	3.6	252	5.9	5.6	1.8	9	0.6	-0.1	-0.6	90	8.7	-8.7	0.0	87	17.9	-17.9	-0.8	91	32.7	-32.7	0.6
30	259	8.7	8.6	1.6	245	9.5	8.6	4.0	253	5.6	5.4	1.6	306	0.9	0.7	-0.5	87	6.9	-6.9	-0.4	86	16.1	-16.1	-1.2	85	29.2	-29.1	-2.4

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	255	8.3	8.0	2.1	249	8.8	8.2	3.2	265	4.9	4.9	0.4	11	1.0	-0.2	-1.0	91	8.3	-8.3	0.1	97	17.6	-17.5	2.1	88	30.2	-30.2	-1.3
2	253	7.9	7.6	2.3	247	9.2	8.5	3.6	265	6.6	6.6	0.6	284	1.2	1.2	-0.3	90	5.6	-5.6	0.0	89	15.5	-15.5	-0.3	82	29.7	-29.4	-4.3
3	255	8.0	7.7	2.1	246	9.3	8.5	3.7	255	7.2	6.9	1.9	261	2.5	2.5	0.4	85	7.5	-7.5	-0.7	82	16.0	-15.8	-2.2	85	26.0	-25.9	-2.3
4	255	6.8	6.6	1.8	250	9.2	8.6	3.2	262	6.8	6.7	1.0	268	2.3	2.3	0.1	85	6.6	-6.6	-0.6	85	19.4	-19.3	-1.7	86	28.6	-28.5	-1.8
5	241	8.1	7.1	3.9	246	9.0	8.2	3.6	256	6.4	6.2	1.5	267	1.7	1.7	0.1	82	7.2	-7.1	-1.0	87	18.0	-18.0	-1.1	83	29.6	-29.4	-3.6
6	252	8.2	7.8	2.6	246	9.5	8.7	3.8	263	6.8	6.8	0.8	301	2.6	2.2	-1.3	82	8.3	-8.2	-1.2	86	18.0	-18.0	-1.3	86	25.7	-25.6	-1.9
7	255	7.3	7.0	1.9	253	9.1	8.7	2.7	261	7.3	7.2	1.1	4	1.4	-0.1	-1.4	79	8.8	-8.6	-1.7	84	16.7	-16.6	-1.8	85	30.0	-29.9	-2.5
8	252	9.5	9.0	2.9	253	8.7	8.3	2.5	272	6.6	6.6	-0.2	295	1.9	1.7	-0.8	85	7.6	-7.6	-0.7	77	18.3	-17.8	-4.1	88	31.8	-31.8	-1.1
9	260	9.0	8.9	1.6	256	10.1	9.8	2.4	265	7.4	7.4	0.7	293	1.3	1.2	-0.5	81	8.1	-8.0	-1.2	88	19.1	-19.1	-0.6	87	27.8	-27.8	-1.4
10	259	13.0	12.8	2.5	257	9.9	9.6	2.3	262	7.6	7.5	1.0	298	1.7	1.5	-0.8	83	6.4	-6.4	-0.8	82	18.9	-18.7	-2.5	83	29.4	-29.2	-3.4
11	256	10.0	9.7	2.5	252	9.6	9.1	3.0	264	7.6	7.6	0.8	288	1.6	1.5	-0.5	87	6.8	-6.8	-0.3	84	18.1	-18.0	-1.8	86	31.0	-30.9	-2.4
12	250	10.0	9.4	3.4	251	9.5	9.0	3.1	261	7.4	7.3	1.1	288	1.3	1.2	-0.4	88	7.6	-7.6	-0.2	88	20.9	-20.9	-0.8	90	29.6	-29.6	0.2
13	255	11.7	11.3	3.0	253	9.4	9.0	2.8	265	6.3	6.3	0.5	321	0.6	0.4	-0.5	81	9.2	-9.1	-1.4	84	19.8	-19.7	-2.2	85	28.0	-27.9	-2.6
14	254	10.2	9.8	2.8	250	9.1	8.6	3.1	263	7.6	7.5	0.9	29	1.3	-0.6	-1.1	81	8.3	-8.2	-1.3	84	21.1	-21.0	-2.1	84	26.6	-26.5	-2.6
15	251	10.5	9.9	3.5	250	11.0	10.4	3.7	260	8.4	8.3	1.4	315	1.0	0.7	-0.7	84	9.2	-9.1	-1.0	80	19.4	-19.1	-3.4	87	29.1	-29.1	-1.6
16	249	10.3	9.6	3.6	251	10.7	10.1	3.4	259	7.5	7.4	1.4	242	2.6	2.3	1.2	88	8.2	-8.2	-0.3	86	20.7	-20.6	-1.5	84	28.3	-28.1	-3.0
17	250	12.1	11.4	4.2	251	10.8	10.2	3.5	263	7.8	7.7	0.9	338	2.9	1.1	-2.7	88	8.5	-8.5	-0.3	86	18.9	-18.8	-1.4	79	32.9	-32.3	-6.4
18	248	10.9	10.1	4.1	251	10.6	10.0	3.5	260	8.8	8.7	1.6	254	2.2	2.1	0.6	77	8.7	-8.5	-1.9	85	19.1	-19.0	-1.6	80	27.8	-27.3	-5.0
19	253	11.1	10.6	3.3	253	11.1	10.6	3.3	255	8.1	7.8	2.1	247	2.5	2.3	1.0	91	7.9	-7.9	0.2	83	20.6	-20.4	-2.5	86	30.1	-30.0	-2.0
20	257	11.7	11.4	2.6	251	10.8	10.2	3.5	255	7.9	7.6	2.0	246	1.7	1.6	0.7	87	7.6	-7.6	-0.4	88	18.6	-18.6	-0.6	88	29.2	-29.2	-1.1
21	254	11.7	11.2	3.3	252	9.8	9.3	3.1	258	7.3	7.1	1.5	328	2.6	1.4	-2.2	75	8.4	-8.1	-2.1	87	19.9	-19.9	-1.1	87	30.2	-30.2	-1.5
22	257	10.0	9.7	2.3	254	9.6	9.2	2.6	251	6.5	6.2	2.1	351	1.3	0.2	-1.3	85	9.1	-9.1	-0.8	84	19.1	-19.0	-2.0	82	32.2	-31.9	-4.3
23	259	11.9	11.7	2.3	257	9.2	9.0	2.0	266	6.7	6.7	0.5	351	1.3	0.2	-1.3	83	9.0	-8.9	-1.1	88	21.6	-21.6	-0.7	83	32.2	-32.0	-3.8
24	265	11.2	11.2	1.0	265	9.4	9.4	0.9	271	6.5	6.5	-0.1	27	2.0	-0.9	-1.8	85	8.6	-8.6	-0.7	84	20.6	-20.5	-2.2	84	29.0	-28.8	-3.2
25	268	10.3	10.3	0.3	258	9.4	9.2	1.9	268	7.4	7.4	0.3	315	2.8	2.0	-2.0	93	8.6	-8.6	0.4	84	20.8	-20.7	-2.0	91	29.2	-29.2	0.7
26	266	12.5	12.5	0.8	252	10.4	9.9	3.2	264	8.1	8.0	0.9	306	1.9	1.5	-1.1	82	7.5	-7.4	-1.1	79	17.5	-17.2	-3.2	86	32.6	-32.5	-2.4
27	266	11.8	11.8	0.9	257	10.3	10.0	2.3	265	8.1	8.1	0.7	319	3.0	2.0	-2.3	79	7.7	-7.6	-1.5	82	18.6	-18.4	-2.5	91	26.6	-26.6	0.5
28	270	11.1	11.1	0.0	262	9.8	9.7	1.4	270	6.7	6.7	0.0	331	2.3	1.1	-2.0	86	7.9	-7.9	-0.6	86	21.0	-20.9	-1.5	88	29.2	-29.2	-1.1
29	262	10.6	10.5	1.5	257	10.0	9.8	2.2	269	7.9	7.9	0.1	332	2.1	1.0	-1.9	71	8.1	-7.7	-2.6	81	18.2	-18.0	-2.8	97	30.9	-30.7	3.8
30	252	9.9	9.4	3.0	253	9.9	9.5	2.9	269	11.5	11.5	0.2	314	3.3	2.4	-2.3	82	6.7	-6.6	-0.9	88	17.3	-17.3	-0.7	86	32.1	-32.0	-2.4
31	261	10.9	10.8	1.7	260	10.1	9.9	1.8	273	6.6	6.6	-0.3	356	1.6	0.1	-1.6	81	8.5	-8.4	-1.4	87	19.1	-19.1	-1.1	89	34.7	-34.7	-0.6

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	262	10.0	9.9	1.4	256	9.9	9.6	2.4	273	8.0	8.0	-0.4	352	2.1	0.3	-2.1	80	9.6	-9.5	-1.6	85	19.6	-19.5	-1.8	84	30.7	-30.5	-3.2
2	261	10.7	10.6	1.7	262	9.6	9.5	1.3	272	6.9	6.9	-0.3	338	1.6	0.6	-1.5	86	8.0	-8.0	-0.5	90	20.1	-20.1	0.0	83	29.6	-29.4	-3.6
3	262	8.4	8.3	1.1	258	9.2	9.0	1.9	265	6.9	6.9	0.6	40	2.6	-1.7	-2.0	81	8.5	-8.4	-1.3	81	18.9	-18.7	-3.0	89	29.0	-29.0	-0.7
4	266	11.0	11.0	0.8	256	9.8	9.5	2.4	268	7.0	7.0	0.3	332	2.4	1.1	-2.1	82	7.3	-7.2	-1.0	84	17.9	-17.8	-2.0	88	30.7	-30.7	-0.9
5	263	10.4	10.3	1.3	251	10.0	9.4	3.3	269	7.9	7.9	0.2	288	2.6	2.5	-0.8	92	7.7	-7.7	0.3	86	18.7	-18.7	-1.3	87	27.8	-27.8	-1.4
6	263	9.3	9.2	1.1	254	9.4	9.0	2.6	269	8.4	8.4	0.2	306	2.4	1.9	-1.4	79	6.8	-6.7	-1.3	85	17.3	-17.2	-1.4	87	27.2	-27.2	-1.2
7	265	10.4	10.4	1.0	255	9.5	9.2	2.4	272	7.9	7.9	-0.3	324	2.7	1.6	-2.2	80	7.8	-7.7	-1.3	84	19.1	-19.0	-2.0	91	27.9	-27.9	0.3
8	268	10.4	10.4	0.4	261	11.0	10.9	1.7	274	9.4	9.4	-0.7	305	2.8	2.3	-1.6	75	6.6	-6.4	-1.7	83	17.4	-17.3	-2.2	88	27.3	-27.3	-0.9
9	260	9.4	9.3	1.6	261	10.0	9.9	1.6	268	7.7	7.7	0.3	358	2.5	0.1	-2.5	78	8.5	-8.3	-1.8	89	18.8	-18.8	-0.4	88	30.4	-30.4	-0.9
10	263	10.0	9.9	1.2	259	8.7	8.6	1.6	276	6.9	6.9	-0.7	352	1.4	0.2	-1.4	86	7.7	-7.7	-0.6	85	18.3	-18.2	-1.5	93	29.4	-29.4	1.4
11	259	8.7	8.5	1.7	257	9.6	9.4	2.1	270	6.8	6.8	0.0	297	0.9	0.8	-0.4	79	8.6	-8.4	-1.6	90	17.5	-17.5	-0.1	89	29.5	-29.5	-0.7
12	270	11.2	11.2	0.0	261	10.6	10.5	1.6	266	7.7	7.7	0.6	319	1.8	1.2	-1.4	89	9.0	-9.0	-0.2	89	20.2	-20.2	-0.2	85	30.0	-29.9	-2.7
13	252	10.2	9.7	3.1	259	10.0	9.8	1.9	270	7.6	7.6	0.0	344	1.9	0.5	-1.8	76	8.9	-8.6	-2.2	88	20.6	-20.6	-0.6	88	27.7	-27.7	-0.9
14	254	11.0	10.6	3.0	259	10.9	10.7	2.0	270	8.0	8.0	0.0	326	2.2	1.2	-1.8	88	7.6	-7.6	-0.3	87	18.2	-18.2	-0.8	92	25.2	-25.2	0.8
15	262	9.5	9.4	1.3	264	9.2	9.2	0.9	271	6.6	6.6	-0.1	338	2.4	0.9	-2.2	83	7.6	-7.5	-0.9	87	17.7	-17.7	-0.9	88	27.7	-27.7	-0.8
16	264	8.0	8.0	0.8	262	8.7	8.6	1.2	287	5.7	5.4	-1.7	356	2.6	0.2	-2.6	74	7.1	-6.8	-1.9	88	18.1	-18.1	-0.5	94	25.4	-25.3	1.8
17	265	7.2	7.2	0.6	258	8.5	8.3	1.8	276	6.6	6.6	-0.7	323	2.0	1.2	-1.6	81	7.4	-7.3	-1.2	87	17.3	-17.3	-0.9	92	26.1	-26.1	0.8
18	269	8.0	8.0	0.1	261	8.3	8.2	1.3	273	5.9	5.9	-0.3	355	2.4	0.2	-2.4	91	6.9	-6.9	0.1	90	16.5	-16.5	0.0	87	25.4	-25.4	-1.3
19	265	6.7	6.7	0.6	257	8.1	7.9	1.8	287	6.1	5.8	-1.8	343	2.1	0.6	-2.0	80	8.8	-8.7	-1.6	87	18.1	-18.1	-1.0	90	29.5	-29.5	0.2
20	266	7.3	7.3	0.5	257	8.2	8.0	1.9	270	6.0	6.0	0.0	308	1.1	0.9	-0.7	89	7.7	-7.7	-0.1	85	18.2	-18.1	-1.7	88	29.4	-29.4	-0.9
21	264	6.9	6.9	0.7	256	8.1	7.9	1.9	271	5.8	5.8	-0.1	323	1.0	0.6	-0.8	86	9.2	-9.2	-0.6	88	19.0	-19.0	-0.8	86	24.6	-24.5	-1.9
22	261	6.1	6.0	0.9	254	7.3	7.0	2.0	265	5.3	5.3	0.5	21	2.8	-1.0	-2.6	84	9.3	-9.2	-1.0	85	18.6	-18.5	-1.5	90	24.5	-24.5	-0.2
23	265	6.2	6.2	0.5	255	7.0	6.8	1.8	272	4.6	4.6	-0.2	47	2.6	-1.9	-1.8	79	8.0	-7.9	-1.5	91	17.8	-17.8	0.2	92	26.7	-26.7	0.8
24	259	5.1	5.0	1.0	255	7.3	7.1	1.9	266	4.2	4.2	0.3	346	0.4	0.1	-0.4	91	7.9	-7.9	0.1	87	16.8	-16.8	-1.0	88	27.3	-27.3	-1.0
25	268	4.8	4.8	0.2	257	6.9	6.7	1.5	267	4.3	4.3	0.2	344	0.7	0.2	-0.7	90	6.7	-6.7	0.0	96	16.9	-16.8	1.9	87	26.1	-26.1	-1.2
26	252	6.3	6.0	1.9	254	8.0	7.7	2.2	266	4.9	4.9	0.3	323	2.6	1.6	-2.1	76	7.0	-6.8	-1.7	90	16.5	-16.5	-0.1	100	24.6	-24.2	4.4
27	264	8.0	8.0	0.8	256	7.9	7.7	1.9	278	6.0	5.9	-0.8	315	2.8	2.0	-2.0	75	7.6	-7.3	-2.0	87	15.6	-15.6	-0.9	87	22.7	-22.7	-1.1
28	266	7.8	7.8	0.5	261	8.7	8.6	1.4	280	5.5	5.4	-1.0	342	2.5	0.8	-2.4	82	6.9	-6.8	-0.9	86	14.7	-14.7	-0.9	88	22.9	-22.9	-0.6
29	270	7.5	7.5	0.0	259	8.2	8.0	1.6	269	6.2	6.2	0.1	298	1.7	1.5	-0.8	75	7.8	-7.5	-2.0	87	16.2	-16.2	-0.8	93	23.6	-23.6	1.2
30	262	7.2	7.1	1.0	253	7.5	7.2	2.2	272	5.3	5.3	-0.2	308	1.8	1.4	-1.1	85	5.6	-5.6	-0.5	87	16.7	-16.7	-0.8	92	24.5	-24.5	1.0
31	264	7.3	7.3	0.8	260	8.3	8.2	1.5	275	4.7	4.7	-0.4	324	1.4	0.8	-1.1	81	7.8	-7.7	-1.2	85	15.4	-15.3	-1.3	91	22.7	-22.7	0.2

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	274	7.9	7.9	-0.6	257	7.4	7.2	1.6	265	4.6	4.6	0.4	15	1.1	-0.3	-1.1	95	6.2	-6.2	0.5	89	15.3	-15.3	-0.4	84	22.2	-22.1	-2.2
2	270	7.0	7.0	0.0	266	5.7	5.7	0.4	279	3.3	3.3	-0.5	343	1.4	0.4	-1.3	82	7.4	-7.3	-1.0	93	14.3	-14.3	0.8	85	19.1	-19.0	-1.7
3	263	7.6	7.5	0.9	258	6.9	6.8	1.4	266	4.4	4.4	0.3	300	1.4	1.2	-0.7	80	6.7	-6.6	-1.2	83	14.4	-14.3	-1.8	90	26.0	-26.0	0.0
4	263	6.4	6.4	0.8	248	7.0	6.5	2.6	251	5.7	5.4	1.9	307	1.0	0.8	-0.6	84	5.9	-5.9	-0.6	92	14.8	-14.8	0.4	85	24.0	-23.9	-2.3
5	261	6.3	6.2	1.0	249	7.2	6.7	2.6	262	4.9	4.9	0.7	294	1.2	1.1	-0.5	83	7.7	-7.6	-1.0	88	14.9	-14.9	-0.4	88	23.0	-23.0	-0.8
6	261	5.2	5.1	0.8	256	7.0	6.8	1.7	266	4.4	4.4	0.3	280	1.1	1.1	-0.2	82	6.8	-6.7	-1.0	89	15.4	-15.4	-0.4	85	20.5	-20.4	-1.7
7	267	5.9	5.9	0.3	259	6.6	6.5	1.3	270	3.4	3.4	0.0	312	1.2	0.9	-0.8	74	5.6	-5.4	-1.5	91	12.4	-12.4	0.2	83	23.8	-23.6	-3.1
8	255	5.7	5.5	1.5	256	6.4	6.2	1.5	264	2.8	2.8	0.3	270	1.2	1.2	0.0	79	6.7	-6.6	-1.3	90	11.6	-11.6	-0.1	86	19.2	-19.1	-1.4
9	276	5.3	5.3	-0.6	266	5.5	5.5	0.4	272	2.6	2.6	-0.1	315	0.7	0.5	-0.5	80	5.5	-5.4	-1.0	93	11.9	-11.9	0.7	86	18.2	-18.1	-1.4
10	252	4.7	4.5	1.5	263	4.1	4.1	0.5	270	1.8	1.8	0.0	10	1.1	-0.2	-1.1	74	6.1	-5.9	-1.7	93	12.7	-12.7	0.7	85	21.0	-20.9	-1.9
11	270	3.5	3.5	0.0	264	2.9	2.9	0.3	261	1.3	1.3	0.2	10	1.1	-0.2	-1.1	78	6.7	-6.6	-1.4	91	14.3	-14.3	0.3	95	18.0	-17.9	1.5
12	268	3.3	3.3	0.1	262	3.0	3.0	0.4	270	0.6	0.6	0.0	28	1.7	-0.8	-1.5	82	6.7	-6.6	-0.9	91	13.9	-13.9	0.2	86	17.1	-17.1	-1.3
13	265	2.4	2.4	0.2	252	2.6	2.5	0.8	288	0.3	0.3	-0.1	49	0.9	-0.7	-0.6	87	5.8	-5.8	-0.3	102	12.9	-12.6	2.7	88	17.6	-17.6	-0.5
14	282	4.3	4.2	-0.9	252	2.8	2.7	0.9	257	0.9	0.9	0.2	7	0.8	-0.1	-0.8	84	6.4	-6.4	-0.7	95	12.8	-12.8	1.1	90	16.1	-16.1	0.1
15	283	4.9	4.8	-1.1	261	2.6	2.6	0.4	217	1.0	0.6	0.8	332	1.9	0.9	-1.7	88	5.4	-5.4	-0.2	96	11.4	-11.3	1.1	91	18.0	-18.0	0.4
16	285	4.8	4.6	-1.2	283	2.2	2.1	-0.5	203	0.8	0.3	0.7	356	1.6	0.1	-1.6	94	4.8	-4.8	0.3	105	10.6	-10.2	2.7	87	17.0	-17.0	-0.9
17	271	4.4	4.4	-0.1	293	1.5	1.4	-0.6	108	1.3	-1.2	0.4	332	1.5	0.7	-1.3	83	5.5	-5.5	-0.7	103	10.1	-9.9	2.2	88	16.0	-16.0	-0.5
18	264	3.6	3.6	0.4	302	1.3	1.1	-0.7	119	1.0	-0.9	0.5	333	0.9	0.4	-0.8	85	4.9	-4.9	-0.4	112	10.3	-9.5	3.9	86	14.0	-14.0	-1.1
19	267	3.7	3.7	0.2	305	1.6	1.3	-0.9	333	0.4	0.2	-0.4	34	0.7	-0.4	-0.6	102	5.1	-5.0	1.1	104	9.2	-8.9	2.2	93	14.0	-14.0	0.7
20	276	2.9	2.9	-0.3	321	0.6	0.4	-0.5	214	0.4	0.2	0.3	337	0.8	0.3	-0.7	107	4.5	-4.3	1.3	105	7.3	-7.1	1.9	94	14.0	-14.0	0.9
21	288	1.9	1.8	-0.6	11	0.5	-0.1	-0.5	102	1.9	-1.9	0.4	63	0.4	-0.4	-0.2	94	4.4	-4.4	0.3	116	8.0	-7.2	3.5	96	14.3	-14.2	1.4
22	317	2.6	1.8	-1.9	13	1.3	-0.3	-1.3	107	1.7	-1.6	0.5	48	1.2	-0.9	-0.8	97	4.6	-4.6	0.6	111	9.2	-8.6	3.3	95	13.2	-13.2	1.1
23	332	2.6	1.2	-2.3	360	1.7	0.0	-1.7	96	1.0	-1.0	0.1	53	0.5	-0.4	-0.3	98	4.1	-4.1	0.6	112	8.7	-8.0	3.3	92	11.2	-11.2	0.4
24	24	2.2	-0.9	-2.0	16	1.8	-0.5	-1.7	90	0.9	-0.9	0.0	27	1.6	-0.7	-1.4	101	4.6	-4.5	0.9	107	8.8	-8.4	2.6	96	13.9	-13.8	1.4
25	328	1.3	0.7	-1.1	356	1.4	0.1	-1.4	87	2.0	-2.0	-0.1	69	1.4	-1.3	-0.5	106	4.0	-3.8	1.1	106	7.5	-7.2	2.1	88	11.2	-11.2	-0.4
26	330	2.2	1.1	-1.9	33	2.0	-1.1	-1.7	54	2.2	-1.8	-1.3	29	2.3	-1.1	-2.0	84	3.1	-3.1	-0.3	114	6.7	-6.1	2.7	94	10.3	-10.3	0.7
27	340	2.9	1.0	-2.7	16	1.8	-0.5	-1.7	72	2.2	-2.1	-0.7	24	1.7	-0.7	-1.6	104	3.4	-3.3	0.8	99	5.3	-5.2	0.8	87	12.6	-12.6	-0.7
28	10	2.3	-0.4	-2.3	22	1.8	-0.7	-1.7	67	1.3	-1.2	-0.5	360	0.9	0.0	-0.9	114	2.2	-2.0	0.9	109	4.9	-4.6	1.6	101	12.4	-12.2	2.3
29	84	1.0	-1.0	-0.1	65	1.7	-1.5	-0.7	101	3.1	-3.0	0.6	72	1.6	-1.5	-0.5	125	1.6	-1.3	0.9	128	5.8	-4.6	3.6	91	13.0	-13.0	0.3
30	68	1.8	-1.7	-0.7	51	2.1	-1.6	-1.3	99	3.6	-3.6	0.6	63	0.2	-0.2	-0.1	107	1.0	-1.0	0.3	116	5.0	-4.5	2.2	86	11.8	-11.8	-0.8

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	83	1.7	-1.7	-0.2	79	1.6	-1.6	-0.3	83	2.3	-2.3	-0.3	20	1.2	-0.4	-1.1	117	2.7	-2.4	1.2	113	4.8	-4.4	1.9	93	11.7	-11.7	0.6
2	69	1.4	-1.3	-0.5	67	2.8	-2.6	-1.1	68	3.5	-3.2	-1.3	26	2.8	-1.2	-2.5	140	0.8	-0.5	0.6	129	5.0	-3.9	3.2	89	9.4	-9.4	-0.2
3	26	2.5	-1.1	-2.3	35	2.9	-1.7	-2.4	57	3.8	-3.2	-2.1	23	3.8	-1.5	-3.5	95	1.1	-1.1	0.1	148	6.6	-3.5	5.6	93	10.3	-10.3	0.6
4	340	2.9	1.0	-2.7	3	2.0	-0.1	-2.0	54	2.7	-2.2	-1.6	18	2.5	-0.8	-2.4	270	0.1	0.1	0.0	144	4.7	-2.8	3.8	97	8.1	-8.0	1.0
5	356	3.2	0.2	-3.2	25	2.6	-1.1	-2.4	53	3.1	-2.5	-1.9	12	2.5	-0.5	-2.4	157	1.3	-0.5	1.2	130	4.7	-3.6	3.0	97	9.0	-8.9	1.1
6	15	2.3	-0.6	-2.2	41	3.3	-2.2	-2.5	58	3.6	-3.0	-1.9	23	3.0	-1.2	-2.8	153	0.7	-0.3	0.6	149	3.9	-2.0	3.3	100	8.8	-8.7	1.5
7	63	2.8	-2.5	-1.3	47	3.3	-2.4	-2.2	72	3.6	-3.4	-1.1	43	2.5	-1.7	-1.8	159	0.9	-0.3	0.8	157	5.3	-2.1	4.9	101	9.5	-9.3	1.8
8	74	3.2	-3.1	-0.9	33	3.1	-1.7	-2.6	36	1.9	-1.1	-1.5	9	2.6	-0.4	-2.6	281	0.5	0.5	-0.1	168	3.3	-0.7	3.2	99	6.9	-6.8	1.1
9	63	5.6	-5.0	-2.5	45	3.7	-2.6	-2.6	62	2.6	-2.3	-1.2	36	3.7	-2.2	-3.0	270	0.4	0.4	0.0	168	4.5	-0.9	4.4	107	5.5	-5.3	1.6
10	55	5.2	-4.3	-3.0	45	3.8	-2.7	-2.7	48	3.9	-2.9	-2.6	46	3.0	-2.2	-2.1	140	0.8	-0.5	0.6	151	3.8	-1.8	3.3	101	6.3	-6.2	1.2
11	85	2.3	-2.3	-0.2	50	3.4	-2.6	-2.2	56	3.0	-2.5	-1.7	66	2.4	-2.2	-1.0	184	1.3	0.1	1.3	163	4.2	-1.2	4.0	100	6.7	-6.6	1.2
12	89	4.3	-4.3	-0.1	65	3.3	-3.0	-1.4	69	2.5	-2.3	-0.9	21	1.9	-0.7	-1.8	180	1.7	0.0	1.7	186	4.1	0.4	4.1	96	7.1	-7.1	0.8
13	141	1.9	-1.2	1.5	53	3.0	-2.4	-1.8	68	2.2	-2.0	-0.8	2	2.8	-0.1	-2.8	249	2.5	2.3	0.9	189	4.5	0.7	4.4	111	6.7	-6.3	2.4
14	157	1.5	-0.6	1.4	68	2.4	-2.2	-0.9	56	1.8	-1.5	-1.0	332	2.7	1.3	-2.4	262	4.2	4.2	0.6	208	5.9	2.8	5.2	134	3.5	-2.5	2.4
15	110	1.2	-1.1	0.4	55	2.4	-2.0	-1.4	65	1.9	-1.7	-0.8	353	3.1	0.4	-3.1	272	2.5	2.5	-0.1	206	7.0	3.1	6.3	109	3.6	-3.4	1.2
16	84	2.0	-2.0	-0.2	50	3.4	-2.6	-2.2	79	2.0	-2.0	-0.4	360	1.9	0.0	-1.9	263	2.3	2.3	0.3	209	7.6	3.7	6.6	108	7.6	-7.2	2.3
17	59	1.2	-1.0	-0.6	48	2.7	-2.0	-1.8	93	2.2	-2.2	0.1	10	2.7	-0.5	-2.7	261	3.3	3.3	0.5	202	5.0	1.9	4.6	118	4.7	-4.1	2.2
18	47	2.3	-1.7	-1.6	59	3.1	-2.7	-1.6	62	1.9	-1.7	-0.9	35	2.4	-1.4	-2.0	250	3.7	3.5	1.3	204	7.1	2.9	6.5	120	3.9	-3.4	2.0
19	34	2.5	-1.4	-2.1	47	3.3	-2.4	-2.2	82	1.4	-1.4	-0.2	360	2.0	0.0	-2.0	246	3.9	3.6	1.6	212	6.8	3.6	5.8	121	4.4	-3.8	2.3
20	54	2.2	-1.8	-1.3	53	4.5	-3.6	-2.7	87	1.9	-1.9	-0.1	354	3.1	0.3	-3.1	263	4.7	4.7	0.6	231	7.6	5.9	4.8	117	2.9	-2.6	1.3
21	59	2.3	-2.0	-1.2	72	3.6	-3.4	-1.1	90	2.0	-2.0	0.0	360	1.9	0.0	-1.9	244	4.1	3.7	1.8	222	5.0	3.3	3.7	119	2.1	-1.8	1.0
22	57	3.0	-2.5	-1.6	83	3.5	-3.5	-0.4	99	2.5	-2.5	0.4	321	2.2	1.4	-1.7	274	4.6	4.6	-0.3	242	6.4	5.6	3.0	70	1.5	-1.4	-0.5
23	62	2.6	-2.3	-1.2	77	3.5	-3.4	-0.8	68	1.1	-1.0	-0.4	299	2.3	2.0	-1.1	262	4.9	4.9	0.7	233	5.9	4.7	3.6	139	0.9	-0.6	0.7
24	72	2.9	-2.8	-0.9	70	3.2	-3.0	-1.1	57	1.7	-1.4	-0.9	332	1.5	0.7	-1.3	253	5.6	5.4	1.6	223	9.3	6.3	6.8	137	1.9	-1.3	1.4
25	66	3.5	-3.2	-1.4	80	3.6	-3.5	-0.6	139	1.1	-0.7	0.8	272	2.7	2.7	-0.1	244	8.0	7.2	3.5	231	10.9	8.4	6.9	190	2.2	0.4	2.2
26	82	2.7	-2.7	-0.4	78	3.4	-3.3	-0.7	167	1.8	-0.4	1.8	288	2.2	2.1	-0.7	255	7.9	7.6	2.0	234	10.3	8.3	6.1	198	0.9	0.3	0.9
27	76	4.5	-4.4	-1.1	86	4.2	-4.2	-0.3	85	1.1	-1.1	-0.1	298	1.9	1.7	-0.9	248	8.4	7.8	3.2	222	12.8	8.6	9.5	263	2.4	2.4	0.3
28	68	4.8	-4.4	-1.8	71	4.6	-4.4	-1.5	56	2.2	-1.8	-1.2	329	1.7	0.9	-1.5	250	9.2	8.6	3.2	233	15.3	12.2	9.2	209	2.6	1.3	2.3
29	67	5.0	-4.6	-2.0	75	4.9	-4.7	-1.3	65	1.4	-1.3	-0.6	309	2.8	2.2	-1.8	251	10.3	9.8	3.3	236	14.1	11.7	7.8	261	3.8	3.8	0.6
30	66	4.3	-3.9	-1.7	68	4.2	-3.9	-1.6	81	2.5	-2.5	-0.4	306	1.9	1.5	-1.1	264	7.6	7.6	0.8	237	12.8	10.7	7.0	197	1.0	0.3	1.0
31	79	3.8	-3.7	-0.7	80	5.1	-5.0	-0.9	96	3.1	-3.1	0.3	315	2.1	1.5	-1.5	250	8.6	8.1	3.0	240	11.6	10.0	5.8	222	1.2	0.8	0.9

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	63	6.3	-5.6	-2.9	83	4.6	-4.6	-0.6	80	2.2	-2.2	-0.4	2	2.6	-0.1	-2.6	261	7.1	7.0	1.1	239	11.6	9.9	6.0	283	1.7	1.7	-0.4
2	72	5.9	-5.6	-1.8	88	4.8	-4.8	-0.2	77	2.6	-2.5	-0.6	19	3.4	-1.1	-3.2	272	7.3	7.3	-0.2	240	10.3	8.9	5.2	139	1.1	-0.7	0.8
3	89	5.7	-5.7	-0.1	77	3.9	-3.8	-0.9	54	2.9	-2.3	-1.7	340	3.2	1.1	-3.0	261	7.7	7.6	1.2	231	11.7	9.1	7.3	319	0.9	0.6	-0.7
4	83	5.1	-5.1	-0.6	78	3.8	-3.7	-0.8	69	1.9	-1.8	-0.7	346	3.3	0.8	-3.2	258	7.9	7.7	1.6	229	11.7	8.8	7.7	262	3.6	3.6	0.5
5	80	4.0	-3.9	-0.7	88	3.0	-3.0	-0.1	84	1.8	-1.8	-0.2	360	3.7	0.0	-3.7	273	7.6	7.6	-0.4	236	13.3	11.0	7.4	234	1.9	1.5	1.1
6	85	4.2	-4.2	-0.4	78	3.4	-3.3	-0.7	62	2.4	-2.1	-1.1	9	3.2	-0.5	-3.2	253	7.5	7.2	2.2	241	12.2	10.7	5.9	263	1.7	1.7	0.2
7	94	5.1	-5.1	0.4	106	3.2	-3.1	0.9	78	1.9	-1.9	-0.4	360	1.6	0.0	-1.6	263	8.4	8.3	1.0	240	12.9	11.2	6.5	216	2.9	1.7	2.3
8	91	4.8	-4.8	0.1	108	2.6	-2.5	0.8	75	1.6	-1.5	-0.4	307	1.5	1.2	-0.9	253	8.9	8.5	2.6	230	13.5	10.4	8.6	297	1.3	1.2	-0.6
9	86	4.9	-4.9	-0.3	72	2.2	-2.1	-0.7	30	0.8	-0.4	-0.7	315	2.1	1.5	-1.5	265	9.6	9.6	0.9	234	13.2	10.7	7.7	67	0.8	-0.7	-0.3
10	95	4.5	-4.5	0.4	95	2.1	-2.1	0.2	90	0.7	-0.7	0.0	305	3.3	2.7	-1.9	266	8.2	8.2	0.6	246	12.2	11.1	5.0	230	2.3	1.8	1.5
11	94	4.3	-4.3	0.3	99	2.5	-2.5	0.4	101	0.5	-0.5	0.1	329	3.3	1.7	-2.8	265	9.6	9.6	0.9	248	12.3	11.4	4.7	265	3.2	3.2	0.3
12	77	4.0	-3.9	-0.9	87	1.9	-1.9	-0.1	77	1.3	-1.3	-0.3	334	3.0	1.3	-2.7	264	8.9	8.8	1.0	247	11.2	10.3	4.3	246	2.7	2.5	1.1
13	60	3.2	-2.8	-1.6	90	2.8	-2.8	0.0	55	3.2	-2.6	-1.8	348	3.0	0.6	-2.9	265	9.7	9.7	0.9	245	13.4	12.1	5.7	238	4.9	4.1	2.6
14	86	2.9	-2.9	-0.2	92	2.3	-2.3	0.1	57	3.1	-2.6	-1.7	27	2.5	-1.1	-2.2	257	9.6	9.4	2.1	242	15.6	13.7	7.4	276	5.5	5.5	-0.6
15	76	4.4	-4.3	-1.1	99	3.8	-3.8	0.6	48	2.5	-1.9	-1.7	310	0.8	0.6	-0.5	253	11.4	10.9	3.3	235	14.8	12.1	8.5	251	4.3	4.1	1.4
16	92	5.3	-5.3	0.2	101	4.1	-4.0	0.8	56	2.5	-2.1	-1.4	291	2.2	2.1	-0.8	251	10.8	10.2	3.5	236	14.0	11.6	7.9	245	7.2	6.5	3.1
17	91	4.3	-4.3	0.1	104	3.2	-3.1	0.8	104	1.2	-1.2	0.3	270	3.3	3.3	0.0	254	12.6	12.1	3.5	231	19.0	14.8	11.9	252	5.2	5.0	1.6
18	91	4.0	-4.0	0.1	100	2.3	-2.3	0.4	53	1.0	-0.8	-0.6	291	5.6	5.2	-2.0	256	13.1	12.7	3.2	238	18.1	15.3	9.6	240	6.2	5.4	3.1
19	66	2.7	-2.5	-1.1	97	2.6	-2.6	0.3	360	0.4	0.0	-0.4	276	5.9	5.9	-0.6	257	14.2	13.9	3.1	238	18.3	15.6	9.6	247	5.0	4.6	2.0
20	80	2.8	-2.8	-0.5	103	2.7	-2.6	0.6	297	0.7	0.6	-0.3	277	5.7	5.7	-0.7	261	15.2	15.0	2.3	234	20.0	16.1	11.8	252	9.4	8.9	2.9
21	81	3.2	-3.2	-0.5	72	2.0	-1.9	-0.6	243	0.4	0.4	0.2	277	5.0	5.0	-0.6	257	15.2	14.8	3.5	245	19.3	17.5	8.2	263	9.4	9.3	1.1
22	66	3.9	-3.6	-1.6	90	2.1	-2.1	0.0	315	0.3	0.2	-0.2	287	5.9	5.6	-1.7	256	17.1	16.6	4.0	238	20.5	17.4	10.9	255	9.1	8.8	2.3
23	79	4.4	-4.3	-0.8	108	2.0	-1.9	0.6	195	1.1	0.3	1.1	291	6.0	5.6	-2.2	266	15.7	15.7	1.2	237	18.7	15.6	10.3	253	8.2	7.8	2.4
24	92	3.5	-3.5	0.1	124	2.9	-2.4	1.6	41	0.9	-0.6	-0.7	295	4.7	4.2	-2.0	268	14.0	14.0	0.5	240	18.6	16.2	9.2	249	6.7	6.3	2.4
25	83	3.8	-3.8	-0.5	117	3.0	-2.7	1.4	326	0.4	0.2	-0.3	291	6.0	5.6	-2.2	269	14.2	14.2	0.3	250	18.8	17.6	6.5	267	6.7	6.7	0.4
26	52	2.9	-2.3	-1.8	90	2.4	-2.4	0.0	—	—	—	—	284	5.3	5.1	-1.3	257	13.7	13.4	3.0	248	18.1	16.7	6.9	258	5.8	5.7	1.2
27	82	3.5	-3.5	-0.5	97	1.6	-1.6	0.2	264	1.0	1.0	0.1	264	5.5	5.5	0.6	255	14.7	14.2	3.9	244	16.6	14.9	7.3	257	6.8	6.6	1.5
28	92	3.8	-3.8	0.1	107	1.4	-1.3	0.4	270	1.4	1.4	0.0	269	6.5	6.5	0.1	254	17.4	16.8	4.7	236	20.8	17.2	11.7	259	5.6	5.5	1.1
29	110	4.5	-4.2	1.5	120	3.0	-2.6	1.5	324	0.9	0.5	-0.7	262	6.7	6.6	0.9	253	16.6	15.9	4.9	240	21.6	18.7	10.9	243	9.1	8.1	4.1
30	55	2.9	-2.4	-1.7	114	1.7	-1.6	0.7	231	1.3	1.0	0.8	266	7.5	7.5	0.5	261	18.5	18.3	2.8	246	22.9	20.9	9.4	245	7.7	7.0	3.2

Daily Normals of Upper Air Winds (1971-2000)

MUMBAI **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	74	4.3	-4.1	-1.2	118	2.1	-1.9	1.0	279	1.2	1.2	-0.2	270	7.5	7.5	0.0	261	18.2	18.0	2.9	251	23.7	22.4	7.8	250	8.4	7.9	2.9
2	88	2.8	-2.8	-0.1	144	2.2	-1.3	1.8	240	0.8	0.7	0.4	269	7.8	7.8	0.2	255	16.1	15.6	4.1	242	21.5	19.0	10.0	252	9.5	9.0	3.0
3	88	3.2	-3.2	-0.1	149	2.3	-1.2	2.0	223	1.9	1.3	1.4	269	7.1	7.1	0.1	255	16.6	16.1	4.2	244	20.8	18.7	9.1	257	11.1	10.8	2.4
4	87	3.3	-3.3	-0.2	135	3.1	-2.2	2.2	239	2.7	2.3	1.4	272	5.7	5.7	-0.2	258	15.8	15.5	3.3	242	20.3	18.0	9.4	269	9.6	9.6	0.1
5	111	3.9	-3.6	1.4	151	2.3	-1.1	2.0	248	1.1	1.0	0.4	267	5.8	5.8	0.3	254	15.5	14.9	4.2	244	19.0	17.1	8.2	263	9.2	9.1	1.1
6	93	3.5	-3.5	0.2	127	2.5	-2.0	1.5	291	1.4	1.3	-0.5	276	6.1	6.1	-0.6	252	17.0	16.2	5.3	241	19.9	17.4	9.6	251	8.3	7.8	2.7
7	90	4.3	-4.3	0.0	126	1.7	-1.4	1.0	318	1.2	0.8	-0.9	270	4.8	4.8	0.0	256	17.6	17.1	4.2	243	22.5	20.0	10.4	266	8.6	8.6	0.6
8	88	3.7	-3.7	-0.1	131	2.9	-2.2	1.9	234	0.9	0.7	0.5	263	5.5	5.5	0.7	254	16.0	15.4	4.3	241	21.1	18.4	10.3	254	9.7	9.3	2.7
9	76	3.8	-3.7	-0.9	131	2.3	-1.7	1.5	270	1.7	1.7	0.0	269	7.1	7.1	0.1	259	17.0	16.7	3.1	248	22.3	20.7	8.4	252	7.6	7.2	2.3
10	86	3.9	-3.9	-0.3	97	2.3	-2.3	0.3	333	0.7	0.3	-0.6	282	6.6	6.4	-1.4	257	18.7	18.2	4.1	252	21.7	20.6	6.7	254	11.2	10.8	3.1
11	77	4.5	-4.4	-1.0	132	2.7	-2.0	1.8	333	0.2	0.1	-0.2	263	6.8	6.8	0.8	250	16.5	15.5	5.6	247	20.4	18.8	7.8	256	13.7	13.3	3.2
12	94	4.2	-4.2	0.3	116	2.5	-2.3	1.1	337	0.8	0.3	-0.7	258	6.9	6.8	1.4	250	18.0	16.9	6.2	243	24.1	21.5	10.9	255	11.6	11.2	2.9
13	103	4.5	-4.4	1.0	132	2.7	-2.0	1.8	360	0.7	0.0	-0.7	263	7.8	7.7	0.9	252	17.5	16.6	5.5	247	22.5	20.7	8.7	266	8.8	8.8	0.6
14	92	3.4	-3.4	0.1	138	2.4	-1.6	1.8	306	1.7	1.4	-1.0	269	7.2	7.2	0.1	263	16.5	16.4	2.1	254	21.5	20.7	5.9	262	10.4	10.3	1.4
15	111	4.5	-4.2	1.6	140	2.3	-1.5	1.8	295	1.9	1.7	-0.8	281	7.1	7.0	-1.4	268	18.7	18.7	0.6	254	23.4	22.5	6.3	280	11.0	10.8	-1.9
16	113	4.9	-4.5	1.9	136	2.8	-1.9	2.0	256	1.2	1.2	0.3	258	7.3	7.1	1.5	264	18.5	18.4	2.0	252	23.1	22.0	7.1	251	9.7	9.2	3.2
17	104	4.1	-4.0	1.0	129	3.2	-2.5	2.0	171	1.3	-0.2	1.3	260	7.1	7.0	1.2	263	19.2	19.1	2.2	250	23.3	21.9	7.9	254	12.1	11.6	3.3
18	103	4.0	-3.9	0.9	123	2.4	-2.0	1.3	167	1.3	-0.3	1.3	275	8.1	8.1	-0.7	269	19.2	19.2	0.5	260	26.5	26.1	4.8	267	14.0	14.0	0.8
19	117	3.8	-3.4	1.7	132	2.8	-2.1	1.9	255	1.1	1.1	0.3	270	8.1	8.1	0.0	269	19.6	19.6	0.4	257	25.7	25.1	5.6	262	13.4	13.3	1.8
20	99	4.4	-4.3	0.7	126	2.6	-2.1	1.5	315	1.6	1.1	-1.1	278	9.9	9.8	-1.4	266	19.2	19.2	1.2	258	24.0	23.5	4.8	270	15.6	15.6	-0.1
21	99	3.2	-3.2	0.5	133	1.9	-1.4	1.3	6	1.0	-0.1	-1.0	272	7.3	7.3	-0.2	259	19.8	19.4	3.9	253	25.0	23.9	7.2	260	15.6	15.4	2.7
22	105	3.1	-3.0	0.8	127	3.0	-2.4	1.8	321	1.4	0.9	-1.1	262	9.2	9.1	1.2	256	21.5	20.8	5.3	252	24.1	23.0	7.3	256	12.6	12.2	3.1
23	80	4.2	-4.1	-0.7	129	1.9	-1.5	1.2	272	2.7	2.7	-0.1	270	9.4	9.4	0.0	262	23.4	23.2	3.4	254	28.5	27.4	8.0	262	15.9	15.7	2.3
24	88	3.1	-3.1	-0.1	140	1.6	-1.0	1.2	283	3.7	3.6	-0.8	273	11.0	11.0	-0.5	265	24.6	24.5	2.2	256	30.4	29.5	7.5	264	19.5	19.4	2.1
25	85	2.2	-2.2	-0.2	177	1.7	-0.1	1.7	287	2.8	2.7	-0.8	278	9.9	9.8	-1.4	259	23.2	22.7	4.6	252	27.9	26.5	8.8	258	16.3	15.9	3.5
26	106	3.3	-3.2	0.9	171	1.8	-0.3	1.8	279	2.5	2.5	-0.4	265	10.4	10.4	0.9	260	24.4	24.0	4.4	259	31.2	30.6	6.2	257	18.9	18.4	4.2
27	105	2.8	-2.7	0.7	164	1.9	-0.5	1.8	279	3.3	3.3	-0.5	267	10.2	10.2	0.5	260	23.7	23.3	4.3	251	26.9	25.4	8.8	260	15.0	14.8	2.6
28	86	2.6	-2.6	-0.2	158	2.2	-0.8	2.0	278	2.7	2.7	-0.4	264	8.8	8.8	0.9	267	20.0	20.0	1.0	250	23.6	22.2	8.0	259	11.7	11.5	2.3
29	106	3.6	-3.5	1.0	139	2.3	-1.5	1.7	256	3.2	3.1	0.8	269	9.4	9.4	0.2	272	20.7	20.7	-0.6	259	26.1	25.7	4.8	263	10.5	10.4	1.3
30	87	1.9	-1.9	-0.1	169	2.5	-0.5	2.5	277	3.1	3.1	-0.4	270	11.6	11.6	0.1	267	22.8	22.8	1.2	253	26.0	24.9	7.5	258	12.3	12.0	2.5
31	73	2.7	-2.6	-0.8	157	2.1	-0.8	1.9	272	3.3	3.3	-0.1	263	11.5	11.4	1.4	261	23.9	23.6	3.8	256	27.5	26.7	6.6	266	13.1	13.1	1.0

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	64	3.4	-3.1	-1.5	258	2.4	2.3	0.5	285	5.5	5.3	-1.4	274	14.9	14.9	-1.0	268	30.3	30.3	1.1	264	31.8	31.6	3.6	260	18.0	17.7	3.2
2	86	2.6	-2.6	-0.2	282	2.4	2.3	-0.5	279	8.3	8.2	-1.3	272	15.7	15.7	-0.5	267	29.6	29.6	1.7	257	32.8	31.9	7.5	263	17.6	17.5	2.2
3	97	1.6	-1.6	0.2	296	2.5	2.3	-1.1	288	6.1	5.8	-1.9	278	15.3	15.1	-2.2	270	29.5	29.5	0.0	260	31.0	30.5	5.6	267	19.4	19.4	1.0
4	59	2.1	-1.8	-1.1	292	1.6	1.5	-0.6	297	6.3	5.6	-2.9	271	13.0	13.0	-0.3	264	29.7	29.5	3.1	257	33.0	32.1	7.5	266	17.4	17.4	1.1
5	21	2.2	-0.8	-2.1	315	1.3	0.9	-0.9	291	5.6	5.2	-2.0	273	13.7	13.7	-0.6	259	28.5	28.0	5.4	256	31.2	30.3	7.3	260	23.6	23.3	3.9
6	153	0.9	-0.4	0.8	315	0.7	0.5	-0.5	287	6.2	5.9	-1.8	272	16.9	16.9	-0.5	264	28.8	28.7	2.8	258	31.8	31.1	6.4	264	18.6	18.5	1.9
7	69	0.9	-0.8	-0.3	234	1.9	1.5	1.1	270	6.3	6.3	0.0	271	16.9	16.9	-0.2	263	29.4	29.2	3.8	260	33.3	32.8	5.8	263	16.9	16.8	2.2
8	48	2.8	-2.1	-1.9	236	2.7	2.2	1.5	273	6.4	6.4	-0.3	268	16.8	16.8	0.5	264	31.8	31.6	3.3	261	33.8	33.4	5.2	257	16.5	16.1	3.6
9	90	2.5	-2.5	0.0	208	1.5	0.7	1.3	266	6.8	6.8	0.5	272	17.8	17.8	-0.5	266	30.4	30.3	2.0	264	31.6	31.4	3.2	275	19.5	19.4	-1.8
10	71	2.1	-2.0	-0.7	243	1.3	1.2	0.6	287	7.0	6.7	-2.0	270	16.6	16.6	0.1	265	28.5	28.4	2.3	261	31.9	31.5	5.2	263	17.7	17.6	2.3
11	124	3.4	-2.8	1.9	209	2.6	1.3	2.3	266	7.5	7.5	0.5	266	15.5	15.5	1.0	261	28.4	28.1	4.2	254	31.9	30.7	8.6	257	16.3	15.9	3.6
12	69	2.6	-2.4	-0.9	253	1.4	1.3	0.4	268	7.4	7.4	0.3	273	17.7	17.7	-0.9	265	31.6	31.5	3.0	258	34.9	34.2	7.0	268	20.8	20.8	0.9
13	41	0.9	-0.6	-0.7	241	1.3	1.1	0.6	276	7.6	7.6	-0.8	275	17.4	17.3	-1.6	271	31.0	31.0	-0.6	259	34.7	34.0	6.9	263	18.9	18.8	2.2
14	68	1.6	-1.5	-0.6	234	1.9	1.5	1.1	281	7.0	6.9	-1.4	271	18.2	18.2	-0.4	269	33.1	33.1	0.7	260	34.4	33.9	6.1	259	21.6	21.2	4.0
15	135	1.4	-1.0	1.0	220	3.3	2.1	2.5	276	8.3	8.3	-0.9	272	19.3	19.3	-0.7	265	32.4	32.3	2.7	265	34.3	34.2	3.1	255	16.4	15.8	4.3
16	3	1.9	-0.1	-1.9	261	3.0	3.0	0.5	267	8.4	8.4	0.5	273	17.3	17.3	-1.0	266	30.6	30.5	2.3	262	33.5	33.2	4.4	258	17.9	17.5	3.6
17	52	2.9	-2.3	-1.8	267	2.2	2.2	0.1	284	8.5	8.2	-2.1	268	18.6	18.6	0.6	264	32.3	32.1	3.5	258	32.0	31.3	6.8	260	18.4	18.1	3.2
18	48	3.9	-2.9	-2.6	276	2.9	2.9	-0.3	278	7.6	7.5	-1.1	275	15.7	15.6	-1.5	264	32.2	32.0	3.4	262	30.9	30.6	4.4	264	17.0	16.9	1.8
19	55	2.1	-1.7	-1.2	240	1.6	1.4	0.8	283	8.1	7.9	-1.8	275	17.7	17.6	-1.6	268	31.4	31.4	1.1	259	33.8	33.2	6.2	261	17.1	16.9	2.6
20	331	1.3	0.6	-1.1	239	3.1	2.7	1.6	279	8.7	8.6	-1.4	280	18.9	18.6	-3.3	263	30.3	30.1	3.7	257	32.2	31.4	7.0	267	18.7	18.7	1.0
21	53	2.6	-2.1	-1.6	251	2.8	2.6	0.9	277	8.6	8.5	-1.0	276	18.7	18.6	-1.8	264	32.6	32.4	3.6	255	33.2	32.1	8.5	258	20.2	19.8	4.1
22	68	2.2	-2.0	-0.8	241	3.1	2.7	1.5	275	8.0	8.0	-0.7	280	17.7	17.4	-3.1	267	28.5	28.5	1.4	254	32.6	31.4	8.8	260	22.2	21.9	3.7
23	58	2.5	-2.1	-1.3	255	2.7	2.6	0.7	286	8.1	7.8	-2.2	277	16.9	16.8	-2.1	267	29.7	29.7	1.7	261	31.3	30.9	4.7	266	17.9	17.8	1.4
24	45	1.7	-1.2	-1.2	266	1.4	1.4	0.1	287	7.7	7.4	-2.2	278	17.5	17.3	-2.3	272	28.1	28.1	-1.0	264	31.0	30.8	3.4	273	19.0	19.0	-0.9
25	63	3.4	-3.0	-1.5	245	1.7	1.5	0.7	295	6.6	6.0	-2.8	275	15.5	15.4	-1.4	271	27.1	27.1	-0.3	258	27.5	26.9	5.9	255	19.8	19.2	5.0
26	95	2.4	-2.4	0.2	248	2.4	2.2	0.9	290	6.6	6.2	-2.2	270	16.4	16.4	0.1	270	27.7	27.7	-0.1	257	27.0	26.3	6.3	260	13.3	13.1	2.3
27	105	1.6	-1.5	0.4	230	3.0	2.3	1.9	284	7.6	7.4	-1.9	275	17.3	17.2	-1.6	268	28.4	28.4	1.1	257	32.8	31.9	7.5	261	17.6	17.4	2.9
28	111	3.1	-2.9	1.1	235	2.8	2.3	1.6	286	7.6	7.3	-2.1	275	19.4	19.3	-1.8	268	29.3	29.3	0.8	259	27.9	27.4	5.2	265	18.0	17.9	1.7
29	48	2.4	-1.8	-1.6	252	2.8	2.7	0.9	287	7.7	7.4	-2.2	281	18.6	18.3	-3.5	271	28.3	28.3	-0.3	265	29.9	29.8	2.8	264	22.3	22.2	2.3
30	73	1.4	-1.3	-0.4	236	2.7	2.2	1.5	279	8.1	8.0	-1.2	281	17.0	16.7	-3.1	266	30.3	30.2	2.0	266	30.1	30.0	2.3	264	18.6	18.5	2.1
31	56	1.1	-0.9	-0.6	246	3.4	3.1	1.4	271	9.1	9.1	-0.2	276	18.1	18.0	-2.0	265	30.5	30.4	2.7	260	32.6	32.1	5.5	258	19.0	18.6	3.9

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	17	1.4	-0.4	-1.3	228	3.6	2.7	2.4	277	10.6	10.5	-1.3	276	18.5	18.4	-1.8	267	30.9	30.9	1.4	268	30.8	30.8	0.9	272	18.9	18.9	-0.5
2	80	1.1	-1.1	-0.2	226	3.0	2.2	2.1	275	9.8	9.8	-0.8	275	17.9	17.8	-1.7	264	32.3	32.1	3.6	263	34.6	34.3	4.5	267	22.6	22.6	1.2
3	127	2.0	-1.6	1.2	238	3.1	2.6	1.6	271	8.1	8.1	-0.2	275	18.7	18.6	-1.7	265	32.2	32.1	2.7	256	36.6	35.5	9.0	263	21.9	21.7	2.7
4	81	1.9	-1.9	-0.3	236	2.7	2.2	1.5	277	8.4	8.3	-1.0	275	18.8	18.7	-1.8	268	30.3	30.3	1.1	267	31.2	31.2	1.4	264	21.3	21.2	2.1
5	54	2.6	-2.1	-1.5	272	3.1	3.1	-0.1	269	9.6	9.6	0.2	280	19.0	18.7	-3.3	271	33.4	33.4	-0.7	265	34.5	34.4	3.2	269	23.8	23.8	0.6
6	58	4.6	-3.9	-2.4	257	1.8	1.8	0.4	276	9.2	9.2	-0.9	281	18.6	18.2	-3.7	272	30.6	30.6	-1.1	268	35.2	35.2	1.1	270	17.8	17.8	0.0
7	63	2.8	-2.5	-1.3	255	2.0	1.9	0.5	278	8.2	8.1	-1.1	279	16.0	15.8	-2.6	274	27.1	27.0	-2.0	268	29.1	29.1	1.2	274	15.9	15.9	-1.0
8	9	1.3	-0.2	-1.3	259	3.2	3.1	0.6	268	6.8	6.8	0.2	280	15.6	15.3	-2.8	272	28.0	28.0	-0.9	264	29.2	29.0	3.3	274	16.9	16.9	-1.1
9	347	2.8	0.6	-2.7	259	3.2	3.1	0.6	273	10.0	10.0	-0.6	285	18.7	18.1	-4.7	271	29.3	29.3	-0.3	267	32.8	32.8	1.7	266	15.4	15.4	1.1
10	40	2.5	-1.6	-1.9	247	2.6	2.4	1.0	287	8.4	8.1	-2.4	285	15.8	15.3	-4.1	278	27.8	27.5	-4.1	272	28.5	28.5	-0.9	274	15.2	15.2	-1.1
11	35	2.1	-1.2	-1.7	246	2.4	2.2	1.0	276	8.9	8.8	-1.0	284	16.7	16.2	-4.0	273	28.8	28.8	-1.6	271	28.7	28.7	-0.3	266	14.3	14.3	0.9
12	52	2.3	-1.8	-1.4	224	3.0	2.1	2.2	278	6.7	6.6	-0.9	275	17.6	17.5	-1.5	273	30.4	30.4	-1.5	265	33.2	33.1	3.1	266	17.4	17.4	1.1
13	38	2.3	-1.4	-1.8	234	2.7	2.2	1.6	267	8.0	8.0	0.4	278	17.2	17.0	-2.3	271	29.5	29.5	-0.7	270	33.3	33.3	-0.1	269	20.4	20.4	0.5
14	85	1.2	-1.2	-0.1	232	3.7	2.9	2.3	264	8.3	8.3	0.9	273	16.5	16.5	-0.8	264	31.8	31.6	3.6	260	33.6	33.1	5.7	260	17.5	17.3	2.9
15	18	0.9	-0.3	-0.9	234	2.4	1.9	1.4	260	7.8	7.7	1.3	268	18.2	18.2	0.5	265	35.0	34.9	3.1	260	34.5	34.0	6.1	259	20.1	19.7	4.0
16	52	1.1	-0.9	-0.7	221	2.8	1.8	2.1	257	8.7	8.5	1.9	270	18.7	18.7	0.0	265	31.9	31.8	2.9	253	35.5	33.9	10.5	254	22.6	21.8	6.1
17	3	3.6	-0.2	-3.6	265	2.5	2.5	0.2	258	8.9	8.7	1.8	267	19.2	19.2	1.1	261	33.8	33.3	5.5	255	34.1	32.9	8.8	256	17.9	17.3	4.4
18	10	2.9	-0.5	-2.9	233	2.6	2.1	1.6	253	8.8	8.4	2.6	267	21.8	21.8	1.0	263	33.1	32.9	3.8	253	32.1	30.7	9.4	257	18.8	18.3	4.2
19	5	2.3	-0.2	-2.3	240	3.0	2.6	1.5	265	9.6	9.6	0.9	271	19.5	19.5	-0.2	267	30.1	30.1	1.4	255	31.8	30.7	8.4	260	18.0	17.7	3.0
20	35	3.2	-1.8	-2.6	196	2.9	0.8	2.8	260	8.9	8.8	1.5	271	18.8	18.8	-0.3	263	30.5	30.3	3.9	256	31.9	31.0	7.7	257	17.9	17.4	4.1
21	18	2.3	-0.7	-2.2	241	1.3	1.1	0.6	267	9.8	9.8	0.5	274	18.8	18.8	-1.2	257	30.9	30.2	6.7	252	31.0	29.4	9.8	260	20.7	20.4	3.5
22	3	3.3	-0.2	-3.3	285	2.4	2.3	-0.6	276	8.0	8.0	-0.8	277	17.9	17.8	-2.1	264	28.0	27.8	3.0	261	30.3	29.9	5.0	260	20.9	20.6	3.8
23	38	4.9	-3.0	-3.9	273	1.9	1.9	-0.1	271	8.6	8.6	-0.2	276	18.3	18.2	-1.8	268	28.2	28.2	0.8	261	30.9	30.5	5.0	270	16.1	16.1	0.1
24	71	2.1	-2.0	-0.7	212	1.9	1.0	1.6	267	7.6	7.6	0.4	276	17.5	17.4	-1.8	271	28.1	28.1	-0.6	263	29.2	29.0	3.4	263	14.8	14.7	1.7
25	34	0.7	-0.4	-0.6	262	2.2	2.2	0.3	272	7.5	7.5	-0.2	275	16.0	15.9	-1.3	267	26.4	26.4	1.4	256	29.2	28.4	6.9	261	16.7	16.5	2.7
26	21	2.2	-0.8	-2.1	246	3.5	3.2	1.4	269	8.4	8.4	0.2	275	17.4	17.3	-1.5	268	25.8	25.8	1.0	261	29.8	29.4	4.9	271	17.2	17.2	-0.4
27	60	3.4	-2.9	-1.7	241	2.6	2.3	1.3	269	9.4	9.4	0.1	274	17.0	17.0	-1.3	262	27.9	27.6	3.8	257	31.3	30.5	7.2	263	15.4	15.3	2.0
28	122	1.5	-1.3	0.8	239	3.3	2.8	1.7	269	8.2	8.2	0.1	276	15.2	15.1	-1.6	270	29.8	29.8	0.1	266	30.5	30.4	2.1	268	17.6	17.6	0.7
29	287	1.0	1.0	-0.3	342	1.9	0.6	-1.8	279	7.4	7.3	-1.2	278	15.1	15.0	-2.0	267	26.3	26.3	1.2	254	26.9	25.8	7.5	268	18.7	18.7	0.7

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	48	3.1	-2.3	-2.1	273	2.2	2.2	-0.1	269	6.7	6.7	0.1	274	16.5	16.5	-1.1	270	29.2	29.2	0.2	262	33.1	32.8	4.4	269	17.7	17.7	0.4
2	45	2.7	-1.9	-1.9	301	3.3	2.8	-1.7	265	8.5	8.5	0.8	278	16.1	15.9	-2.3	269	27.5	27.5	0.5	254	33.4	32.1	9.1	254	17.4	16.7	4.9
3	41	3.2	-2.1	-2.4	336	1.2	0.5	-1.1	280	6.5	6.4	-1.1	286	14.4	13.9	-3.9	270	27.3	27.3	-0.2	265	27.4	27.3	2.2	258	16.1	15.7	3.4
4	51	2.2	-1.7	-1.4	283	1.7	1.7	-0.4	292	7.1	6.6	-2.6	280	14.0	13.8	-2.5	274	25.4	25.3	-1.7	264	27.7	27.6	2.8	265	17.4	17.3	1.5
5	360	2.0	0.0	-2.0	278	0.7	0.7	-0.1	262	4.9	4.9	0.7	272	14.4	14.4	-0.5	260	26.5	26.1	4.5	256	29.2	28.3	7.0	259	15.8	15.5	3.1
6	85	2.2	-2.2	-0.2	234	1.7	1.4	1.0	260	7.7	7.6	1.4	276	15.8	15.7	-1.7	269	26.3	26.3	0.4	262	28.1	27.9	3.7	262	14.3	14.1	2.1
7	3	1.7	-0.1	-1.7	256	0.8	0.8	0.2	266	7.7	7.7	0.6	281	14.8	14.5	-2.8	271	24.5	24.5	-0.3	265	27.9	27.8	2.3	277	14.0	13.9	-1.8
8	355	2.3	0.2	-2.3	239	2.1	1.8	1.1	262	7.6	7.5	1.0	275	12.8	12.8	-1.1	264	27.0	26.9	2.7	265	29.7	29.6	2.8	266	16.1	16.1	1.0
9	24	3.4	-1.4	-3.1	222	1.5	1.0	1.1	267	6.0	6.0	0.3	275	13.4	13.4	-1.1	266	27.4	27.3	2.1	265	29.3	29.2	2.8	262	15.7	15.5	2.3
10	44	3.2	-2.2	-2.3	251	2.4	2.3	0.8	264	6.2	6.2	0.6	272	13.2	13.2	-0.5	263	25.4	25.2	3.1	259	31.0	30.4	6.0	264	18.7	18.6	1.8
11	92	2.3	-2.3	0.1	242	1.5	1.3	0.7	267	6.8	6.8	0.3	265	15.5	15.4	1.3	262	25.5	25.2	3.7	258	30.4	29.8	6.2	264	17.9	17.8	1.9
12	356	1.4	0.1	-1.4	268	3.7	3.7	0.1	266	8.6	8.6	0.6	274	16.4	16.4	-1.1	262	26.6	26.4	3.5	259	28.7	28.2	5.4	266	18.9	18.9	1.2
13	328	2.2	1.2	-1.9	279	3.2	3.2	-0.5	273	8.2	8.2	-0.4	274	15.4	15.4	-1.1	270	26.4	26.4	0.2	267	28.3	28.3	1.6	275	17.6	17.5	-1.5
14	355	3.3	0.3	-3.3	280	1.7	1.7	-0.3	263	7.8	7.7	0.9	286	15.9	15.3	-4.5	277	23.6	23.4	-2.7	271	26.4	26.4	-0.4	266	14.1	14.1	0.9
15	5	3.4	-0.3	-3.4	229	2.1	1.6	1.4	268	7.2	7.2	0.3	289	13.4	12.7	-4.3	286	20.4	19.6	-5.6	279	22.1	21.8	-3.4	276	13.3	13.2	-1.5
16	27	2.8	-1.3	-2.5	214	2.7	1.5	2.2	260	6.4	6.3	1.1	285	12.8	12.3	-3.4	269	23.1	23.1	0.6	266	23.9	23.9	1.5	265	13.2	13.1	1.2
17	71	1.8	-1.7	-0.6	257	2.2	2.1	0.5	267	6.5	6.5	0.3	282	13.4	13.1	-2.8	269	23.9	23.9	0.4	262	28.5	28.2	4.2	260	15.0	14.8	2.6
18	18	2.2	-0.7	-2.1	266	2.8	2.8	0.2	260	7.5	7.4	1.3	275	13.6	13.6	-1.1	268	24.9	24.9	0.9	262	27.1	26.8	3.9	261	13.4	13.3	2.0
19	349	4.2	0.8	-4.1	316	3.3	2.3	-2.4	266	8.0	8.0	0.5	282	14.6	14.3	-3.0	272	23.8	23.8	-0.7	262	28.3	28.0	3.8	260	15.1	14.9	2.6
20	22	2.4	-0.9	-2.2	310	2.3	1.8	-1.5	263	7.4	7.3	0.9	284	14.0	13.6	-3.5	269	25.2	25.2	0.4	265	28.2	28.1	2.4	274	16.4	16.4	-1.1
21	13	5.0	-1.1	-4.9	317	2.1	1.4	-1.5	261	8.2	8.1	1.3	283	13.4	13.1	-3.0	267	21.5	21.5	1.2	267	26.2	26.2	1.4	268	17.3	17.3	0.5
22	315	0.7	0.5	-0.5	303	2.0	1.7	-1.1	265	5.9	5.9	0.5	284	11.9	11.6	-2.8	272	23.0	23.0	-1.0	269	27.7	27.7	0.7	272	13.8	13.8	-0.5
23	345	3.4	0.9	-3.3	297	3.6	3.2	-1.6	263	7.3	7.2	0.9	288	12.6	12.0	-3.9	269	23.9	23.9	0.5	264	27.0	26.9	2.8	267	12.5	12.5	0.7
24	24	5.2	-2.1	-4.8	310	2.6	2.0	-1.7	259	7.5	7.4	1.4	273	12.3	12.3	-0.7	269	21.6	21.6	0.2	258	26.2	25.6	5.5	262	13.8	13.7	1.9
25	13	4.6	-1.0	-4.5	303	2.0	1.7	-1.1	255	7.3	7.1	1.9	282	12.1	11.8	-2.6	272	19.0	19.0	-0.7	258	29.2	28.6	5.9	261	17.8	17.6	2.8
26	354	6.0	0.6	-6.0	316	3.0	2.1	-2.2	255	7.0	6.8	1.8	288	12.0	11.4	-3.7	282	21.9	21.5	-4.4	264	27.4	27.3	2.8	261	19.6	19.3	3.2
27	11	6.1	-1.2	-6.0	291	0.9	0.8	-0.3	276	6.0	6.0	-0.6	297	10.6	9.4	-4.8	278	21.3	21.1	-2.9	266	26.3	26.2	1.9	272	13.0	13.0	-0.5
28	35	4.7	-2.7	-3.8	291	1.9	1.8	-0.7	284	6.2	6.0	-1.5	283	9.9	9.6	-2.3	280	19.2	18.9	-3.3	266	26.1	26.1	1.6	265	12.5	12.5	1.0
29	27	2.0	-0.9	-1.8	279	1.9	1.9	-0.3	281	6.3	6.2	-1.2	294	10.3	9.4	-4.2	275	21.6	21.5	-1.7	261	28.4	28.1	4.3	253	7.7	7.3	2.3
30	29	3.8	-1.8	-3.3	305	3.3	2.7	-1.9	276	6.3	6.3	-0.7	285	9.9	9.6	-2.5	267	19.8	19.8	1.2	259	26.3	25.8	5.1	252	12.0	11.4	3.8
31	23	2.5	-1.0	-2.3	322	2.8	1.7	-2.2	261	5.4	5.3	0.8	273	10.3	10.3	-0.6	263	21.6	21.5	2.5	254	25.5	24.6	6.9	264	14.6	14.5	1.5

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	22	1.6	-0.6	-1.5	315	1.8	1.3	-1.3	264	5.8	5.8	0.6	277	12.2	12.1	-1.5	272	20.4	20.4	-0.7	261	27.2	26.9	4.3	264	12.3	12.2	1.3
2	117	0.2	-0.2	0.1	292	2.2	2.0	-0.8	255	5.8	5.6	1.5	273	11.4	11.4	-0.6	261	23.4	23.1	3.7	257	29.0	28.3	6.4	266	15.1	15.1	1.0
3	50	3.1	-2.4	-2.0	298	3.0	2.6	-1.4	259	5.4	5.3	1.0	274	11.2	11.2	-0.8	263	25.1	24.9	3.1	257	27.8	27.1	6.3	270	11.2	11.2	0.0
4	231	2.8	2.2	1.8	281	2.1	2.1	-0.4	259	4.8	4.7	0.9	281	11.9	11.7	-2.3	266	22.7	22.6	1.7	262	26.1	25.8	3.7	256	8.4	8.2	2.0
5	180	1.2	0.0	1.2	263	3.4	3.4	0.4	251	5.5	5.2	1.8	276	11.0	10.9	-1.1	267	22.5	22.5	1.2	257	25.8	25.2	5.7	259	12.4	12.2	2.4
6	204	3.0	1.2	2.7	240	2.4	2.1	1.2	267	5.8	5.8	0.3	283	10.0	9.8	-2.2	268	20.8	20.8	0.8	264	23.2	23.1	2.6	253	11.3	10.8	3.2
7	272	3.2	3.2	-0.1	289	3.9	3.7	-1.3	278	5.6	5.5	-0.8	282	11.2	10.9	-2.4	276	21.4	21.3	-2.4	270	24.3	24.3	0.1	265	11.6	11.6	1.0
8	301	5.7	4.9	-3.0	298	3.0	2.6	-1.4	267	5.7	5.7	0.3	281	10.9	10.7	-2.1	271	24.8	24.8	-0.4	259	29.8	29.3	5.7	258	14.6	14.3	3.1
9	348	4.3	0.9	-4.2	292	2.9	2.7	-1.1	260	6.0	5.9	1.0	276	11.3	11.2	-1.2	270	22.5	22.5	0.0	254	28.0	26.9	7.7	257	15.0	14.6	3.3
10	20	3.0	-1.0	-2.8	328	3.2	1.7	-2.7	256	6.7	6.5	1.6	280	11.1	10.9	-1.9	271	22.5	22.5	-0.2	259	26.1	25.6	5.0	272	12.6	12.6	-0.5
11	284	3.7	3.6	-0.9	279	3.0	3.0	-0.5	260	5.9	5.8	1.0	286	10.6	10.2	-3.0	274	21.3	21.2	-1.6	268	25.8	25.8	1.1	272	11.0	11.0	-0.4
12	307	4.1	3.3	-2.5	318	3.8	2.5	-2.8	265	5.8	5.8	0.5	285	9.9	9.6	-2.6	275	22.2	22.1	-1.9	273	25.2	25.2	-1.2	271	10.2	10.2	-0.1
13	305	4.7	3.9	-2.7	286	4.0	3.8	-1.1	261	4.5	4.4	0.7	291	12.2	11.4	-4.3	272	20.1	20.1	-0.8	270	25.0	25.0	-0.1	276	10.0	9.9	-1.0
14	301	2.6	2.2	-1.3	308	3.1	2.4	-1.9	262	4.4	4.4	0.6	281	9.7	9.5	-1.9	262	22.0	21.8	2.9	256	25.2	24.4	6.2	260	12.6	12.4	2.1
15	312	2.8	2.1	-1.9	338	3.7	1.4	-3.4	256	4.2	4.1	1.0	275	10.0	10.0	-0.9	261	21.7	21.4	3.5	258	29.0	28.3	6.2	273	10.9	10.9	-0.6
16	321	1.3	0.8	-1.0	323	3.4	2.0	-2.7	262	6.2	6.1	0.9	279	9.5	9.4	-1.5	265	20.4	20.3	1.8	253	26.1	24.9	7.8	268	10.9	10.9	0.3
17	261	1.9	1.9	0.3	288	3.9	3.7	-1.2	274	6.3	6.3	-0.4	288	8.9	8.5	-2.8	267	19.8	19.8	1.1	256	26.2	25.4	6.5	265	8.6	8.6	0.7
18	303	2.4	2.0	-1.3	277	3.9	3.9	-0.5	270	5.4	5.4	0.0	290	9.2	8.7	-3.1	267	17.9	17.9	1.0	256	23.7	23.0	5.7	266	7.5	7.5	0.5
19	287	3.8	3.6	-1.1	302	2.8	2.4	-1.5	274	4.5	4.5	-0.3	290	9.0	8.5	-3.1	267	18.8	18.8	1.1	259	24.9	24.5	4.7	264	10.9	10.8	1.2
20	326	4.3	2.4	-3.6	321	2.8	1.8	-2.2	310	2.6	2.0	-1.7	295	8.2	7.4	-3.5	270	18.4	18.4	-0.1	259	22.7	22.3	4.3	251	9.6	9.1	3.2
21	311	5.6	4.2	-3.7	291	3.6	3.4	-1.3	281	3.6	3.5	-0.7	297	8.2	7.3	-3.7	270	15.7	15.7	-0.1	259	22.1	21.7	4.4	256	9.6	9.3	2.4
22	330	4.3	2.1	-3.7	327	3.5	1.9	-2.9	293	2.3	2.1	-0.9	280	7.6	7.5	-1.3	254	17.8	17.1	4.8	260	22.4	22.1	3.8	267	8.1	8.1	0.4
23	282	6.0	5.9	-1.3	280	3.9	3.8	-0.7	290	3.8	3.6	-1.3	282	7.7	7.5	-1.6	262	18.4	18.2	2.4	255	25.2	24.3	6.6	259	9.2	9.0	1.7
24	280	4.2	4.1	-0.7	308	4.1	3.2	-2.5	286	4.1	3.9	-1.1	290	7.8	7.3	-2.7	259	17.0	16.7	3.2	257	21.7	21.1	4.9	255	6.1	5.9	1.6
25	285	5.1	4.9	-1.3	293	4.9	4.5	-1.9	286	4.0	3.8	-1.1	290	8.7	8.2	-3.0	264	17.7	17.6	2.0	257	22.1	21.5	4.9	256	8.2	8.0	2.0
26	289	3.1	2.9	-1.0	312	3.9	2.9	-2.6	304	3.6	3.0	-2.0	297	7.2	6.4	-3.3	280	13.4	13.2	-2.3	266	18.7	18.7	1.3	262	9.0	8.9	1.3
27	297	5.7	5.1	-2.6	308	5.0	3.9	-3.1	309	2.7	2.1	-1.7	316	7.2	5.0	-5.2	280	15.1	14.9	-2.7	267	17.4	17.4	1.0	273	5.7	5.7	-0.3
28	312	5.4	4.0	-3.6	307	4.1	3.3	-2.5	289	2.8	2.6	-0.9	306	6.9	5.6	-4.1	271	16.5	16.5	-0.3	260	20.2	19.9	3.6	245	5.5	5.0	2.3
29	296	7.4	6.7	-3.2	307	5.1	4.1	-3.1	309	3.2	2.5	-2.0	301	6.3	5.4	-3.3	279	15.5	15.3	-2.5	258	18.7	18.3	3.9	253	5.5	5.3	1.6
30	312	5.7	4.2	-3.8	294	3.6	3.3	-1.5	290	3.2	3.0	-1.1	308	5.8	4.6	-3.6	271	16.4	16.4	-0.3	266	19.3	19.2	1.5	252	4.6	4.4	1.4

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	303	6.6	5.5	-3.6	311	5.0	3.8	-3.3	299	3.7	3.2	-1.8	299	6.6	5.8	-3.2	268	17.3	17.3	0.7	257	20.4	19.8	4.7	241	6.0	5.3	2.9
2	305	5.5	4.5	-3.2	296	5.1	4.6	-2.2	292	3.5	3.3	-1.3	290	5.9	5.6	-2.0	260	18.1	17.8	3.2	250	18.9	17.8	6.5	228	5.4	4.0	3.6
3	301	9.1	7.8	-4.6	302	5.2	4.4	-2.7	298	3.2	2.8	-1.5	289	6.4	6.0	-2.1	264	18.0	17.9	2.0	256	15.3	14.8	3.7	183	3.3	0.2	3.3
4	307	6.8	5.4	-4.1	316	4.3	3.0	-3.1	298	3.0	2.6	-1.4	305	6.1	5.0	-3.5	273	13.9	13.9	-0.7	258	15.5	15.2	3.1	223	5.0	3.4	3.6
5	337	5.4	2.1	-5.0	317	4.5	3.1	-3.3	320	2.5	1.6	-1.9	295	6.7	6.1	-2.8	263	13.7	13.6	1.6	257	18.0	17.6	4.0	239	4.1	3.5	2.1
6	306	3.1	2.5	-1.8	313	4.8	3.5	-3.3	315	3.0	2.1	-2.1	319	7.5	4.9	-5.7	270	14.1	14.1	-0.1	258	18.6	18.2	3.8	238	2.8	2.4	1.5
7	293	4.6	4.2	-1.8	306	4.9	4.0	-2.9	299	3.5	3.1	-1.7	306	5.9	4.8	-3.5	273	12.4	12.4	-0.7	258	16.2	15.8	3.4	265	3.6	3.6	0.3
8	254	5.2	5.0	1.4	307	4.6	3.7	-2.8	315	3.0	2.1	-2.1	313	5.6	4.1	-3.8	270	14.4	14.4	-0.1	257	16.7	16.3	3.8	258	5.0	4.9	1.0
9	306	5.3	4.3	-3.1	314	3.9	2.8	-2.7	309	3.6	2.8	-2.3	306	6.4	5.2	-3.8	266	13.3	13.3	0.9	257	16.3	15.9	3.8	297	1.3	1.2	-0.6
10	330	5.3	2.7	-4.6	314	4.7	3.4	-3.3	295	3.3	3.0	-1.4	292	5.5	5.1	-2.1	267	13.4	13.4	0.7	251	12.5	11.8	4.1	142	2.4	-1.5	1.9
11	342	4.3	1.3	-4.1	314	4.3	3.1	-3.0	285	3.1	3.0	-0.8	296	6.4	5.8	-2.8	268	15.8	15.8	0.6	248	16.5	15.3	6.3	178	2.9	-0.1	2.9
12	308	5.4	4.3	-3.3	302	4.5	3.8	-2.4	306	3.1	2.5	-1.8	319	6.2	4.1	-4.7	275	12.4	12.4	-1.1	253	15.1	14.4	4.4	208	3.0	1.4	2.6
13	307	6.1	4.9	-3.7	308	4.6	3.6	-2.8	338	3.5	1.3	-3.2	325	4.9	2.8	-4.0	266	10.2	10.2	0.8	250	12.3	11.6	4.2	212	3.4	1.8	2.9
14	302	5.1	4.3	-2.7	307	4.1	3.3	-2.5	336	3.7	1.5	-3.4	317	4.5	3.1	-3.3	268	8.8	8.8	0.3	249	12.4	11.6	4.4	151	3.1	-1.5	2.7
15	257	4.7	4.6	1.1	312	5.2	3.9	-3.5	316	3.6	2.5	-2.6	308	4.4	3.5	-2.7	271	9.9	9.9	-0.1	260	9.7	9.5	1.7	246	1.0	0.9	0.4
16	299	4.7	4.1	-2.3	303	6.3	5.3	-3.4	316	3.0	2.1	-2.2	305	4.4	3.6	-2.5	265	9.7	9.7	0.8	252	11.1	10.6	3.4	156	1.0	-0.4	0.9
17	315	7.5	5.3	-5.3	310	6.2	4.8	-4.0	306	2.2	1.8	-1.3	310	5.2	4.0	-3.3	271	10.8	10.8	-0.2	258	12.1	11.8	2.6	162	3.2	-1.0	3.0
18	309	7.7	6.0	-4.8	310	6.1	4.7	-3.9	301	4.8	4.1	-2.5	309	6.7	5.2	-4.2	274	9.2	9.2	-0.6	247	10.6	9.8	4.1	155	3.5	-1.5	3.2
19	313	8.7	6.4	-5.9	303	6.4	5.4	-3.5	316	3.0	2.1	-2.2	314	5.2	3.7	-3.6	277	9.8	9.7	-1.2	246	9.7	8.8	4.0	232	1.8	1.4	1.1
20	309	7.8	6.1	-4.9	319	6.5	4.3	-4.9	309	2.6	2.0	-1.6	312	6.3	4.7	-4.2	267	8.1	8.1	0.4	240	10.5	9.1	5.2	177	3.5	-0.2	3.5
21	309	7.6	5.9	-4.8	319	6.7	4.4	-5.0	343	2.8	0.8	-2.7	322	4.8	3.0	-3.8	268	7.8	7.8	0.3	236	11.0	9.1	6.1	164	2.6	-0.7	2.5
22	303	7.0	5.9	-3.8	324	5.2	3.1	-4.2	333	3.7	1.7	-3.3	317	5.1	3.5	-3.7	264	7.9	7.9	0.8	244	9.6	8.6	4.2	142	4.3	-2.7	3.4
23	300	6.1	5.3	-3.0	318	6.9	4.6	-5.1	341	3.9	1.3	-3.7	316	4.3	3.0	-3.1	271	7.8	7.8	-0.2	228	7.6	5.7	5.1	136	4.2	-2.9	3.0
24	310	8.7	6.6	-5.6	325	7.8	4.5	-6.4	321	2.6	1.6	-2.0	331	4.9	2.4	-4.3	262	7.8	7.7	1.1	231	9.2	7.2	5.8	111	5.7	-5.3	2.0
25	314	8.5	6.1	-5.9	323	7.3	4.4	-5.8	333	1.8	0.8	-1.6	338	4.3	1.6	-4.0	267	6.3	6.3	0.3	224	8.6	6.0	6.2	119	3.5	-3.1	1.7
26	302	8.0	6.8	-4.3	319	6.6	4.3	-5.0	341	1.8	0.6	-1.7	342	6.1	1.9	-5.8	277	3.9	3.9	-0.5	232	6.6	5.2	4.0	105	7.2	-6.9	1.9
27	292	7.9	7.3	-3.0	329	6.6	3.4	-5.6	345	2.3	0.6	-2.2	348	4.0	0.8	-3.9	279	4.7	4.6	-0.7	237	5.6	4.7	3.1	116	7.6	-6.9	3.3
28	302	8.4	7.1	-4.4	314	6.3	4.5	-4.4	309	2.6	2.0	-1.6	333	2.8	1.3	-2.5	267	4.4	4.4	0.2	237	5.6	4.7	3.1	117	6.1	-5.4	2.8
29	295	8.9	8.1	-3.7	313	6.7	4.9	-4.5	299	2.1	1.8	-1.0	316	3.5	2.4	-2.5	250	5.3	5.0	1.8	245	5.3	4.8	2.2	125	7.0	-5.7	4.0
30	289	8.4	8.0	-2.7	304	5.7	4.7	-3.2	285	1.6	1.5	-0.4	279	3.3	3.3	-0.5	248	4.3	4.0	1.6	215	5.8	3.3	4.8	101	6.0	-5.9	1.1
31	301	8.4	7.2	-4.3	316	4.9	3.4	-3.5	285	1.6	1.5	-0.4	293	2.6	2.4	-1.0	246	4.5	4.1	1.8	214	6.3	3.5	5.2	114	9.4	-8.6	3.9

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	303	7.0	5.9	-3.8	303	4.5	3.8	-2.5	350	2.2	0.4	-2.2	313	2.1	1.5	-1.4	234	3.1	2.5	1.8	206	6.2	2.7	5.6	103	11.2	-10.9	2.6
2	325	6.2	3.6	-5.1	322	5.4	3.3	-4.3	350	1.7	0.3	-1.7	320	2.6	1.7	-2.0	239	3.1	2.7	1.6	183	3.9	0.2	3.9	111	9.7	-9.0	3.5
3	293	6.1	5.6	-2.4	319	5.6	3.7	-4.2	346	2.9	0.7	-2.8	336	1.7	0.7	-1.6	241	1.8	1.6	0.9	195	2.7	0.7	2.6	101	10.7	-10.5	2.1
4	311	6.9	5.2	-4.5	314	5.5	4.0	-3.8	339	2.8	1.0	-2.6	343	2.1	0.6	-2.0	260	2.3	2.3	0.4	181	3.9	0.1	3.9	99	9.9	-9.8	1.5
5	302	5.1	4.3	-2.7	300	5.9	5.1	-2.9	349	2.6	0.5	-2.6	313	1.6	1.2	-1.1	246	2.2	2.0	0.9	172	2.2	-0.3	2.2	93	11.2	-11.2	0.6
6	320	6.5	4.2	-5.0	305	6.0	4.9	-3.4	327	2.4	1.3	-2.0	305	2.8	2.3	-1.6	225	1.3	0.9	0.9	148	4.7	-2.5	4.0	97	11.4	-11.3	1.3
7	291	8.0	7.5	-2.9	291	6.2	5.8	-2.2	200	1.2	0.4	1.1	279	1.9	1.9	-0.3	233	2.1	1.7	1.3	149	2.7	-1.4	2.3	94	12.1	-12.1	0.8
8	272	6.3	6.3	-0.2	286	5.6	5.4	-1.5	279	2.0	2.0	-0.3	315	0.1	0.1	-0.1	236	0.4	0.3	0.2	114	3.6	-3.3	1.5	95	12.7	-12.7	1.0
9	285	8.2	7.9	-2.1	298	6.7	5.9	-3.2	333	2.0	0.9	-1.8	275	1.1	1.1	-0.1	302	1.3	1.1	-0.7	111	1.9	-1.8	0.7	86	13.9	-13.9	-0.9
10	269	7.4	7.4	0.1	297	6.3	5.6	-2.8	360	1.5	0.0	-1.5	345	1.1	0.3	-1.1	99	1.9	-1.9	0.3	116	3.9	-3.5	1.7	88	14.7	-14.7	-0.5
11	272	7.2	7.2	-0.3	308	7.6	6.0	-4.7	344	2.5	0.7	-2.4	25	1.4	-0.6	-1.3	51	1.9	-1.5	-1.2	93	3.5	-3.5	0.2	86	14.5	-14.5	-1.1
12	295	6.1	5.5	-2.6	313	7.1	5.2	-4.9	333	3.1	1.4	-2.8	357	2.0	0.1	-2.0	108	1.3	-1.2	0.4	114	4.6	-4.2	1.9	87	15.6	-15.6	-0.8
13	275	5.9	5.9	-0.5	303	6.4	5.3	-3.5	354	2.0	0.2	-2.0	35	1.2	-0.7	-1.0	119	2.1	-1.8	1.0	102	5.1	-5.0	1.1	87	15.8	-15.8	-0.9
14	278	5.0	5.0	-0.7	304	5.8	4.8	-3.2	33	2.0	-1.1	-1.7	39	2.7	-1.7	-2.1	77	2.6	-2.5	-0.6	99	6.8	-6.7	1.1	82	16.9	-16.7	-2.4
15	306	3.4	2.8	-2.0	309	5.3	4.1	-3.3	11	2.5	-0.5	-2.5	40	1.6	-1.0	-1.2	75	4.7	-4.5	-1.2	88	7.4	-7.4	-0.3	93	18.4	-18.4	1.1
16	264	6.2	6.2	0.6	285	6.5	6.3	-1.7	332	3.2	1.5	-2.8	24	1.0	-0.4	-0.9	111	3.0	-2.8	1.1	91	7.6	-7.6	0.1	81	17.9	-17.7	-2.7
17	271	9.6	9.6	-0.2	292	7.1	6.6	-2.7	340	2.7	0.9	-2.5	329	1.2	0.6	-1.0	81	3.9	-3.9	-0.6	101	6.3	-6.2	1.2	82	17.9	-17.7	-2.5
18	284	7.2	7.0	-1.7	295	8.4	7.6	-3.6	333	4.2	1.9	-3.8	322	1.8	1.1	-1.4	82	4.8	-4.7	-0.7	77	8.6	-8.4	-2.0	84	20.2	-20.1	-2.2
19	262	6.4	6.3	0.9	303	8.2	6.9	-4.5	360	3.6	0.0	-3.6	341	2.4	0.8	-2.3	88	3.2	-3.2	-0.1	78	7.2	-7.0	-1.5	89	21.7	-21.7	-0.2
20	265	5.5	5.5	0.5	300	7.4	6.4	-3.7	332	2.6	1.2	-2.3	360	0.6	0.0	-0.6	86	3.1	-3.1	-0.2	89	8.7	-8.7	-0.2	89	20.8	-20.8	-0.4
21	278	8.9	8.8	-1.2	299	8.5	7.4	-4.1	315	3.1	2.2	-2.2	16	0.7	-0.2	-0.7	82	4.9	-4.9	-0.7	85	10.7	-10.7	-1.0	89	21.4	-21.4	-0.3
22	272	7.4	7.4	-0.3	297	8.7	7.8	-3.9	325	3.8	2.2	-3.1	44	3.0	-2.1	-2.2	82	6.3	-6.2	-0.9	93	10.8	-10.8	0.5	89	23.7	-23.7	-0.5
23	280	7.8	7.7	-1.3	300	7.8	6.7	-3.9	317	3.5	2.4	-2.6	10	2.2	-0.4	-2.2	82	4.8	-4.7	-0.7	84	10.1	-10.1	-1.0	85	20.2	-20.1	-1.9
24	271	7.5	7.5	-0.1	288	9.1	8.7	-2.8	307	3.0	2.4	-1.8	342	2.0	0.6	-1.9	77	5.1	-5.0	-1.2	83	11.2	-11.1	-1.4	83	22.6	-22.4	-2.6
25	277	9.0	8.9	-1.1	294	9.5	8.7	-3.8	315	3.7	2.6	-2.6	356	2.6	0.2	-2.6	66	4.9	-4.5	-2.0	91	11.2	-11.2	0.1	89	22.8	-22.8	-0.5
26	288	9.5	9.0	-2.9	298	8.9	7.9	-4.2	329	3.5	1.8	-3.0	48	1.5	-1.1	-1.0	81	6.5	-6.4	-1.0	84	12.6	-12.5	-1.4	88	24.9	-24.9	-0.8
27	285	8.7	8.4	-2.3	290	8.9	8.3	-3.1	320	3.5	2.3	-2.7	41	3.8	-2.5	-2.9	84	7.9	-7.9	-0.8	84	13.5	-13.4	-1.3	86	24.6	-24.5	-1.6
28	280	6.6	6.5	-1.2	292	7.9	7.3	-2.9	324	3.6	2.1	-2.9	66	2.7	-2.5	-1.1	89	7.9	-7.9	-0.1	76	13.6	-13.2	-3.2	83	27.4	-27.2	-3.2
29	285	6.7	6.5	-1.7	289	8.7	8.2	-2.9	289	3.7	3.5	-1.2	105	1.6	-1.5	0.4	96	7.2	-7.2	0.8	84	13.7	-13.6	-1.4	84	26.1	-26.0	-2.7
30	286	5.8	5.6	-1.6	285	8.3	8.0	-2.2	283	3.5	3.4	-0.8	82	1.4	-1.4	-0.2	87	5.8	-5.8	-0.3	81	12.7	-12.6	-1.9	87	23.5	-23.5	-1.3

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	261	5.5	5.4	0.9	285	7.2	6.9	-1.9	273	3.3	3.3	-0.2	34	1.1	-0.6	-0.9	84	6.0	-6.0	-0.6	82	13.7	-13.6	-2.0	84	23.8	-23.7	-2.4
2	270	5.6	5.6	0.0	285	8.4	8.1	-2.1	272	3.6	3.6	-0.1	351	0.6	0.1	-0.6	79	7.1	-7.0	-1.4	78	13.7	-13.4	-2.9	81	27.4	-27.0	-4.4
3	289	6.9	6.5	-2.3	286	9.0	8.6	-2.5	284	4.9	4.8	-1.2	48	1.3	-1.0	-0.9	84	7.1	-7.1	-0.8	81	14.2	-14.0	-2.1	84	27.4	-27.3	-2.7
4	303	7.1	5.9	-3.9	285	8.3	8.0	-2.1	292	3.2	3.0	-1.2	72	0.6	-0.6	-0.2	88	7.4	-7.4	-0.3	85	14.4	-14.3	-1.2	85	27.0	-26.9	-2.4
5	267	7.2	7.2	0.4	294	8.9	8.1	-3.6	302	2.8	2.4	-1.5	60	1.6	-1.4	-0.8	89	7.4	-7.4	-0.1	86	16.5	-16.5	-1.1	83	27.6	-27.4	-3.2
6	274	7.7	7.7	-0.5	290	7.8	7.3	-2.7	290	3.0	2.8	-1.0	50	1.7	-1.3	-1.1	87	7.3	-7.3	-0.4	85	16.0	-15.9	-1.3	87	27.6	-27.6	-1.3
7	275	7.4	7.4	-0.7	286	8.3	8.0	-2.3	291	4.0	3.7	-1.4	23	1.5	-0.6	-1.4	82	7.0	-6.9	-1.0	84	15.4	-15.3	-1.5	85	27.2	-27.1	-2.3
8	271	8.7	8.7	-0.1	291	9.2	8.6	-3.3	290	5.4	5.1	-1.9	38	2.3	-1.4	-1.8	85	7.5	-7.5	-0.6	76	13.4	-13.0	-3.2	85	27.5	-27.4	-2.2
9	274	7.6	7.6	-0.5	287	8.0	7.7	-2.3	286	4.4	4.2	-1.2	76	1.2	-1.2	-0.3	91	7.7	-7.7	0.2	86	15.3	-15.3	-1.0	87	29.9	-29.8	-1.8
10	274	8.0	8.0	-0.5	292	9.2	8.5	-3.4	295	5.3	4.8	-2.2	13	1.3	-0.3	-1.3	82	6.9	-6.8	-1.0	82	16.1	-15.9	-2.2	90	26.3	-26.3	0.1
11	266	7.1	7.1	0.5	290	8.4	7.9	-2.8	306	4.4	3.6	-2.6	53	2.1	-1.7	-1.3	80	8.6	-8.5	-1.5	82	16.9	-16.7	-2.3	80	28.7	-28.3	-4.9
12	258	8.3	8.1	1.7	288	9.0	8.6	-2.8	293	5.7	5.3	-2.2	41	2.9	-1.9	-2.2	95	7.9	-7.9	0.7	79	15.4	-15.1	-2.9	84	30.3	-30.1	-3.1
13	269	8.6	8.6	0.1	288	8.9	8.5	-2.7	284	4.4	4.3	-1.1	28	1.9	-0.9	-1.7	91	8.5	-8.5	0.2	78	16.1	-15.8	-3.3	83	27.9	-27.7	-3.3
14	268	7.2	7.2	0.2	282	9.7	9.5	-2.1	283	4.8	4.7	-1.1	62	1.5	-1.3	-0.7	93	7.9	-7.9	0.4	81	17.0	-16.8	-2.8	82	27.5	-27.2	-3.9
15	266	7.8	7.8	0.6	280	8.5	8.4	-1.5	276	4.7	4.7	-0.5	55	1.2	-1.0	-0.7	87	9.3	-9.3	-0.5	81	17.4	-17.2	-2.6	87	27.3	-27.3	-1.2
16	264	8.1	8.1	0.9	281	9.9	9.7	-1.8	280	5.5	5.4	-1.0	18	0.6	-0.2	-0.6	93	7.8	-7.8	0.4	84	14.7	-14.6	-1.6	85	28.4	-28.3	-2.5
17	261	8.1	8.0	1.3	280	8.2	8.1	-1.5	277	4.9	4.9	-0.6	79	0.5	-0.5	-0.1	83	7.8	-7.7	-0.9	83	17.6	-17.5	-2.0	85	28.2	-28.1	-2.5
18	262	8.6	8.5	1.2	283	8.9	8.7	-2.0	284	4.9	4.7	-1.2	360	1.1	0.0	-1.1	81	7.4	-7.3	-1.1	80	16.6	-16.4	-2.8	90	28.0	-28.0	-0.1
19	257	6.6	6.4	1.5	280	9.3	9.2	-1.6	274	6.5	6.5	-0.4	297	0.9	0.8	-0.4	81	8.1	-8.0	-1.2	81	18.0	-17.8	-2.7	86	27.1	-27.0	-1.8
20	260	8.2	8.1	1.4	285	9.8	9.5	-2.5	280	7.2	7.1	-1.2	297	1.6	1.4	-0.7	85	7.5	-7.5	-0.6	85	15.4	-15.3	-1.4	87	28.5	-28.4	-1.7
21	259	8.6	8.5	1.6	287	8.9	8.5	-2.6	287	4.9	4.7	-1.4	9	1.9	-0.3	-1.9	78	7.7	-7.5	-1.6	76	15.6	-15.2	-3.7	84	26.4	-26.3	-2.8
22	271	8.2	8.2	-0.1	287	7.4	7.1	-2.2	270	4.3	4.3	0.0	66	1.0	-0.9	-0.4	98	8.4	-8.3	1.1	81	16.2	-16.0	-2.4	86	26.8	-26.7	-1.8
23	269	8.1	8.1	0.1	287	7.3	7.0	-2.1	285	5.2	5.0	-1.3	106	1.9	-1.8	0.5	92	9.5	-9.5	0.3	85	18.2	-18.1	-1.6	89	27.8	-27.8	-0.7
24	273	10.1	10.1	-0.5	286	6.0	5.8	-1.7	273	3.7	3.7	-0.2	72	0.6	-0.6	-0.2	89	7.7	-7.7	-0.1	86	17.7	-17.7	-1.1	88	28.8	-28.8	-1.1
25	276	9.8	9.7	-1.1	281	8.9	8.7	-1.7	274	5.7	5.7	-0.4	300	0.8	0.7	-0.4	87	6.9	-6.9	-0.4	81	16.3	-16.1	-2.5	87	31.1	-31.1	-1.7
26	271	9.0	9.0	-0.2	288	10.3	9.8	-3.1	292	6.1	5.6	-2.3	329	1.2	0.6	-1.0	82	8.0	-7.9	-1.1	84	17.1	-17.0	-1.9	83	31.2	-31.0	-3.8
27	278	9.1	9.0	-1.2	285	9.9	9.6	-2.6	286	6.3	6.1	-1.7	325	2.1	1.2	-1.7	83	8.2	-8.1	-1.0	79	17.9	-17.6	-3.5	85	28.8	-28.7	-2.6
28	281	8.9	8.7	-1.7	291	10.5	9.8	-3.7	287	7.1	6.8	-2.1	8	2.1	-0.3	-2.1	80	8.6	-8.5	-1.5	81	17.9	-17.7	-2.9	85	28.4	-28.3	-2.3
29	288	7.3	6.9	-2.3	291	8.5	7.9	-3.1	287	5.4	5.2	-1.6	8	0.7	-0.1	-0.7	88	9.0	-9.0	-0.3	83	19.3	-19.1	-2.4	85	30.1	-30.0	-2.4
30	281	4.9	4.8	-0.9	289	8.6	8.1	-2.8	282	4.8	4.7	-1.0	6	1.8	-0.2	-1.8	89	9.1	-9.1	-0.1	85	18.7	-18.6	-1.5	84	30.2	-30.0	-3.2
31	274	7.7	7.7	-0.6	290	8.4	7.9	-2.8	282	4.2	4.1	-0.9	56	2.2	-1.8	-1.2	91	9.5	-9.5	0.2	87	18.6	-18.6	-1.0	84	29.0	-28.8	-3.0

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	280	8.9	8.8	-1.5	287	8.4	8.1	-2.4	293	4.1	3.8	-1.6	76	2.1	-2.0	-0.5	82	9.4	-9.3	-1.3	84	16.6	-16.5	-1.8	86	31.7	-31.6	-2.4
2	286	7.1	6.8	-1.9	304	7.3	6.0	-4.1	314	4.2	3.0	-2.9	61	3.5	-3.1	-1.7	89	11.6	-11.6	-0.3	85	17.5	-17.4	-1.5	84	25.5	-25.4	-2.7
3	290	8.8	8.3	-3.0	297	8.3	7.4	-3.8	295	4.3	3.9	-1.8	38	1.1	-0.7	-0.9	88	10.1	-10.1	-0.3	78	17.2	-16.8	-3.5	84	27.9	-27.7	-3.1
4	281	7.8	7.7	-1.5	295	8.1	7.3	-3.4	288	4.4	4.2	-1.4	4	1.6	-0.1	-1.6	88	7.8	-7.8	-0.3	81	16.8	-16.6	-2.5	79	27.8	-27.3	-5.4
5	273	7.6	7.6	-0.4	284	9.2	8.9	-2.2	278	5.3	5.3	-0.7	90	0.1	-0.1	0.0	88	7.0	-7.0	-0.2	80	16.1	-15.9	-2.7	85	27.6	-27.5	-2.5
6	271	9.6	9.6	-0.1	294	9.8	9.0	-4.0	288	5.9	5.6	-1.8	329	0.6	0.3	-0.5	85	8.3	-8.3	-0.7	82	17.0	-16.8	-2.3	90	27.1	-27.1	-0.2
7	269	9.4	9.4	0.2	292	9.8	9.1	-3.6	292	6.1	5.7	-2.3	14	3.0	-0.7	-2.9	88	7.6	-7.6	-0.3	81	18.3	-18.1	-2.9	91	30.9	-30.9	0.3
8	274	10.0	10.0	-0.7	292	9.2	8.5	-3.5	301	5.2	4.5	-2.7	28	2.6	-1.2	-2.3	88	9.4	-9.4	-0.3	84	18.8	-18.7	-2.1	87	31.2	-31.2	-1.7
9	276	8.7	8.7	-0.9	296	8.7	7.8	-3.8	301	5.0	4.3	-2.6	45	1.3	-0.9	-0.9	90	9.3	-9.3	0.0	88	16.3	-16.3	-0.6	89	27.2	-27.2	-0.6
10	289	7.7	7.3	-2.5	294	7.3	6.7	-3.0	288	3.5	3.3	-1.1	112	2.2	-2.0	0.8	96	9.7	-9.6	1.0	84	17.3	-17.2	-1.7	87	27.3	-27.3	-1.5
11	295	5.4	4.9	-2.3	298	6.9	6.1	-3.2	301	3.7	3.2	-1.9	48	1.5	-1.1	-1.0	85	9.9	-9.9	-0.8	81	17.8	-17.6	-2.8	88	26.8	-26.8	-0.9
12	282	6.1	6.0	-1.3	294	7.6	6.9	-3.1	293	4.0	3.7	-1.6	56	2.2	-1.8	-1.2	85	8.3	-8.3	-0.7	83	18.6	-18.5	-2.3	86	25.8	-25.7	-1.8
13	274	8.7	8.7	-0.6	297	9.0	8.0	-4.1	292	5.1	4.7	-1.9	357	2.2	0.1	-2.2	82	7.6	-7.5	-1.1	79	16.4	-16.1	-3.0	88	25.8	-25.8	-0.7
14	283	7.6	7.4	-1.7	301	8.4	7.2	-4.3	299	4.3	3.8	-2.1	17	2.4	-0.7	-2.3	90	9.1	-9.1	0.0	81	16.7	-16.5	-2.5	89	25.7	-25.7	-0.5
15	295	7.7	7.0	-3.3	294	8.2	7.5	-3.3	309	5.1	4.0	-3.2	35	1.9	-1.1	-1.6	92	7.9	-7.9	0.3	81	14.2	-14.0	-2.2	89	21.7	-21.7	-0.4
16	300	8.6	7.4	-4.3	304	8.2	6.8	-4.6	313	5.1	3.7	-3.5	24	2.0	-0.8	-1.8	77	7.8	-7.6	-1.8	83	15.1	-15.0	-1.9	84	25.0	-24.9	-2.4
17	299	8.8	7.7	-4.3	304	8.9	7.4	-5.0	294	4.3	3.9	-1.7	30	0.8	-0.4	-0.7	87	7.2	-7.2	-0.4	81	15.9	-15.7	-2.5	90	28.7	-28.7	-0.2
18	291	8.5	8.0	-3.0	302	8.9	7.5	-4.7	306	4.2	3.4	-2.5	32	1.5	-0.8	-1.3	90	6.8	-6.8	0.0	84	14.2	-14.1	-1.6	90	24.6	-24.6	0.2
19	288	9.2	8.7	-2.9	295	9.7	8.8	-4.1	296	4.1	3.7	-1.8	342	0.9	0.3	-0.9	96	7.7	-7.7	0.8	82	13.9	-13.8	-1.9	88	24.7	-24.7	-0.8
20	275	8.8	8.8	-0.8	306	8.0	6.5	-4.7	307	4.3	3.4	-2.6	103	0.9	-0.9	0.2	98	8.6	-8.5	1.2	87	16.8	-16.8	-1.0	88	26.8	-26.8	-0.8
21	278	6.1	6.0	-0.8	306	8.3	6.7	-4.9	319	3.2	2.1	-2.4	75	2.3	-2.2	-0.6	87	8.7	-8.7	-0.4	84	13.8	-13.7	-1.5	88	27.1	-27.1	-1.0
22	300	4.8	4.2	-2.4	314	7.7	5.5	-5.4	323	3.9	2.3	-3.1	45	4.0	-2.8	-2.8	92	7.5	-7.5	0.3	84	15.1	-15.0	-1.6	87	24.7	-24.7	-1.2
23	310	4.7	3.6	-3.0	314	6.0	4.3	-4.2	322	3.3	2.0	-2.6	81	2.0	-2.0	-0.3	98	8.2	-8.1	1.2	88	15.1	-15.1	-0.5	94	27.2	-27.1	1.8
24	270	3.2	3.2	0.0	294	5.8	5.3	-2.4	301	3.3	2.8	-1.7	63	0.9	-0.8	-0.4	103	7.8	-7.6	1.7	86	14.5	-14.5	-1.0	90	23.4	-23.4	0.1
25	290	4.4	4.1	-1.5	297	6.4	5.7	-2.9	287	4.2	4.0	-1.2	180	0.4	0.0	0.4	92	7.4	-7.4	0.2	85	14.9	-14.9	-1.2	90	23.6	-23.6	0.0
26	284	4.9	4.7	-1.2	311	5.5	4.1	-3.6	301	2.9	2.5	-1.5	37	0.5	-0.3	-0.4	90	9.1	-9.1	0.0	86	13.9	-13.9	-0.9	89	26.3	-26.3	-0.5
27	297	4.6	4.1	-2.1	311	6.2	4.7	-4.1	315	3.3	2.3	-2.3	54	2.2	-1.8	-1.3	82	8.2	-8.1	-1.1	90	13.2	-13.2	0.0	89	23.3	-23.3	-0.4
28	301	5.5	4.7	-2.8	314	7.2	5.2	-5.0	320	3.5	2.3	-2.7	56	2.3	-1.9	-1.3	87	8.5	-8.5	-0.5	83	13.3	-13.2	-1.6	88	23.4	-23.4	-0.8
29	302	7.4	6.3	-3.9	297	8.0	7.2	-3.6	298	5.1	4.5	-2.4	69	1.9	-1.8	-0.7	84	6.5	-6.5	-0.7	84	13.6	-13.5	-1.3	90	24.4	-24.4	-0.1
30	295	7.2	6.5	-3.0	291	6.2	5.8	-2.2	306	3.4	2.8	-2.0	47	1.8	-1.3	-1.2	98	7.5	-7.4	1.0	88	14.2	-14.2	-0.4	93	25.5	-25.5	1.3
31	304	6.8	5.6	-3.8	296	6.1	5.5	-2.7	300	3.8	3.3	-1.9	93	1.8	-1.8	0.1	91	7.9	-7.9	0.1	89	14.5	-14.5	-0.3	89	21.0	-21.0	-0.4

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	300	7.3	6.3	-3.6	303	6.4	5.3	-3.5	286	3.2	3.1	-0.9	67	1.3	-1.2	-0.5	91	7.8	-7.8	0.2	88	14.7	-14.7	-0.5	92	18.8	-18.8	0.8
2	298	6.7	5.9	-3.1	306	5.9	4.8	-3.5	300	2.4	2.1	-1.2	87	2.0	-2.0	-0.1	86	6.8	-6.8	-0.5	81	13.4	-13.2	-2.0	87	22.6	-22.6	-1.2
3	283	7.6	7.4	-1.7	297	6.1	5.4	-2.8	291	3.3	3.1	-1.2	67	0.8	-0.7	-0.3	93	6.7	-6.7	0.4	85	13.9	-13.8	-1.2	87	18.8	-18.8	-0.9
4	289	7.0	6.6	-2.3	294	8.0	7.3	-3.3	284	5.0	4.9	-1.2	357	1.7	0.1	-1.7	86	6.6	-6.6	-0.5	88	13.0	-13.0	-0.5	89	20.1	-20.1	-0.2
5	293	6.5	6.0	-2.6	298	7.6	6.7	-3.5	302	4.5	3.8	-2.4	28	1.9	-0.9	-1.7	77	7.3	-7.1	-1.6	84	13.1	-13.0	-1.4	90	19.0	-19.0	0.0
6	270	5.7	5.7	0.0	299	7.4	6.5	-3.6	295	4.4	4.0	-1.9	309	0.6	0.5	-0.4	89	6.0	-6.0	-0.1	84	10.5	-10.4	-1.1	85	19.0	-18.9	-1.8
7	283	3.5	3.4	-0.8	306	6.8	5.5	-4.0	298	4.0	3.5	-1.9	347	1.3	0.3	-1.3	73	3.8	-3.6	-1.1	80	8.2	-8.1	-1.5	93	20.3	-20.3	1.1
8	293	5.3	4.9	-2.1	316	6.0	4.2	-4.3	309	3.2	2.5	-2.0	351	0.6	0.1	-0.6	79	5.2	-5.1	-1.0	89	9.2	-9.2	-0.1	92	18.4	-18.4	0.6
9	288	5.2	5.0	-1.6	319	6.3	4.1	-4.8	332	2.6	1.2	-2.3	60	1.6	-1.4	-0.8	94	5.4	-5.4	0.4	93	10.2	-10.2	0.5	86	18.1	-18.1	-1.3
10	285	4.1	4.0	-1.1	327	5.1	2.8	-4.3	339	2.5	0.9	-2.3	42	2.4	-1.6	-1.8	84	5.9	-5.9	-0.6	99	10.8	-10.7	1.6	88	20.1	-20.1	-0.6
11	301	4.3	3.7	-2.2	330	5.3	2.7	-4.6	353	3.9	0.5	-3.9	347	0.9	0.2	-0.9	89	4.1	-4.1	-0.1	89	10.9	-10.9	-0.2	90	16.9	-16.9	-0.1
12	316	4.3	3.0	-3.1	323	4.4	2.6	-3.5	334	3.7	1.6	-3.3	57	2.0	-1.7	-1.1	101	4.3	-4.2	0.8	93	10.2	-10.2	0.5	88	17.8	-17.8	-0.6
13	302	4.9	4.1	-2.6	301	5.1	4.4	-2.6	307	3.5	2.8	-2.1	315	2.4	1.7	-1.7	92	3.7	-3.7	0.1	88	10.4	-10.4	-0.4	86	15.7	-15.7	-1.1
14	295	4.3	3.9	-1.8	295	5.1	4.6	-2.1	319	2.9	1.9	-2.2	297	0.9	0.8	-0.4	89	4.8	-4.8	-0.1	77	9.4	-9.2	-2.1	92	16.1	-16.1	0.7
15	297	5.4	4.8	-2.4	308	5.5	4.3	-3.4	323	3.1	1.9	-2.5	265	1.1	1.1	0.1	104	3.8	-3.7	0.9	93	7.6	-7.6	0.4	94	15.4	-15.4	1.1
16	306	4.3	3.5	-2.5	324	3.9	2.3	-3.2	319	2.3	1.5	-1.7	294	1.2	1.1	-0.5	113	3.6	-3.3	1.4	104	8.9	-8.6	2.1	94	14.0	-14.0	0.9
17	318	4.8	3.2	-3.6	336	3.2	1.3	-2.9	331	2.3	1.1	-2.0	207	0.2	0.1	0.2	109	3.7	-3.5	1.2	108	8.0	-7.6	2.5	95	14.4	-14.3	1.2
18	323	3.9	2.3	-3.1	357	3.3	0.2	-3.3	344	3.5	1.0	-3.4	324	0.9	0.5	-0.7	97	2.4	-2.4	0.3	102	6.7	-6.6	1.4	87	12.5	-12.5	-0.6
19	323	5.4	3.2	-4.3	353	3.4	0.4	-3.4	340	3.2	1.1	-3.0	180	0.6	0.0	0.6	98	3.6	-3.6	0.5	109	6.0	-5.7	2.0	91	13.2	-13.2	0.2
20	333	5.1	2.3	-4.5	5	2.4	-0.2	-2.4	21	1.9	-0.7	-1.8	130	0.8	-0.6	0.5	102	3.3	-3.2	0.7	127	6.2	-5.0	3.7	104	13.2	-12.8	3.2
21	13	4.1	-0.9	-4.0	43	2.2	-1.5	-1.6	39	2.6	-1.6	-2.0	144	1.7	-1.0	1.4	123	3.1	-2.6	1.7	134	5.8	-4.2	4.0	97	10.5	-10.4	1.3
22	339	3.1	1.1	-2.9	17	1.7	-0.5	-1.6	36	2.4	-1.4	-1.9	120	1.4	-1.2	0.7	105	3.5	-3.4	0.9	116	5.7	-5.1	2.5	96	10.3	-10.2	1.1
23	13	4.5	-1.0	-4.4	360	0.9	0.0	-0.9	38	1.6	-1.0	-1.3	124	1.1	-0.9	0.6	92	3.7	-3.7	0.1	111	5.6	-5.2	2.0	93	11.8	-11.8	0.6
24	345	2.3	0.6	-2.2	5	1.1	-0.1	-1.1	16	2.2	-0.6	-2.1	88	2.6	-2.6	-0.1	108	2.9	-2.8	0.9	119	4.6	-4.0	2.2	85	11.9	-11.9	-1.0
25	347	2.7	0.6	-2.6	11	2.0	-0.4	-2.0	18	1.9	-0.6	-1.8	76	0.4	-0.4	-0.1	81	1.8	-1.8	-0.3	122	3.6	-3.0	1.9	93	12.3	-12.3	0.6
26	343	4.5	1.3	-4.3	13	2.2	-0.5	-2.1	16	2.2	-0.6	-2.1	18	0.3	-0.1	-0.3	69	1.7	-1.6	-0.6	117	3.8	-3.4	1.7	94	10.8	-10.8	0.8
27	360	2.4	0.0	-2.4	360	1.0	0.0	-1.0	12	1.4	-0.3	-1.4	283	0.9	0.9	-0.2	172	2.1	-0.3	2.1	126	3.4	-2.8	2.0	96	9.8	-9.7	1.1
28	12	2.5	-0.5	-2.4	6	1.8	-0.2	-1.8	18	1.9	-0.6	-1.8	194	1.2	0.3	1.2	180	2.0	0.0	2.0	177	4.0	-0.2	4.0	101	9.6	-9.4	1.9
29	7	1.6	-0.2	-1.6	328	1.5	0.8	-1.3	355	2.1	0.2	-2.1	21	0.9	-0.3	-0.8	155	2.1	-0.9	1.9	130	3.5	-2.7	2.3	99	10.7	-10.6	1.6
30	349	1.0	0.2	-1.0	21	1.7	-0.6	-1.6	10	2.3	-0.4	-2.3	127	0.5	-0.4	0.3	171	1.9	-0.3	1.9	159	3.0	-1.1	2.8	99	10.4	-10.3	1.7

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	68	0.5	-0.5	-0.2	37	2.5	-1.5	-2.0	14	3.6	-0.9	-3.5	63	0.2	-0.2	-0.1	209	1.8	0.9	1.6	169	3.7	-0.7	3.6	104	8.2	-8.0	2.0
2	22	2.2	-0.8	-2.0	45	3.1	-2.2	-2.2	21	4.4	-1.6	-4.1	351	0.6	0.1	-0.6	168	2.4	-0.5	2.3	177	4.3	-0.2	4.3	103	10.1	-9.9	2.2
3	360	0.5	0.0	-0.5	50	2.3	-1.8	-1.5	17	3.1	-0.9	-3.0	111	0.9	-0.8	0.3	206	3.9	1.7	3.5	204	4.7	1.9	4.3	98	8.0	-7.9	1.1
4	225	0.3	0.2	0.2	19	3.1	-1.0	-2.9	351	3.3	0.5	-3.3	297	0.7	0.6	-0.3	201	2.5	0.9	2.3	163	4.5	-1.3	4.3	103	6.9	-6.7	1.5
5	26	2.5	-1.1	-2.3	24	4.2	-1.7	-3.8	14	4.9	-1.2	-4.8	112	0.5	-0.5	0.2	221	2.1	1.4	1.6	172	4.1	-0.6	4.1	114	6.1	-5.6	2.5
6	30	3.9	-2.0	-3.4	41	3.0	-2.0	-2.3	25	3.3	-1.4	-3.0	79	0.5	-0.5	-0.1	189	1.8	0.3	1.8	170	3.6	-0.6	3.5	103	8.7	-8.5	1.9
7	53	4.0	-3.2	-2.4	32	2.2	-1.2	-1.9	33	3.5	-1.9	-2.9	90	1.2	-1.2	0.0	199	3.1	1.0	2.9	195	4.6	1.2	4.4	109	5.7	-5.4	1.9
8	37	2.5	-1.5	-2.0	13	2.8	-0.6	-2.7	358	3.8	0.1	-3.8	354	0.9	0.1	-0.9	234	3.1	2.5	1.8	207	5.8	2.6	5.2	133	5.4	-4.0	3.7
9	62	3.6	-3.2	-1.7	29	3.7	-1.8	-3.2	15	4.1	-1.1	-4.0	305	1.2	1.0	-0.7	234	3.9	3.2	2.3	214	7.2	4.0	6.0	117	6.0	-5.4	2.7
10	95	2.1	-2.1	0.2	45	1.7	-1.2	-1.2	36	3.4	-2.0	-2.8	246	1.0	0.9	0.4	233	4.1	3.3	2.5	233	6.6	5.3	4.0	114	4.7	-4.3	1.9
11	97	1.6	-1.6	0.2	20	1.5	-0.5	-1.4	12	3.0	-0.6	-2.9	270	0.9	0.9	0.0	237	3.5	2.9	1.9	221	4.8	3.1	3.6	135	6.4	-4.5	4.5
12	117	0.4	-0.4	0.2	30	1.6	-0.8	-1.4	358	3.4	0.1	-3.4	289	1.8	1.7	-0.6	241	4.8	4.2	2.3	229	6.7	5.1	4.4	138	2.8	-1.9	2.1
13	86	1.3	-1.3	-0.1	30	2.2	-1.1	-1.9	352	2.7	0.4	-2.7	274	1.5	1.5	-0.1	244	6.1	5.5	2.7	244	7.0	6.3	3.1	143	3.8	-2.3	3.0
14	79	0.5	-0.5	-0.1	29	2.3	-1.1	-2.0	22	4.1	-1.5	-3.8	272	2.8	2.8	-0.1	245	8.2	7.4	3.5	225	6.5	4.6	4.6	167	4.6	-1.0	4.5
15	52	3.7	-2.9	-2.3	42	3.9	-2.6	-2.9	19	4.2	-1.4	-4.0	307	2.1	1.7	-1.3	246	6.7	6.1	2.7	227	10.5	7.6	7.2	145	3.5	-2.0	2.9
16	39	4.3	-2.7	-3.3	51	4.5	-3.5	-2.8	25	4.0	-1.7	-3.6	313	1.9	1.4	-1.3	259	6.5	6.4	1.3	231	8.3	6.5	5.2	146	2.5	-1.4	2.1
17	67	3.8	-3.5	-1.5	58	3.1	-2.6	-1.6	26	2.5	-1.1	-2.3	355	1.2	0.1	-1.2	253	7.6	7.3	2.2	234	9.4	7.6	5.5	134	4.6	-3.3	3.2
18	32	2.5	-1.3	-2.1	63	2.8	-2.5	-1.3	31	1.7	-0.9	-1.5	277	1.6	1.6	-0.2	249	6.2	5.8	2.2	233	7.7	6.2	4.6	143	3.4	-2.0	2.7
19	51	3.6	-2.8	-2.3	49	2.9	-2.2	-1.9	27	2.8	-1.3	-2.5	273	2.1	2.1	-0.1	246	7.1	6.5	2.9	239	9.2	7.9	4.8	157	3.9	-1.5	3.6
20	66	3.4	-3.1	-1.4	59	3.1	-2.7	-1.6	4	3.0	-0.2	-3.0	268	3.4	3.4	0.1	251	10.4	9.8	3.4	241	10.6	9.2	5.2	157	3.6	-1.4	3.3
21	60	2.8	-2.4	-1.4	62	3.4	-3.0	-1.6	19	3.1	-1.0	-2.9	279	2.4	2.4	-0.4	253	7.7	7.4	2.2	249	9.3	8.7	3.3	188	2.2	0.3	2.2
22	51	1.4	-1.1	-0.9	48	2.8	-2.1	-1.9	14	3.0	-0.7	-2.9	287	2.7	2.6	-0.8	268	7.6	7.6	0.2	249	9.9	9.2	3.6	255	1.1	1.1	0.3
23	69	1.9	-1.8	-0.7	67	2.3	-2.1	-0.9	336	2.7	1.1	-2.5	246	2.0	1.8	0.8	256	8.5	8.2	2.1	247	9.1	8.4	3.5	208	1.7	0.8	1.5
24	43	1.9	-1.3	-1.4	63	2.5	-2.2	-1.1	350	1.1	0.2	-1.1	265	4.9	4.9	0.4	255	9.8	9.4	2.6	251	10.2	9.7	3.3	180	1.5	0.0	1.5
25	67	2.8	-2.6	-1.1	56	2.3	-1.9	-1.3	347	1.3	0.3	-1.3	266	5.5	5.5	0.4	261	12.1	11.9	1.9	245	13.4	12.1	5.7	217	4.3	2.6	3.4
26	53	3.8	-3.0	-2.3	59	2.3	-2.0	-1.2	333	1.8	0.8	-1.6	277	4.3	4.3	-0.5	266	13.0	13.0	1.0	243	15.9	14.2	7.2	245	6.6	6.0	2.8
27	53	4.1	-3.3	-2.5	56	2.9	-2.4	-1.6	3	2.0	-0.1	-2.0	281	3.7	3.6	-0.7	250	13.2	12.4	4.5	233	16.6	13.3	9.9	253	2.7	2.6	0.8
28	50	5.2	-4.0	-3.4	54	4.3	-3.5	-2.5	12	3.0	-0.6	-2.9	270	4.6	4.6	0.0	249	11.9	11.1	4.3	236	13.8	11.5	7.7	223	2.5	1.7	1.8
29	32	4.0	-2.1	-3.4	38	3.4	-2.1	-2.7	14	3.0	-0.7	-2.9	283	4.7	4.6	-1.1	248	14.2	13.2	5.2	243	14.5	12.9	6.7	268	3.2	3.2	0.1
30	61	5.4	-4.7	-2.6	50	3.9	-3.0	-2.5	20	2.7	-0.9	-2.5	290	3.0	2.8	-1.0	255	12.4	12.0	3.3	244	16.4	14.7	7.3	243	2.5	2.2	1.1
31	62	5.3	-4.7	-2.5	61	4.8	-4.2	-2.3	25	2.6	-1.1	-2.4	258	4.0	3.9	0.8	256	13.8	13.4	3.3	244	18.2	16.4	8.0	217	3.4	2.0	2.7

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	68	5.2	-4.8	-1.9	66	4.4	-4.0	-1.8	27	2.0	-0.9	-1.8	280	4.2	4.1	-0.7	264	14.5	14.4	1.5	246	18.9	17.3	7.6	252	4.3	4.1	1.3
2	69	4.7	-4.4	-1.7	62	4.4	-3.9	-2.1	5	2.2	-0.2	-2.2	303	4.8	4.0	-2.6	266	12.3	12.3	0.9	250	16.1	15.1	5.6	269	5.8	5.8	0.1
3	61	5.4	-4.7	-2.6	68	5.0	-4.6	-1.9	333	1.8	0.8	-1.6	301	4.2	3.6	-2.2	257	13.3	13.0	3.0	244	18.3	16.4	8.1	295	3.8	3.5	-1.6
4	63	5.4	-4.8	-2.4	67	3.0	-2.8	-1.2	338	2.4	0.9	-2.2	297	5.1	4.6	-2.3	265	14.1	14.0	1.3	250	19.8	18.6	6.7	268	6.6	6.6	0.2
5	64	3.4	-3.1	-1.5	53	4.1	-3.3	-2.5	354	4.0	0.4	-4.0	298	6.1	5.4	-2.9	271	14.6	14.6	-0.3	252	18.4	17.5	5.7	289	7.8	7.4	-2.6
6	73	3.4	-3.3	-1.0	50	3.4	-2.6	-2.2	2	3.4	-0.1	-3.4	305	5.4	4.4	-3.1	271	13.3	13.3	-0.3	251	17.5	16.5	5.7	262	5.1	5.1	0.7
7	66	4.9	-4.5	-2.0	58	3.4	-2.9	-1.8	4	2.9	-0.2	-2.9	302	5.4	4.6	-2.9	266	12.8	12.8	1.0	255	18.0	17.4	4.8	270	5.7	5.7	0.0
8	78	3.8	-3.7	-0.8	60	2.8	-2.4	-1.4	3	3.5	-0.2	-3.5	297	4.7	4.2	-2.1	263	13.9	13.8	1.7	244	17.5	15.8	7.6	256	6.0	5.8	1.4
9	62	3.8	-3.4	-1.8	55	2.9	-2.4	-1.7	351	3.3	0.5	-3.3	290	5.6	5.3	-1.9	268	14.4	14.4	0.5	257	16.7	16.3	3.7	274	6.7	6.7	-0.5
10	85	2.3	-2.3	-0.2	29	1.8	-0.9	-1.6	339	2.8	1.0	-2.6	280	8.1	8.0	-1.4	267	15.1	15.1	0.9	254	18.3	17.6	5.1	259	6.5	6.4	1.3
11	78	3.0	-2.9	-0.6	50	2.3	-1.8	-1.5	321	3.3	2.1	-2.6	301	5.5	4.7	-2.8	265	15.6	15.5	1.4	252	19.6	18.7	6.0	272	8.8	8.8	-0.3
12	72	2.2	-2.1	-0.7	47	2.6	-1.9	-1.8	337	6.4	2.5	-5.9	311	4.0	3.0	-2.6	272	15.8	15.8	-0.6	248	19.2	17.8	7.2	271	8.1	8.1	-0.2
13	63	1.8	-1.6	-0.8	60	3.4	-2.9	-1.7	347	2.6	0.6	-2.5	300	5.4	4.7	-2.7	272	14.3	14.3	-0.4	259	19.7	19.4	3.7	274	9.5	9.5	-0.7
14	53	3.5	-2.8	-2.1	45	3.3	-2.3	-2.3	2	3.4	-0.1	-3.4	295	4.7	4.2	-2.0	264	15.5	15.4	1.6	257	18.9	18.4	4.3	274	6.4	6.4	-0.4
15	73	4.1	-3.9	-1.2	53	3.8	-3.0	-2.3	6	3.1	-0.3	-3.1	300	5.1	4.4	-2.5	264	16.2	16.1	1.6	255	20.1	19.4	5.3	263	7.9	7.8	1.0
16	72	5.4	-5.1	-1.7	57	3.7	-3.1	-2.0	347	3.5	0.8	-3.4	286	5.8	5.6	-1.6	264	16.3	16.2	1.7	258	20.8	20.3	4.5	249	7.2	6.7	2.6
17	71	4.3	-4.1	-1.4	66	3.2	-2.9	-1.3	334	2.5	1.1	-2.3	281	6.0	5.9	-1.1	253	19.1	18.2	5.7	245	22.1	20.0	9.5	254	8.5	8.2	2.3
18	54	3.1	-2.5	-1.8	45	2.5	-1.8	-1.8	328	2.8	1.5	-2.4	279	7.4	7.3	-1.1	258	18.0	17.6	3.9	246	24.1	22.1	9.7	261	6.2	6.1	1.0
19	67	3.0	-2.8	-1.2	45	2.5	-1.8	-1.8	320	3.0	1.9	-2.3	277	8.9	8.8	-1.1	252	19.7	18.8	6.0	240	24.4	21.1	12.3	266	11.7	11.7	0.9
20	72	2.6	-2.5	-0.8	45	2.0	-1.4	-1.4	331	2.6	1.3	-2.3	281	8.4	8.2	-1.6	259	19.1	18.8	3.6	245	23.0	20.8	9.9	253	12.3	11.8	3.5
21	81	3.0	-3.0	-0.5	56	2.5	-2.1	-1.4	335	2.1	0.9	-1.9	277	7.6	7.5	-0.9	254	19.4	18.7	5.3	240	24.8	21.5	12.4	252	9.8	9.3	3.1
22	87	4.2	-4.2	-0.2	72	2.0	-1.9	-0.6	319	2.3	1.5	-1.7	265	8.2	8.2	0.7	258	18.7	18.3	4.0	242	23.7	21.0	11.0	251	10.3	9.7	3.4
23	74	2.9	-2.8	-0.8	62	1.9	-1.7	-0.9	288	1.6	1.5	-0.5	264	7.8	7.8	0.8	260	19.8	19.5	3.4	246	26.6	24.3	10.7	245	11.3	10.2	4.8
24	59	4.5	-3.9	-2.3	70	2.0	-1.9	-0.7	302	2.6	2.2	-1.4	284	8.4	8.2	-2.0	270	16.9	16.9	0.0	247	21.9	20.1	8.7	259	9.7	9.5	1.9
25	48	3.0	-2.2	-2.0	55	2.1	-1.7	-1.2	311	3.0	2.3	-2.0	289	8.9	8.4	-2.9	267	18.4	18.4	1.0	248	23.0	21.3	8.8	258	10.6	10.4	2.2
26	53	2.5	-2.0	-1.5	65	1.7	-1.5	-0.7	307	3.1	2.5	-1.9	281	8.0	7.9	-1.5	263	19.4	19.3	2.2	254	22.2	21.4	6.0	262	13.0	12.9	1.7
27	67	2.8	-2.6	-1.1	34	1.1	-0.6	-0.9	297	3.7	3.3	-1.7	274	9.8	9.8	-0.6	265	19.0	18.9	1.5	252	24.9	23.7	7.6	263	12.4	12.3	1.6
28	81	3.1	-3.1	-0.5	49	2.1	-1.6	-1.4	294	4.7	4.3	-1.9	271	10.6	10.6	-0.2	261	19.8	19.5	3.2	248	22.6	20.9	8.6	262	11.3	11.2	1.5
29	83	3.1	-3.1	-0.4	55	1.2	-1.0	-0.7	314	3.6	2.6	-2.5	284	11.0	10.7	-2.7	260	20.6	20.3	3.7	245	25.2	22.8	10.8	261	9.8	9.7	1.5
30	70	3.0	-2.8	-1.0	43	1.8	-1.2	-1.3	299	3.5	3.1	-1.7	276	10.8	10.7	-1.1	264	22.4	22.3	2.3	250	29.6	27.8	10.2	253	14.7	14.0	4.4

Daily Normals of Upper Air Winds (1971-2000)

NAGPUR **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	62	3.2	-2.8	-1.5	52	3.4	-2.7	-2.1	280	5.5	5.4	-1.0	275	10.9	10.9	-0.9	264	20.8	20.7	2.1	247	27.8	25.6	10.8	264	13.8	13.7	1.5
2	63	3.9	-3.5	-1.8	63	1.1	-1.0	-0.5	297	3.5	3.1	-1.6	269	10.4	10.4	0.2	259	21.6	21.2	4.1	248	27.2	25.2	10.3	258	13.9	13.6	2.8
3	72	2.5	-2.4	-0.8	65	1.4	-1.3	-0.6	281	3.8	3.7	-0.7	276	9.1	9.0	-1.0	262	19.5	19.3	2.7	244	25.8	23.2	11.4	264	14.7	14.6	1.5
4	68	3.1	-2.9	-1.2	30	1.6	-0.8	-1.4	298	3.6	3.2	-1.7	281	9.4	9.2	-1.8	255	19.5	18.8	5.0	245	24.3	22.1	10.2	261	15.3	15.1	2.3
5	78	4.2	-4.1	-0.9	23	1.3	-0.5	-1.2	302	3.6	3.1	-1.9	284	7.9	7.7	-1.9	264	18.0	17.9	1.9	246	22.8	20.9	9.1	261	12.6	12.4	2.0
6	57	3.3	-2.8	-1.8	19	2.8	-0.9	-2.6	314	2.9	2.1	-2.0	276	9.4	9.3	-1.0	266	20.3	20.3	1.4	256	25.5	24.8	6.1	265	12.8	12.7	1.2
7	59	3.3	-2.8	-1.7	37	2.0	-1.2	-1.6	315	3.7	2.6	-2.6	280	9.2	9.1	-1.6	264	19.8	19.7	2.0	251	26.8	25.4	8.5	257	12.2	11.9	2.8
8	46	4.0	-2.9	-2.8	33	1.7	-0.9	-1.4	331	2.5	1.2	-2.2	272	8.7	8.7	-0.3	266	21.5	21.4	1.5	251	26.8	25.3	8.9	262	13.1	13.0	1.9
9	46	5.2	-3.7	-3.6	38	1.6	-1.0	-1.3	305	3.3	2.7	-1.9	271	10.4	10.4	-0.1	267	22.2	22.2	1.3	253	25.1	24.0	7.5	265	11.2	11.2	1.0
10	49	3.3	-2.5	-2.2	28	1.5	-0.7	-1.3	302	3.9	3.3	-2.1	270	11.8	11.8	0.0	261	22.7	22.4	3.6	250	26.3	24.8	8.9	247	12.3	11.3	4.8
11	44	3.5	-2.4	-2.5	10	1.1	-0.2	-1.1	290	4.1	3.9	-1.4	272	11.5	11.5	-0.4	261	22.3	22.0	3.5	250	25.1	23.6	8.5	252	13.6	12.9	4.2
12	65	4.1	-3.7	-1.7	27	1.1	-0.5	-1.0	288	4.6	4.4	-1.4	271	10.0	10.0	-0.2	259	21.1	20.7	3.9	249	27.7	25.9	9.7	254	12.6	12.1	3.4
13	60	4.2	-3.6	-2.1	349	1.0	0.2	-1.0	307	4.5	3.6	-2.7	274	9.7	9.7	-0.6	260	21.5	21.1	3.9	249	27.2	25.4	9.8	276	12.5	12.4	-1.2
14	52	4.3	-3.4	-2.7	13	2.2	-0.5	-2.1	300	3.8	3.3	-1.9	276	10.6	10.5	-1.1	263	23.2	23.0	3.0	249	28.2	26.3	10.2	270	15.0	15.0	-0.1
15	58	2.5	-2.1	-1.3	17	1.0	-0.3	-1.0	309	3.8	3.0	-2.4	281	12.1	11.9	-2.3	267	24.1	24.1	1.1	258	29.3	28.7	5.9	270	19.4	19.4	0.0
16	55	3.2	-2.6	-1.8	45	0.6	-0.4	-0.4	302	4.0	3.4	-2.1	280	11.1	10.9	-1.9	268	24.0	24.0	1.0	264	28.6	28.4	3.0	262	13.8	13.7	2.0
17	62	3.2	-2.8	-1.5	39	1.9	-1.2	-1.5	309	4.1	3.2	-2.6	277	11.5	11.4	-1.4	267	22.8	22.8	1.3	254	27.1	26.1	7.3	259	18.3	17.9	3.6
18	62	3.8	-3.4	-1.8	22	1.6	-0.6	-1.5	308	3.9	3.1	-2.4	280	11.8	11.6	-2.1	269	24.8	24.8	0.3	255	32.4	31.2	8.6	268	17.1	17.1	0.6
19	64	2.5	-2.3	-1.1	53	0.5	-0.4	-0.3	310	4.3	3.3	-2.8	287	11.3	10.8	-3.3	274	25.0	24.9	-1.6	257	31.0	30.2	7.1	268	17.9	17.9	0.6
20	81	3.7	-3.7	-0.6	338	0.5	0.2	-0.5	310	3.9	3.0	-2.5	275	11.0	11.0	-1.0	261	22.7	22.4	3.4	252	29.8	28.3	9.2	266	15.6	15.6	1.0
21	54	1.4	-1.1	-0.8	308	1.1	0.9	-0.7	301	4.4	3.8	-2.3	276	10.1	10.1	-1.0	266	25.7	25.6	1.9	253	30.5	29.1	9.1	263	18.1	18.0	2.3
22	69	1.9	-1.8	-0.7	45	0.3	-0.2	-0.2	297	4.5	4.0	-2.0	271	13.2	13.2	-0.2	268	26.2	26.2	1.0	257	30.0	29.2	6.9	271	14.2	14.2	-0.3
23	51	2.1	-1.6	-1.3	326	1.4	0.8	-1.2	301	4.4	3.8	-2.3	276	14.4	14.3	-1.4	266	29.2	29.1	1.9	262	33.8	33.5	4.5	261	17.2	17.0	2.8
24	73	2.1	-2.0	-0.6	233	1.0	0.8	0.6	278	5.7	5.6	-0.8	273	14.1	14.1	-0.8	266	28.6	28.5	1.8	262	34.5	34.2	4.9	260	22.7	22.4	3.8
25	34	1.1	-0.6	-0.9	248	1.1	1.0	0.4	271	5.1	5.1	-0.1	281	12.5	12.3	-2.3	267	27.9	27.9	1.3	258	34.6	33.9	7.1	260	21.7	21.3	3.9
26	52	3.1	-2.4	-1.9	300	1.6	1.4	-0.8	273	5.5	5.5	-0.3	272	14.2	14.2	-0.5	267	28.7	28.7	1.4	259	32.3	31.7	6.1	266	22.3	22.2	1.6
27	75	2.4	-2.3	-0.6	191	0.5	0.1	0.5	284	5.5	5.3	-1.3	272	15.0	15.0	-0.4	265	27.5	27.4	2.6	261	33.3	32.9	5.4	260	16.5	16.2	3.0
28	96	2.7	-2.7	0.3	214	0.7	0.4	0.6	288	5.6	5.3	-1.7	273	12.9	12.9	-0.6	265	25.4	25.3	2.0	260	31.0	30.5	5.5	268	14.7	14.7	0.4
29	90	3.0	-3.0	0.0	294	1.2	1.1	-0.5	281	4.9	4.8	-0.9	274	13.5	13.5	-0.9	269	25.4	25.4	0.4	261	32.9	32.5	5.1	273	15.4	15.4	-0.8
30	142	1.6	-1.0	1.3	232	1.6	1.3	1.0	276	7.0	7.0	-0.7	275	17.4	17.3	-1.5	268	27.8	27.8	0.8	258	32.2	31.5	6.9	266	20.1	20.1	1.3
31	78	2.5	-2.4	-0.5	239	1.2	1.0	0.6	281	7.3	7.2	-1.4	270	16.3	16.3	0.1	264	30.7	30.5	3.2	262	33.1	32.8	4.7	263	15.5	15.4	2.0

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	313	2.3	1.7	-1.6	307	4.9	3.9	-2.9	276	7.2	7.2	-0.7	273	20.1	20.1	-0.9	272	40.4	40.4	-1.5	270	49.4	49.4	-0.1	269	30.5	30.5	0.3
2	305	3.5	2.9	-2.0	305	5.0	4.1	-2.9	284	7.4	7.2	-1.8	274	18.1	18.1	-1.2	272	36.7	36.7	-1.0	268	47.3	47.3	1.3	269	32.1	32.1	0.3
3	306	2.6	2.1	-1.5	303	4.4	3.7	-2.4	288	6.4	6.1	-2.0	278	18.2	18.0	-2.5	276	37.3	37.1	-4.2	273	51.2	51.1	-2.4	265	36.8	36.7	2.9
4	288	3.6	3.4	-1.1	289	4.6	4.3	-1.5	275	7.5	7.5	-0.7	268	20.1	20.1	0.8	269	38.8	38.8	0.5	266	49.7	49.6	3.4	268	30.5	30.5	0.9
5	321	4.3	2.7	-3.3	305	5.4	4.4	-3.1	277	8.1	8.0	-1.0	270	18.9	18.9	-0.1	268	41.7	41.7	1.4	271	49.0	49.0	-1.1	270	32.0	32.0	0.0
6	331	3.7	1.8	-3.2	293	4.8	4.4	-1.9	274	8.9	8.9	-0.7	276	19.3	19.2	-2.1	273	37.7	37.6	-2.0	271	45.4	45.4	-1.0	270	31.0	31.0	0.1
7	353	0.8	0.1	-0.8	288	3.9	3.7	-1.2	273	6.4	6.4	-0.3	276	18.1	18.0	-1.8	273	35.9	35.8	-2.1	268	45.8	45.8	1.6	275	33.1	33.0	-3.0
8	310	1.7	1.3	-1.1	304	4.2	3.5	-2.4	283	6.6	6.4	-1.5	272	17.2	17.2	-0.6	269	36.2	36.2	0.6	267	47.0	46.9	2.7	261	30.5	30.2	4.6
9	283	1.8	1.8	-0.4	285	4.1	4.0	-1.1	273	6.9	6.9	-0.4	271	19.6	19.6	-0.2	273	36.2	36.1	-2.0	269	47.1	47.1	1.2	267	30.1	30.0	1.8
10	306	1.7	1.4	-1.0	298	5.0	4.4	-2.3	279	7.2	7.1	-1.1	274	19.7	19.6	-1.5	271	39.2	39.2	-0.7	266	46.4	46.3	3.1	265	32.9	32.8	3.1
11	307	4.9	3.9	-2.9	303	4.3	3.6	-2.3	266	6.4	6.4	0.4	268	20.0	20.0	0.8	264	40.2	40.0	4.0	263	48.2	47.8	5.8	266	28.8	28.7	2.0
12	272	2.6	2.6	-0.1	286	4.0	3.8	-1.1	278	8.0	7.9	-1.1	267	20.8	20.8	1.0	269	41.7	41.7	0.4	267	52.8	52.7	2.6	267	28.4	28.3	1.7
13	318	4.3	2.9	-3.2	308	4.9	3.9	-3.0	278	7.2	7.1	-1.0	272	20.8	20.8	-0.8	272	43.5	43.5	-1.7	268	50.2	50.2	2.0	265	34.9	34.8	3.1
14	303	3.7	3.1	-2.0	294	4.8	4.4	-2.0	266	7.3	7.3	0.5	270	22.7	22.7	0.1	270	46.2	46.2	0.0	267	53.1	53.0	2.7	265	36.4	36.3	3.3
15	286	2.6	2.5	-0.7	286	4.1	3.9	-1.1	263	8.6	8.5	1.0	265	20.9	20.8	1.7	268	42.1	42.1	1.2	270	50.8	50.8	0.4	265	27.8	27.7	2.2
16	306	3.6	2.9	-2.1	303	4.2	3.5	-2.3	280	7.4	7.3	-1.3	271	20.5	20.5	-0.4	273	44.7	44.7	-2.0	269	51.6	51.6	1.2	266	29.5	29.4	2.2
17	314	5.4	3.9	-3.8	310	6.4	4.9	-4.1	283	8.3	8.1	-1.8	275	21.6	21.5	-1.9	271	42.7	42.7	-0.6	267	52.7	52.6	2.8	271	34.5	34.5	-0.4
18	313	5.7	4.2	-3.9	308	5.4	4.3	-3.3	285	7.3	7.1	-1.9	274	20.7	20.7	-1.3	274	37.1	37.0	-2.8	269	50.4	50.4	0.6	266	30.0	29.9	2.3
19	320	5.9	3.8	-4.5	309	5.1	4.0	-3.2	285	7.9	7.6	-2.1	272	19.8	19.8	-0.7	270	42.2	42.2	-0.1	267	50.0	49.9	2.4	269	34.3	34.3	0.4
20	310	4.5	3.4	-2.9	302	5.4	4.6	-2.9	276	6.8	6.8	-0.7	273	19.8	19.8	-1.1	273	39.1	39.1	-1.9	266	51.0	50.9	3.8	266	31.3	31.2	2.4
21	320	3.3	2.1	-2.5	303	3.8	3.2	-2.1	274	7.8	7.8	-0.6	272	18.7	18.7	-0.7	268	40.0	40.0	1.2	262	48.7	48.2	7.2	261	37.0	36.5	5.8
22	301	3.1	2.7	-1.6	286	4.0	3.8	-1.1	271	8.1	8.1	-0.2	275	20.9	20.8	-1.9	269	44.0	44.0	0.9	267	52.8	52.7	3.1	265	30.7	30.6	2.6
23	304	4.3	3.6	-2.4	301	5.6	4.8	-2.9	286	8.2	7.9	-2.3	272	21.6	21.6	-0.6	269	42.1	42.1	0.4	270	44.5	44.5	0.3	269	27.3	27.3	0.7
24	317	6.5	4.4	-4.8	297	6.5	5.8	-3.0	283	8.8	8.6	-2.0	271	20.5	20.5	-0.3	269	45.1	45.1	0.8	271	51.3	51.3	-0.8	264	28.3	28.2	2.9
25	315	7.1	5.0	-5.0	293	5.7	5.3	-2.2	271	8.7	8.7	-0.2	270	20.2	20.2	0.0	269	44.2	44.2	0.7	269	50.2	50.2	0.9	264	28.0	27.9	2.8
26	318	5.8	3.9	-4.3	290	4.5	4.2	-1.5	274	9.3	9.3	-0.6	267	21.4	21.4	1.1	268	42.5	42.5	1.6	267	57.1	57.0	2.6	266	33.2	33.1	2.3
27	317	4.5	3.1	-3.3	290	4.0	3.8	-1.4	263	8.2	8.1	1.0	266	20.7	20.6	1.6	268	45.7	45.7	1.3	266	54.9	54.8	3.4	262	32.1	31.8	4.3
28	342	4.0	1.2	-3.8	286	4.6	4.4	-1.3	266	9.4	9.4	0.7	262	20.0	19.8	2.7	268	40.2	40.2	1.4	268	52.4	52.4	1.5	266	29.9	29.8	1.9
29	315	6.1	4.3	-4.3	297	6.3	5.6	-2.9	278	9.5	9.4	-1.3	276	21.2	21.1	-2.2	274	43.1	43.0	-3.2	273	49.5	49.5	-2.2	273	30.7	30.6	-1.8
30	317	3.7	2.5	-2.7	293	5.0	4.6	-2.0	272	8.4	8.4	-0.3	272	21.8	21.8	-0.6	270	41.5	41.5	-0.3	269	51.8	51.8	1.3	267	29.5	29.5	1.7
31	322	4.7	2.9	-3.7	288	5.2	4.9	-1.6	276	7.2	7.2	-0.7	273	22.2	22.2	-1.0	270	43.2	43.2	0.1	266	53.2	53.1	3.6	268	36.8	36.8	1.2

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	321	3.5	2.2	-2.7	303	4.6	3.9	-2.5	279	8.1	8.0	-1.3	273	19.4	19.4	-1.1	272	43.8	43.8	-1.5	271	52.0	52.0	-1.0	272	31.1	31.1	-1.0
2	308	2.9	2.3	-1.8	296	5.0	4.5	-2.2	276	7.7	7.7	-0.8	271	19.4	19.4	-0.5	273	40.9	40.8	-2.2	272	53.7	53.7	-2.1	273	38.1	38.1	-1.8
3	329	2.3	1.2	-2.0	306	5.4	4.4	-3.2	273	8.5	8.5	-0.5	272	18.6	18.6	-0.7	271	39.0	39.0	-0.9	270	51.3	51.3	0.1	273	32.9	32.9	-1.6
4	320	2.5	1.6	-1.9	294	4.6	4.2	-1.9	278	8.2	8.1	-1.2	272	20.7	20.7	-0.6	271	42.0	42.0	-0.5	269	52.3	52.3	1.2	268	34.4	34.4	1.1
5	310	5.7	4.4	-3.7	300	5.3	4.6	-2.7	279	8.4	8.3	-1.3	274	18.7	18.6	-1.4	278	41.8	41.4	-5.7	272	51.2	51.2	-1.6	271	27.4	27.4	-0.5
6	322	5.2	3.2	-4.1	309	6.6	5.1	-4.2	291	8.5	7.9	-3.0	278	16.7	16.5	-2.4	277	37.5	37.2	-4.6	273	48.5	48.4	-2.8	274	28.3	28.2	-1.9
7	306	3.9	3.2	-2.3	302	6.2	5.2	-3.3	288	8.5	8.1	-2.7	272	18.3	18.3	-0.6	274	35.4	35.3	-2.7	271	43.8	43.8	-0.9	270	31.1	31.1	0.2
8	285	2.7	2.6	-0.7	294	5.2	4.8	-2.1	281	8.4	8.2	-1.6	273	20.3	20.3	-0.9	275	39.3	39.2	-3.4	271	45.5	45.5	-0.9	269	27.0	27.0	0.7
9	320	3.1	2.0	-2.4	307	5.6	4.5	-3.4	295	8.1	7.3	-3.4	286	18.0	17.3	-4.8	281	37.1	36.4	-7.2	278	42.3	41.9	-5.6	271	28.0	28.0	-0.3
10	256	3.8	3.7	0.9	296	5.3	4.8	-2.3	289	7.1	6.7	-2.3	275	19.2	19.1	-1.6	279	33.7	33.3	-5.0	279	46.0	45.4	-7.1	272	30.0	30.0	-1.3
11	309	0.6	0.5	-0.4	286	3.7	3.6	-1.0	284	7.1	6.9	-1.7	281	18.7	18.3	-3.6	275	37.2	37.0	-3.4	271	45.0	45.0	-0.8	268	30.6	30.6	1.2
12	306	6.4	5.2	-3.8	299	4.6	4.0	-2.2	280	8.3	8.2	-1.5	274	19.8	19.8	-1.4	272	41.5	41.5	-1.5	273	47.6	47.5	-2.2	261	31.6	31.2	4.9
13	324	5.7	3.3	-4.6	291	5.7	5.3	-2.0	278	8.3	8.2	-1.2	265	20.1	20.0	1.7	268	41.2	41.2	1.3	269	53.0	53.0	1.0	268	33.0	33.0	1.4
14	312	5.2	3.9	-3.5	298	5.0	4.4	-2.3	274	8.0	8.0	-0.6	266	20.0	20.0	1.3	267	41.4	41.3	2.1	269	49.3	49.3	0.7	267	35.7	35.6	1.9
15	308	3.9	3.1	-2.4	279	3.9	3.9	-0.6	274	7.0	7.0	-0.5	266	18.9	18.9	1.3	266	40.0	39.9	3.1	266	50.7	50.5	3.9	265	30.2	30.1	2.4
16	313	2.6	1.9	-1.8	301	4.7	4.0	-2.4	266	7.4	7.4	0.5	264	18.8	18.7	1.9	265	43.6	43.5	3.5	261	52.1	51.5	8.0	258	29.1	28.5	5.8
17	303	5.5	4.6	-3.0	287	5.7	5.4	-1.7	271	7.8	7.8	-0.2	263	20.1	19.9	2.5	265	42.4	42.2	3.9	265	53.1	52.9	4.5	266	33.0	32.9	2.1
18	302	3.1	2.6	-1.6	275	4.6	4.6	-0.4	274	9.5	9.5	-0.7	264	18.7	18.6	2.1	268	41.9	41.9	1.8	266	49.6	49.5	3.8	268	27.3	27.3	1.1
19	315	4.9	3.5	-3.5	281	5.7	5.6	-1.1	265	7.9	7.9	0.7	265	20.1	20.0	1.7	267	41.9	41.8	2.1	265	53.1	52.9	4.9	266	28.9	28.8	2.0
20	326	3.6	2.0	-3.0	288	5.8	5.5	-1.8	273	8.5	8.5	-0.4	266	20.1	20.0	1.5	269	41.9	41.9	0.9	268	50.5	50.5	1.9	268	28.4	28.4	1.1
21	316	4.3	3.0	-3.1	290	5.5	5.2	-1.9	278	9.9	9.8	-1.3	273	20.9	20.9	-1.1	272	40.6	40.6	-1.1	268	52.6	52.6	1.7	268	31.1	31.1	1.0
22	324	4.1	2.4	-3.3	301	6.3	5.4	-3.2	281	10.2	10.0	-1.9	277	20.2	20.1	-2.3	278	38.1	37.7	-5.6	272	49.8	49.8	-1.8	266	29.2	29.1	2.0
23	318	4.0	2.7	-3.0	297	5.9	5.2	-2.7	289	11.0	10.4	-3.5	277	19.7	19.6	-2.4	275	39.7	39.5	-3.6	274	51.8	51.7	-3.3	270	35.7	35.7	-0.1
24	290	1.2	1.1	-0.4	278	4.3	4.3	-0.6	278	10.3	10.2	-1.4	273	22.2	22.2	-1.1	275	40.9	40.7	-3.6	274	49.3	49.2	-3.4	273	31.0	31.0	-1.7
25	286	3.2	3.1	-0.9	291	6.4	6.0	-2.3	277	10.5	10.4	-1.2	272	20.3	20.3	-0.7	275	42.5	42.3	-3.6	271	49.5	49.5	-1.1	268	28.1	28.1	0.8
26	273	2.1	2.1	-0.1	293	7.3	6.7	-2.8	275	11.0	11.0	-1.0	268	19.0	19.0	0.5	269	37.9	37.9	0.6	269	47.9	47.9	1.0	266	25.5	25.4	1.9
27	298	2.4	2.1	-1.1	279	6.1	6.0	-1.0	279	9.5	9.4	-1.5	271	19.6	19.6	-0.4	272	39.1	39.1	-1.2	268	49.2	49.2	1.8	265	31.8	31.7	2.6
28	313	5.1	3.7	-3.5	299	7.2	6.3	-3.5	267	9.7	9.7	0.5	268	19.2	19.2	0.7	268	35.4	35.4	1.1	266	45.9	45.8	2.9	262	31.0	30.7	4.1
29	308	8.4	6.6	-5.2	299	10.0	8.8	-4.8	284	12.7	12.3	-3.1	278	20.2	20.0	-2.9	269	41.6	41.6	0.8	260	53.7	52.8	9.7	264	37.6	37.4	4.2

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	307	5.1	4.1	-3.1	297	6.6	5.9	-3.0	286	9.6	9.2	-2.7	275	19.3	19.2	-1.8	272	37.7	37.7	-1.3	269	47.2	47.2	1.0	263	32.4	32.2	4.0
2	314	5.6	4.0	-3.9	301	8.2	7.0	-4.2	288	10.2	9.7	-3.1	278	17.5	17.3	-2.3	271	36.2	36.2	-0.6	270	45.3	45.3	0.3	268	28.3	28.3	1.1
3	320	6.0	3.9	-4.6	302	8.4	7.1	-4.4	290	9.1	8.6	-3.1	278	16.9	16.7	-2.4	276	35.6	35.4	-3.6	272	46.0	46.0	-1.3	268	25.5	25.5	0.8
4	309	2.7	2.1	-1.7	288	7.1	6.7	-2.2	285	9.1	8.8	-2.4	274	17.6	17.6	-1.1	270	35.8	35.8	0.3	268	42.5	42.5	1.7	267	24.6	24.6	1.1
5	319	5.0	3.3	-3.8	301	7.0	6.0	-3.6	276	9.0	9.0	-0.9	271	18.0	18.0	-0.4	271	37.6	37.6	-0.7	271	43.1	43.1	-0.7	265	24.1	24.0	2.3
6	325	5.1	2.9	-4.2	299	5.6	4.9	-2.7	275	8.8	8.8	-0.7	272	17.7	17.7	-0.5	270	35.0	35.0	0.2	268	44.3	44.3	1.2	271	23.7	23.7	-0.4
7	316	5.4	3.8	-3.9	299	7.1	6.2	-3.5	282	9.0	8.8	-1.8	274	18.4	18.3	-1.4	276	35.5	35.3	-3.4	271	44.6	44.6	-1.0	274	26.9	26.8	-1.7
8	320	7.1	4.6	-5.4	304	6.9	5.7	-3.8	281	10.7	10.5	-2.0	273	18.4	18.4	-0.9	270	32.1	32.1	0.1	268	45.8	45.8	1.7	268	25.3	25.3	0.8
9	326	8.1	4.5	-6.7	293	7.3	6.7	-2.8	282	9.6	9.4	-2.0	267	17.6	17.6	0.8	269	31.4	31.4	0.4	266	41.7	41.6	3.0	265	28.2	28.1	2.4
10	327	7.6	4.1	-6.4	286	5.8	5.6	-1.6	270	8.6	8.6	0.0	269	17.9	17.9	0.3	265	34.6	34.5	3.2	263	43.5	43.2	5.1	266	30.0	29.9	2.2
11	320	3.3	2.1	-2.5	280	6.1	6.0	-1.1	272	9.4	9.4	-0.3	262	18.4	18.2	2.4	263	35.6	35.4	4.1	265	44.0	43.9	3.5	264	27.2	27.0	3.0
12	311	2.1	1.6	-1.4	296	6.4	5.8	-2.8	279	10.1	10.0	-1.6	272	18.1	18.1	-0.7	271	32.9	32.9	-0.3	268	44.0	44.0	1.6	270	27.4	27.4	0.0
13	330	5.9	3.0	-5.1	301	7.7	6.6	-3.9	289	10.0	9.5	-3.2	276	17.9	17.8	-2.0	276	36.4	36.2	-3.5	276	41.3	41.1	-4.5	272	26.9	26.9	-0.9
14	323	5.9	3.6	-4.7	301	7.5	6.4	-3.9	289	9.4	8.9	-3.0	280	17.1	16.9	-2.9	277	33.7	33.4	-4.1	279	41.3	40.8	-6.2	271	28.2	28.2	-0.3
15	316	5.4	3.8	-3.9	302	7.0	6.0	-3.7	289	9.3	8.8	-3.1	274	17.5	17.5	-1.2	277	33.7	33.5	-4.1	275	43.0	42.9	-3.5	269	24.7	24.7	0.5
16	312	6.6	4.9	-4.4	288	6.6	6.3	-2.1	283	10.3	10.0	-2.3	274	20.0	20.0	-1.4	272	35.2	35.2	-1.5	268	45.1	45.1	1.9	264	26.8	26.7	2.6
17	303	3.5	2.9	-1.9	294	6.0	5.5	-2.4	271	10.4	10.4	-0.2	270	20.0	20.0	0.1	271	34.7	34.7	-0.8	267	42.2	42.2	1.9	263	24.9	24.7	2.9
18	320	6.2	4.0	-4.7	289	6.1	5.8	-2.0	273	11.6	11.6	-0.7	270	19.0	19.0	-0.1	273	36.0	35.9	-2.0	273	42.7	42.7	-1.9	267	25.2	25.2	1.2
19	322	3.9	2.4	-3.1	297	6.8	6.0	-3.1	282	10.8	10.6	-2.3	273	17.9	17.9	-1.0	275	33.1	33.0	-2.6	271	40.5	40.5	-0.9	268	23.1	23.1	0.8
20	320	4.5	2.9	-3.5	299	7.4	6.5	-3.6	284	10.8	10.5	-2.7	272	18.6	18.6	-0.6	272	33.7	33.7	-1.2	271	42.0	42.0	-0.5	275	26.8	26.7	-2.2
21	307	3.6	2.9	-2.2	290	6.9	6.5	-2.4	278	9.0	8.9	-1.2	274	15.9	15.9	-1.0	274	32.8	32.7	-2.2	273	41.2	41.2	-2.0	272	29.2	29.2	-1.2
22	309	3.2	2.5	-2.0	289	5.4	5.1	-1.8	276	9.8	9.7	-1.1	271	17.6	17.6	-0.2	272	32.2	32.2	-1.3	272	41.2	41.2	-1.4	273	27.4	27.4	-1.4
23	307	5.4	4.3	-3.2	292	6.8	6.3	-2.6	278	10.3	10.2	-1.5	269	17.7	17.7	0.4	272	32.2	32.2	-1.1	271	39.0	39.0	-1.0	269	22.1	22.1	0.5
24	297	4.5	4.0	-2.0	291	6.1	5.7	-2.2	279	9.4	9.3	-1.5	272	14.6	14.6	-0.6	267	29.4	29.4	1.6	265	36.1	36.0	3.2	265	22.6	22.5	2.0
25	300	3.8	3.3	-1.9	297	4.2	3.8	-1.9	284	8.9	8.6	-2.2	271	14.3	14.3	-0.2	270	27.0	27.0	-0.2	267	33.2	33.2	1.6	266	23.5	23.4	1.8
26	327	6.0	3.3	-5.0	307	4.5	3.6	-2.7	288	8.9	8.5	-2.7	279	14.9	14.7	-2.2	276	29.2	29.0	-3.0	276	35.2	35.0	-3.5	272	20.8	20.8	-0.9
27	317	6.0	4.1	-4.4	304	7.3	6.1	-4.1	293	9.0	8.3	-3.6	284	15.4	14.9	-3.8	286	26.3	25.3	-7.1	284	35.8	34.8	-8.5	269	21.0	21.0	0.4
28	319	2.1	1.4	-1.6	298	6.7	5.9	-3.1	291	10.4	9.7	-3.7	281	16.8	16.5	-3.3	278	28.2	27.9	-4.0	279	41.1	40.6	-6.2	273	24.1	24.1	-1.3
29	319	4.1	2.7	-3.1	296	5.2	4.7	-2.3	287	9.8	9.4	-2.8	272	14.2	14.2	-0.4	274	31.1	31.0	-1.9	269	39.0	39.0	0.8	268	22.4	22.4	0.9
30	311	2.1	1.6	-1.4	295	6.0	5.4	-2.5	284	9.8	9.5	-2.3	277	15.8	15.7	-2.0	276	28.3	28.2	-2.8	273	38.1	38.0	-2.1	269	20.5	20.5	0.3
31	309	4.4	3.4	-2.8	304	6.1	5.1	-3.4	285	9.4	9.1	-2.4	264	16.6	16.5	1.6	266	28.3	28.2	1.9	267	36.5	36.4	2.0	267	20.4	20.4	1.0

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	332	4.1	1.9	-3.6	307	6.5	5.2	-3.9	286	10.7	10.3	-2.9	277	15.4	15.3	-1.8	273	31.1	31.1	-1.6	273	37.2	37.2	-1.7	269	22.3	22.3	0.4
2	316	5.7	3.9	-4.1	300	7.6	6.6	-3.8	282	10.3	10.1	-2.1	275	13.3	13.3	-1.1	265	27.4	27.3	2.6	269	38.0	38.0	0.7	262	21.6	21.4	3.0
3	347	5.0	1.1	-4.9	302	7.3	6.2	-3.8	283	9.5	9.2	-2.2	265	13.9	13.8	1.3	267	25.7	25.7	1.5	266	36.9	36.8	2.6	268	22.1	22.1	0.9
4	340	3.5	1.2	-3.3	293	4.9	4.5	-1.9	269	8.4	8.4	0.1	272	16.7	16.7	-0.7	273	29.6	29.6	-1.5	267	40.0	39.9	2.3	268	21.9	21.9	0.6
5	313	3.8	2.8	-2.6	300	5.9	5.1	-2.9	272	8.7	8.7	-0.3	269	15.5	15.5	0.3	272	27.3	27.3	-0.8	267	37.0	36.9	2.0	269	25.1	25.1	0.6
6	322	1.6	1.0	-1.3	299	6.5	5.7	-3.2	284	10.5	10.2	-2.5	275	13.6	13.6	-1.1	277	27.1	26.9	-3.3	274	38.6	38.5	-2.9	270	21.7	21.7	0.1
7	318	8.3	5.5	-6.2	309	8.2	6.4	-5.1	289	11.0	10.4	-3.6	272	14.8	14.8	-0.4	273	28.1	28.1	-1.4	272	39.1	39.1	-1.5	262	21.0	20.8	2.8
8	312	5.2	3.9	-3.5	292	5.8	5.4	-2.2	282	10.1	9.9	-2.1	267	15.5	15.5	0.7	275	26.1	26.0	-2.1	268	37.4	37.4	1.4	264	25.5	25.4	2.6
9	298	4.9	4.3	-2.3	294	7.0	6.4	-2.8	286	10.7	10.3	-2.9	267	14.8	14.8	0.8	269	28.0	28.0	0.5	268	37.9	37.9	1.0	270	24.4	24.4	0.1
10	336	3.4	1.4	-3.1	304	7.2	6.0	-4.0	293	11.0	10.1	-4.3	279	15.6	15.4	-2.4	276	28.3	28.1	-3.1	272	34.9	34.9	-1.0	273	23.9	23.9	-1.2
11	328	4.7	2.5	-4.0	308	7.6	6.0	-4.7	292	10.9	10.1	-4.0	280	14.0	13.8	-2.5	279	30.6	30.3	-4.6	281	37.8	37.2	-6.9	270	25.7	25.7	0.1
12	292	1.1	1.0	-0.4	307	6.7	5.4	-4.0	293	9.6	8.9	-3.7	278	13.3	13.2	-1.8	275	28.6	28.5	-2.3	280	35.5	35.0	-5.9	273	21.1	21.1	-1.1
13	330	3.4	1.7	-2.9	301	5.7	4.9	-3.0	287	9.9	9.5	-2.9	274	14.1	14.1	-1.1	275	30.7	30.6	-2.5	275	41.8	41.6	-3.6	273	18.3	18.3	-1.0
14	28	1.5	-0.7	-1.3	300	3.8	3.3	-1.9	281	8.7	8.5	-1.7	269	12.1	12.1	0.2	272	23.2	23.2	-0.8	265	35.8	35.7	3.1	274	21.9	21.8	-1.5
15	32	1.3	-0.7	-1.1	296	4.6	4.1	-2.0	280	7.8	7.7	-1.3	272	12.5	12.5	-0.5	269	24.5	24.5	0.5	271	30.6	30.6	-0.3	273	18.2	18.2	-0.8
16	1	4.2	-0.1	-4.2	311	5.0	3.8	-3.3	288	9.3	8.8	-2.9	278	12.5	12.4	-1.8	282	19.5	19.1	-3.9	275	28.0	27.9	-2.5	274	17.5	17.5	-1.1
17	304	5.0	4.1	-2.8	302	5.9	5.0	-3.1	297	11.2	10.0	-5.0	286	12.7	12.2	-3.6	281	23.1	22.7	-4.4	276	29.6	29.4	-3.3	273	14.8	14.8	-0.7
18	299	3.9	3.4	-1.9	296	6.2	5.6	-2.7	293	11.0	10.1	-4.3	284	12.7	12.3	-3.0	279	23.6	23.3	-3.6	273	27.2	27.2	-1.2	273	14.6	14.6	-0.7
19	319	3.3	2.2	-2.5	304	5.4	4.5	-3.0	291	9.9	9.3	-3.5	277	12.6	12.5	-1.6	268	21.5	21.5	0.9	268	28.7	28.7	0.8	264	16.1	16.0	1.8
20	315	3.5	2.5	-2.5	306	5.6	4.5	-3.3	295	9.8	8.9	-4.1	282	10.7	10.4	-2.3	275	22.1	22.0	-1.9	269	30.4	30.4	0.6	267	17.5	17.5	0.8
21	284	3.7	3.6	-0.9	300	5.6	4.8	-2.8	288	8.5	8.1	-2.6	276	9.8	9.7	-1.1	271	20.1	20.1	-0.2	267	28.6	28.6	1.3	264	15.1	15.0	1.5
22	317	4.2	2.9	-3.1	305	5.5	4.5	-3.1	282	9.3	9.1	-2.0	272	9.5	9.5	-0.3	263	21.6	21.4	2.8	266	27.7	27.6	2.0	272	14.6	14.6	-0.5
23	325	4.2	2.4	-3.4	300	5.3	4.6	-2.7	288	9.5	9.0	-2.9	281	10.6	10.4	-2.0	277	19.2	19.0	-2.4	275	28.7	28.6	-2.7	276	20.9	20.8	-2.3
24	335	3.8	1.6	-3.4	309	6.3	4.9	-3.9	292	10.5	9.7	-3.9	285	10.5	10.1	-2.7	283	15.9	15.5	-3.5	275	26.6	26.5	-2.4	268	15.5	15.5	0.5
25	316	4.6	3.2	-3.3	301	6.1	5.2	-3.1	299	9.2	8.1	-4.4	299	10.0	8.7	-4.9	284	17.6	17.1	-4.2	282	24.0	23.5	-5.1	275	14.4	14.3	-1.3
26	144	1.4	-0.8	1.1	289	3.1	2.9	-1.0	291	9.4	8.8	-3.4	293	9.3	8.6	-3.6	287	18.8	18.0	-5.5	281	26.7	26.2	-4.9	265	15.9	15.8	1.3
27	308	1.1	0.9	-0.7	300	5.2	4.5	-2.6	292	9.7	9.0	-3.7	287	9.7	9.3	-2.9	278	21.4	21.2	-3.1	277	29.9	29.7	-3.4	271	13.6	13.6	-0.3
28	306	2.9	2.3	-1.7	300	5.4	4.7	-2.7	290	9.5	8.9	-3.2	274	10.5	10.5	-0.7	279	18.9	18.7	-2.8	274	29.9	29.8	-1.9	266	17.4	17.4	1.1
29	301	5.0	4.3	-2.6	305	7.0	5.7	-4.0	299	9.8	8.5	-4.8	285	12.2	11.8	-3.2	282	21.0	20.6	-4.3	272	28.0	28.0	-0.9	269	15.6	15.6	0.3
30	287	4.4	4.2	-1.3	297	6.7	6.0	-3.0	293	9.1	8.4	-3.5	283	13.1	12.8	-3.0	279	21.8	21.5	-3.4	272	29.1	29.1	-1.0	262	16.5	16.3	2.4

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	327	3.3	1.8	-2.8	302	5.3	4.5	-2.8	283	9.0	8.8	-2.1	278	9.7	9.6	-1.3	274	22.2	22.2	-1.4	264	32.9	32.7	3.7	260	13.8	13.6	2.4
2	312	3.0	2.2	-2.0	297	7.2	6.4	-3.2	282	9.3	9.1	-2.0	271	12.0	12.0	-0.3	268	22.0	22.0	0.9	266	31.0	30.9	2.4	271	15.6	15.6	-0.2
3	306	4.4	3.6	-2.6	295	5.6	5.1	-2.4	288	10.0	9.5	-3.0	272	11.6	11.6	-0.4	268	22.3	22.3	0.9	268	32.2	32.2	1.1	260	15.9	15.7	2.8
4	286	1.8	1.7	-0.5	293	4.7	4.3	-1.8	290	8.4	7.9	-2.9	281	9.8	9.6	-1.9	272	21.0	21.0	-0.7	264	31.9	31.7	3.6	262	13.0	12.9	1.7
5	280	2.2	2.2	-0.4	297	5.8	5.2	-2.6	289	9.4	8.9	-3.1	285	11.1	10.7	-2.8	274	21.4	21.3	-1.5	261	32.3	31.9	5.1	266	19.3	19.2	1.4
6	295	5.6	5.1	-2.4	295	5.5	5.0	-2.3	291	9.7	9.0	-3.5	292	10.5	9.8	-3.9	278	19.7	19.5	-2.7	269	31.4	31.4	0.7	272	16.1	16.1	-0.6
7	299	6.8	6.0	-3.3	288	5.2	5.0	-1.6	295	7.7	7.0	-3.2	287	10.2	9.8	-3.0	275	19.5	19.4	-1.8	266	30.4	30.3	2.1	269	14.8	14.8	0.2
8	313	5.2	3.8	-3.5	285	4.7	4.5	-1.2	304	8.7	7.2	-4.9	285	8.8	8.5	-2.3	272	19.0	19.0	-0.8	272	26.1	26.1	-0.7	272	12.6	12.6	-0.4
9	334	2.8	1.2	-2.5	295	5.2	4.7	-2.2	298	8.6	7.6	-4.0	291	10.1	9.4	-3.6	276	18.6	18.5	-2.0	275	26.6	26.5	-2.1	268	16.7	16.7	0.5
10	126	0.9	-0.7	0.5	286	4.8	4.6	-1.3	292	9.4	8.7	-3.5	288	9.6	9.1	-2.9	267	18.5	18.5	0.9	270	24.4	24.4	-0.1	263	10.5	10.4	1.2
11	167	2.7	-0.6	2.6	265	3.8	3.8	0.3	291	9.2	8.6	-3.3	293	11.1	10.2	-4.3	281	19.1	18.8	-3.5	272	26.4	26.4	-0.8	270	13.6	13.6	0.1
12	317	2.5	1.7	-1.8	286	4.4	4.2	-1.2	296	9.1	8.2	-4.0	295	11.4	10.3	-4.9	283	20.9	20.4	-4.7	272	27.7	27.7	-1.0	258	14.0	13.7	2.9
13	347	4.0	0.9	-3.9	302	3.6	3.1	-1.9	294	9.3	8.5	-3.8	286	9.9	9.5	-2.8	274	16.7	16.7	-1.1	268	24.6	24.6	0.7	272	15.9	15.9	-0.5
14	317	4.2	2.9	-3.1	302	5.2	4.4	-2.8	295	7.9	7.2	-3.3	284	10.6	10.3	-2.6	274	20.2	20.1	-1.5	264	26.8	26.7	2.7	269	12.5	12.5	0.3
15	290	3.5	3.3	-1.2	303	4.9	4.1	-2.7	292	7.1	6.6	-2.6	281	9.6	9.4	-1.9	273	18.8	18.8	-0.9	270	27.9	27.9	0.0	265	14.1	14.0	1.2
16	298	3.2	2.8	-1.5	303	4.5	3.8	-2.5	291	9.6	8.9	-3.5	286	10.3	9.9	-2.8	272	20.1	20.1	-0.6	266	25.6	25.5	1.6	253	13.2	12.6	3.8
17	274	4.0	4.0	-0.3	304	5.8	4.8	-3.2	296	9.1	8.2	-4.0	287	10.5	10.0	-3.1	274	19.4	19.3	-1.4	270	25.2	25.2	0.1	260	13.0	12.8	2.2
18	268	2.6	2.6	0.1	276	5.3	5.3	-0.6	299	9.2	8.1	-4.4	295	11.8	10.7	-5.0	277	19.0	18.8	-2.4	266	24.3	24.3	1.5	262	13.5	13.4	1.8
19	230	3.1	2.4	2.0	282	5.6	5.5	-1.2	304	8.7	7.2	-4.8	298	10.4	9.2	-4.8	281	20.6	20.2	-3.9	273	24.1	24.1	-1.1	264	13.5	13.4	1.3
20	258	2.4	2.3	0.5	290	7.0	6.6	-2.4	293	8.9	8.2	-3.5	301	11.7	10.0	-6.1	285	19.9	19.2	-5.2	273	23.3	23.3	-1.3	261	13.4	13.3	2.0
21	308	1.8	1.4	-1.1	301	6.4	5.5	-3.3	290	9.1	8.6	-3.1	288	10.9	10.4	-3.4	277	20.4	20.2	-2.5	270	23.7	23.7	-0.2	262	12.2	12.1	1.8
22	282	2.9	2.8	-0.6	300	4.8	4.2	-2.4	300	9.0	7.8	-4.5	299	11.3	9.9	-5.5	280	19.0	18.7	-3.4	272	23.6	23.6	-0.7	264	12.0	11.9	1.2
23	326	2.9	1.6	-2.4	299	5.2	4.6	-2.5	295	8.2	7.4	-3.5	302	9.7	8.2	-5.2	282	16.8	16.4	-3.6	275	21.0	20.9	-1.7	261	10.8	10.7	1.6
24	269	4.7	4.7	0.1	292	6.6	6.1	-2.5	303	8.2	6.9	-4.5	293	9.7	8.9	-3.8	278	19.1	18.9	-2.8	268	19.3	19.3	0.7	267	11.0	11.0	0.6
25	287	5.1	4.9	-1.5	289	5.8	5.5	-1.9	295	8.1	7.3	-3.4	293	10.8	9.9	-4.3	280	19.5	19.2	-3.3	269	19.3	19.3	0.4	260	8.6	8.5	1.5
26	284	3.0	2.9	-0.7	297	5.9	5.2	-2.7	299	9.0	7.8	-4.4	300	9.9	8.6	-5.0	282	18.3	17.9	-3.9	267	18.9	18.9	1.0	261	9.5	9.4	1.5
27	282	4.3	4.2	-0.9	292	6.1	5.7	-2.3	304	9.2	7.7	-5.1	300	9.7	8.4	-4.8	274	18.4	18.3	-1.4	269	22.3	22.3	0.5	258	8.0	7.8	1.6
28	284	6.9	6.7	-1.7	294	6.2	5.7	-2.5	301	8.6	7.4	-4.4	299	9.6	8.4	-4.6	271	19.2	19.2	-0.5	263	20.7	20.5	2.6	254	10.9	10.5	3.1
29	270	4.8	4.8	0.0	291	7.1	6.6	-2.5	298	8.8	7.8	-4.1	295	9.7	8.8	-4.1	271	20.7	20.7	-0.4	263	20.9	20.7	2.5	263	9.3	9.2	1.2
30	274	4.8	4.8	-0.3	292	6.9	6.4	-2.6	301	8.6	7.4	-4.4	300	8.6	7.5	-4.3	271	17.1	17.1	-0.2	261	19.6	19.4	2.9	257	9.1	8.9	2.1
31	322	4.4	2.7	-3.5	290	7.3	6.9	-2.5	296	7.7	6.9	-3.4	293	8.0	7.4	-3.1	276	17.7	17.6	-1.8	263	21.2	21.0	2.7	249	9.9	9.2	3.6

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	301	6.5	5.6	-3.3	297	6.9	6.2	-3.1	295	8.0	7.2	-3.4	288	6.7	6.4	-2.1	265	17.9	17.8	1.6	262	18.6	18.4	2.6	250	9.4	8.8	3.2
2	290	4.4	4.1	-1.5	291	6.8	6.4	-2.4	297	8.2	7.3	-3.7	299	7.1	6.2	-3.5	278	17.2	17.0	-2.4	264	18.5	18.4	1.8	262	10.1	10.0	1.4
3	312	2.4	1.8	-1.6	291	5.5	5.1	-2.0	297	8.8	7.8	-4.0	296	7.9	7.1	-3.4	269	16.6	16.6	0.4	260	18.7	18.4	3.3	252	8.2	7.8	2.5
4	281	3.8	3.7	-0.7	297	6.9	6.2	-3.1	300	6.9	6.0	-3.4	302	8.4	7.1	-4.4	277	17.4	17.3	-2.1	260	18.8	18.5	3.4	276	5.4	5.4	-0.6
5	286	1.8	1.7	-0.5	300	6.0	5.2	-3.0	302	8.4	7.1	-4.5	294	8.5	7.8	-3.5	270	15.8	15.8	0.0	262	17.2	17.0	2.4	270	6.0	6.0	0.0
6	290	3.2	3.0	-1.1	289	6.2	5.9	-2.0	301	8.2	7.1	-4.2	306	8.0	6.5	-4.7	271	15.3	15.3	-0.4	262	14.3	14.2	1.9	287	2.8	2.7	-0.8
7	270	4.5	4.5	0.0	291	6.7	6.3	-2.4	310	7.7	5.9	-5.0	316	6.9	4.8	-4.9	274	14.0	14.0	-1.0	269	16.0	16.0	0.3	279	4.5	4.4	-0.7
8	269	4.8	4.8	0.1	282	5.9	5.8	-1.2	320	5.6	3.6	-4.3	318	5.9	3.9	-4.4	273	13.8	13.8	-0.8	270	13.3	13.3	0.1	260	5.4	5.3	0.9
9	257	3.1	3.0	0.7	284	5.7	5.5	-1.4	314	7.1	5.1	-5.0	316	8.6	6.0	-6.2	274	12.9	12.9	-0.9	272	13.2	13.2	-0.5	280	3.6	3.5	-0.6
10	278	3.5	3.5	-0.5	297	6.3	5.6	-2.9	298	7.5	6.6	-3.5	303	7.2	6.0	-3.9	277	13.3	13.2	-1.6	265	13.7	13.6	1.2	273	5.2	5.2	-0.3
11	259	1.5	1.5	0.3	291	5.1	4.8	-1.8	300	6.6	5.7	-3.3	296	7.1	6.4	-3.1	267	13.2	13.2	0.8	269	12.3	12.3	0.3	262	5.9	5.8	0.8
12	281	5.3	5.2	-1.0	287	5.3	5.1	-1.6	310	5.0	3.8	-3.2	305	6.1	5.0	-3.5	261	11.6	11.5	1.8	260	10.8	10.6	1.8	287	2.1	2.0	-0.6
13	312	3.0	2.2	-2.0	283	5.0	4.9	-1.1	305	7.0	5.8	-4.0	295	6.3	5.7	-2.6	264	12.0	11.9	1.2	259	12.6	12.4	2.5	269	5.1	5.1	0.1
14	299	3.3	2.9	-1.6	299	6.6	5.8	-3.2	307	6.3	5.0	-3.8	291	5.9	5.5	-2.1	271	11.3	11.3	-0.2	261	12.1	12.0	1.9	268	5.3	5.3	0.2
15	288	2.8	2.7	-0.9	290	5.2	4.9	-1.8	305	6.5	5.3	-3.7	294	5.5	5.0	-2.2	271	11.8	11.8	-0.3	268	12.1	12.1	0.5	286	1.5	1.4	-0.4
16	300	2.8	2.4	-1.4	292	4.2	3.9	-1.6	300	6.4	5.6	-3.2	304	6.0	5.0	-3.4	274	9.6	9.6	-0.6	268	10.5	10.5	0.3	320	3.0	1.9	-2.3
17	248	2.7	2.5	1.0	275	4.3	4.3	-0.4	314	6.4	4.6	-4.5	305	6.0	4.9	-3.4	284	8.9	8.7	-2.1	271	8.8	8.8	-0.1	305	1.6	1.3	-0.9
18	263	2.6	2.6	0.3	287	3.9	3.7	-1.1	320	7.3	4.7	-5.6	301	4.7	4.0	-2.4	281	8.6	8.4	-1.7	282	10.2	10.0	-2.1	303	2.4	2.0	-1.3
19	198	2.2	0.7	2.1	270	4.1	4.1	0.0	316	5.4	3.8	-3.9	298	4.9	4.3	-2.3	276	7.7	7.7	-0.8	271	8.2	8.2	-0.2	16	0.7	-0.2	-0.7
20	195	1.6	0.4	1.5	274	3.9	3.9	-0.3	313	4.5	3.3	-3.1	306	5.2	4.2	-3.0	270	7.0	7.0	0.0	263	8.0	7.9	1.0	360	1.3	0.0	-1.3
21	153	1.3	-0.6	1.2	278	4.5	4.5	-0.6	317	5.7	3.9	-4.2	281	2.6	2.6	-0.5	257	6.8	6.6	1.5	246	6.9	6.3	2.8	38	2.4	-1.5	-1.9
22	259	3.7	3.6	0.7	286	4.5	4.3	-1.2	320	3.8	2.4	-2.9	262	2.9	2.9	0.4	253	5.9	5.6	1.7	242	8.0	7.0	3.8	356	1.5	0.1	-1.5
23	266	4.1	4.1	0.3	288	4.2	4.0	-1.3	326	4.3	2.4	-3.6	273	3.3	3.3	-0.2	262	5.9	5.8	0.8	243	6.8	6.0	3.1	79	1.0	-1.0	-0.2
24	225	2.3	1.6	1.6	288	3.6	3.4	-1.1	324	4.6	2.7	-3.7	281	2.5	2.5	-0.5	265	4.4	4.4	0.4	250	4.8	4.5	1.6	65	4.2	-3.8	-1.8
25	217	2.1	1.3	1.7	284	4.4	4.3	-1.1	337	7.1	2.8	-6.5	288	4.4	4.2	-1.4	262	4.2	4.2	0.6	270	4.4	4.4	0.0	69	3.3	-3.1	-1.2
26	234	1.7	1.4	1.0	295	3.3	3.0	-1.4	333	4.9	2.2	-4.4	303	2.7	2.3	-1.5	261	4.0	4.0	0.6	252	4.3	4.1	1.3	62	3.2	-2.8	-1.5
27	237	4.0	3.4	2.2	279	3.0	3.0	-0.5	336	4.9	2.0	-4.5	294	1.7	1.6	-0.7	252	2.5	2.4	0.8	260	2.7	2.7	0.5	58	3.2	-2.7	-1.7
28	221	3.7	2.4	2.8	288	2.6	2.5	-0.8	333	4.2	1.9	-3.7	318	1.5	1.0	-1.1	332	1.9	0.9	-1.7	225	1.1	0.8	0.8	67	4.0	-3.7	-1.6
29	211	2.7	1.4	2.3	286	3.3	3.2	-0.9	334	5.8	2.5	-5.2	303	1.7	1.4	-0.9	342	0.3	0.1	-0.3	243	0.9	0.8	0.4	64	6.4	-5.7	-2.8
30	216	3.7	2.2	3.0	257	3.7	3.6	0.8	335	3.3	1.4	-3.0	278	1.5	1.5	-0.2	270	2.1	2.1	0.0	223	1.9	1.3	1.4	58	6.5	-5.5	-3.4

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	193	2.3	0.5	2.2	276	2.9	2.9	-0.3	318	2.5	1.7	-1.9	282	1.9	1.9	-0.4	257	4.6	4.5	1.0	258	2.9	2.8	0.6	50	8.1	-6.2	-5.2
2	240	2.2	1.9	1.1	277	4.0	4.0	-0.5	297	3.3	2.9	-1.5	284	3.2	3.1	-0.8	277	3.8	3.8	-0.5	256	4.4	4.3	1.1	60	6.4	-5.5	-3.2
3	263	2.3	2.3	0.3	278	3.6	3.6	-0.5	317	2.6	1.8	-1.9	290	2.0	1.9	-0.7	248	2.7	2.5	1.0	236	3.6	3.0	2.0	55	6.2	-5.1	-3.6
4	262	3.4	3.4	0.5	285	5.3	5.1	-1.4	300	3.4	2.9	-1.7	279	1.2	1.2	-0.2	266	2.9	2.9	0.2	220	2.3	1.5	1.8	48	6.9	-5.1	-4.6
5	285	2.0	1.9	-0.5	287	5.7	5.4	-1.7	308	4.1	3.2	-2.5	276	2.9	2.9	-0.3	250	3.8	3.6	1.3	222	2.4	1.6	1.8	75	7.3	-7.0	-1.9
6	250	5.4	5.1	1.9	293	4.1	3.8	-1.6	323	3.6	2.2	-2.9	256	1.2	1.2	0.3	265	3.2	3.2	0.3	218	2.4	1.5	1.9	74	10.9	-10.5	-3.0
7	276	6.6	6.6	-0.7	291	5.1	4.8	-1.8	327	4.0	2.2	-3.4	255	1.1	1.1	0.3	250	1.5	1.4	0.5	212	2.5	1.3	2.1	70	8.2	-7.7	-2.8
8	258	1.9	1.9	0.4	292	3.7	3.4	-1.4	328	3.4	1.8	-2.9	143	0.5	-0.3	0.4	171	1.3	-0.2	1.3	135	2.8	-2.0	2.0	67	9.6	-8.9	-3.7
9	197	2.8	0.8	2.7	258	1.9	1.9	0.4	335	2.3	1.0	-2.1	270	0.1	0.1	0.0	173	1.6	-0.2	1.6	115	1.4	-1.3	0.6	65	10.8	-9.8	-4.5
10	231	3.6	2.8	2.3	293	2.6	2.4	-1.0	330	3.0	1.5	-2.6	270	1.1	1.1	0.0	193	1.3	0.3	1.3	177	2.0	-0.1	2.0	74	9.3	-8.9	-2.6
11	231	1.9	1.5	1.2	280	1.7	1.7	-0.3	348	2.5	0.5	-2.4	266	1.3	1.3	0.1	226	2.9	2.1	2.0	220	2.3	1.5	1.8	73	10.1	-9.6	-3.0
12	207	3.3	1.5	2.9	260	1.7	1.7	0.3	3	2.1	-0.1	-2.1	180	1.1	0.0	1.1	168	1.9	-0.4	1.9	167	1.7	-0.4	1.7	67	10.4	-9.6	-4.0
13	126	0.9	-0.7	0.5	273	1.7	1.7	-0.1	330	1.6	0.8	-1.4	90	0.1	-0.1	0.0	138	1.2	-0.8	0.9	127	1.5	-1.2	0.9	61	11.9	-10.4	-5.7
14	63	0.2	-0.2	-0.1	329	0.6	0.3	-0.5	16	2.5	-0.7	-2.4	112	1.6	-1.5	0.6	147	1.7	-0.9	1.4	105	1.6	-1.5	0.4	74	11.7	-11.3	-3.2
15	153	2.7	-1.2	2.4	180	0.2	0.0	0.2	56	1.8	-1.5	-1.0	107	2.1	-2.0	0.6	115	2.1	-1.9	0.9	80	2.2	-2.2	-0.4	67	10.7	-9.8	-4.2
16	149	4.4	-2.3	3.8	195	2.0	0.5	1.9	61	1.3	-1.1	-0.6	137	2.1	-1.4	1.5	164	3.5	-1.0	3.4	133	1.9	-1.4	1.3	77	9.8	-9.5	-2.2
17	127	1.0	-0.8	0.6	139	1.1	-0.7	0.8	65	1.7	-1.5	-0.7	114	1.2	-1.1	0.5	127	2.1	-1.7	1.3	92	3.3	-3.3	0.1	73	9.8	-9.4	-2.8
18	161	2.4	-0.8	2.3	207	0.9	0.4	0.8	3	1.7	-0.1	-1.7	153	0.9	-0.4	0.8	127	2.0	-1.6	1.2	109	2.8	-2.6	0.9	68	10.9	-10.1	-4.1
19	180	1.4	0.0	1.4	127	0.5	-0.4	0.3	65	1.4	-1.3	-0.6	133	1.6	-1.2	1.1	120	1.4	-1.2	0.7	108	2.8	-2.7	0.9	71	11.1	-10.5	-3.7
20	164	2.2	-0.6	2.1	53	0.5	-0.4	-0.3	34	2.3	-1.3	-1.9	131	2.3	-1.7	1.5	129	1.9	-1.5	1.2	105	2.7	-2.6	0.7	61	10.2	-9.0	-4.9
21	155	3.3	-1.4	3.0	180	0.9	0.0	0.9	72	2.2	-2.1	-0.7	151	2.9	-1.4	2.5	130	3.1	-2.4	2.0	128	3.7	-2.9	2.3	73	9.6	-9.2	-2.9
22	164	2.2	-0.6	2.1	176	1.5	-0.1	1.5	99	1.3	-1.3	0.2	149	1.7	-0.9	1.5	134	3.6	-2.6	2.5	97	4.2	-4.2	0.5	79	11.5	-11.3	-2.1
23	239	2.3	2.0	1.2	225	0.8	0.6	0.6	48	1.2	-0.9	-0.8	126	2.2	-1.8	1.3	138	2.8	-1.9	2.1	102	4.4	-4.3	0.9	79	10.4	-10.2	-1.9
24	210	1.6	0.8	1.4	297	0.9	0.8	-0.4	63	0.4	-0.4	-0.2	153	1.6	-0.7	1.4	136	2.9	-2.0	2.1	121	4.3	-3.7	2.2	83	10.1	-10.0	-1.2
25	319	0.9	0.6	-0.7	270	0.8	0.8	0.0	63	1.6	-1.4	-0.7	85	1.2	-1.2	-0.1	151	1.8	-0.9	1.6	134	3.2	-2.3	2.2	82	10.3	-10.2	-1.4
26	235	1.6	1.3	0.9	294	2.4	2.2	-1.0	352	2.1	0.3	-2.1	342	0.3	0.1	-0.3	114	1.7	-1.6	0.7	103	1.8	-1.8	0.4	69	9.0	-8.4	-3.3
27	234	0.9	0.7	0.5	283	2.6	2.5	-0.6	346	2.1	0.5	-2.0	338	0.5	0.2	-0.5	149	1.7	-0.9	1.5	110	4.7	-4.4	1.6	74	11.7	-11.3	-3.2
28	252	0.9	0.9	0.3	292	3.8	3.5	-1.4	343	2.1	0.6	-2.0	56	1.1	-0.9	-0.6	125	1.6	-1.3	0.9	108	5.2	-5.0	1.6	68	11.1	-10.3	-4.1
29	124	1.8	-1.5	1.0	305	1.6	1.3	-0.9	20	3.2	-1.1	-3.0	107	1.7	-1.6	0.5	132	2.8	-2.1	1.9	115	5.6	-5.1	2.4	81	13.1	-12.9	-2.0
30	146	2.7	-1.5	2.2	306	1.7	1.4	-1.0	9	1.2	-0.2	-1.2	69	1.9	-1.8	-0.7	108	3.2	-3.0	1.0	110	4.9	-4.6	1.7	82	11.6	-11.5	-1.7
31	135	1.7	-1.2	1.2	279	1.2	1.2	-0.2	66	1.7	-1.6	-0.7	108	1.6	-1.5	0.5	121	2.6	-2.2	1.3	105	5.2	-5.0	1.3	75	13.5	-13.1	-3.4

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	245	1.7	1.5	0.7	270	1.1	1.1	0.0	85	1.2	-1.2	-0.1	61	1.3	-1.1	-0.6	108	2.3	-2.2	0.7	85	5.2	-5.2	-0.5	74	12.1	-11.6	-3.3
2	254	0.7	0.7	0.2	279	1.2	1.2	-0.2	6	0.9	-0.1	-0.9	67	1.3	-1.2	-0.5	95	2.4	-2.4	0.2	72	4.1	-3.9	-1.3	70	14.4	-13.5	-5.0
3	239	1.7	1.5	0.9	37	0.5	-0.3	-0.4	36	1.4	-0.8	-1.1	99	1.8	-1.8	0.3	123	1.7	-1.4	0.9	96	2.7	-2.7	0.3	67	11.8	-10.9	-4.6
4	180	0.8	0.0	0.8	62	1.5	-1.3	-0.7	70	2.7	-2.5	-0.9	107	3.1	-3.0	0.9	123	1.7	-1.4	0.9	118	2.4	-2.1	1.1	77	12.3	-12.0	-2.8
5	254	2.6	2.5	0.7	241	1.0	0.9	0.5	87	1.9	-1.9	-0.1	124	2.2	-1.8	1.2	118	3.0	-2.6	1.4	85	5.7	-5.7	-0.5	68	13.3	-12.4	-4.9
6	299	2.3	2.0	-1.1	243	0.2	0.2	0.1	81	1.3	-1.3	-0.2	117	2.7	-2.4	1.2	107	2.8	-2.7	0.8	81	3.6	-3.6	-0.6	69	12.1	-11.3	-4.3
7	313	1.9	1.4	-1.3	360	0.8	0.0	-0.8	60	2.4	-2.1	-1.2	87	1.7	-1.7	-0.1	94	3.9	-3.9	0.3	102	4.8	-4.7	1.0	78	12.5	-12.2	-2.7
8	275	2.3	2.3	-0.2	284	0.4	0.4	-0.1	67	2.8	-2.6	-1.1	83	2.3	-2.3	-0.3	114	4.3	-3.9	1.7	124	5.9	-4.9	3.3	71	10.6	-10.0	-3.5
9	252	3.5	3.3	1.1	143	1.0	-0.6	0.8	82	1.5	-1.5	-0.2	110	2.7	-2.5	0.9	107	3.0	-2.9	0.9	104	6.0	-5.8	1.4	77	10.6	-10.3	-2.3
10	139	0.9	-0.6	0.7	90	1.0	-1.0	0.0	75	2.0	-1.9	-0.5	96	2.0	-2.0	0.2	117	4.6	-4.1	2.1	105	5.1	-4.9	1.3	64	11.0	-9.9	-4.8
11	167	1.8	-0.4	1.8	60	0.8	-0.7	-0.4	59	1.2	-1.0	-0.6	73	2.1	-2.0	-0.6	134	2.8	-2.0	1.9	108	5.2	-4.9	1.6	68	10.5	-9.7	-4.0
12	246	3.0	2.7	1.2	305	1.6	1.3	-0.9	4	1.4	-0.1	-1.4	297	0.2	0.2	-0.1	162	0.9	-0.3	0.9	142	3.1	-1.9	2.4	66	9.4	-8.6	-3.8
13	272	5.0	5.0	-0.2	324	0.9	0.5	-0.7	10	1.7	-0.3	-1.7	18	0.9	-0.3	-0.9	158	1.1	-0.4	1.0	136	3.0	-2.1	2.2	70	8.6	-8.1	-3.0
14	282	4.3	4.2	-0.9	293	1.3	1.2	-0.5	41	1.8	-1.2	-1.4	128	1.1	-0.9	0.7	144	1.7	-1.0	1.4	157	3.0	-1.2	2.8	79	9.6	-9.4	-1.9
15	283	6.7	6.5	-1.5	350	1.7	0.3	-1.7	50	2.5	-1.9	-1.6	111	2.6	-2.4	0.9	172	2.8	-0.4	2.8	166	2.9	-0.7	2.8	71	8.8	-8.3	-2.9
16	262	3.7	3.7	0.5	106	1.5	-1.4	0.4	69	2.8	-2.6	-1.0	102	1.4	-1.4	0.3	174	0.9	-0.1	0.9	122	2.2	-1.9	1.2	71	6.9	-6.5	-2.3
17	257	3.5	3.4	0.8	45	1.4	-1.0	-1.0	40	2.5	-1.6	-1.9	114	1.0	-0.9	0.4	165	2.0	-0.5	1.9	157	2.6	-1.0	2.4	75	6.5	-6.3	-1.7
18	249	2.2	2.1	0.8	315	1.1	0.8	-0.8	29	2.5	-1.2	-2.2	45	0.7	-0.5	-0.5	212	1.3	0.7	1.1	148	3.6	-1.9	3.1	80	10.3	-10.1	-1.8
19	202	1.1	0.4	1.0	279	1.2	1.2	-0.2	360	1.0	0.0	-1.0	107	1.0	-1.0	0.3	148	2.6	-1.4	2.2	132	3.1	-2.3	2.1	79	9.0	-8.8	-1.7
20	138	1.2	-0.8	0.9	5	1.1	-0.1	-1.1	36	2.4	-1.4	-1.9	92	2.4	-2.4	0.1	149	2.3	-1.2	2.0	146	1.1	-0.6	0.9	78	8.4	-8.2	-1.7
21	241	2.1	1.8	1.0	343	1.0	0.3	-1.0	29	2.6	-1.3	-2.3	90	1.4	-1.4	0.0	142	2.3	-1.4	1.8	110	3.3	-3.1	1.1	78	9.0	-8.8	-1.8
22	222	1.5	1.0	1.1	292	1.1	1.0	-0.4	360	1.1	0.0	-1.1	349	1.5	0.3	-1.5	105	1.1	-1.1	0.3	76	1.2	-1.2	-0.3	85	6.9	-6.9	-0.6
23	212	1.5	0.8	1.3	191	0.5	0.1	0.5	14	1.2	-0.3	-1.2	186	0.9	0.1	0.9	187	0.8	0.1	0.8	270	0.2	0.2	0.0	65	6.4	-5.8	-2.7
24	221	2.0	1.3	1.5	299	2.3	2.0	-1.1	358	2.4	0.1	-2.4	111	0.9	-0.8	0.3	225	1.8	1.3	1.3	221	2.1	1.4	1.6	63	6.3	-5.6	-2.9
25	265	2.5	2.5	0.2	308	2.8	2.2	-1.7	6	2.8	-0.3	-2.8	135	0.6	-0.4	0.4	219	2.1	1.3	1.6	228	2.8	2.1	1.9	70	5.6	-5.3	-1.9
26	155	1.9	-0.8	1.7	303	3.5	2.9	-1.9	6	2.7	-0.3	-2.7	214	0.4	0.2	0.3	228	2.8	2.1	1.9	187	3.3	0.4	3.3	54	3.7	-3.0	-2.2
27	140	3.3	-2.1	2.5	297	2.2	2.0	-1.0	351	1.3	0.2	-1.3	162	1.9	-0.6	1.8	219	1.9	1.2	1.5	223	3.4	2.3	2.5	89	4.7	-4.7	-0.1
28	166	1.2	-0.3	1.2	270	1.4	1.4	0.0	17	1.0	-0.3	-1.0	174	1.9	-0.2	1.9	213	3.0	1.6	2.5	211	2.9	1.5	2.5	79	6.6	-6.5	-1.3
29	210	1.4	0.7	1.2	345	1.1	0.3	-1.1	31	1.7	-0.9	-1.5	180	1.6	0.0	1.6	231	2.2	1.7	1.4	214	3.4	1.9	2.8	69	5.5	-5.1	-2.0
30	259	2.6	2.6	0.5	4	1.3	-0.1	-1.3	32	2.6	-1.4	-2.2	142	1.1	-0.7	0.9	218	3.1	1.9	2.4	204	3.6	1.5	3.3	88	5.5	-5.5	-0.2
31	273	2.2	2.2	-0.1	27	0.9	-0.4	-0.8	36	2.4	-1.4	-1.9	124	0.7	-0.6	0.4	218	2.9	1.8	2.3	204	4.6	1.9	4.2	92	4.6	-4.6	0.2

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	275	2.3	2.3	-0.2	72	1.3	-1.2	-0.4	5	2.5	-0.2	-2.5	211	1.2	0.6	1.0	220	3.9	2.5	3.0	226	3.7	2.7	2.6	66	4.7	-4.3	-1.9
2	333	0.9	0.4	-0.8	326	2.2	1.2	-1.8	8	3.0	-0.4	-3.0	333	0.4	0.2	-0.4	243	3.4	3.0	1.5	232	4.7	3.7	2.9	90	3.5	-3.5	0.0
3	166	0.4	-0.1	0.4	312	1.2	0.9	-0.8	11	2.5	-0.5	-2.5	157	0.8	-0.3	0.7	242	3.0	2.6	1.4	243	3.9	3.5	1.8	69	4.2	-3.9	-1.5
4	106	3.7	-3.6	1.0	330	2.0	1.0	-1.7	23	2.3	-0.9	-2.1	197	1.4	0.4	1.3	254	4.3	4.1	1.2	247	4.6	4.2	1.8	56	3.4	-2.8	-1.9
5	180	0.1	0.0	0.1	305	3.3	2.7	-1.9	330	3.2	1.6	-2.8	276	1.8	1.8	-0.2	257	4.4	4.3	1.0	243	4.7	4.2	2.1	54	3.1	-2.5	-1.8
6	108	0.3	-0.3	0.1	311	4.0	3.0	-2.6	333	3.4	1.5	-3.0	197	1.7	0.5	1.6	252	4.8	4.6	1.5	247	4.8	4.4	1.9	80	4.0	-3.9	-0.7
7	86	1.6	-1.6	-0.1	310	3.0	2.3	-1.9	352	2.2	0.3	-2.2	198	1.6	0.5	1.5	241	5.7	5.0	2.8	239	5.7	4.9	2.9	85	2.5	-2.5	-0.2
8	159	2.6	-0.9	2.4	306	2.7	2.2	-1.6	13	1.3	-0.3	-1.3	217	2.1	1.3	1.7	255	5.1	4.9	1.3	242	5.5	4.8	2.6	103	2.3	-2.2	0.5
9	122	3.6	-3.0	1.9	307	2.0	1.6	-1.2	360	1.6	0.0	-1.6	222	2.8	1.9	2.1	245	5.3	4.8	2.2	236	5.5	4.6	3.1	84	1.0	-1.0	-0.1
10	104	0.4	-0.4	0.1	321	3.2	2.0	-2.5	343	2.1	0.6	-2.0	270	2.5	2.5	0.0	243	7.7	6.9	3.5	227	10.0	7.3	6.9	47	1.6	-1.2	-1.1
11	342	0.3	0.1	-0.3	326	3.0	1.7	-2.5	351	2.6	0.4	-2.6	270	1.5	1.5	0.0	252	7.9	7.5	2.5	245	9.8	8.9	4.1	45	1.1	-0.8	-0.8
12	313	1.9	1.4	-1.3	332	3.6	1.7	-3.2	343	3.7	1.1	-3.5	273	1.8	1.8	-0.1	259	7.6	7.5	1.5	253	8.4	8.1	2.4	74	0.7	-0.7	-0.2
13	288	2.0	1.9	-0.6	323	3.9	2.3	-3.1	339	3.9	1.4	-3.6	259	1.5	1.5	0.3	256	9.8	9.5	2.3	248	11.6	10.8	4.3	309	2.1	1.6	-1.3
14	289	1.8	1.7	-0.6	328	4.4	2.3	-3.7	340	5.0	1.7	-4.7	251	2.1	2.0	0.7	265	8.5	8.5	0.7	257	10.7	10.4	2.4	8	1.4	-0.2	-1.4
15	323	2.5	1.5	-2.0	327	3.7	2.0	-3.1	343	4.4	1.3	-4.2	304	1.1	0.9	-0.6	261	7.7	7.6	1.2	249	9.5	8.9	3.4	284	1.6	1.6	-0.4
16	300	2.0	1.7	-1.0	333	3.7	1.7	-3.3	345	4.6	1.2	-4.4	277	2.3	2.3	-0.3	257	9.6	9.4	2.1	253	11.2	10.7	3.3	296	2.5	2.3	-1.1
17	325	1.9	1.1	-1.6	319	2.8	1.8	-2.1	340	4.0	1.4	-3.8	275	2.2	2.2	-0.2	263	9.3	9.2	1.2	259	12.4	12.2	2.4	274	2.7	2.7	-0.2
18	286	4.8	4.6	-1.3	316	4.6	3.2	-3.3	336	4.5	1.8	-4.1	262	2.7	2.7	0.4	261	10.3	10.2	1.6	247	11.4	10.5	4.4	277	3.9	3.9	-0.5
19	287	2.8	2.7	-0.8	314	3.6	2.6	-2.5	331	3.9	1.9	-3.4	247	3.6	3.3	1.4	254	10.3	9.9	2.9	252	11.1	10.6	3.4	259	2.0	2.0	0.4
20	324	2.4	1.4	-1.9	325	3.5	2.0	-2.9	334	3.7	1.6	-3.3	259	3.2	3.1	0.6	248	11.4	10.6	4.2	246	13.2	12.0	5.4	229	2.1	1.6	1.4
21	290	4.8	4.5	-1.6	316	4.3	3.0	-3.1	333	4.2	1.9	-3.8	257	3.7	3.6	0.8	250	12.1	11.4	4.2	248	15.5	14.3	5.9	245	6.3	5.7	2.7
22	300	4.4	3.8	-2.2	324	2.7	1.6	-2.2	327	4.0	2.2	-3.4	255	4.6	4.4	1.2	255	13.5	13.0	3.5	253	17.2	16.5	4.9	265	4.6	4.6	0.4
23	287	3.0	2.9	-0.9	81	0.6	-0.6	-0.1	349	2.1	0.4	-2.1	272	3.4	3.4	-0.1	257	13.6	13.3	3.0	253	16.3	15.6	4.8	264	4.7	4.7	0.5
24	303	4.2	3.5	-2.3	326	2.9	1.6	-2.4	331	3.7	1.8	-3.2	280	4.2	4.1	-0.7	255	12.7	12.3	3.3	256	16.0	15.5	4.0	270	7.1	7.1	0.0
25	307	3.8	3.0	-2.3	329	1.7	0.9	-1.5	340	4.9	1.7	-4.6	273	4.2	4.2	-0.2	265	13.0	13.0	1.1	259	15.4	15.1	2.8	271	6.9	6.9	-0.1
26	346	2.5	0.6	-2.4	305	4.2	3.4	-2.4	316	4.9	3.4	-3.5	278	6.4	6.3	-0.9	265	15.3	15.2	1.3	257	17.4	17.0	3.9	287	7.0	6.7	-2.1
27	312	3.0	2.2	-2.0	303	4.0	3.4	-2.2	316	4.7	3.3	-3.4	286	4.5	4.3	-1.2	265	15.5	15.4	1.4	255	16.6	16.1	4.2	273	8.0	8.0	-0.4
28	291	1.4	1.3	-0.5	308	4.6	3.6	-2.8	317	4.7	3.2	-3.4	263	5.4	5.4	0.7	263	15.9	15.8	2.0	259	18.0	17.7	3.3	273	6.7	6.7	-0.4
29	262	2.9	2.9	0.4	312	4.2	3.1	-2.8	327	4.6	2.5	-3.9	268	5.6	5.6	0.2	259	17.2	16.9	3.4	256	18.2	17.6	4.5	268	8.0	8.0	0.3
30	275	2.4	2.4	-0.2	312	4.2	3.1	-2.8	314	5.0	3.6	-3.5	267	6.9	6.9	0.4	259	17.3	17.0	3.3	258	18.3	17.9	3.9	267	8.0	8.0	0.4

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	303	1.7	1.4	-0.9	323	4.0	2.4	-3.2	317	6.0	4.1	-4.4	275	6.4	6.4	-0.6	266	16.8	16.7	1.3	258	20.1	19.7	4.2	261	9.9	9.8	1.6
2	301	1.7	1.5	-0.9	316	3.5	2.4	-2.5	321	6.6	4.2	-5.1	275	6.7	6.7	-0.6	264	18.6	18.5	2.0	258	20.4	19.9	4.4	269	10.0	10.0	0.1
3	264	1.0	1.0	0.1	324	4.4	2.6	-3.6	319	5.2	3.4	-3.9	287	6.7	6.4	-1.9	262	18.5	18.3	2.6	257	22.1	21.5	5.0	261	9.7	9.6	1.6
4	204	1.0	0.4	0.9	322	3.4	2.1	-2.7	331	5.1	2.5	-4.5	272	6.9	6.9	-0.2	260	18.7	18.4	3.1	256	23.3	22.6	5.8	261	10.4	10.3	1.7
5	270	0.5	0.5	0.0	316	3.9	2.7	-2.8	328	5.3	2.8	-4.5	291	6.8	6.4	-2.4	260	17.7	17.4	3.0	255	22.7	21.9	6.0	259	9.1	8.9	1.8
6	345	1.1	0.3	-1.1	314	4.5	3.2	-3.1	321	4.4	2.8	-3.4	279	7.4	7.3	-1.1	266	18.2	18.1	1.4	256	21.3	20.7	5.1	257	9.6	9.4	2.1
7	321	1.4	0.9	-1.1	319	5.3	3.5	-4.0	319	6.4	4.2	-4.8	272	7.2	7.2	-0.3	267	19.8	19.8	1.0	256	24.3	23.6	5.8	256	13.0	12.6	3.2
8	318	2.7	1.8	-2.0	310	4.3	3.3	-2.8	325	5.7	3.3	-4.7	274	7.7	7.7	-0.6	259	21.0	20.6	4.1	257	25.9	25.2	5.9	256	13.5	13.1	3.3
9	303	3.1	2.6	-1.7	321	4.0	2.5	-3.1	314	6.6	4.7	-4.6	273	9.1	9.1	-0.4	267	22.3	22.3	1.0	256	26.5	25.7	6.3	263	12.6	12.5	1.5
10	287	2.7	2.6	-0.8	300	5.2	4.5	-2.6	317	6.6	4.5	-4.8	275	9.4	9.4	-0.8	268	21.4	21.4	0.8	257	24.7	24.1	5.4	264	12.2	12.1	1.3
11	266	1.3	1.3	0.1	314	4.9	3.5	-3.4	321	6.6	4.2	-5.1	272	10.4	10.4	-0.4	262	24.5	24.3	3.2	262	28.8	28.5	4.1	266	15.1	15.1	1.0
12	306	3.4	2.8	-2.0	307	4.6	3.7	-2.8	302	5.3	4.5	-2.8	275	9.7	9.7	-0.8	264	23.7	23.6	2.3	260	26.6	26.2	4.7	265	15.8	15.7	1.5
13	345	2.8	0.7	-2.7	313	4.9	3.6	-3.3	313	6.8	5.0	-4.6	271	10.0	10.0	-0.2	261	22.8	22.5	3.6	258	27.1	26.5	5.5	262	13.8	13.7	2.0
14	330	2.2	1.1	-1.9	309	4.0	3.1	-2.5	305	5.9	4.8	-3.4	276	9.0	8.9	-1.0	262	24.9	24.7	3.4	259	30.1	29.5	5.9	260	16.8	16.5	2.9
15	319	4.0	2.6	-3.0	303	4.4	3.7	-2.4	302	6.8	5.8	-3.6	278	8.9	8.8	-1.2	266	24.3	24.2	1.8	258	29.9	29.2	6.4	260	16.1	15.9	2.7
16	319	4.0	2.6	-3.0	317	4.0	2.7	-2.9	296	4.6	4.1	-2.0	274	8.6	8.6	-0.6	268	24.0	24.0	0.8	259	30.3	29.7	5.8	265	15.0	14.9	1.4
17	304	1.8	1.5	-1.0	313	4.1	3.0	-2.8	310	5.3	4.1	-3.4	272	9.5	9.5	-0.4	264	24.6	24.5	2.6	257	29.2	28.4	6.8	264	17.0	16.9	1.8
18	334	3.0	1.3	-2.7	314	3.9	2.8	-2.7	310	5.6	4.3	-3.6	268	9.3	9.3	0.4	258	26.7	26.1	5.5	256	32.0	31.0	7.8	258	16.3	15.9	3.5
19	6	0.9	-0.1	-0.9	303	4.5	3.8	-2.5	316	6.2	4.3	-4.4	271	10.5	10.5	-0.1	260	27.9	27.5	4.7	256	33.1	32.1	8.1	260	17.8	17.5	3.2
20	207	0.4	0.2	0.4	313	4.5	3.3	-3.1	307	6.9	5.5	-4.1	281	10.9	10.7	-2.0	265	26.1	26.0	2.1	260	31.4	31.0	5.2	263	14.6	14.5	1.9
21	309	2.2	1.7	-1.4	314	5.5	4.0	-3.8	312	7.4	5.5	-4.9	285	9.6	9.3	-2.5	270	26.5	26.5	-0.2	265	31.2	31.1	2.9	270	14.9	14.9	-0.1
22	321	2.6	1.6	-2.0	308	5.6	4.4	-3.4	308	7.7	6.1	-4.7	282	9.9	9.7	-2.0	268	27.3	27.3	1.0	265	30.5	30.4	2.9	265	16.2	16.1	1.4
23	321	2.7	1.7	-2.1	311	4.8	3.6	-3.1	313	5.7	4.2	-3.9	268	10.4	10.4	0.3	264	27.7	27.6	2.7	262	34.8	34.5	4.7	263	17.0	16.9	2.0
24	313	4.0	2.9	-2.7	311	5.5	4.1	-3.6	297	5.4	4.8	-2.4	276	10.3	10.3	-1.0	266	30.1	30.0	2.1	262	35.6	35.3	4.8	257	17.6	17.2	3.9
25	296	2.5	2.3	-1.1	307	5.8	4.6	-3.5	315	6.6	4.7	-4.7	278	11.5	11.4	-1.6	264	29.7	29.5	3.3	262	38.0	37.6	5.3	269	20.5	20.5	0.4
26	315	3.0	2.1	-2.1	303	6.4	5.3	-3.5	307	6.6	5.3	-4.0	283	10.0	9.8	-2.2	273	26.3	26.3	-1.5	264	37.3	37.1	4.1	278	19.5	19.3	-2.7
27	315	4.0	2.8	-2.8	308	4.7	3.7	-2.9	314	6.2	4.5	-4.3	278	9.6	9.5	-1.4	266	23.9	23.8	1.7	263	35.9	35.6	4.4	271	18.1	18.1	-0.2
28	332	3.0	1.4	-2.6	307	4.3	3.4	-2.6	316	6.2	4.3	-4.5	287	9.5	9.1	-2.7	270	25.6	25.6	0.2	258	34.2	33.4	7.4	260	16.8	16.5	3.0
29	331	3.1	1.5	-2.7	316	4.2	2.9	-3.0	321	5.8	3.7	-4.5	283	8.8	8.6	-2.0	267	24.2	24.2	1.2	261	32.7	32.3	5.3	277	15.7	15.6	-1.8
30	308	5.7	4.5	-3.5	308	4.4	3.5	-2.7	312	6.3	4.7	-4.2	289	10.3	9.8	-3.3	272	25.9	25.9	-0.9	264	33.2	33.0	3.7	270	16.4	16.4	-0.1
31	326	2.9	1.6	-2.4	318	4.6	3.1	-3.4	315	6.1	4.3	-4.3	279	8.7	8.6	-1.4	268	23.5	23.5	0.7	261	33.0	32.6	5.3	267	17.3	17.3	0.8

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	313	1.8	1.3	-1.2	316	4.3	3.0	-3.1	322	5.8	3.6	-4.6	282	10.7	10.5	-2.2	276	26.4	26.3	-2.8	266	35.1	35.0	2.7	264	20.1	20.0	2.0
2	312	2.7	2.0	-1.8	307	4.4	3.5	-2.6	318	6.9	4.6	-5.1	287	12.5	11.9	-3.7	280	28.5	28.1	-4.8	271	35.2	35.2	-0.4	273	20.7	20.7	-1.0
3	291	2.5	2.3	-0.9	291	4.7	4.4	-1.7	310	6.1	4.7	-3.9	275	12.4	12.4	-1.1	275	28.4	28.3	-2.6	269	34.0	34.0	0.3	277	20.5	20.3	-2.5
4	315	1.0	0.7	-0.7	311	4.6	3.5	-3.0	303	7.5	6.3	-4.1	282	13.7	13.4	-2.9	276	29.5	29.3	-3.0	270	36.2	36.2	0.0	265	21.5	21.4	1.8
5	261	1.9	1.9	0.3	310	5.5	4.2	-3.5	310	7.0	5.4	-4.5	284	13.8	13.4	-3.3	280	29.1	28.6	-5.1	269	36.4	36.4	0.6	276	20.1	20.0	-2.2
6	281	2.0	2.0	-0.4	309	5.8	4.5	-3.6	310	6.0	4.6	-3.9	284	12.6	12.2	-3.0	277	30.9	30.7	-3.7	272	38.0	38.0	-1.1	269	20.4	20.4	0.3
7	295	1.9	1.7	-0.8	301	5.0	4.3	-2.6	311	7.0	5.3	-4.6	281	14.3	14.0	-2.8	274	30.1	30.0	-2.3	270	38.5	38.5	-0.1	271	23.3	23.3	-0.6
8	315	1.4	1.0	-1.0	310	5.3	4.1	-3.4	309	6.4	5.0	-4.0	281	12.0	11.8	-2.4	269	30.1	30.1	0.6	266	39.9	39.8	3.0	271	24.9	24.9	-0.5
9	309	1.9	1.5	-1.2	313	4.8	3.5	-3.3	298	6.0	5.3	-2.8	273	11.9	11.9	-0.7	268	29.5	29.5	0.8	268	36.4	36.4	1.4	271	23.0	23.0	-0.6
10	320	3.1	2.0	-2.4	309	5.7	4.4	-3.6	303	6.3	5.3	-3.4	288	14.0	13.3	-4.4	275	28.9	28.8	-2.4	268	37.9	37.9	1.5	265	18.4	18.3	1.5
11	299	3.8	3.3	-1.8	303	5.3	4.4	-2.9	302	6.6	5.6	-3.5	288	13.4	12.8	-4.1	277	27.8	27.6	-3.4	271	35.0	35.0	-0.8	267	21.1	21.1	1.2
12	315	3.4	2.4	-2.4	305	4.5	3.7	-2.6	300	6.8	5.9	-3.4	284	14.8	14.4	-3.6	275	31.1	31.0	-2.6	274	38.7	38.6	-2.6	274	24.6	24.5	-1.6
13	328	3.9	2.1	-3.3	310	5.0	3.8	-3.2	303	7.1	5.9	-3.9	288	14.2	13.5	-4.4	280	30.8	30.3	-5.6	274	38.4	38.3	-2.8	271	28.8	28.8	-0.5
14	307	2.1	1.7	-1.3	312	6.0	4.5	-4.0	303	6.7	5.6	-3.7	286	15.1	14.5	-4.2	273	30.7	30.7	-1.7	270	40.2	40.2	0.1	269	27.6	27.6	0.7
15	323	3.4	2.0	-2.7	314	5.9	4.3	-4.1	309	6.6	5.1	-4.2	286	13.6	13.1	-3.7	275	28.1	28.0	-2.5	268	38.0	38.0	1.3	273	23.8	23.8	-1.2
16	318	2.7	1.8	-2.0	310	5.3	4.1	-3.4	306	6.9	5.6	-4.0	275	13.7	13.6	-1.2	271	29.5	29.5	-0.4	263	38.0	37.7	4.5	264	26.6	26.4	3.0
17	335	2.9	1.2	-2.6	307	3.5	2.8	-2.1	295	6.1	5.5	-2.6	275	14.8	14.8	-1.2	267	32.5	32.5	1.7	263	43.3	42.9	5.6	263	26.9	26.7	3.2
18	299	1.3	1.1	-0.6	307	4.1	3.3	-2.5	300	5.8	5.0	-2.9	268	14.0	14.0	0.4	264	33.0	32.8	3.2	259	42.9	42.1	8.2	267	24.5	24.5	1.2
19	316	3.0	2.1	-2.2	310	4.5	3.5	-2.9	295	5.0	4.5	-2.1	274	14.5	14.5	-1.1	266	34.2	34.1	2.4	263	41.3	41.0	5.3	264	25.2	25.1	2.5
20	309	4.0	3.1	-2.5	309	5.5	4.3	-3.5	301	6.0	5.1	-3.1	276	13.7	13.6	-1.5	268	30.2	30.2	1.0	259	43.6	42.9	8.0	264	26.7	26.6	2.6
21	329	2.9	1.5	-2.5	306	4.3	3.5	-2.5	297	5.4	4.8	-2.4	271	14.1	14.1	-0.3	264	30.5	30.3	3.3	261	38.9	38.4	6.3	265	23.5	23.4	2.0
22	304	1.1	0.9	-0.6	307	3.5	2.8	-2.1	291	4.4	4.1	-1.6	266	14.1	14.1	1.1	264	30.0	29.8	3.3	263	38.2	37.9	4.8	261	22.8	22.5	3.6
23	321	2.7	1.7	-2.1	316	4.5	3.1	-3.2	288	4.5	4.3	-1.4	277	13.9	13.8	-1.7	270	31.2	31.2	-0.2	265	41.0	40.9	3.4	267	24.8	24.8	1.5
24	317	7.2	4.9	-5.3	314	4.2	3.0	-2.9	288	5.2	5.0	-1.6	278	13.5	13.4	-1.9	272	30.2	30.2	-1.2	266	38.2	38.1	2.4	263	27.6	27.4	3.4
25	310	6.5	5.0	-4.2	308	4.8	3.8	-3.0	289	5.7	5.4	-1.9	274	15.0	15.0	-1.0	274	31.4	31.3	-2.0	270	39.2	39.2	0.3	273	23.5	23.5	-1.4
26	319	5.5	3.6	-4.1	315	4.5	3.2	-3.2	291	5.3	4.9	-1.9	275	17.1	17.0	-1.4	271	34.5	34.5	-0.5	270	40.1	40.1	-0.2	267	26.4	26.4	1.5
27	309	4.0	3.1	-2.5	294	4.7	4.3	-1.9	279	6.1	6.0	-0.9	269	17.9	17.9	0.4	270	38.6	38.6	0.3	269	43.4	43.4	1.1	266	30.1	30.0	2.3
28	307	4.1	3.3	-2.5	309	4.8	3.7	-3.0	283	6.9	6.7	-1.5	280	16.6	16.4	-2.8	270	34.7	34.7	-0.1	265	42.8	42.7	3.5	268	24.7	24.7	1.0
29	321	4.3	2.7	-3.3	324	4.9	2.9	-4.0	302	5.5	4.7	-2.9	279	17.8	17.6	-2.7	267	35.8	35.8	1.8	261	40.7	40.2	6.1	269	28.3	28.3	0.3
30	327	3.7	2.0	-3.1	323	5.0	3.0	-4.0	298	6.4	5.7	-3.0	280	17.6	17.3	-3.1	272	33.6	33.6	-1.4	268	40.4	40.4	1.3	263	24.6	24.4	2.9

Daily Normals of Upper Air Winds (1971-2000)

NEW DELHI **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	314	4.9	3.5	-3.4	302	4.9	4.2	-2.6	292	6.8	6.3	-2.5	276	17.0	16.9	-1.7	268	38.0	38.0	1.1	265	42.8	42.6	3.9	263	27.8	27.6	3.3
2	312	5.1	3.8	-3.4	310	4.5	3.5	-2.9	293	6.2	5.7	-2.4	273	15.9	15.9	-0.9	268	31.8	31.8	1.1	263	41.3	41.0	5.0	260	29.6	29.2	5.0
3	318	4.3	2.9	-3.2	315	4.5	3.2	-3.2	283	4.4	4.3	-1.0	268	14.8	14.8	0.6	269	32.6	32.6	0.7	261	43.6	43.0	7.1	261	29.9	29.5	4.7
4	321	3.2	2.0	-2.5	316	5.9	4.1	-4.2	292	7.0	6.5	-2.6	274	16.3	16.3	-1.0	267	34.6	34.6	1.7	262	42.9	42.5	5.8	263	25.4	25.2	3.0
5	329	6.1	3.1	-5.2	322	7.1	4.4	-5.6	298	7.2	6.3	-3.4	272	16.4	16.4	-0.5	267	36.0	36.0	1.8	261	41.9	41.4	6.6	263	32.2	32.0	4.0
6	320	5.1	3.3	-3.9	322	6.8	4.2	-5.3	288	6.5	6.2	-2.0	275	16.2	16.1	-1.3	270	33.8	33.8	-0.1	266	41.7	41.6	3.0	265	32.5	32.4	2.9
7	314	4.2	3.0	-2.9	315	5.9	4.2	-4.2	298	6.9	6.1	-3.2	280	16.5	16.3	-2.8	267	36.5	36.4	2.0	260	46.5	45.8	8.2	260	28.8	28.3	5.2
8	302	5.2	4.4	-2.7	312	4.7	3.5	-3.2	287	6.3	6.0	-1.8	275	17.7	17.6	-1.6	269	32.9	32.9	0.7	268	46.1	46.1	1.8	269	31.7	31.7	0.3
9	304	4.5	3.7	-2.5	310	5.1	3.9	-3.3	282	7.1	6.9	-1.5	269	16.2	16.2	0.4	265	34.4	34.3	2.9	259	44.3	43.5	8.4	265	27.9	27.8	2.4
10	325	5.0	2.9	-4.1	310	5.2	4.0	-3.4	291	7.7	7.2	-2.8	281	16.7	16.4	-3.2	274	34.9	34.8	-2.4	270	42.3	42.3	-0.3	265	29.6	29.5	2.7
11	316	5.6	3.9	-4.0	311	5.3	4.0	-3.5	290	7.8	7.3	-2.7	271	17.7	17.7	-0.3	272	37.2	37.2	-1.4	268	43.5	43.5	1.8	266	31.9	31.8	2.1
12	312	6.0	4.5	-4.0	306	5.8	4.7	-3.4	289	7.7	7.3	-2.5	280	18.0	17.7	-3.2	274	38.1	38.0	-2.8	267	43.9	43.8	2.2	265	30.6	30.5	2.7
13	320	3.9	2.5	-3.0	306	5.9	4.8	-3.5	285	7.8	7.5	-2.0	276	18.0	17.9	-1.8	271	35.9	35.9	-0.4	268	47.5	47.5	2.0	269	30.7	30.7	0.8
14	313	5.6	4.1	-3.8	314	5.7	4.1	-3.9	294	7.8	7.1	-3.2	284	17.1	16.6	-4.0	273	33.4	33.3	-2.0	266	43.6	43.5	3.4	270	29.0	29.0	-0.1
15	317	6.7	4.5	-4.9	302	4.9	4.1	-2.6	286	7.5	7.2	-2.0	277	17.7	17.6	-2.3	277	33.9	33.6	-4.3	271	44.0	44.0	-0.6	274	28.1	28.0	-1.8
16	308	4.8	3.8	-3.0	304	4.8	4.0	-2.7	293	6.9	6.4	-2.7	275	16.5	16.4	-1.3	273	35.8	35.7	-1.9	271	45.5	45.5	-1.1	269	31.7	31.7	0.3
17	306	2.6	2.1	-1.5	306	4.8	3.9	-2.8	291	7.4	6.9	-2.7	276	16.8	16.7	-1.8	270	33.0	33.0	0.2	268	44.5	44.5	1.5	270	29.4	29.4	0.1
18	315	4.9	3.5	-3.5	311	5.8	4.4	-3.8	289	8.0	7.6	-2.6	279	16.1	15.9	-2.4	279	32.7	32.3	-4.9	269	42.1	42.1	0.9	269	31.4	31.4	0.4
19	317	4.8	3.3	-3.5	311	5.5	4.2	-3.6	293	7.9	7.3	-3.1	280	16.7	16.4	-2.9	274	35.3	35.2	-2.7	269	49.1	49.1	0.7	268	32.4	32.4	1.4
20	297	2.5	2.2	-1.1	304	4.3	3.6	-2.4	285	8.0	7.7	-2.1	274	19.1	19.0	-1.4	270	37.7	37.7	0.1	270	46.2	46.2	-0.2	273	31.8	31.8	-1.7
21	314	3.5	2.5	-2.4	309	4.3	3.3	-2.7	285	7.1	6.9	-1.8	276	17.9	17.8	-1.9	272	37.3	37.3	-1.2	265	49.2	49.0	4.5	271	28.0	28.0	-0.7
22	317	3.4	2.3	-2.5	306	4.2	3.4	-2.5	276	6.4	6.4	-0.7	270	17.1	17.1	0.1	266	37.4	37.3	2.4	265	48.0	47.8	4.4	266	30.5	30.4	2.1
23	310	3.9	3.0	-2.5	300	4.3	3.7	-2.1	279	7.4	7.3	-1.2	272	19.2	19.2	-0.7	271	38.7	38.7	-0.7	267	44.9	44.8	2.5	268	25.9	25.9	0.9
24	323	3.9	2.3	-3.1	297	4.6	4.1	-2.1	283	6.3	6.1	-1.4	274	15.7	15.7	-1.0	269	35.2	35.2	0.6	268	48.3	48.3	2.0	268	29.3	29.3	1.2
25	328	2.6	1.4	-2.2	308	4.1	3.2	-2.5	287	6.7	6.4	-1.9	272	17.0	17.0	-0.6	273	36.6	36.6	-1.9	269	46.8	46.8	0.8	270	30.1	30.1	-0.1
26	328	2.6	1.4	-2.2	284	2.5	2.4	-0.6	272	6.9	6.9	-0.2	275	19.1	19.0	-1.7	274	38.7	38.6	-2.9	266	47.1	47.0	3.1	271	31.1	31.1	-0.8
27	316	3.9	2.7	-2.8	295	3.3	3.0	-1.4	273	5.2	5.2	-0.3	272	18.4	18.4	-0.8	270	36.9	36.9	-0.3	267	46.4	46.4	2.1	270	30.1	30.1	0.1
28	252	2.2	2.1	0.7	297	3.4	3.0	-1.5	279	7.1	7.0	-1.1	271	18.0	18.0	-0.2	271	36.5	36.5	-0.4	271	46.6	46.6	-0.8	266	34.5	34.4	2.2
29	312	2.5	1.9	-1.7	294	3.7	3.4	-1.5	278	8.2	8.1	-1.1	276	20.7	20.6	-2.1	275	38.1	38.0	-3.0	274	44.5	44.4	-2.8	271	34.4	34.4	-0.4
30	324	4.7	2.8	-3.8	306	5.7	4.6	-3.3	280	8.1	8.0	-1.4	274	19.4	19.4	-1.3	277	40.6	40.3	-5.3	275	50.6	50.4	-4.4	273	30.3	30.3	-1.6
31	299	3.5	3.1	-1.7	309	5.5	4.3	-3.5	298	8.6	7.6	-4.0	279	19.6	19.4	-2.9	271	36.8	36.8	-0.6	270	49.2	49.2	-0.1	267	30.3	30.2	1.8

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	321	2.7	1.7	-2.1	313	4.0	2.9	-2.7	284	4.4	4.3	-1.1	270	14.4	14.4	0.1	275	33.5	33.3	-3.2	279	40.9	40.4	-6.2	280	37.0	36.5	-6.2
2	318	3.6	2.4	-2.7	313	4.1	3.0	-2.8	293	4.3	4.0	-1.7	273	14.1	14.1	-0.7	273	29.6	29.6	-1.3	270	43.6	43.6	0.2	260	38.0	37.4	6.5
3	327	2.7	1.5	-2.3	312	4.0	3.0	-2.7	299	3.8	3.3	-1.8	271	12.4	12.4	-0.2	283	32.6	31.8	-7.3	276	43.9	43.7	-4.3	275	24.6	24.5	-2.1
4	334	4.9	2.1	-4.4	319	3.2	2.1	-2.4	268	2.9	2.9	0.1	272	14.4	14.4	-0.5	271	33.4	33.4	-0.5	275	43.5	43.3	-4.0	267	32.1	32.1	1.5
5	313	2.3	1.7	-1.6	306	1.4	1.1	-0.8	265	3.3	3.3	0.3	274	13.6	13.6	-0.9	268	29.3	29.3	0.8	269	40.1	40.1	1.0	268	32.7	32.7	1.0
6	348	3.0	0.6	-2.9	324	2.9	1.7	-2.3	277	4.0	4.0	-0.5	277	12.5	12.4	-1.6	279	30.0	29.6	-4.6	277	40.5	40.2	-5.0	275	32.7	32.6	-2.7
7	30	3.0	-1.5	-2.6	311	0.9	0.7	-0.6	247	2.1	1.9	0.8	265	13.0	13.0	1.1	270	28.6	28.6	0.2	265	36.7	36.6	3.1	273	31.7	31.6	-1.8
8	347	1.3	0.3	-1.3	321	1.9	1.2	-1.5	266	1.6	1.6	0.1	268	12.2	12.2	0.4	271	25.9	25.9	-0.6	271	40.5	40.5	-0.4	276	27.7	27.5	-2.9
9	329	3.1	1.6	-2.7	330	2.8	1.4	-2.4	291	2.6	2.4	-0.9	272	15.0	15.0	-0.6	272	29.5	29.5	-1.2	274	43.9	43.8	-2.9	274	34.1	34.0	-2.1
10	317	3.8	2.6	-2.8	335	3.3	1.4	-3.0	298	2.1	1.9	-1.0	286	17.4	16.7	-4.8	282	34.5	33.8	-7.0	278	37.2	36.9	-5.0	272	28.8	28.8	-1.1
11	320	3.8	2.4	-2.9	312	3.8	2.8	-2.5	270	2.8	2.8	0.0	273	15.5	15.5	-0.8	265	33.7	33.6	2.7	269	38.5	38.5	0.4	267	25.5	25.5	1.3
12	350	1.7	0.3	-1.7	315	1.7	1.2	-1.2	257	2.6	2.5	0.6	267	13.8	13.8	0.8	276	34.3	34.1	-3.6	269	39.1	39.1	0.5	287	23.7	22.6	-7.1
13	318	4.0	2.7	-3.0	315	1.6	1.1	-1.1	264	1.8	1.8	0.2	273	15.8	15.8	-0.8	273	37.3	37.3	-1.7	267	48.5	48.4	2.4	268	28.1	28.1	0.9
14	331	3.5	1.7	-3.1	310	2.3	1.8	-1.5	262	3.4	3.4	0.5	274	16.3	16.3	-1.1	269	35.7	35.7	0.6	262	42.4	42.0	5.6	262	25.8	25.5	3.6
15	40	1.7	-1.1	-1.3	246	1.2	1.1	0.5	231	4.4	3.4	2.8	254	14.7	14.1	4.0	260	32.1	31.6	5.7	263	49.4	49.0	5.9	263	24.5	24.3	2.8
16	3	3.8	-0.2	-3.8	301	1.2	1.0	-0.6	255	3.1	3.0	0.8	275	13.6	13.6	-1.1	272	35.7	35.7	-1.0	269	47.4	47.4	0.8	265	33.7	33.6	3.1
17	333	7.0	3.2	-6.2	319	5.0	3.3	-3.8	291	3.9	3.6	-1.4	277	18.7	18.5	-2.4	274	39.1	39.0	-2.5	270	52.9	52.9	-0.4	266	40.5	40.4	2.8
18	329	7.4	3.8	-6.3	322	3.9	2.4	-3.1	293	2.8	2.6	-1.1	275	15.7	15.6	-1.5	272	34.6	34.6	-1.1	270	47.8	47.8	0.1	275	26.0	25.9	-2.1
19	321	8.4	5.3	-6.5	320	4.5	2.9	-3.4	285	4.2	4.1	-1.1	275	16.9	16.8	-1.5	273	37.2	37.1	-2.1	275	45.0	44.8	-3.9	278	28.7	28.4	-3.9
20	321	4.4	2.8	-3.4	324	5.3	3.1	-4.3	289	3.6	3.4	-1.2	279	16.0	15.8	-2.5	271	38.3	38.3	-0.7	269	49.1	49.1	0.8	272	35.2	35.2	-1.3
21	329	3.5	1.8	-3.0	314	3.9	2.8	-2.7	276	4.0	4.0	-0.4	271	15.4	15.4	-0.2	268	41.1	41.1	1.2	266	48.2	48.1	3.2	267	25.0	25.0	1.3
22	332	4.3	2.0	-3.8	315	2.1	1.5	-1.5	264	2.8	2.8	0.3	273	15.5	15.5	-0.9	271	39.4	39.4	-1.0	271	49.2	49.2	-1.2	283	26.4	25.8	-5.8
23	332	4.7	2.2	-4.2	309	2.8	2.2	-1.8	283	4.0	3.9	-0.9	273	15.0	15.0	-0.7	270	39.5	39.5	0.3	265	49.1	48.9	4.6	266	37.0	36.9	2.7
24	335	7.1	3.0	-6.4	311	6.4	4.8	-4.2	287	4.2	4.0	-1.2	273	13.6	13.6	-0.6	272	35.4	35.4	-1.5	275	46.5	46.3	-3.8	277	32.9	32.7	-3.9
25	326	8.4	4.7	-7.0	312	4.2	3.1	-2.8	271	5.7	5.7	-0.1	269	15.3	15.3	0.3	270	35.1	35.1	0.2	268	45.0	45.0	1.3	256	31.4	30.4	7.7
26	327	7.9	4.3	-6.6	318	4.0	2.7	-3.0	275	4.4	4.4	-0.4	268	17.5	17.5	0.5	268	39.6	39.6	1.4	270	49.6	49.6	0.0	261	32.1	31.7	4.9
27	328	5.1	2.7	-4.3	234	1.7	1.4	1.0	260	3.6	3.5	0.6	262	16.7	16.5	2.3	270	40.5	40.5	-0.3	270	49.6	49.6	-0.1	264	41.0	40.8	4.4
28	329	4.1	2.1	-3.5	279	1.8	1.8	-0.3	247	6.0	5.5	2.3	258	16.2	15.9	3.3	264	35.8	35.6	3.9	264	45.5	45.2	4.9	265	38.9	38.7	3.5
29	2	3.1	-0.1	-3.1	317	2.1	1.4	-1.5	277	4.6	4.6	-0.6	279	15.5	15.3	-2.4	274	34.7	34.6	-2.5	276	41.6	41.3	-4.7	271	21.9	21.9	-0.3
30	324	3.7	2.2	-3.0	329	2.1	1.1	-1.8	243	4.2	3.8	1.9	272	13.9	13.9	-0.6	271	38.6	38.6	-0.7	272	46.4	46.4	-2.0	265	28.2	28.1	2.3
31	334	2.8	1.2	-2.5	312	2.5	1.9	-1.7	268	3.1	3.1	0.1	274	14.5	14.5	-1.1	272	36.5	36.5	-1.4	270	43.5	43.5	-0.3	277	23.4	23.2	-2.7

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	333	4.8	2.2	-4.3	313	3.8	2.8	-2.6	266	2.8	2.8	0.2	279	12.6	12.5	-1.9	277	33.0	32.8	-3.9	267	38.7	38.6	2.3	270	40.5	40.5	-0.3
2	322	2.3	1.4	-1.8	317	3.3	2.2	-2.4	272	3.7	3.7	-0.1	274	13.8	13.8	-0.9	280	34.6	34.1	-6.0	277	44.0	43.7	-5.4	265	34.4	34.3	2.7
3	340	5.3	1.8	-5.0	319	4.1	2.7	-3.1	278	4.1	4.1	-0.6	277	13.1	13.0	-1.7	280	31.8	31.3	-5.8	283	40.4	39.4	-8.9	266	29.9	29.8	1.9
4	337	5.0	2.0	-4.6	315	3.4	2.4	-2.4	274	4.4	4.4	-0.3	271	14.3	14.3	-0.3	278	37.2	36.8	-5.1	277	49.6	49.3	-5.7	266	26.8	26.7	1.8
5	331	3.9	1.9	-3.4	324	2.9	1.7	-2.3	291	3.6	3.4	-1.3	279	16.0	15.8	-2.4	274	32.8	32.7	-2.2	269	40.4	40.4	0.4	273	27.6	27.6	-1.3
6	324	5.9	3.5	-4.8	322	3.6	2.2	-2.8	300	5.0	4.3	-2.5	277	12.5	12.4	-1.6	276	31.4	31.2	-3.5	270	41.0	41.0	0.3	272	32.5	32.5	-1.0
7	336	4.8	2.0	-4.4	320	3.8	2.4	-2.9	262	4.3	4.3	0.6	265	13.8	13.8	1.1	269	31.5	31.5	0.3	274	36.6	36.5	-2.6	275	28.8	28.7	-2.3
8	336	5.4	2.2	-4.9	323	3.5	2.1	-2.8	282	5.9	5.8	-1.2	275	14.8	14.8	-1.2	272	30.9	30.9	-1.1	272	41.3	41.3	-1.1	267	27.7	27.7	1.4
9	342	6.3	2.0	-6.0	335	4.4	1.9	-4.0	301	5.4	4.6	-2.8	276	11.8	11.7	-1.3	282	33.0	32.3	-6.7	281	40.3	39.5	-8.0	282	24.0	23.5	-5.0
10	315	3.1	2.2	-2.2	303	2.0	1.7	-1.1	279	3.7	3.7	-0.6	273	13.2	13.2	-0.7	273	34.6	34.5	-2.0	275	41.0	40.9	-3.3	267	21.9	21.9	1.3
11	72	0.9	-0.9	-0.3	313	1.9	1.4	-1.3	282	3.4	3.3	-0.7	278	14.2	14.1	-1.9	274	35.0	34.9	-2.4	270	43.4	43.4	-0.2	260	31.4	30.9	5.7
12	334	5.5	2.4	-5.0	328	4.7	2.5	-4.0	291	4.8	4.5	-1.7	269	11.2	11.2	0.2	270	31.1	31.1	-0.2	268	48.4	48.4	1.6	261	33.7	33.3	5.3
13	345	4.6	1.2	-4.4	320	3.1	2.0	-2.4	273	3.7	3.7	-0.2	267	15.8	15.8	0.7	267	39.7	39.7	1.8	265	47.1	46.9	4.1	268	26.9	26.9	1.1
14	2	3.4	-0.1	-3.4	256	0.4	0.4	0.1	248	3.7	3.4	1.4	267	12.7	12.7	0.7	263	35.4	35.1	4.2	271	52.2	52.2	-0.8	274	26.9	26.8	-1.8
15	348	3.0	0.6	-2.9	252	2.8	2.7	0.9	254	3.5	3.4	1.0	261	14.2	14.0	2.3	269	38.3	38.3	0.6	277	51.1	50.7	-6.1	269	38.2	38.2	0.5
16	335	2.3	1.0	-2.1	292	1.8	1.7	-0.7	246	3.0	2.7	1.2	264	12.9	12.8	1.4	272	37.9	37.9	-1.2	270	59.6	59.6	-0.3	269	39.2	39.2	0.5
17	297	1.6	1.4	-0.7	288	2.3	2.2	-0.7	285	5.6	5.4	-1.4	260	13.9	13.7	2.4	264	35.3	35.1	3.4	266	47.7	47.6	3.3	268	58.2	58.1	2.5
18	7	2.5	-0.3	-2.5	312	1.5	1.1	-1.0	238	3.6	3.1	1.9	259	13.1	12.9	2.4	268	34.8	34.8	1.5	270	55.4	55.4	-0.2	274	29.3	29.2	-2.2
19	18	2.0	-0.6	-1.9	305	1.2	1.0	-0.7	267	3.4	3.4	0.2	274	14.2	14.2	-0.9	273	35.9	35.8	-2.1	270	49.6	49.6	0.0	279	21.5	21.2	-3.4
20	346	4.5	1.1	-4.4	311	3.3	2.5	-2.2	270	4.7	4.7	0.0	265	14.7	14.6	1.3	270	35.8	35.8	-0.3	272	45.9	45.9	-1.9	275	24.7	24.6	-2.2
21	346	4.9	1.2	-4.8	305	3.2	2.6	-1.8	287	5.4	5.2	-1.6	279	15.4	15.2	-2.5	282	38.7	37.9	-8.0	272	43.2	43.2	-1.4	273	29.4	29.4	-1.7
22	320	5.1	3.3	-3.9	314	5.9	4.3	-4.1	290	6.6	6.2	-2.3	282	15.9	15.6	-3.2	281	39.9	39.1	-7.8	279	49.8	49.2	-7.4	283	19.7	19.2	-4.6
23	347	6.5	1.5	-6.3	314	5.8	4.2	-4.0	294	7.7	7.1	-3.1	270	14.8	14.8	0.0	270	32.6	32.6	0.2	275	50.6	50.4	-4.2	237	14.3	12.0	7.8
24	358	2.6	0.1	-2.6	338	3.1	1.2	-2.9	284	6.5	6.3	-1.6	275	18.3	18.2	-1.7	269	40.7	40.7	0.9	266	47.4	47.3	3.7	263	27.4	27.2	3.3
25	7	2.4	-0.3	-2.4	304	2.9	2.4	-1.6	292	6.6	6.1	-2.5	278	17.0	16.8	-2.4	271	35.7	35.7	-0.6	263	42.9	42.6	5.4	273	28.3	28.2	-1.7
26	346	5.3	1.3	-5.1	319	5.0	3.3	-3.8	292	5.9	5.5	-2.2	276	16.7	16.6	-1.8	280	43.1	42.4	-7.7	267	49.8	49.7	2.4	289	31.3	29.6	-10.1
27	2	3.2	-0.1	-3.2	310	3.9	3.0	-2.5	272	5.4	5.4	-0.2	272	13.7	13.7	-0.4	273	32.4	32.3	-1.9	268	42.0	42.0	1.6	265	25.2	25.1	2.3
28	338	6.3	2.4	-5.8	298	3.4	3.0	-1.6	279	5.0	4.9	-0.8	265	16.6	16.5	1.5	272	33.4	33.4	-0.9	272	42.7	42.7	-1.2	278	39.0	38.6	-5.6
29	332	5.7	2.7	-5.0	302	5.7	4.8	-3.0	279	4.5	4.4	-0.7	280	18.0	17.7	-3.1	272	45.5	45.5	-1.8	266	49.8	49.7	3.1	283	32.0	31.2	-7.2

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	340	4.4	1.5	-4.1	320	3.5	2.3	-2.7	290	5.6	5.3	-1.9	274	16.1	16.1	-1.0	274	29.2	29.1	-2.2	275	43.3	43.1	-3.7	271	26.3	26.3	-0.5
2	332	5.3	2.5	-4.7	316	3.7	2.6	-2.7	287	5.0	4.8	-1.5	277	14.0	13.9	-1.7	275	36.7	36.6	-3.1	272	49.8	49.8	-1.5	276	31.2	31.0	-3.4
3	329	6.0	3.1	-5.1	315	5.9	4.2	-4.2	296	6.4	5.8	-2.8	278	15.0	14.9	-2.0	274	34.8	34.7	-2.7	271	44.0	44.0	-0.7	277	17.7	17.5	-2.3
4	336	4.9	2.0	-4.5	304	4.3	3.6	-2.4	278	5.2	5.2	-0.7	267	13.4	13.4	0.7	264	36.3	36.1	3.8	265	42.9	42.8	3.5	246	14.9	13.6	6.0
5	322	3.1	1.9	-2.4	305	1.9	1.6	-1.1	276	5.0	5.0	-0.5	269	15.8	15.8	0.3	271	32.4	32.4	-0.5	270	44.4	44.4	0.0	266	22.0	22.0	1.4
6	322	5.0	3.1	-3.9	303	3.5	2.9	-1.9	269	5.8	5.8	0.1	265	12.7	12.7	1.0	269	31.9	31.9	0.4	264	41.1	40.9	4.2	265	31.1	31.0	2.8
7	327	8.2	4.4	-6.9	323	7.7	4.6	-6.2	281	7.1	7.0	-1.3	266	13.7	13.7	1.0	270	32.9	32.9	0.1	266	46.6	46.5	3.2	269	34.9	34.9	0.7
8	331	6.6	3.2	-5.8	316	5.6	3.9	-4.0	288	6.6	6.3	-2.1	278	15.6	15.5	-2.1	275	30.6	30.5	-2.6	273	43.2	43.2	-2.0	267	28.4	28.4	1.4
9	333	8.1	3.7	-7.2	312	5.0	3.7	-3.3	290	7.2	6.8	-2.5	270	13.6	13.6	-0.1	264	30.7	30.5	3.2	268	40.7	40.7	1.5	267	28.1	28.1	1.4
10	326	7.3	4.1	-6.0	311	3.8	2.9	-2.5	284	6.0	5.8	-1.4	268	12.4	12.4	0.4	269	31.7	31.7	0.6	267	43.1	43.0	2.2	272	27.4	27.4	-1.1
11	10	2.9	-0.5	-2.9	242	2.1	1.9	1.0	271	6.6	6.6	-0.1	270	14.9	14.9	0.1	269	31.7	31.7	0.8	269	39.8	39.8	0.4	270	32.3	32.3	-0.1
12	270	3.2	3.2	0.0	313	2.5	1.8	-1.7	280	6.2	6.1	-1.1	274	14.1	14.1	-0.9	272	30.2	30.2	-1.1	270	44.7	44.7	-0.3	273	26.9	26.9	-1.4
13	352	1.4	0.2	-1.4	320	4.2	2.7	-3.2	301	8.1	6.9	-4.2	289	13.8	13.0	-4.5	282	30.9	30.2	-6.3	282	41.5	40.6	-8.4	271	23.7	23.7	-0.6
14	313	4.1	3.0	-2.8	314	5.9	4.3	-4.1	295	8.6	7.8	-3.6	280	15.0	14.8	-2.5	281	31.9	31.4	-5.9	281	42.1	41.4	-7.8	276	22.7	22.6	-2.3
15	323	5.9	3.5	-4.7	319	5.5	3.6	-4.1	295	6.4	5.8	-2.7	277	14.5	14.4	-1.8	280	34.7	34.2	-5.8	275	43.4	43.3	-3.6	271	21.0	21.0	-0.2
16	337	4.0	1.6	-3.7	308	3.9	3.1	-2.4	288	7.1	6.7	-2.2	274	15.0	15.0	-1.1	274	36.1	36.0	-2.8	271	47.6	47.6	-0.6	262	19.1	18.9	2.5
17	360	4.3	0.0	-4.3	246	2.7	2.5	1.1	263	5.9	5.9	0.7	267	14.5	14.5	0.7	269	34.3	34.3	0.3	268	45.9	45.9	1.5	267	30.0	30.0	1.4
18	323	3.4	2.0	-2.7	273	1.8	1.8	-0.1	281	6.0	5.9	-1.2	263	15.7	15.6	1.8	272	33.1	33.1	-1.2	273	45.3	45.2	-2.6	268	24.6	24.6	0.7
19	340	5.2	1.8	-4.9	297	3.3	2.9	-1.5	276	6.2	6.2	-0.7	270	14.8	14.8	0.1	268	32.8	32.8	0.9	273	46.5	46.4	-2.4	270	25.5	25.5	0.0
20	341	6.5	2.1	-6.2	316	6.0	4.2	-4.3	295	7.7	7.0	-3.3	269	13.7	13.7	0.2	275	33.0	32.9	-2.7	274	42.0	41.9	-2.7	270	26.4	26.4	0.0
21	356	6.3	0.4	-6.3	314	4.2	3.0	-2.9	285	6.0	5.8	-1.6	271	12.7	12.7	-0.3	276	30.4	30.2	-3.4	281	46.0	45.1	-8.8	265	23.1	23.0	1.9
22	353	3.2	0.4	-3.2	324	3.4	2.0	-2.8	290	5.8	5.4	-2.0	277	12.8	12.7	-1.6	277	25.6	25.4	-3.3	272	35.2	35.2	-1.4	270	26.2	26.2	0.2
23	346	4.9	1.2	-4.7	320	4.7	3.0	-3.6	299	6.0	5.3	-2.9	270	12.8	12.8	0.1	277	30.1	29.9	-3.5	281	40.9	40.1	-8.0	268	21.5	21.5	0.6
24	345	1.1	0.3	-1.1	298	3.8	3.4	-1.8	287	7.3	7.0	-2.2	271	12.7	12.7	-0.3	275	29.2	29.1	-2.5	270	36.9	36.9	-0.1	292	13.0	12.0	-4.9
25	345	4.7	1.2	-4.5	308	2.3	1.8	-1.4	288	5.7	5.4	-1.8	277	12.1	12.0	-1.4	273	27.1	27.1	-1.4	270	36.0	36.0	-0.1	268	27.7	27.7	0.9
26	347	4.5	1.0	-4.4	324	3.2	1.9	-2.6	291	5.8	5.4	-2.1	264	10.9	10.8	1.2	273	23.0	23.0	-1.1	285	37.4	36.2	-9.4	292	14.4	13.3	-5.5
27	335	7.5	3.2	-6.8	322	5.5	3.4	-4.3	302	6.7	5.7	-3.6	285	11.0	10.6	-2.9	283	29.3	28.5	-6.7	284	36.8	35.7	-8.9	276	32.6	32.4	-3.5
28	323	2.6	1.6	-2.1	328	4.5	2.4	-3.8	302	7.0	6.0	-3.7	273	12.4	12.4	-0.6	276	27.3	27.1	-3.0	271	35.4	35.4	-0.7	259	18.9	18.6	3.6
29	14	4.4	-1.1	-4.3	305	1.9	1.6	-1.1	270	5.5	5.5	0.0	263	10.7	10.6	1.3	263	25.3	25.1	3.1	273	38.2	38.1	-2.1	259	14.4	14.1	2.8
30	51	2.1	-1.6	-1.3	315	3.3	2.3	-2.3	272	7.3	7.3	-0.2	273	14.0	14.0	-0.8	272	27.8	27.8	-1.0	269	41.9	41.9	0.4	262	18.2	18.0	2.5
31	346	5.5	1.3	-5.3	328	6.2	3.3	-5.3	310	6.7	5.2	-4.3	269	11.9	11.9	0.2	267	26.5	26.5	1.6	263	35.1	34.9	4.0	266	29.6	29.5	2.1

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	356	4.5	0.3	-4.5	321	5.0	3.2	-3.9	282	7.6	7.4	-1.6	267	13.7	13.7	0.6	269	29.2	29.2	0.4	257	39.2	38.2	8.9	262	26.6	26.3	3.9
2	333	6.9	3.1	-6.2	317	4.9	3.3	-3.6	285	6.2	6.0	-1.6	262	12.0	11.9	1.6	261	25.3	25.0	4.1	263	38.3	38.0	4.6	277	24.1	23.9	-3.0
3	334	4.9	2.1	-4.4	302	4.0	3.4	-2.1	280	5.7	5.6	-1.0	262	11.7	11.6	1.6	265	27.6	27.5	2.2	267	36.9	36.9	1.9	279	26.0	25.7	-3.9
4	9	5.5	-0.9	-5.4	298	1.7	1.5	-0.8	268	5.5	5.5	0.2	273	11.0	11.0	-0.6	277	23.0	22.8	-2.9	273	36.3	36.2	-2.2	274	26.9	26.8	-1.7
5	348	1.9	0.4	-1.9	312	3.6	2.7	-2.4	292	7.1	6.6	-2.7	285	13.4	12.9	-3.5	284	24.5	23.8	-6.0	272	33.0	33.0	-1.3	271	22.9	22.9	-0.3
6	342	3.3	1.0	-3.1	295	3.3	3.0	-1.4	294	5.9	5.4	-2.4	272	11.5	11.5	-0.5	282	25.3	24.7	-5.4	277	36.5	36.2	-4.6	269	23.9	23.9	0.6
7	341	7.3	2.4	-6.9	313	7.5	5.5	-5.1	296	10.2	9.2	-4.5	273	11.5	11.5	-0.7	276	27.6	27.4	-3.1	273	42.4	42.4	-2.0	273	21.6	21.6	-1.0
8	344	4.5	1.2	-4.3	313	6.7	4.9	-4.6	291	8.1	7.6	-2.9	270	12.8	12.8	-0.1	271	27.1	27.1	-0.6	270	37.6	37.6	0.3	268	16.3	16.3	0.7
9	352	4.5	0.6	-4.5	317	4.7	3.2	-3.4	297	6.8	6.0	-3.1	265	12.5	12.5	1.1	270	24.2	24.2	-0.1	264	32.8	32.6	3.7	269	23.2	23.2	0.5
10	348	3.9	0.8	-3.8	322	5.8	3.6	-4.6	305	7.3	6.0	-4.2	288	12.3	11.7	-3.8	285	24.6	23.8	-6.3	277	31.2	31.0	-3.7	278	18.4	18.2	-2.6
11	4	3.9	-0.3	-3.9	321	5.9	3.7	-4.6	298	9.3	8.2	-4.3	284	11.5	11.2	-2.7	279	20.8	20.6	-3.1	276	30.9	30.7	-3.3	271	16.0	16.0	-0.4
12	303	3.3	2.8	-1.8	317	4.7	3.2	-3.4	288	8.3	7.9	-2.6	275	11.1	11.1	-1.0	269	23.7	23.7	0.3	275	32.4	32.3	-3.1	277	19.3	19.2	-2.3
13	337	2.5	1.0	-2.3	309	5.7	4.4	-3.6	292	8.1	7.5	-3.1	272	9.9	9.9	-0.3	275	22.6	22.5	-2.1	270	34.4	34.4	-0.1	270	17.4	17.4	-0.1
14	360	3.3	0.0	-3.3	324	3.9	2.3	-3.2	299	6.2	5.4	-3.0	281	10.3	10.1	-1.9	272	21.1	21.1	-0.7	270	32.6	32.6	0.0	283	22.2	21.7	-4.9
15	354	2.8	0.3	-2.8	323	4.4	2.6	-3.5	295	5.0	4.5	-2.1	274	8.9	8.9	-0.6	270	21.7	21.7	0.0	270	25.9	25.9	0.2	271	16.6	16.6	-0.4
16	352	5.3	0.7	-5.3	339	3.4	1.2	-3.2	294	6.2	5.7	-2.5	282	9.8	9.6	-2.0	273	20.5	20.5	-1.2	278	26.0	25.7	-3.6	276	16.1	16.0	-1.6
17	333	5.5	2.5	-4.9	341	5.8	1.9	-5.5	310	6.1	4.7	-3.9	298	11.0	9.7	-5.2	281	21.1	20.7	-4.1	277	29.6	29.4	-3.4	264	16.9	16.8	1.8
18	348	5.6	1.2	-5.5	337	5.2	2.0	-4.8	308	10.3	8.2	-6.3	286	11.3	10.9	-3.1	282	22.5	22.0	-4.7	277	27.8	27.6	-3.3	263	16.1	16.0	1.9
19	341	4.6	1.5	-4.3	323	4.8	2.9	-3.8	299	8.6	7.5	-4.2	282	10.7	10.4	-2.3	280	20.3	20.0	-3.5	274	29.2	29.1	-1.9	268	18.1	18.1	0.5
20	338	5.0	1.9	-4.6	314	3.6	2.6	-2.5	305	6.2	5.1	-3.6	288	10.6	10.1	-3.3	276	23.6	23.5	-2.5	276	29.1	29.0	-2.9	278	10.3	10.2	-1.5
21	14	2.1	-0.5	-2.0	313	3.8	2.8	-2.6	294	6.0	5.5	-2.4	270	8.5	8.5	0.0	268	18.7	18.7	0.5	267	29.0	29.0	1.4	265	18.6	18.5	1.7
22	346	7.6	1.9	-7.4	317	3.5	2.4	-2.6	306	6.3	5.1	-3.7	276	8.4	8.4	-0.9	274	17.8	17.8	-1.2	266	27.7	27.6	1.9	282	17.0	16.7	-3.4
23	354	3.6	0.4	-3.6	316	3.6	2.5	-2.6	301	6.2	5.3	-3.2	281	9.6	9.4	-1.8	280	13.8	13.6	-2.3	274	23.4	23.4	-1.5	267	15.0	15.0	0.7
24	337	3.3	1.3	-3.0	323	5.9	3.6	-4.7	309	8.2	6.4	-5.2	299	8.7	7.6	-4.2	284	14.9	14.4	-3.7	286	20.2	19.4	-5.6	273	17.0	17.0	-0.8
25	7	4.1	-0.5	-4.1	321	4.3	2.7	-3.3	302	7.5	6.3	-4.0	302	11.3	9.6	-6.0	293	13.4	12.3	-5.3	284	24.0	23.3	-5.8	268	18.5	18.5	0.8
26	103	3.6	-3.5	0.8	354	2.0	0.2	-2.0	292	7.4	6.9	-2.8	286	9.1	8.7	-2.5	288	16.3	15.5	-5.1	278	25.4	25.2	-3.4	272	15.0	15.0	-0.6
27	98	1.5	-1.5	0.2	324	2.4	1.4	-1.9	305	7.7	6.3	-4.4	292	7.6	7.1	-2.8	270	18.1	18.1	-0.1	275	28.2	28.1	-2.6	271	16.9	16.9	-0.2
28	346	3.2	0.8	-3.1	312	3.9	2.9	-2.6	307	8.1	6.4	-4.9	281	7.7	7.6	-1.5	275	18.0	17.9	-1.7	275	25.0	24.9	-2.1	274	13.5	13.5	-0.9
29	338	6.8	2.6	-6.3	334	5.7	2.5	-5.1	297	7.9	7.0	-3.6	298	9.5	8.4	-4.5	281	15.4	15.1	-2.9	272	24.6	24.6	-0.8	272	18.7	18.7	-0.5
30	21	1.7	-0.6	-1.6	322	3.4	2.1	-2.7	291	9.1	8.5	-3.2	270	10.1	10.1	0.0	275	18.7	18.6	-1.7	267	25.0	25.0	1.2	250	16.1	15.1	5.6

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	340	3.2	1.1	-3.0	315	4.5	3.2	-3.2	274	8.4	8.4	-0.6	275	7.5	7.5	-0.7	266	19.9	19.9	1.3	263	29.8	29.6	3.5	266	21.3	21.2	1.6
2	344	5.3	1.5	-5.1	306	3.2	2.6	-1.9	280	6.5	6.4	-1.1	262	9.9	9.8	1.4	265	17.6	17.5	1.4	268	28.0	28.0	1.1	273	12.4	12.4	-0.7
3	99	1.3	-1.3	0.2	317	2.3	1.6	-1.7	289	6.8	6.4	-2.2	261	7.3	7.2	1.1	265	19.5	19.4	1.6	260	28.7	28.2	5.2	259	19.1	18.7	3.7
4	85	3.2	-3.2	-0.3	311	3.5	2.6	-2.3	284	6.6	6.4	-1.6	286	7.8	7.5	-2.1	271	20.5	20.5	-0.3	260	32.4	31.9	5.5	273	13.2	13.2	-0.7
5	356	3.0	0.2	-3.0	319	2.8	1.8	-2.1	307	6.0	4.8	-3.6	280	7.0	6.9	-1.2	266	17.3	17.3	1.2	260	26.5	26.1	4.6	266	17.7	17.7	1.3
6	340	4.8	1.6	-4.5	323	4.5	2.7	-3.6	308	7.3	5.8	-4.5	288	7.3	6.9	-2.3	284	14.6	14.2	-3.6	272	24.5	24.5	-1.0	269	9.7	9.7	0.1
7	333	5.5	2.5	-4.9	328	3.6	1.9	-3.0	296	6.7	6.0	-2.9	286	7.9	7.6	-2.2	281	16.9	16.6	-3.1	265	27.8	27.7	2.2	273	17.1	17.1	-0.8
8	17	2.1	-0.6	-2.0	245	1.4	1.3	0.6	300	6.1	5.3	-3.0	287	7.2	6.9	-2.1	270	13.7	13.7	-0.1	270	25.9	25.9	-0.2	276	13.5	13.4	-1.3
9	97	2.3	-2.3	0.3	326	1.1	0.6	-0.9	307	4.9	3.9	-2.9	284	9.3	9.0	-2.3	275	14.5	14.5	-1.2	278	21.7	21.5	-3.1	269	12.9	12.9	0.2
10	159	1.7	-0.6	1.6	284	1.6	1.6	-0.4	316	5.9	4.1	-4.2	293	10.8	9.9	-4.2	287	18.9	18.0	-5.6	280	23.5	23.2	-4.0	270	7.4	7.4	0.0
11	125	7.0	-5.8	4.0	114	1.2	-1.1	0.5	289	7.6	7.2	-2.5	293	10.0	9.2	-4.0	283	21.9	21.3	-5.1	277	25.3	25.1	-3.0	252	9.0	8.6	2.8
12	73	2.4	-2.3	-0.7	324	2.9	1.7	-2.3	299	9.0	7.9	-4.3	293	12.1	11.2	-4.7	287	24.1	23.1	-7.0	282	28.9	28.3	-5.9	265	17.8	17.7	1.4
13	329	3.7	1.9	-3.2	339	2.6	0.9	-2.4	307	8.1	6.5	-4.9	275	10.8	10.8	-1.0	276	20.3	20.2	-2.2	277	27.2	27.0	-3.1	218	3.4	2.1	2.7
14	22	3.5	-1.3	-3.3	326	3.6	2.0	-3.0	293	7.2	6.6	-2.8	291	10.3	9.6	-3.7	277	20.6	20.5	-2.4	271	31.6	31.6	-0.5	256	16.2	15.7	3.8
15	333	1.3	0.6	-1.2	329	1.2	0.6	-1.0	303	6.9	5.8	-3.7	287	10.1	9.7	-2.9	267	20.1	20.1	1.0	271	31.0	31.0	-0.5	274	12.8	12.8	-1.0
16	268	2.3	2.3	0.1	307	4.9	3.9	-2.9	305	8.0	6.5	-4.6	304	13.3	11.0	-7.4	277	17.3	17.2	-2.2	271	27.3	27.3	-0.6	265	14.8	14.7	1.3
17	153	1.6	-0.7	1.4	316	4.0	2.8	-2.9	297	8.1	7.2	-3.7	290	9.3	8.7	-3.2	282	18.3	17.9	-3.8	268	26.9	26.9	0.8	276	18.7	18.6	-2.0
18	133	2.5	-1.8	1.7	325	2.4	1.4	-2.0	302	9.0	7.6	-4.8	304	10.7	8.9	-5.9	279	22.0	21.8	-3.3	272	27.9	27.9	-1.1	254	22.4	21.5	6.2
19	190	2.2	0.4	2.2	307	3.5	2.8	-2.1	312	9.8	7.3	-6.6	310	13.4	10.2	-8.7	289	23.1	21.9	-7.5	278	27.3	27.0	-3.8	263	11.5	11.4	1.3
20	104	0.4	-0.4	0.1	306	2.6	2.1	-1.5	309	8.0	6.2	-5.1	307	9.9	7.9	-5.9	281	22.7	22.3	-4.2	274	25.3	25.2	-1.7	243	9.6	8.6	4.3
21	309	2.7	2.1	-1.7	322	2.3	1.4	-1.8	312	5.0	3.7	-3.3	301	11.6	9.9	-6.0	273	20.1	20.1	-0.9	276	29.4	29.2	-3.0	264	10.9	10.8	1.1
22	15	1.1	-0.3	-1.1	319	3.2	2.1	-2.4	312	4.7	3.5	-3.2	295	8.8	8.0	-3.7	285	17.8	17.2	-4.7	275	22.5	22.4	-2.1	280	11.7	11.5	-2.1
23	353	3.1	0.4	-3.1	318	4.7	3.2	-3.5	311	7.4	5.6	-4.8	308	10.0	7.9	-6.2	290	17.2	16.2	-5.9	282	22.1	21.6	-4.7	279	9.3	9.2	-1.5
24	320	2.6	1.7	-2.0	310	2.6	2.0	-1.7	307	7.9	6.3	-4.7	305	9.0	7.4	-5.2	286	19.5	18.8	-5.3	277	19.7	19.6	-2.4	258	10.2	10.0	2.2
25	41	0.9	-0.6	-0.7	305	2.4	2.0	-1.4	297	6.9	6.2	-3.1	302	10.2	8.7	-5.4	282	22.3	21.8	-4.6	270	23.9	23.9	0.2	261	14.8	14.6	2.2
26	47	1.8	-1.3	-1.2	315	2.7	1.9	-1.9	293	7.3	6.7	-2.8	293	10.9	10.0	-4.3	278	21.2	21.0	-3.1	270	25.8	25.8	0.1	259	11.4	11.2	2.1
27	305	1.9	1.6	-1.1	327	3.5	1.9	-2.9	307	6.7	5.4	-4.0	302	11.8	10.0	-6.3	279	19.8	19.6	-3.0	273	24.8	24.8	-1.2	266	7.7	7.7	0.6
28	262	0.7	0.7	0.1	306	4.2	3.4	-2.5	308	7.8	6.1	-4.8	304	9.7	8.0	-5.4	282	21.5	21.0	-4.4	269	28.2	28.2	0.4	258	9.7	9.5	2.1
29	208	2.1	1.0	1.9	290	3.0	2.8	-1.0	301	6.3	5.4	-3.2	297	10.5	9.3	-4.8	275	22.2	22.1	-1.8	263	32.3	32.1	3.7	260	11.5	11.3	1.9
30	354	0.9	0.1	-0.9	302	3.6	3.0	-1.9	310	6.9	5.3	-4.4	306	9.4	7.6	-5.5	278	22.0	21.8	-3.2	261	28.3	27.9	4.5	257	12.6	12.3	2.9
31	1	5.2	-0.1	-5.2	319	4.4	2.9	-3.3	284	6.1	5.9	-1.5	283	8.3	8.1	-1.9	282	14.6	14.3	-3.1	269	19.2	19.2	0.3	259	13.9	13.6	2.7

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	359	4.7	0.1	-4.7	327	4.8	2.6	-4.0	285	8.0	7.7	-2.1	299	10.2	8.9	-4.9	273	19.4	19.4	-1.1	270	22.3	22.3	0.1	251	10.5	9.9	3.5
2	336	5.9	2.4	-5.4	316	5.5	3.8	-4.0	320	8.4	5.4	-6.4	298	7.9	7.0	-3.7	280	19.5	19.2	-3.3	264	21.9	21.8	2.1	254	12.8	12.3	3.5
3	355	3.4	0.3	-3.4	323	4.0	2.4	-3.2	306	7.3	5.9	-4.3	297	8.1	7.2	-3.7	268	17.5	17.5	0.7	263	24.5	24.3	2.9	260	13.3	13.1	2.3
4	132	2.8	-2.1	1.9	278	2.1	2.1	-0.3	298	6.6	5.8	-3.1	307	9.9	7.9	-5.9	274	21.4	21.3	-1.5	266	30.1	30.0	1.9	274	14.7	14.7	-1.0
5	93	1.9	-1.9	0.1	330	2.0	1.0	-1.7	316	5.7	3.9	-4.1	311	9.6	7.2	-6.3	286	18.9	18.2	-5.2	275	20.5	20.4	-1.8	257	7.3	7.1	1.6
6	358	2.8	0.1	-2.8	311	2.0	1.5	-1.3	305	6.3	5.2	-3.6	311	7.4	5.6	-4.9	286	17.6	16.9	-4.9	273	22.0	22.0	-1.0	276	8.2	8.2	-0.8
7	23	0.8	-0.3	-0.7	315	2.8	2.0	-2.0	315	7.9	5.6	-5.6	316	8.0	5.6	-5.7	284	15.6	15.1	-3.9	276	19.1	19.0	-1.9	282	7.7	7.5	-1.6
8	356	4.0	0.3	-4.0	316	2.9	2.0	-2.1	314	6.6	4.7	-4.6	313	7.9	5.8	-5.4	276	14.2	14.1	-1.4	275	18.5	18.4	-1.6	247	7.1	6.5	2.8
9	122	1.3	-1.1	0.7	274	3.2	3.2	-0.2	316	7.4	5.2	-5.3	311	8.9	6.7	-5.9	275	17.0	16.9	-1.6	273	16.0	16.0	-0.9	273	8.9	8.9	-0.4
10	203	2.5	1.0	2.3	264	1.0	1.0	0.1	305	6.1	5.0	-3.5	306	5.8	4.7	-3.4	274	17.9	17.8	-1.4	264	19.7	19.6	1.9	293	6.5	6.0	-2.5
11	115	2.1	-1.9	0.9	207	1.3	0.6	1.2	288	4.2	4.0	-1.3	293	8.3	7.7	-3.2	272	14.8	14.8	-0.4	274	19.8	19.8	-1.4	271	10.9	10.9	-0.1
12	240	0.8	0.7	0.4	285	2.4	2.3	-0.6	308	6.6	5.2	-4.0	323	6.1	3.7	-4.9	270	14.2	14.2	0.1	276	16.1	16.0	-1.6	288	8.5	8.1	-2.6
13	322	1.1	0.7	-0.9	305	2.4	2.0	-1.4	318	6.2	4.2	-4.6	308	6.3	5.0	-3.9	268	18.6	18.6	0.8	259	20.0	19.6	3.8	272	5.8	5.8	-0.2
14	29	1.0	-0.5	-0.9	267	1.7	1.7	0.1	308	5.6	4.4	-3.4	303	6.6	5.5	-3.6	274	16.8	16.8	-1.1	265	16.8	16.7	1.5	279	7.5	7.4	-1.2
15	329	0.6	0.3	-0.5	262	1.5	1.5	0.2	297	5.6	5.0	-2.5	299	6.2	5.4	-3.0	268	18.5	18.5	0.6	259	20.8	20.5	3.8	243	6.3	5.6	2.9
16	107	1.4	-1.3	0.4	307	2.0	1.6	-1.2	308	6.1	4.8	-3.8	299	6.0	5.2	-2.9	268	15.6	15.6	0.6	265	17.8	17.7	1.7	256	4.9	4.8	1.2
17	121	3.7	-3.2	1.9	310	0.8	0.6	-0.5	313	6.3	4.6	-4.3	304	6.6	5.5	-3.7	277	16.2	16.1	-2.0	264	15.3	15.2	1.6	252	5.7	5.4	1.8
18	144	5.3	-3.1	4.3	218	1.8	1.1	1.4	331	4.1	2.0	-3.6	310	6.1	4.7	-3.9	278	11.6	11.5	-1.7	268	12.7	12.7	0.4	274	5.3	5.3	-0.4
19	136	4.5	-3.1	3.2	197	2.4	0.7	2.3	306	6.7	5.4	-3.9	311	5.5	4.1	-3.6	276	12.5	12.4	-1.4	267	11.6	11.6	0.7	298	6.7	5.9	-3.1
20	126	6.9	-5.6	4.0	193	2.8	0.6	2.7	316	6.6	4.6	-4.8	333	3.7	1.7	-3.3	271	10.0	10.0	-0.2	258	11.8	11.5	2.5	282	5.2	5.1	-1.1
21	127	5.9	-4.7	3.6	164	3.3	-0.9	3.2	301	3.7	3.2	-1.9	304	2.7	2.2	-1.5	263	8.6	8.5	1.1	257	11.1	10.8	2.5	313	2.3	1.7	-1.6
22	141	4.0	-2.5	3.1	215	1.6	0.9	1.3	317	3.3	2.2	-2.4	288	3.2	3.0	-1.0	266	10.6	10.6	0.7	258	11.2	10.9	2.4	289	3.6	3.4	-1.2
23	292	2.9	2.7	-1.1	283	2.3	2.2	-0.5	321	6.4	4.0	-5.0	298	4.1	3.6	-1.9	266	10.7	10.7	0.8	266	11.8	11.8	0.8	340	2.9	1.0	-2.7
24	108	2.0	-1.9	0.6	307	1.5	1.2	-0.9	321	5.8	3.7	-4.5	308	4.6	3.6	-2.8	258	8.8	8.6	1.8	256	12.2	11.8	2.9	297	2.8	2.5	-1.3
25	162	2.8	-0.9	2.7	243	2.2	2.0	1.0	316	7.1	4.9	-5.1	297	4.2	3.8	-1.9	266	10.9	10.9	0.8	265	12.8	12.8	1.1	290	4.0	3.8	-1.4
26	150	2.0	-1.0	1.7	254	1.8	1.7	0.5	315	6.5	4.6	-4.6	290	3.5	3.3	-1.2	272	12.6	12.6	-0.5	257	15.0	14.6	3.4	270	4.0	4.0	0.0
27	133	5.4	-4.0	3.7	242	2.4	2.1	1.1	318	6.3	4.2	-4.7	308	4.2	3.3	-2.6	260	5.5	5.4	1.0	252	7.0	6.6	2.2	346	1.2	0.3	-1.2
28	153	5.6	-2.5	5.0	248	1.8	1.7	0.7	313	6.4	4.7	-4.4	293	3.8	3.5	-1.5	275	6.9	6.9	-0.6	287	7.8	7.5	-2.3	343	2.8	0.8	-2.7
29	142	4.7	-2.9	3.7	252	1.9	1.8	0.6	324	5.1	3.0	-4.1	317	5.4	3.7	-3.9	280	5.2	5.1	-0.9	264	5.3	5.3	0.6	58	4.0	-3.4	-2.1
30	150	3.4	-1.7	3.0	202	2.4	0.9	2.2	336	4.7	1.9	-4.3	297	0.9	0.8	-0.4	259	4.4	4.3	0.8	245	2.6	2.4	1.1	72	3.3	-3.1	-1.0

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	157	3.8	-1.5	3.5	198	2.0	0.6	1.9	324	2.7	1.6	-2.2	315	4.1	2.9	-2.9	269	7.8	7.8	0.1	264	5.6	5.6	0.6	47	6.7	-4.9	-4.6
2	132	2.8	-2.1	1.9	191	3.1	0.6	3.0	281	2.0	2.0	-0.4	278	2.8	2.8	-0.4	292	8.6	8.0	-3.2	258	5.6	5.5	1.2	51	2.7	-2.1	-1.7
3	96	0.9	-0.9	0.1	270	2.1	2.1	0.0	295	3.5	3.2	-1.5	275	2.5	2.5	-0.2	255	9.1	8.8	2.3	257	11.5	11.2	2.6	349	2.0	0.4	-2.0
4	174	1.0	-0.1	1.0	285	1.6	1.5	-0.4	307	3.6	2.9	-2.2	279	2.5	2.5	-0.4	273	9.4	9.4	-0.5	268	9.3	9.3	0.3	37	5.9	-3.5	-4.7
5	90	1.0	-1.0	0.0	273	2.1	2.1	-0.1	311	5.5	4.2	-3.6	289	3.6	3.4	-1.2	267	9.1	9.1	0.4	257	8.8	8.6	2.0	27	3.1	-1.4	-2.8
6	279	1.2	1.2	-0.2	274	3.0	3.0	-0.2	299	5.3	4.6	-2.6	267	3.3	3.3	0.2	258	7.9	7.7	1.7	254	6.9	6.6	1.9	59	7.1	-6.1	-3.7
7	196	2.5	0.7	2.4	285	3.0	2.9	-0.8	321	6.0	3.8	-4.7	343	1.0	0.3	-1.0	272	7.1	7.1	-0.3	263	7.3	7.2	0.9	59	3.5	-3.0	-1.8
8	137	6.3	-4.3	4.6	297	1.6	1.4	-0.7	315	5.2	3.7	-3.7	315	0.7	0.5	-0.5	267	4.4	4.4	0.2	244	5.3	4.8	2.3	68	4.8	-4.4	-1.8
9	158	4.6	-1.7	4.3	186	2.7	0.3	2.7	300	3.2	2.8	-1.6	331	1.3	0.6	-1.1	250	3.7	3.5	1.3	243	4.2	3.8	1.9	34	10.8	-6.0	-9.0
10	175	3.4	-0.3	3.4	240	2.0	1.7	1.0	297	3.3	2.9	-1.5	279	1.9	1.9	-0.3	264	7.9	7.9	0.8	266	5.9	5.9	0.4	8	5.9	-0.8	-5.8
11	148	4.6	-2.4	3.9	191	1.6	0.3	1.6	320	1.7	1.1	-1.3	243	1.3	1.2	0.6	252	5.2	4.9	1.6	274	4.5	4.5	-0.3	68	9.2	-8.5	-3.4
12	93	3.3	-3.3	0.2	180	1.8	0.0	1.8	315	1.4	1.0	-1.0	225	3.0	2.1	2.1	238	6.2	5.3	3.3	227	6.0	4.4	4.1	44	8.3	-5.8	-6.0
13	137	4.1	-2.8	3.0	151	2.6	-1.3	2.3	270	0.8	0.8	0.0	237	3.1	2.6	1.7	259	4.2	4.1	0.8	252	7.6	7.2	2.4	36	6.5	-3.8	-5.3
14	133	3.4	-2.5	2.3	148	2.6	-1.4	2.2	356	1.4	0.1	-1.4	216	1.7	1.0	1.4	232	3.7	2.9	2.3	274	2.6	2.6	-0.2	54	8.0	-6.5	-4.7
15	133	4.7	-3.4	3.2	158	2.9	-1.1	2.7	50	0.8	-0.6	-0.5	180	1.9	0.0	1.9	229	4.4	3.3	2.9	247	3.6	3.3	1.4	75	10.1	-9.8	-2.6
16	136	4.0	-2.8	2.9	148	2.2	-1.2	1.9	32	1.5	-0.8	-1.3	175	1.1	-0.1	1.1	239	5.2	4.5	2.7	224	5.0	3.5	3.6	72	4.3	-4.1	-1.3
17	158	4.0	-1.5	3.7	157	3.6	-1.4	3.3	13	1.3	-0.3	-1.3	235	1.2	1.0	0.7	208	2.7	1.3	2.4	227	3.7	2.7	2.5	70	6.3	-5.9	-2.1
18	135	2.3	-1.6	1.6	155	2.6	-1.1	2.4	333	1.8	0.8	-1.6	222	1.3	0.9	1.0	250	3.5	3.3	1.2	262	4.1	4.1	0.6	35	7.8	-4.5	-6.4
19	142	4.4	-2.7	3.5	157	2.8	-1.1	2.6	357	1.9	0.1	-1.9	255	1.6	1.5	0.4	232	1.6	1.3	1.0	215	3.2	1.8	2.6	72	9.6	-9.1	-3.0
20	147	5.7	-3.1	4.8	154	3.2	-1.4	2.9	345	2.3	0.6	-2.2	196	0.7	0.2	0.7	233	4.0	3.2	2.4	253	4.5	4.3	1.3	61	6.6	-5.8	-3.2
21	138	5.9	-4.0	4.4	151	4.3	-2.1	3.8	19	2.1	-0.7	-2.0	150	3.0	-1.5	2.6	200	3.8	1.3	3.6	221	4.8	3.1	3.6	74	4.5	-4.3	-1.2
22	122	4.0	-3.4	2.1	147	3.8	-2.1	3.2	164	0.7	-0.2	0.7	195	2.4	0.6	2.3	212	4.5	2.4	3.8	210	4.4	2.2	3.8	18	3.2	-1.0	-3.0
23	145	3.8	-2.2	3.1	149	3.9	-2.0	3.3	108	2.2	-2.1	0.7	166	2.5	-0.6	2.4	231	3.2	2.5	2.0	245	4.7	4.2	2.0	79	4.2	-4.1	-0.8
24	146	5.2	-2.9	4.3	149	3.1	-1.6	2.7	79	0.5	-0.5	-0.1	184	2.7	0.2	2.7	232	4.6	3.6	2.8	220	6.1	3.9	4.7	90	3.7	-3.7	0.0
25	151	3.1	-1.5	2.7	139	2.9	-1.9	2.2	43	1.8	-1.2	-1.3	201	2.5	0.9	2.3	231	4.4	3.4	2.8	233	5.0	4.0	3.0	77	6.5	-6.3	-1.5
26	143	5.4	-3.2	4.3	143	2.1	-1.3	1.7	346	1.6	0.4	-1.6	193	1.3	0.3	1.3	247	4.8	4.4	1.9	234	3.7	3.0	2.2	72	5.2	-4.9	-1.6
27	125	3.9	-3.2	2.2	162	1.6	-0.5	1.5	299	1.3	1.1	-0.6	264	0.9	0.9	0.1	232	2.4	1.9	1.5	233	4.3	3.4	2.6	48	5.8	-4.3	-3.9
28	128	4.1	-3.2	2.5	251	2.1	2.0	0.7	305	2.4	2.0	-1.4	90	0.3	-0.3	0.0	135	0.4	-0.3	0.3	130	4.0	-3.1	2.6	44	9.1	-6.3	-6.5
29	133	6.2	-4.5	4.2	135	2.8	-2.0	2.0	344	2.2	0.6	-2.1	114	1.0	-0.9	0.4	167	1.3	-0.3	1.3	133	3.8	-2.8	2.6	103	9.0	-8.8	2.1
30	134	4.9	-3.5	3.4	159	2.8	-1.0	2.6	16	0.7	-0.2	-0.7	202	1.1	0.4	1.0	189	3.8	0.6	3.8	187	3.1	0.4	3.1	79	7.8	-7.7	-1.5
31	147	6.4	-3.5	5.3	193	2.6	0.6	2.5	16	1.5	-0.4	-1.4	216	1.4	0.8	1.1	223	1.6	1.1	1.2	214	1.8	1.0	1.5	57	8.2	-6.9	-4.5

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	145	5.1	-2.9	4.2	180	1.1	0.0	1.1	325	1.2	0.7	-1.0	262	0.7	0.7	0.1	281	2.5	2.5	-0.5	254	2.6	2.5	0.7	45	8.7	-6.1	-6.2
2	156	3.9	-1.6	3.6	182	2.3	0.1	2.3	311	1.1	0.8	-0.7	167	1.3	-0.3	1.3	323	2.1	1.3	-1.7	310	3.8	2.9	-2.4	44	6.2	-4.3	-4.5
3	148	2.6	-1.4	2.2	185	1.1	0.1	1.1	278	0.7	0.7	-0.1	180	0.8	0.0	0.8	260	3.5	3.4	0.6	258	5.6	5.5	1.2	44	9.7	-6.7	-7.0
4	79	1.5	-1.5	-0.3	137	2.1	-1.4	1.5	114	2.0	-1.8	0.8	141	1.4	-0.9	1.1	231	5.1	4.0	3.2	233	4.4	3.5	2.6	62	4.1	-3.6	-1.9
5	225	0.8	0.6	0.6	233	0.5	0.4	0.3	20	2.0	-0.7	-1.9	139	1.1	-0.7	0.8	228	4.6	3.4	3.1	204	4.4	1.8	4.0	60	4.4	-3.8	-2.2
6	72	1.3	-1.2	-0.4	146	2.2	-1.2	1.8	129	0.6	-0.5	0.4	204	1.2	0.5	1.1	217	3.4	2.0	2.7	244	3.4	3.1	1.5	70	6.8	-6.4	-2.3
7	243	2.0	1.8	0.9	275	1.2	1.2	-0.1	352	1.4	0.2	-1.4	146	2.5	-1.4	2.1	208	2.1	1.0	1.9	187	3.1	0.4	3.1	76	7.5	-7.3	-1.8
8	119	1.3	-1.1	0.6	270	1.6	1.6	0.0	335	1.7	0.7	-1.5	180	1.0	0.0	1.0	227	1.8	1.3	1.2	189	2.4	0.4	2.4	88	9.3	-9.3	-0.4
9	231	3.3	2.6	2.1	216	1.7	1.0	1.4	331	1.0	0.5	-0.9	196	1.5	0.4	1.4	250	3.8	3.6	1.3	224	3.5	2.4	2.5	74	6.9	-6.6	-1.9
10	164	4.7	-1.3	4.5	174	2.0	-0.2	2.0	207	0.4	0.2	0.4	254	1.5	1.4	0.4	241	3.8	3.3	1.8	233	2.1	1.7	1.3	46	9.0	-6.5	-6.2
11	147	2.4	-1.3	2.0	125	1.2	-1.0	0.7	37	0.5	-0.3	-0.4	250	1.5	1.4	0.5	235	2.8	2.3	1.6	240	3.2	2.8	1.6	58	7.8	-6.6	-4.1
12	210	1.6	0.8	1.4	180	1.1	0.0	1.1	328	1.5	0.8	-1.3	287	3.4	3.2	-1.0	259	6.2	6.1	1.2	258	4.0	3.9	0.8	42	2.7	-1.8	-2.0
13	198	2.2	0.7	2.1	238	2.5	2.1	1.3	320	2.6	1.7	-2.0	311	2.8	2.1	-1.8	231	3.6	2.8	2.3	202	4.8	1.8	4.4	38	2.9	-1.8	-2.3
14	338	0.5	0.2	-0.5	252	1.6	1.5	0.5	317	2.1	1.4	-1.5	270	0.4	0.4	0.0	252	6.0	5.7	1.9	235	6.1	5.0	3.5	86	2.9	-2.9	-0.2
15	201	0.9	0.3	0.8	306	0.9	0.7	-0.5	356	1.6	0.1	-1.6	132	1.3	-1.0	0.9	234	4.4	3.6	2.6	208	5.5	2.6	4.9	97	3.3	-3.3	0.4
16	188	1.5	0.2	1.5	177	1.8	-0.1	1.8	18	1.3	-0.4	-1.2	225	1.1	0.8	0.8	216	4.7	2.8	3.8	236	5.9	4.9	3.3	84	5.1	-5.1	-0.5
17	80	1.7	-1.7	-0.3	270	0.1	0.1	0.0	355	2.1	0.2	-2.1	230	0.8	0.6	0.5	243	5.5	4.9	2.5	232	5.5	4.3	3.4	87	3.7	-3.7	-0.2
18	225	1.3	0.9	0.9	265	1.1	1.1	0.1	324	1.7	1.0	-1.4	225	1.0	0.7	0.7	251	4.9	4.6	1.6	237	3.0	2.5	1.6	68	5.9	-5.5	-2.2
19	138	3.9	-2.6	2.9	180	0.7	0.0	0.7	333	2.8	1.3	-2.5	248	0.5	0.5	0.2	231	4.1	3.2	2.6	237	2.0	1.7	1.1	49	2.8	-2.1	-1.8
20	151	3.8	-1.8	3.3	220	1.6	1.0	1.2	339	2.8	1.0	-2.6	153	0.9	-0.4	0.8	229	4.0	3.0	2.6	235	5.4	4.4	3.1	34	4.3	-2.4	-3.6
21	155	2.6	-1.1	2.4	180	0.7	0.0	0.7	325	2.9	1.7	-2.4	223	2.6	1.8	1.9	257	4.0	3.9	0.9	250	5.1	4.8	1.7	66	2.0	-1.8	-0.8
22	151	2.6	-1.3	2.3	279	0.6	0.6	-0.1	307	2.6	2.1	-1.6	252	2.6	2.5	0.8	266	5.5	5.5	0.4	273	6.9	6.9	-0.4	60	3.0	-2.6	-1.5
23	180	1.1	0.0	1.1	235	1.9	1.6	1.1	328	2.6	1.4	-2.2	232	1.6	1.3	1.0	261	4.0	4.0	0.6	279	7.9	7.8	-1.3	355	1.1	0.1	-1.1
24	159	3.3	-1.2	3.1	274	1.6	1.6	-0.1	345	2.4	0.6	-2.3	236	2.2	1.8	1.2	254	5.5	5.3	1.5	266	7.9	7.9	0.6	338	3.5	1.3	-3.3
25	198	2.8	0.9	2.7	245	1.9	1.7	0.8	341	2.8	0.9	-2.6	191	1.6	0.3	1.6	241	7.1	6.2	3.5	246	8.4	7.7	3.4	95	2.2	-2.2	0.2
26	149	2.7	-1.4	2.3	261	2.5	2.5	0.4	334	2.8	1.2	-2.5	236	2.3	1.9	1.3	250	8.7	8.2	3.0	250	9.6	9.0	3.2	42	1.2	-0.8	-0.9
27	124	2.9	-2.4	1.6	274	1.4	1.4	-0.1	313	2.3	1.7	-1.6	254	0.7	0.7	0.2	242	8.4	7.4	3.9	246	8.5	7.8	3.5	71	2.1	-2.0	-0.7
28	135	1.1	-0.8	0.8	329	1.2	0.6	-1.0	343	2.1	0.6	-2.0	227	1.9	1.4	1.3	240	8.1	7.0	4.1	237	8.2	6.8	4.5	13	2.2	-0.5	-2.1
29	143	0.5	-0.3	0.4	335	1.4	0.6	-1.3	350	2.2	0.4	-2.2	201	2.5	0.9	2.3	240	8.5	7.4	4.2	236	11.0	9.1	6.1	354	2.8	0.3	-2.8
30	283	1.3	1.3	-0.3	319	2.3	1.5	-1.7	315	1.4	1.0	-1.0	218	1.1	0.7	0.9	254	7.7	7.4	2.1	243	10.6	9.4	4.8	27	2.0	-0.9	-1.8
31	233	1.5	1.2	0.9	322	1.8	1.1	-1.4	342	0.9	0.3	-0.9	241	2.1	1.8	1.0	241	9.8	8.6	4.8	236	10.6	8.8	5.9	233	3.0	2.4	1.8

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	349	3.3	0.6	-3.2	314	3.5	2.5	-2.4	306	3.7	3.0	-2.2	249	3.0	2.8	1.1	240	10.2	8.8	5.1	236	10.8	8.9	6.1	278	3.4	3.4	-0.5
2	228	1.5	1.1	1.0	320	1.7	1.1	-1.3	322	1.1	0.7	-0.9	167	2.3	-0.5	2.2	246	6.8	6.2	2.7	240	8.9	7.7	4.4	349	2.1	0.4	-2.1
3	147	2.0	-1.1	1.7	360	0.9	0.0	-0.9	333	3.7	1.7	-3.3	239	2.3	2.0	1.2	272	5.4	5.4	-0.2	254	9.2	8.8	2.6	305	1.9	1.6	-1.1
4	145	5.1	-2.9	4.2	313	1.8	1.3	-1.2	312	2.5	1.9	-1.7	242	2.1	1.9	1.0	260	8.3	8.2	1.5	241	12.3	10.8	5.9	43	1.6	-1.1	-1.2
5	18	2.5	-0.8	-2.4	318	2.5	1.7	-1.9	320	4.0	2.6	-3.1	258	2.5	2.4	0.5	279	8.0	7.9	-1.2	266	10.2	10.2	0.7	299	3.3	2.9	-1.6
6	53	1.0	-0.8	-0.6	318	3.1	2.1	-2.3	322	4.6	2.8	-3.6	230	1.6	1.2	1.0	261	8.7	8.6	1.3	247	9.6	8.9	3.7	203	1.5	0.6	1.4
7	118	3.4	-3.0	1.6	301	1.2	1.0	-0.6	297	1.1	1.0	-0.5	235	1.2	1.0	0.7	258	7.0	6.8	1.5	245	7.7	7.0	3.2	215	1.6	0.9	1.3
8	127	5.6	-4.5	3.4	11	0.5	-0.1	-0.5	326	1.4	0.8	-1.2	202	3.7	1.4	3.4	258	7.9	7.7	1.7	274	8.9	8.9	-0.7	276	6.8	6.8	-0.7
9	133	5.3	-3.9	3.6	218	1.1	0.7	0.9	180	0.1	0.0	0.1	226	3.5	2.5	2.4	265	9.6	9.6	0.8	262	10.5	10.4	1.5	319	3.5	2.3	-2.6
10	125	1.2	-1.0	0.7	304	2.7	2.2	-1.5	306	2.2	1.8	-1.3	236	2.5	2.1	1.4	258	11.3	11.0	2.4	252	12.3	11.7	3.9	284	1.6	1.6	-0.4
11	14	0.8	-0.2	-0.8	326	2.3	1.3	-1.9	328	3.1	1.6	-2.6	248	3.1	2.9	1.2	272	9.9	9.9	-0.4	258	14.0	13.7	2.9	322	4.1	2.5	-3.2
12	322	3.1	1.9	-2.4	332	3.0	1.4	-2.6	325	4.9	2.8	-4.0	245	2.9	2.6	1.2	276	11.0	10.9	-1.2	273	14.8	14.8	-0.7	260	5.0	4.9	0.9
13	9	0.6	-0.1	-0.6	307	2.0	1.6	-1.2	328	3.6	1.9	-3.0	249	4.0	3.7	1.4	263	9.5	9.4	1.1	263	11.9	11.8	1.5	305	1.2	1.0	-0.7
14	336	1.2	0.5	-1.1	319	3.5	2.3	-2.6	328	4.5	2.4	-3.8	270	2.5	2.5	0.0	274	10.0	10.0	-0.7	277	13.2	13.1	-1.5	303	4.9	4.1	-2.7
15	320	0.8	0.5	-0.6	315	3.5	2.5	-2.5	323	4.8	2.9	-3.8	251	3.1	2.9	1.0	263	13.0	12.9	1.5	252	13.7	13.0	4.2	317	4.4	3.0	-3.2
16	330	1.6	0.8	-1.4	307	2.0	1.6	-1.2	326	4.0	2.2	-3.3	245	1.7	1.5	0.7	263	13.1	13.0	1.7	262	14.3	14.2	2.0	247	3.3	3.0	1.3
17	311	3.8	2.9	-2.5	325	3.5	2.0	-2.9	303	3.7	3.1	-2.0	278	2.7	2.7	-0.4	256	14.9	14.5	3.5	258	15.0	14.7	3.1	326	4.0	2.2	-3.3
18	323	2.0	1.2	-1.6	316	3.5	2.4	-2.5	320	4.2	2.7	-3.2	248	4.3	4.0	1.6	263	12.6	12.5	1.5	267	15.1	15.1	0.8	287	5.1	4.9	-1.5
19	324	1.7	1.0	-1.4	309	2.7	2.1	-1.7	321	3.5	2.2	-2.7	261	2.6	2.6	0.4	262	13.9	13.8	2.0	264	17.2	17.1	1.9	291	6.2	5.8	-2.2
20	299	1.8	1.6	-0.9	316	2.8	1.9	-2.0	308	3.1	2.4	-1.9	243	3.7	3.3	1.7	255	14.6	14.1	3.9	255	16.7	16.2	4.2	269	8.2	8.2	0.1
21	315	2.1	1.5	-1.5	349	2.5	0.5	-2.5	340	4.0	1.4	-3.8	240	3.4	3.0	1.7	260	14.0	13.8	2.5	258	17.1	16.7	3.5	262	9.0	8.9	1.2
22	275	1.2	1.2	-0.1	321	2.2	1.4	-1.7	317	1.9	1.3	-1.4	253	4.5	4.3	1.3	261	16.0	15.8	2.5	259	19.7	19.3	3.8	253	6.7	6.4	1.9
23	5	3.7	-0.3	-3.7	317	1.6	1.1	-1.2	306	1.7	1.4	-1.0	235	3.9	3.2	2.2	254	15.9	15.3	4.4	247	20.4	18.7	8.1	256	9.3	9.0	2.2
24	320	3.9	2.5	-3.0	343	1.4	0.4	-1.3	298	2.1	1.9	-1.0	249	4.5	4.2	1.6	260	15.2	15.0	2.6	261	19.5	19.3	3.1	278	9.8	9.7	-1.3
25	323	0.5	0.3	-0.4	328	2.6	1.4	-2.2	309	3.2	2.5	-2.0	294	3.4	3.1	-1.4	276	15.9	15.8	-1.6	266	16.6	16.6	1.2	273	8.8	8.8	-0.5
26	18	2.6	-0.8	-2.5	320	3.0	1.9	-2.3	298	3.4	3.0	-1.6	278	4.5	4.5	-0.6	264	19.5	19.4	2.1	269	20.3	20.3	0.4	292	6.6	6.1	-2.5
27	321	3.3	2.1	-2.6	309	3.5	2.7	-2.2	315	4.9	3.5	-3.5	295	4.0	3.6	-1.7	267	18.8	18.8	1.0	268	19.6	19.6	0.8	276	8.9	8.8	-1.0
28	339	3.9	1.4	-3.6	323	5.0	3.0	-4.0	313	5.1	3.7	-3.5	273	5.4	5.4	-0.3	270	19.0	19.0	-0.1	275	19.8	19.7	-1.8	274	9.0	9.0	-0.6
29	320	2.6	1.7	-2.0	319	4.4	2.9	-3.3	317	5.4	3.7	-3.9	284	5.3	5.1	-1.3	265	19.4	19.3	1.8	268	22.0	22.0	0.9	280	13.7	13.5	-2.3
30	340	3.2	1.1	-3.0	330	4.8	2.4	-4.1	306	5.6	4.5	-3.3	269	5.3	5.3	0.1	266	21.2	21.1	1.5	262	26.0	25.8	3.6	272	14.9	14.9	-0.6

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	337	4.6	1.8	-4.2	324	4.7	2.8	-3.8	332	5.1	2.4	-4.5	281	5.2	5.1	-1.0	269	19.4	19.4	0.5	258	24.0	23.5	4.9	279	11.8	11.6	-1.9
2	330	0.8	0.4	-0.7	319	4.1	2.7	-3.1	318	5.7	3.8	-4.2	286	4.7	4.5	-1.3	268	19.0	19.0	0.5	259	22.4	22.0	4.2	277	13.6	13.5	-1.7
3	63	0.9	-0.8	-0.4	324	3.6	2.1	-2.9	308	5.2	4.1	-3.2	291	7.9	7.4	-2.9	268	20.9	20.9	0.6	265	25.2	25.1	2.1	265	9.9	9.9	0.9
4	79	2.6	-2.6	-0.5	335	3.1	1.3	-2.8	317	5.1	3.5	-3.7	288	6.6	6.3	-2.0	271	20.3	20.3	-0.3	265	25.9	25.8	2.4	266	11.8	11.8	0.9
5	69	1.4	-1.3	-0.5	331	3.1	1.5	-2.7	315	4.1	2.9	-2.9	277	6.7	6.7	-0.8	276	19.2	19.1	-2.1	262	25.8	25.6	3.4	260	13.2	13.0	2.2
6	38	3.3	-2.0	-2.6	329	2.3	1.2	-2.0	308	2.9	2.3	-1.8	291	6.5	6.1	-2.3	268	22.5	22.5	0.9	259	28.9	28.4	5.4	248	15.7	14.6	5.8
7	342	3.6	1.1	-3.4	327	4.0	2.2	-3.4	323	4.3	2.6	-3.4	287	6.7	6.4	-2.0	272	22.0	22.0	-0.6	261	25.3	25.0	4.0	257	14.7	14.3	3.2
8	350	4.6	0.8	-4.5	330	4.4	2.2	-3.8	325	5.1	2.9	-4.2	276	4.5	4.5	-0.5	274	17.2	17.2	-1.3	261	26.2	25.9	4.1	255	15.4	14.8	4.1
9	336	4.4	1.8	-4.0	312	1.5	1.1	-1.0	328	4.9	2.6	-4.2	286	6.4	6.1	-1.8	276	22.8	22.7	-2.2	266	28.0	27.9	1.8	267	16.4	16.4	0.9
10	329	5.2	2.7	-4.5	322	4.2	2.6	-3.3	317	5.0	3.4	-3.7	284	8.3	8.1	-2.0	264	28.0	27.9	2.7	266	32.5	32.4	2.0	257	21.2	20.6	4.8
11	340	1.5	0.5	-1.4	324	2.9	1.7	-2.3	307	5.4	4.3	-3.2	275	6.5	6.5	-0.6	264	28.1	27.9	3.0	265	31.8	31.7	3.0	266	18.4	18.3	1.4
12	10	2.9	-0.5	-2.9	327	4.0	2.2	-3.4	317	5.1	3.5	-3.7	301	7.7	6.6	-3.9	274	25.5	25.4	-1.6	267	31.8	31.7	1.9	262	17.4	17.2	2.5
13	333	3.8	1.7	-3.4	317	4.7	3.2	-3.4	306	5.7	4.6	-3.3	280	8.1	8.0	-1.4	269	27.1	27.1	0.5	263	32.3	32.1	3.8	274	16.9	16.9	-1.1
14	342	3.6	1.1	-3.4	321	4.9	3.1	-3.8	317	5.6	3.8	-4.1	285	7.8	7.5	-2.0	266	25.8	25.7	1.7	268	30.8	30.8	1.0	276	15.3	15.2	-1.7
15	336	4.2	1.7	-3.8	336	4.6	1.9	-4.2	320	4.8	3.1	-3.7	288	9.2	8.8	-2.8	271	25.4	25.4	-0.6	267	33.0	32.9	1.9	268	16.1	16.1	0.5
16	338	6.4	2.4	-5.9	325	4.0	2.3	-3.3	319	3.8	2.5	-2.9	271	6.6	6.6	-0.1	272	26.4	26.4	-1.0	266	35.1	35.0	2.3	269	15.0	15.0	0.3
17	353	3.8	0.5	-3.8	321	3.5	2.2	-2.7	323	4.9	2.9	-3.9	269	8.9	8.9	0.2	263	26.5	26.3	3.0	261	35.8	35.3	5.7	266	16.9	16.8	1.3
18	2	2.9	-0.1	-2.9	317	2.3	1.6	-1.7	311	3.3	2.5	-2.2	275	7.5	7.5	-0.7	266	27.4	27.3	2.0	259	38.0	37.3	7.4	269	11.5	11.5	0.2
19	326	1.1	0.6	-0.9	303	2.7	2.3	-1.5	309	4.4	3.4	-2.8	266	9.5	9.5	0.7	264	27.5	27.4	2.7	257	34.1	33.2	7.6	262	20.8	20.6	3.0
20	349	4.6	0.9	-4.5	330	6.1	3.1	-5.3	313	4.0	2.9	-2.7	287	10.9	10.4	-3.1	274	29.1	29.0	-2.1	265	36.3	36.2	2.9	272	22.8	22.8	-0.8
21	337	2.3	0.9	-2.1	319	6.0	3.9	-4.5	312	6.0	4.5	-4.0	284	8.5	8.2	-2.1	279	28.0	27.6	-4.6	274	33.6	33.5	-2.5	264	19.6	19.5	2.0
22	341	4.2	1.4	-4.0	317	6.0	4.1	-4.4	316	5.7	3.9	-4.1	283	8.2	8.0	-1.9	275	27.9	27.8	-2.5	266	34.7	34.6	2.5	265	19.0	18.9	1.6
23	339	4.7	1.7	-4.4	312	5.1	3.8	-3.4	316	5.0	3.5	-3.6	285	7.9	7.6	-2.1	270	25.0	25.0	0.0	270	33.8	33.8	-0.1	270	20.2	20.2	0.1
24	332	5.9	2.8	-5.2	323	4.1	2.5	-3.3	312	3.6	2.7	-2.4	285	7.8	7.5	-2.0	267	27.3	27.3	1.4	272	30.6	30.6	-1.2	265	19.1	19.0	1.7
25	331	4.8	2.3	-4.2	321	5.1	3.2	-4.0	319	6.0	3.9	-4.5	282	8.3	8.1	-1.7	271	28.8	28.8	-0.5	264	40.4	40.2	4.4	281	17.1	16.8	-3.3
26	331	6.0	2.9	-5.2	305	5.6	4.6	-3.2	307	5.1	4.1	-3.1	289	8.5	8.0	-2.8	274	27.1	27.0	-2.0	271	36.1	36.1	-0.9	274	21.8	21.7	-1.5
27	333	7.7	3.5	-6.9	320	5.4	3.5	-4.1	305	5.8	4.8	-3.3	278	7.5	7.4	-1.1	272	24.4	24.4	-0.7	270	31.6	31.6	0.1	272	17.9	17.9	-0.6
28	340	5.1	1.7	-4.8	324	4.2	2.5	-3.4	325	4.5	2.6	-3.7	291	6.7	6.3	-2.4	281	21.6	21.2	-4.3	269	31.7	31.7	0.4	276	19.7	19.6	-2.0
29	354	3.1	0.3	-3.1	319	3.0	2.0	-2.3	312	4.7	3.5	-3.2	271	6.9	6.9	-0.1	269	21.4	21.4	0.4	269	29.7	29.7	0.3	272	18.4	18.4	-0.7
30	337	3.3	1.3	-3.0	334	2.8	1.2	-2.5	305	3.3	2.7	-1.9	272	8.8	8.8	-0.3	268	22.1	22.1	0.8	266	34.7	34.6	2.7	268	18.7	18.7	0.8
31	344	4.1	1.1	-3.9	323	4.0	2.4	-3.2	315	3.4	2.4	-2.4	292	8.1	7.5	-3.0	274	23.6	23.5	-1.8	269	32.5	32.5	0.5	272	21.3	21.3	-0.8

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	341	2.8	0.9	-2.6	321	3.8	2.4	-3.0	325	2.1	1.2	-1.7	288	7.6	7.2	-2.3	277	24.4	24.2	-2.8	270	33.2	33.2	0.1	272	20.1	20.1	-0.6
2	328	3.2	1.7	-2.7	321	3.3	2.1	-2.6	319	4.0	2.6	-3.0	288	8.9	8.4	-2.8	280	28.7	28.3	-4.8	266	34.7	34.6	2.6	262	23.5	23.3	3.2
3	328	6.1	3.2	-5.2	323	3.8	2.3	-3.0	320	4.5	2.9	-3.5	282	9.0	8.8	-1.8	277	25.6	25.4	-3.2	273	34.2	34.1	-2.0	271	18.7	18.7	-0.3
4	341	4.3	1.4	-4.1	319	4.8	3.1	-3.6	306	4.1	3.3	-2.4	275	8.2	8.2	-0.7	274	23.6	23.5	-1.8	272	28.9	28.9	-1.2	269	31.2	31.2	0.6
5	357	2.1	0.1	-2.1	314	5.0	3.6	-3.5	311	5.0	3.8	-3.3	274	11.3	11.3	-0.8	281	29.6	29.1	-5.6	274	36.5	36.4	-2.4	273	24.4	24.4	-1.3
6	67	0.8	-0.7	-0.3	303	3.1	2.6	-1.7	306	4.8	3.9	-2.8	277	10.6	10.5	-1.3	272	30.0	30.0	-0.8	269	38.8	38.8	0.6	268	23.5	23.5	0.8
7	354	3.1	0.3	-3.1	332	4.0	1.9	-3.5	306	3.6	2.9	-2.1	277	8.8	8.7	-1.0	275	27.9	27.8	-2.5	272	38.6	38.6	-1.6	272	20.4	20.4	-0.8
8	357	1.8	0.1	-1.8	324	3.9	2.3	-3.2	311	3.2	2.4	-2.1	278	10.3	10.2	-1.5	272	28.5	28.5	-1.2	264	40.2	40.0	4.1	280	23.3	22.9	-4.1
9	118	3.6	-3.2	1.7	314	3.7	2.7	-2.6	314	5.2	3.7	-3.6	273	11.7	11.7	-0.7	272	30.3	30.3	-0.9	267	40.4	40.3	2.1	271	16.7	16.7	-0.2
10	338	7.6	2.8	-7.1	298	1.9	1.7	-0.9	295	5.2	4.7	-2.2	296	12.9	11.6	-5.7	281	26.0	25.5	-5.0	282	33.9	33.1	-7.2	275	20.3	20.2	-1.8
11	328	5.2	2.7	-4.4	321	3.8	2.4	-3.0	305	5.0	4.1	-2.9	291	11.1	10.4	-3.9	290	23.3	22.0	-7.8	285	33.2	32.1	-8.5	280	23.8	23.4	-4.1
12	337	4.1	1.6	-3.8	316	4.3	3.0	-3.1	300	4.8	4.2	-2.4	285	12.6	12.2	-3.2	279	29.4	29.1	-4.5	276	39.4	39.2	-4.1	269	24.6	24.6	0.5
13	335	5.3	2.2	-4.8	334	5.5	2.4	-4.9	320	5.1	3.3	-3.9	285	10.3	9.9	-2.7	283	28.5	27.8	-6.3	276	39.7	39.5	-4.1	270	20.5	20.5	0.0
14	338	4.0	1.5	-3.7	316	5.7	3.9	-4.1	311	5.7	4.3	-3.7	289	13.7	12.9	-4.5	275	31.4	31.3	-2.7	272	38.0	38.0	-1.4	262	20.6	20.4	2.8
15	337	4.1	1.6	-3.8	323	4.1	2.5	-3.3	311	5.6	4.2	-3.7	287	13.4	12.8	-3.8	277	29.2	29.0	-3.8	272	33.5	33.5	-1.2	277	25.7	25.5	-3.1
16	330	3.8	1.9	-3.3	318	3.9	2.6	-2.9	312	3.9	2.9	-2.6	274	11.8	11.8	-0.9	268	29.0	29.0	0.8	270	39.3	39.3	-0.2	274	21.7	21.6	-1.6
17	319	3.0	2.0	-2.3	317	4.2	2.9	-3.1	293	3.8	3.5	-1.5	277	13.8	13.7	-1.6	268	32.4	32.4	1.4	271	43.7	43.7	-0.8	271	25.2	25.2	-0.6
18	4	3.1	-0.2	-3.1	320	3.9	2.5	-3.0	312	5.1	3.8	-3.4	270	12.1	12.1	0.1	268	29.0	29.0	1.2	263	38.8	38.6	4.4	264	26.8	26.7	2.6
19	338	2.7	1.0	-2.5	320	3.9	2.5	-3.0	321	3.6	2.3	-2.8	284	12.3	12.0	-2.9	270	26.8	26.8	0.1	270	39.2	39.2	0.3	266	24.6	24.5	1.7
20	28	1.5	-0.7	-1.3	318	4.0	2.7	-3.0	296	4.1	3.7	-1.8	276	10.6	10.5	-1.1	275	27.2	27.1	-2.3	265	36.8	36.6	3.5	275	28.1	28.0	-2.6
21	328	4.6	2.4	-3.9	304	3.0	2.5	-1.7	301	2.9	2.5	-1.5	275	10.8	10.8	-0.9	264	24.7	24.6	2.7	263	41.8	41.5	5.3	272	25.2	25.2	-0.7
22	317	1.6	1.1	-1.2	316	3.3	2.3	-2.4	247	3.3	3.0	1.3	259	11.7	11.5	2.2	260	31.4	30.9	5.6	258	38.2	37.4	7.8	262	24.0	23.8	3.3
23	346	3.7	0.9	-3.6	322	2.8	1.7	-2.2	274	2.8	2.8	-0.2	270	11.6	11.6	0.0	272	28.5	28.5	-0.9	266	36.6	36.5	2.4	267	19.0	19.0	1.1
24	331	7.1	3.5	-6.2	321	2.7	1.7	-2.1	297	2.7	2.4	-1.2	264	11.9	11.8	1.3	269	32.8	32.8	0.5	265	34.1	34.0	2.9	261	27.0	26.7	4.3
25	321	7.7	4.8	-6.0	317	4.5	3.1	-3.3	282	3.8	3.7	-0.8	268	13.5	13.5	0.4	272	31.4	31.4	-1.2	270	41.8	41.8	0.0	264	25.8	25.7	2.7
26	325	5.2	3.0	-4.3	318	4.7	3.2	-3.5	306	3.6	2.9	-2.1	275	13.1	13.0	-1.2	273	37.6	37.6	-1.7	273	42.1	42.1	-1.9	254	24.6	23.7	6.6
27	316	3.6	2.5	-2.6	316	4.0	2.8	-2.9	257	3.1	3.0	0.7	271	13.8	13.8	-0.2	267	33.6	33.6	1.5	265	45.0	44.8	4.0	268	27.8	27.8	1.2
28	356	3.0	0.2	-3.0	311	3.3	2.5	-2.2	290	4.6	4.3	-1.6	273	15.9	15.9	-0.9	271	33.5	33.5	-0.5	264	42.5	42.3	4.1	269	28.5	28.5	0.5
29	329	4.8	2.5	-4.1	325	4.2	2.4	-3.4	291	4.2	3.9	-1.5	280	12.4	12.2	-2.2	273	35.0	35.0	-1.8	268	41.7	41.7	1.7	272	33.5	33.5	-1.3
30	331	5.7	2.8	-5.0	300	3.9	3.4	-2.0	300	4.4	3.8	-2.2	276	14.5	14.4	-1.4	269	31.6	31.6	0.4	273	40.4	40.3	-2.3	263	29.8	29.6	3.4

Daily Normals of Upper Air Winds (1971-2000)

PATIALA **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	326	4.2	2.4	-3.5	316	4.0	2.8	-2.9	292	4.5	4.2	-1.7	274	13.2	13.2	-0.9	269	35.7	35.7	0.9	268	41.9	41.9	1.1	277	19.8	19.7	-2.4
2	335	6.0	2.5	-5.4	319	3.3	2.2	-2.5	295	4.0	3.6	-1.7	273	11.3	11.3	-0.6	274	27.1	27.0	-1.7	269	40.6	40.6	0.9	270	27.2	27.2	-0.1
3	329	4.4	2.3	-3.8	320	4.0	2.6	-3.1	297	4.6	4.1	-2.1	262	12.0	11.9	1.6	265	31.4	31.3	2.8	265	36.9	36.8	3.3	272	20.7	20.7	-0.6
4	338	5.6	2.1	-5.2	322	5.7	3.5	-4.5	309	4.6	3.6	-2.9	275	12.2	12.2	-1.1	271	32.4	32.4	-0.4	270	38.2	38.2	0.2	270	28.8	28.8	0.0
5	330	6.0	3.0	-5.2	319	5.3	3.5	-4.0	307	4.1	3.3	-2.5	275	14.1	14.0	-1.3	269	26.6	26.6	0.4	265	38.8	38.7	3.3	273	37.9	37.8	-2.0
6	331	6.3	3.0	-5.5	316	6.1	4.2	-4.4	304	5.0	4.2	-2.8	276	13.6	13.5	-1.5	272	29.1	29.1	-1.1	262	40.3	39.9	5.8	255	24.8	24.0	6.4
7	336	4.9	2.0	-4.5	320	5.4	3.5	-4.1	297	5.3	4.7	-2.4	274	13.4	13.4	-1.0	270	31.7	31.7	0.2	270	42.4	42.4	-0.3	266	30.2	30.1	1.9
8	317	5.3	3.6	-3.9	310	4.3	3.3	-2.8	290	2.7	2.5	-0.9	272	12.8	12.8	-0.5	272	30.4	30.4	-1.2	272	46.3	46.3	-1.3	270	27.3	27.3	-0.1
9	322	6.3	3.9	-5.0	318	4.5	3.0	-3.3	296	4.1	3.7	-1.8	268	13.8	13.8	0.6	268	33.1	33.1	1.2	270	38.9	38.9	0.1	277	26.9	26.7	-3.5
10	330	5.1	2.5	-4.4	323	3.1	1.9	-2.5	297	4.6	4.1	-2.1	279	13.3	13.1	-2.0	275	29.3	29.2	-2.7	270	36.7	36.7	-0.3	276	28.7	28.6	-2.8
11	322	4.6	2.8	-3.6	314	4.0	2.9	-2.8	292	4.3	4.0	-1.6	272	13.0	13.0	-0.4	259	32.1	31.5	6.2	265	42.3	42.1	3.7	269	26.8	26.8	0.6
12	333	6.0	2.7	-5.4	320	4.2	2.7	-3.2	295	5.4	4.9	-2.3	273	14.4	14.4	-0.8	272	35.1	35.1	-1.2	267	43.3	43.2	2.2	281	26.7	26.2	-4.9
13	323	5.3	3.2	-4.2	325	3.8	2.2	-3.1	279	4.4	4.3	-0.7	277	12.9	12.8	-1.5	273	30.9	30.9	-1.4	267	41.7	41.6	2.2	274	23.6	23.5	-1.7
14	324	8.1	4.8	-6.5	312	4.7	3.5	-3.1	278	4.9	4.8	-0.7	269	13.6	13.6	0.2	270	30.1	30.1	0.0	272	35.9	35.9	-1.0	264	27.8	27.7	2.8
15	328	6.7	3.5	-5.7	326	4.0	2.2	-3.3	275	3.3	3.3	-0.3	279	13.4	13.2	-2.1	275	32.1	32.0	-2.8	271	35.4	35.4	-0.7	273	34.2	34.1	-2.0
16	325	5.5	3.2	-4.5	317	4.8	3.3	-3.5	304	5.0	4.1	-2.8	284	13.4	13.0	-3.3	279	33.2	32.8	-5.4	276	42.4	42.2	-4.2	280	25.1	24.7	-4.5
17	324	3.7	2.2	-3.0	326	4.3	2.4	-3.6	303	5.0	4.2	-2.7	285	14.1	13.6	-3.6	277	30.4	30.2	-3.5	270	40.8	40.8	0.2	269	33.8	33.8	0.5
18	332	4.0	1.9	-3.5	314	4.6	3.3	-3.2	294	5.4	4.9	-2.2	280	15.0	14.8	-2.5	277	30.2	30.0	-3.8	272	46.0	46.0	-1.4	269	23.9	23.9	0.3
19	334	5.2	2.3	-4.7	316	4.5	3.1	-3.2	292	4.6	4.3	-1.7	271	15.6	15.6	-0.4	267	37.8	37.8	1.9	265	48.5	48.3	4.3	272	26.1	26.1	-1.1
20	333	3.7	1.7	-3.3	334	2.8	1.2	-2.5	270	3.2	3.2	0.0	273	14.6	14.6	-0.8	272	33.5	33.5	-1.0	269	43.2	43.2	1.0	269	21.9	21.9	0.5
21	342	2.5	0.8	-2.4	320	3.4	2.2	-2.6	294	4.3	3.9	-1.7	270	13.4	13.4	-0.1	269	33.3	33.3	0.3	265	45.4	45.2	4.0	279	25.7	25.4	-4.1
22	347	1.7	0.4	-1.7	315	3.1	2.2	-2.2	287	3.4	3.2	-1.0	265	12.1	12.1	1.0	270	31.9	31.9	0.1	270	38.2	38.2	-0.3	268	26.2	26.2	0.7
23	345	3.1	0.8	-3.0	314	2.8	2.0	-1.9	264	3.6	3.6	0.4	269	13.6	13.6	0.2	268	32.3	32.3	1.1	269	42.9	42.9	0.5	265	27.1	27.0	2.4
24	345	4.2	1.1	-4.1	328	3.6	1.9	-3.1	270	2.0	2.0	0.0	267	10.2	10.2	0.6	266	27.2	27.1	2.0	267	38.7	38.7	1.9	267	34.4	34.3	1.9
25	320	3.8	2.4	-2.9	333	1.6	0.7	-1.4	270	2.0	2.0	0.0	275	12.5	12.5	-1.1	271	27.4	27.4	-0.6	270	40.9	40.9	0.2	275	27.1	27.0	-2.4
26	341	4.3	1.4	-4.1	327	2.0	1.1	-1.7	231	1.9	1.5	1.2	278	11.7	11.6	-1.6	276	28.2	28.0	-3.1	277	40.5	40.2	-5.1	275	27.2	27.1	-2.4
27	346	4.5	1.1	-4.4	328	3.4	1.8	-2.9	273	1.9	1.9	-0.1	273	9.2	9.2	-0.5	268	30.9	30.9	1.1	268	40.9	40.9	1.1	271	23.4	23.4	-0.5
28	70	1.2	-1.1	-0.4	297	1.1	1.0	-0.5	275	2.1	2.1	-0.2	266	12.3	12.3	0.9	273	34.0	33.9	-2.0	273	52.3	52.2	-2.3	269	28.5	28.5	0.5
29	321	3.2	2.0	-2.5	318	3.0	2.0	-2.2	269	4.3	4.3	0.1	271	15.6	15.6	-0.4	274	38.4	38.3	-2.5	274	44.7	44.6	-3.3	270	37.9	37.9	-0.2
30	327	5.1	2.8	-4.3	331	4.7	2.3	-4.1	297	4.9	4.4	-2.2	276	16.5	16.4	-1.7	277	36.4	36.1	-4.6	274	46.9	46.8	-3.4	266	32.0	31.9	2.2
31	342	4.4	1.4	-4.2	327	5.0	2.7	-4.2	306	4.8	3.9	-2.8	285	14.4	13.9	-3.8	273	33.7	33.6	-2.0	271	38.8	38.8	-0.4	268	35.1	35.1	1.1

Daily Normals of Upper Air Winds (1971-2000)

PATNA **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	294	2.0	1.8	-0.8	285	4.1	4.0	-1.1	298	11.5	10.1	-5.4	283	21.7	21.1	-5.0	272	42.2	42.2	-1.3	274	51.1	51.0	-3.2	—	—	—	—
2	296	3.4	3.1	-1.5	302	4.5	3.8	-2.4	304	10.1	8.4	-5.6	286	19.4	18.6	-5.4	283	40.6	39.6	-8.9	261	42.0	41.5	6.6	—	—	—	—
3	332	2.6	1.2	-2.3	309	4.1	3.2	-2.6	307	7.9	6.3	-4.7	291	21.6	20.2	-7.7	278	45.4	45.0	-6.0	266	58.2	58.0	4.2	—	—	—	—
4	290	2.0	1.9	-0.7	306	3.9	3.2	-2.3	300	10.8	9.4	-5.4	293	20.0	18.4	-7.8	283	45.6	44.4	-10.2	284	41.9	40.7	-10.0	—	—	—	—
5	27	0.4	-0.2	-0.4	268	3.8	3.8	0.1	292	10.7	9.9	-4.1	285	22.9	22.1	-5.9	286	43.5	41.8	-12.0	290	60.4	56.8	-20.5	—	—	—	—
6	239	0.6	0.5	0.3	302	3.9	3.3	-2.1	299	11.6	10.1	-5.7	288	26.9	25.6	-8.2	280	44.4	43.8	-7.4	277	48.4	48.1	-5.8	—	—	—	—
7	120	1.4	-1.2	0.7	261	2.0	2.0	0.3	277	9.7	9.6	-1.2	274	22.2	22.1	-1.5	271	45.5	45.5	-0.7	278	40.3	39.9	-5.9	—	—	—	—
8	345	1.6	0.4	-1.5	293	4.1	3.8	-1.6	282	9.4	9.2	-1.9	273	22.7	22.7	-1.0	276	42.8	42.5	-4.7	284	49.1	47.6	-12.2	—	—	—	—
9	317	1.9	1.3	-1.4	287	5.9	5.6	-1.7	280	10.0	9.9	-1.7	283	24.4	23.8	-5.5	277	46.7	46.4	-5.3	284	52.9	51.3	-13.1	—	—	—	—
10	293	6.4	5.9	-2.5	302	8.8	7.5	-4.6	294	12.3	11.2	-5.0	279	23.7	23.4	-3.7	273	41.2	41.2	-1.9	261	52.9	52.3	7.9	—	—	—	—
11	296	3.0	2.7	-1.3	288	5.5	5.2	-1.7	289	12.8	12.1	-4.1	281	24.1	23.7	-4.4	257	49.4	48.2	10.9	279	43.3	42.8	-6.7	—	—	—	—
12	291	4.8	4.5	-1.7	292	7.4	6.8	-2.8	279	14.0	13.8	-2.2	279	30.1	29.7	-4.7	266	43.2	43.1	3.1	278	58.4	57.8	-8.2	—	—	—	—
13	292	5.8	5.4	-2.2	301	5.7	4.9	-2.9	297	15.7	14.0	-7.0	284	25.2	24.5	-6.1	271	45.0	45.0	-0.5	255	58.1	56.1	15.3	—	—	—	—
14	301	5.4	4.6	-2.8	290	6.8	6.4	-2.3	288	11.9	11.3	-3.7	289	26.5	25.1	-8.4	267	45.8	45.7	2.2	284	40.2	38.9	-10.0	—	—	—	—
15	231	1.3	1.0	0.8	291	7.8	7.3	-2.8	297	11.7	10.4	-5.4	300	21.3	18.4	-10.8	282	38.9	38.1	-8.0	264	23.0	22.9	2.4	—	—	—	—
16	18	0.6	-0.2	-0.6	290	5.1	4.8	-1.7	293	10.2	9.4	-3.9	282	22.9	22.4	-4.6	279	50.8	50.1	-8.3	277	33.0	32.8	-4.0	—	—	—	—
17	284	7.7	7.5	-1.9	290	8.0	7.5	-2.8	299	13.8	12.1	-6.6	293	29.6	27.2	-11.6	290	43.3	40.6	-15.1	280	47.5	46.7	-8.5	—	—	—	—
18	295	5.9	5.3	-2.5	296	8.5	7.6	-3.7	300	14.2	12.3	-7.0	295	25.5	23.1	-10.7	282	36.7	35.9	-7.5	276	49.3	49.0	-5.4	—	—	—	—
19	287	4.8	4.6	-1.4	289	7.1	6.7	-2.3	292	12.0	11.1	-4.5	284	25.2	24.4	-6.3	269	43.1	43.1	1.0	282	56.6	55.3	-12.1	—	—	—	—
20	295	2.6	2.4	-1.1	287	6.2	5.9	-1.8	298	12.9	11.4	-6.0	285	24.2	23.4	-6.2	264	44.7	44.4	4.8	272	53.8	53.8	-2.2	260	26.0	25.6	4.5
21	287	5.3	5.1	-1.6	294	6.8	6.2	-2.8	291	13.7	12.8	-4.9	286	28.0	26.9	-7.6	276	47.7	47.4	-5.0	274	51.6	51.5	-3.6	—	—	—	—
22	291	9.7	9.0	-3.5	284	6.9	6.7	-1.7	296	14.3	12.8	-6.3	286	29.4	28.3	-8.1	278	37.5	37.1	-5.2	267	40.0	39.9	2.1	240	33.0	28.6	16.5
23	290	8.4	7.9	-2.9	299	8.8	7.7	-4.2	299	14.2	12.5	-6.8	285	26.2	25.3	-6.8	264	42.9	42.7	4.6	271	42.2	42.2	-0.5	—	—	—	—
24	297	11.9	10.6	-5.3	291	10.7	10.0	-3.9	305	17.0	14.0	-9.7	291	27.7	25.9	-9.7	281	45.8	44.9	-9.1	280	36.4	35.9	-6.3	—	—	—	—
25	296	8.2	7.4	-3.6	299	9.0	7.9	-4.3	302	15.5	13.1	-8.2	288	26.4	25.1	-8.2	271	31.9	31.9	-0.7	264	36.2	36.0	4.0	—	—	—	—
26	287	5.9	5.6	-1.7	294	7.6	6.9	-3.1	303	14.0	11.7	-7.6	291	23.3	21.8	-8.2	280	38.0	37.5	-6.3	278	39.9	39.5	-5.3	—	—	—	—
27	299	4.5	3.9	-2.2	292	7.4	6.9	-2.8	292	13.2	12.2	-5.0	287	22.8	21.8	-6.8	280	44.0	43.4	-7.4	269	53.9	53.9	1.2	—	—	—	—
28	300	3.0	2.6	-1.5	304	5.4	4.5	-3.0	294	12.7	11.6	-5.1	276	22.2	22.1	-2.4	264	41.1	40.9	4.5	266	43.8	43.7	3.0	—	—	—	—
29	303	3.7	3.1	-2.0	302	5.2	4.4	-2.8	295	12.3	11.1	-5.2	282	24.3	23.8	-5.1	275	36.2	36.1	-3.2	260	44.9	44.3	7.6	—	—	—	—
30	281	4.7	4.6	-0.9	292	8.5	7.9	-3.2	290	13.2	12.4	-4.4	284	24.4	23.7	-5.8	277	47.5	47.1	-6.0	263	46.8	46.4	6.0	269	26.6	26.6	0.4
31	269	4.4	4.4	0.1	291	7.0	6.5	-2.5	295	14.3	13.0	-6.0	286	26.4	25.4	-7.2	282	46.8	45.8	-9.5	265	42.4	42.2	3.9	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

PATNA **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	299	2.3	2.0	-1.1	298	7.8	6.9	-3.6	292	13.6	12.6	-5.1	282	22.4	21.9	-4.7	277	45.3	45.0	-5.6	263	43.4	43.1	5.2	—	—	—	—
2	319	3.7	2.4	-2.8	295	6.8	6.1	-2.9	290	10.3	9.7	-3.5	279	21.3	21.0	-3.3	281	40.8	40.0	-8.0	274	39.9	39.8	-2.6	—	—	—	—
3	309	3.2	2.5	-2.0	288	6.6	6.3	-2.0	294	11.7	10.7	-4.8	283	22.9	22.3	-5.0	284	38.5	37.3	-9.5	278	52.6	52.1	-7.0	—	—	—	—
4	293	3.6	3.3	-1.4	287	7.4	7.1	-2.2	292	10.9	10.1	-4.0	280	23.9	23.6	-4.0	287	45.7	43.8	-13.1	280	31.6	31.2	-5.3	—	—	—	—
5	284	4.1	4.0	-1.0	295	7.1	6.4	-3.0	295	12.2	11.1	-5.1	281	22.4	22.0	-4.4	267	41.6	41.5	2.4	262	57.1	56.5	8.2	—	—	—	—
6	279	4.6	4.5	-0.7	290	6.9	6.5	-2.4	287	13.0	12.4	-3.9	282	20.7	20.2	-4.4	277	36.3	36.1	-4.2	278	30.5	30.2	-4.2	—	—	—	—
7	276	2.9	2.9	-0.3	287	4.9	4.7	-1.4	293	9.2	8.5	-3.6	283	18.6	18.1	-4.3	288	30.9	29.4	-9.5	305	38.5	31.4	-22.2	—	—	—	—
8	291	2.6	2.4	-0.9	300	6.1	5.3	-3.1	302	12.7	10.8	-6.7	286	19.7	19.0	-5.3	279	34.8	34.4	-5.4	271	38.7	38.7	-0.8	—	—	—	—
9	259	2.5	2.5	0.5	281	6.4	6.3	-1.2	303	10.6	8.9	-5.7	286	19.6	18.8	-5.4	281	28.1	27.6	-5.2	315	33.4	23.7	-23.5	—	—	—	—
10	329	1.7	0.9	-1.5	289	4.2	4.0	-1.4	290	9.9	9.3	-3.4	291	20.0	18.7	-7.2	284	36.0	34.9	-9.0	300	46.5	40.3	-23.1	—	—	—	—
11	279	3.9	3.9	-0.6	285	4.9	4.7	-1.3	287	11.9	11.4	-3.4	286	23.4	22.5	-6.6	278	31.5	31.2	-4.4	282	40.5	39.7	-8.1	—	—	—	—
12	279	4.7	4.6	-0.7	280	6.5	6.4	-1.1	296	12.7	11.5	-5.5	289	22.1	20.9	-7.1	282	35.9	35.1	-7.7	293	36.0	33.2	-14.0	189	8.0	1.3	7.9
13	290	5.9	5.5	-2.0	283	7.7	7.5	-1.8	297	12.1	10.8	-5.5	288	21.6	20.6	-6.5	283	38.4	37.4	-8.8	262	40.5	40.2	5.3	—	—	—	—
14	290	5.9	5.6	-2.0	294	7.8	7.1	-3.2	290	14.9	14.0	-5.2	284	25.5	24.8	-6.0	270	42.5	42.5	-0.2	252	53.0	50.4	16.4	—	—	—	—
15	302	5.8	4.9	-3.1	298	8.8	7.8	-4.1	292	12.6	11.6	-4.8	285	23.9	23.1	-6.3	263	40.5	40.2	5.2	257	44.0	42.9	9.8	—	—	—	—
16	295	7.3	6.6	-3.1	296	10.6	9.6	-4.6	292	14.3	13.3	-5.3	285	29.1	28.1	-7.4	278	45.5	45.0	-6.5	270	49.9	49.9	0.0	—	—	—	—
17	286	7.1	6.8	-2.0	292	8.7	8.1	-3.3	287	11.9	11.4	-3.5	289	22.0	20.9	-7.0	276	52.3	52.0	-5.5	265	54.0	53.8	4.8	—	—	—	—
18	298	6.2	5.5	-2.9	298	7.1	6.3	-3.3	289	12.6	11.9	-4.2	282	27.0	26.4	-5.7	275	58.7	58.5	-5.4	262	38.0	37.6	5.3	—	—	—	—
19	299	7.1	6.2	-3.4	288	7.6	7.2	-2.3	283	12.4	12.1	-2.9	280	25.2	24.8	-4.2	269	44.5	44.5	0.4	267	38.4	38.3	2.0	—	—	—	—
20	303	7.3	6.1	-4.0	287	8.9	8.5	-2.6	287	14.4	13.8	-4.2	280	23.5	23.1	-4.1	279	44.0	43.4	-7.0	269	35.0	35.0	0.6	—	—	—	—
21	308	4.6	3.6	-2.8	290	7.5	7.0	-2.6	282	13.0	12.7	-2.8	277	22.0	21.8	-2.6	279	45.0	44.5	-6.9	280	48.7	48.0	-8.2	289	19.0	18.0	-6.2
22	285	5.3	5.1	-1.4	288	8.0	7.6	-2.4	287	15.8	15.1	-4.6	282	24.2	23.7	-5.0	274	51.2	51.1	-3.7	271	52.5	52.5	-0.5	—	—	—	—
23	286	4.6	4.4	-1.3	285	7.6	7.3	-2.0	293	14.8	13.6	-5.9	291	27.1	25.3	-9.6	283	44.5	43.4	-10.0	283	65.0	63.3	-14.6	—	—	—	—
24	259	2.0	2.0	0.4	291	7.0	6.5	-2.5	292	14.0	13.0	-5.3	290	25.9	24.4	-8.8	283	47.5	46.2	-10.9	281	54.1	53.2	-9.9	—	—	—	—
25	256	0.8	0.8	0.2	297	4.7	4.2	-2.1	289	11.9	11.2	-3.9	285	27.0	26.0	-7.2	281	45.3	44.4	-9.0	287	55.4	53.0	-16.2	—	—	—	—
26	256	2.9	2.8	0.7	294	8.0	7.3	-3.2	291	15.5	14.4	-5.6	286	23.5	22.6	-6.5	278	41.4	41.0	-5.5	262	44.4	44.0	5.8	—	—	—	—
27	326	2.3	1.3	-1.9	299	7.9	6.9	-3.8	287	13.2	12.6	-3.8	279	26.8	26.5	-4.3	284	44.5	43.1	-11.0	263	40.8	40.5	5.3	—	—	—	—
28	292	5.3	4.9	-2.0	294	6.8	6.2	-2.8	286	14.6	14.0	-4.0	288	23.5	22.3	-7.4	274	41.9	41.8	-2.8	278	52.9	52.4	-7.4	—	—	—	—
29	276	5.4	5.4	-0.6	300	9.5	8.3	-4.7	290	16.8	15.8	-5.6	287	28.5	27.2	-8.4	265	47.4	47.2	4.4	313	17.3	12.6	-11.8	278	24.0	23.8	-3.3

Daily Normals of Upper Air Winds (1971-2000)

PATNA **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	280	5.0	4.9	-0.9	291	7.7	7.2	-2.7	295	14.0	12.6	-6.0	283	23.7	23.1	-5.2	270	36.9	36.9	-0.2	272	57.9	57.9	-2.1	—	—	—	—
2	314	5.8	4.2	-4.0	300	9.8	8.5	-4.9	286	15.5	14.9	-4.4	281	23.0	22.6	-4.3	274	28.8	28.7	-2.1	282	39.4	38.6	-8.0	279	14.0	13.8	-2.2
3	301	4.1	3.5	-2.1	295	9.4	8.5	-3.9	296	12.7	11.4	-5.6	288	19.1	18.2	-5.8	280	38.4	37.8	-6.6	284	36.0	34.9	-8.9	190	7.0	1.2	6.9
4	291	7.3	6.8	-2.6	294	9.3	8.5	-3.7	293	14.1	12.9	-5.6	290	23.4	22.0	-7.9	291	36.6	34.2	-13.1	275	33.9	33.8	-3.1	286	22.9	22.0	-6.3
5	297	10.0	8.9	-4.5	303	9.3	7.8	-5.1	290	14.1	13.3	-4.8	289	21.4	20.2	-7.0	275	35.8	35.6	-3.3	281	25.7	25.2	-4.9	240	14.8	12.9	7.3
6	303	8.0	6.7	-4.3	290	8.6	8.1	-2.9	287	16.0	15.3	-4.8	284	21.0	20.4	-5.0	274	32.4	32.3	-2.3	268	29.7	29.7	1.0	—	—	—	—
7	298	8.0	7.1	-3.7	291	10.1	9.4	-3.6	297	15.3	13.7	-6.9	284	23.5	22.8	-5.5	264	40.6	40.4	4.1	277	29.0	28.8	-3.6	310	12.9	9.9	-8.2
8	291	8.8	8.2	-3.1	286	8.6	8.3	-2.4	290	13.8	13.0	-4.7	293	18.9	17.3	-7.5	275	38.9	38.7	-3.5	271	40.9	40.9	-1.0	271	17.5	17.5	-0.3
9	287	9.6	9.2	-2.9	284	10.2	9.9	-2.4	293	15.4	14.2	-6.0	284	19.0	18.4	-4.6	275	33.4	33.3	-2.9	274	38.9	38.8	-2.4	—	—	—	—
10	290	6.8	6.4	-2.3	284	10.1	9.8	-2.5	291	13.6	12.7	-5.0	281	17.3	17.0	-3.2	275	30.8	30.7	-2.8	296	30.9	27.8	-13.4	—	—	—	—
11	291	6.2	5.8	-2.2	287	7.7	7.4	-2.2	293	14.0	12.9	-5.5	281	16.2	15.9	-3.2	275	31.3	31.2	-2.9	261	31.7	31.4	4.7	265	26.0	25.9	2.3
12	287	4.9	4.7	-1.4	288	8.1	7.7	-2.5	291	14.8	13.8	-5.4	283	17.1	16.7	-3.9	277	24.2	24.0	-2.8	285	35.6	34.4	-9.1	268	13.0	13.0	0.5
13	300	6.6	5.7	-3.3	295	8.4	7.6	-3.6	288	15.7	14.9	-4.8	291	20.2	18.9	-7.2	291	28.2	26.3	-10.2	266	42.5	42.4	2.7	—	—	—	—
14	299	8.7	7.6	-4.2	294	9.7	8.9	-3.9	295	15.0	13.6	-6.3	284	21.3	20.6	-5.3	284	28.9	28.0	-7.0	266	37.1	37.0	2.5	247	34.0	31.3	13.3
15	292	7.8	7.2	-2.9	296	8.8	7.9	-3.8	292	15.2	14.1	-5.8	295	20.1	18.2	-8.6	283	27.1	26.4	-6.3	268	36.8	36.8	1.1	261	27.0	26.7	4.2
16	294	11.6	10.6	-4.7	292	11.2	10.4	-4.2	293	17.3	15.9	-6.9	292	19.5	18.1	-7.2	295	31.2	28.2	-13.3	278	36.6	36.2	-5.2	243	15.3	13.6	7.0
17	291	13.0	12.2	-4.6	292	12.6	11.7	-4.7	289	14.8	14.0	-4.9	290	18.8	17.7	-6.4	297	28.9	25.7	-13.2	270	31.3	31.3	0.2	271	21.0	21.0	-0.4
18	296	12.2	11.0	-5.3	298	11.1	9.8	-5.2	291	13.1	12.2	-4.8	286	22.3	21.5	-6.1	287	33.4	32.0	-9.7	279	44.3	43.7	-7.3	—	—	—	—
19	293	9.5	8.8	-3.7	294	10.7	9.8	-4.3	291	16.0	15.0	-5.7	292	23.0	21.4	-8.5	285	34.5	33.4	-8.8	270	38.6	38.6	0.1	273	10.0	10.0	-0.5
20	297	8.9	7.9	-4.1	294	11.6	10.6	-4.8	291	18.8	17.6	-6.7	283	22.2	21.6	-5.0	283	32.5	31.6	-7.4	267	39.0	38.9	2.0	—	—	—	—
21	299	9.4	8.2	-4.5	295	12.8	11.6	-5.3	287	17.9	17.1	-5.3	290	21.1	19.8	-7.4	287	36.4	34.8	-10.8	271	41.4	41.4	-0.9	—	—	—	—
22	290	7.0	6.6	-2.4	287	8.8	8.4	-2.6	289	15.5	14.6	-5.1	286	20.1	19.3	-5.6	279	37.0	36.5	-6.1	283	34.3	33.4	-7.7	301	21.4	18.4	-11.0
23	288	8.9	8.4	-2.8	291	10.5	9.8	-3.7	290	14.7	13.8	-5.1	287	22.1	21.1	-6.5	286	29.4	28.3	-8.1	274	28.8	28.7	-2.1	317	13.0	8.9	-9.5
24	295	5.3	4.8	-2.2	306	8.4	6.8	-5.0	292	13.2	12.3	-4.9	287	21.0	20.1	-6.0	281	30.9	30.3	-6.1	283	24.3	23.7	-5.5	298	13.9	12.3	-6.5
25	309	5.9	4.6	-3.7	295	9.5	8.6	-4.1	296	15.7	14.1	-6.8	285	16.8	16.2	-4.3	272	33.1	33.1	-1.3	271	33.7	33.7	-0.4	294	24.7	22.5	-10.2
26	298	2.6	2.3	-1.2	281	5.9	5.8	-1.1	273	13.5	13.5	-0.7	271	17.8	17.8	-0.2	269	28.2	28.2	0.6	258	32.7	32.0	6.8	274	11.0	11.0	-0.8
27	296	4.3	3.9	-1.9	297	6.8	6.1	-3.1	286	10.7	10.3	-2.9	287	17.1	16.3	-5.1	268	26.7	26.7	1.1	251	28.4	26.8	9.3	247	21.0	19.3	8.2
28	307	6.1	4.9	-3.7	301	8.4	7.2	-4.3	296	15.1	13.6	-6.5	285	18.7	18.0	-4.9	279	28.4	28.0	-4.5	291	27.3	25.5	-9.8	312	14.9	11.1	-10.0
29	290	3.5	3.3	-1.2	299	6.5	5.7	-3.1	301	13.1	11.3	-6.7	274	19.5	19.4	-1.5	281	22.8	22.4	-4.3	281	27.2	26.7	-5.0	303	6.0	5.0	-3.3
30	321	4.0	2.5	-3.1	302	6.5	5.5	-3.4	299	14.0	12.3	-6.7	289	20.5	19.4	-6.7	280	27.3	26.9	-4.7	281	31.3	30.7	-6.1	256	7.0	6.8	1.7
31	303	3.3	2.8	-1.8	307	7.4	5.9	-4.4	299	15.2	13.3	-7.4	290	20.4	19.1	-7.1	301	28.9	24.8	-14.9	281	33.4	32.8	-6.5	257	16.0	15.6	3.6

Daily Normals of Upper Air Winds (1971-2000)

PATNA **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	306	4.1	3.3	-2.4	296	6.6	5.9	-2.9	292	14.3	13.2	-5.4	280	19.1	18.8	-3.4	285	33.1	32.0	-8.6	275	31.0	30.9	-2.9	301	24.0	20.6	-12.4
2	301	5.2	4.5	-2.7	297	11.0	9.8	-5.1	285	14.3	13.8	-3.6	280	20.9	20.6	-3.8	269	28.8	28.8	0.7	272	35.8	35.8	-1.3	282	12.0	11.7	-2.5
3	295	5.5	5.0	-2.3	294	9.7	8.8	-4.0	285	13.5	13.1	-3.4	279	17.4	17.2	-2.6	284	36.7	35.6	-9.1	269	55.8	55.8	1.1	286	43.0	41.3	-11.9
4	303	7.5	6.3	-4.1	295	10.1	9.1	-4.3	283	15.1	14.7	-3.3	282	17.7	17.3	-3.8	262	35.9	35.5	5.2	259	49.0	48.1	9.2	—	—	—	—
5	311	6.9	5.2	-4.5	293	9.1	8.4	-3.5	288	14.4	13.7	-4.4	283	19.4	18.9	-4.4	279	32.1	31.7	-5.3	262	43.4	43.0	6.0	—	—	—	—
6	295	4.4	4.0	-1.9	288	9.3	8.8	-2.9	293	14.8	13.7	-5.7	290	18.4	17.2	-6.4	277	30.8	30.6	-3.8	285	37.3	36.0	-9.9	263	20.2	20.0	2.5
7	296	6.2	5.6	-2.7	293	9.6	8.8	-3.8	291	14.5	13.5	-5.2	298	17.9	15.8	-8.5	282	39.7	38.8	-8.6	280	58.0	57.0	-10.5	230	20.0	15.3	12.9
8	301	3.1	2.7	-1.6	290	7.1	6.7	-2.4	287	11.6	11.1	-3.4	283	15.8	15.4	-3.5	272	34.3	34.3	-1.1	253	44.7	42.8	13.0	240	10.0	8.7	5.0
9	231	1.4	1.1	0.9	276	6.4	6.4	-0.7	288	15.6	14.8	-4.9	292	18.9	17.5	-7.2	271	31.8	31.8	-0.4	274	35.9	35.8	-2.7	225	13.0	9.2	9.2
10	289	5.2	4.9	-1.7	292	8.1	7.5	-3.1	287	14.4	13.8	-4.1	279	19.5	19.3	-2.9	259	39.6	38.9	7.5	249	45.8	42.7	16.6	330	3.0	1.5	-2.6
11	306	3.7	3.0	-2.2	294	8.3	7.6	-3.4	289	13.8	13.0	-4.5	288	18.7	17.8	-5.8	264	25.5	25.4	2.6	262	39.2	38.8	5.6	271	60.0	60.0	-1.0
12	305	4.0	3.3	-2.3	300	9.6	8.3	-4.8	284	13.6	13.2	-3.2	290	18.2	17.2	-6.1	272	24.2	24.2	-1.0	254	29.9	28.7	8.3	298	7.0	6.2	-3.3
13	298	3.8	3.4	-1.8	322	9.3	5.8	-7.3	292	14.9	13.8	-5.5	293	18.2	16.8	-7.1	273	32.1	32.1	-1.5	249	34.3	32.1	12.1	301	11.0	9.4	-5.7
14	310	5.1	3.9	-3.3	307	7.3	5.8	-4.4	288	12.1	11.5	-3.7	283	18.5	18.0	-4.2	269	28.3	28.3	0.5	255	37.0	35.7	9.9	251	6.0	5.7	2.0
15	319	4.1	2.7	-3.1	290	8.0	7.5	-2.7	292	12.2	11.3	-4.5	285	17.2	16.6	-4.4	271	23.9	23.9	-0.3	257	47.0	45.9	10.2	—	—	—	—
16	281	7.6	7.5	-1.4	288	10.1	9.6	-3.2	285	12.7	12.3	-3.3	280	15.8	15.5	-2.8	265	33.3	33.2	2.8	264	37.9	37.7	3.8	—	—	—	—
17	294	6.8	6.2	-2.8	288	8.0	7.6	-2.5	285	14.5	14.0	-3.7	287	15.4	14.7	-4.5	270	25.9	25.9	-0.2	268	24.8	24.8	0.7	—	—	—	—
18	295	4.7	4.3	-2.0	294	8.5	7.8	-3.4	287	14.3	13.7	-4.1	288	17.7	16.8	-5.5	275	27.0	26.9	-2.3	266	34.7	34.6	2.2	260	6.0	5.9	1.0
19	295	5.5	5.0	-2.3	288	8.4	8.0	-2.6	290	15.7	14.8	-5.3	293	16.8	15.5	-6.5	268	28.3	28.3	1.0	272	30.6	30.6	-1.3	225	5.9	4.2	4.2
20	341	2.4	0.8	-2.3	314	6.5	4.7	-4.5	295	14.5	13.1	-6.2	288	15.0	14.3	-4.6	283	26.3	25.7	-5.8	282	37.0	36.2	-7.7	247	11.1	10.2	4.3
21	108	0.6	-0.6	0.2	300	6.0	5.2	-3.0	297	11.7	10.4	-5.3	291	11.6	10.9	-4.1	271	17.4	17.4	-0.2	261	34.7	34.2	5.7	253	18.0	17.2	5.3
22	127	0.5	-0.4	0.3	302	5.3	4.5	-2.8	300	9.3	8.0	-4.7	271	9.3	9.3	-0.1	261	18.5	18.3	3.0	268	24.8	24.8	0.8	296	19.0	17.1	-8.3
23	240	1.6	1.4	0.8	277	5.8	5.8	-0.7	295	11.2	10.2	-4.7	288	13.0	12.4	-4.0	271	20.8	20.8	-0.2	258	29.8	29.1	6.3	208	23.0	10.8	20.3
24	276	2.9	2.9	-0.3	288	7.0	6.6	-2.2	287	13.1	12.5	-3.8	272	16.2	16.2	-0.6	263	29.9	29.7	3.8	263	29.8	29.6	3.7	166	4.0	-1.0	3.9
25	266	1.3	1.3	0.1	279	4.7	4.6	-0.7	289	12.6	11.9	-4.1	289	12.1	11.4	-4.0	263	20.3	20.2	2.4	273	22.0	22.0	-1.1	248	10.5	9.7	3.9
26	125	2.1	-1.7	1.2	290	3.3	3.1	-1.1	292	11.6	10.7	-4.4	286	13.2	12.7	-3.6	268	24.2	24.2	0.8	251	28.9	27.3	9.4	214	6.0	3.4	5.0
27	139	1.1	-0.7	0.8	271	4.6	4.6	-0.1	290	13.7	12.9	-4.7	292	15.8	14.7	-5.8	278	17.6	17.4	-2.6	250	25.9	24.3	9.0	279	3.8	3.8	-0.6
28	210	2.4	1.2	2.1	294	5.9	5.4	-2.4	296	14.5	13.1	-6.3	293	13.8	12.7	-5.5	278	22.7	22.5	-3.0	267	25.0	25.0	1.4	292	3.5	3.3	-1.3
29	264	2.9	2.9	0.3	281	5.7	5.6	-1.1	294	15.7	14.3	-6.4	292	15.5	14.4	-5.8	285	23.0	22.3	-5.8	264	26.1	25.9	2.9	244	5.0	4.5	2.2
30	84	0.9	-0.9	-0.1	279	4.0	4.0	-0.6	296	10.2	9.1	-4.5	303	11.5	9.7	-6.2	280	21.7	21.4	-3.8	264	26.4	26.3	2.8	257	8.7	8.5	1.9

Daily Normals of Upper Air Winds (1971-2000)

PATNA **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	156	1.7	-0.7	1.6	287	3.4	3.3	-1.0	302	14.5	12.3	-7.7	299	13.1	11.4	-6.4	272	22.4	22.4	-0.6	261	25.9	25.6	4.2	159	8.0	-2.9	7.5
2	211	1.7	0.9	1.5	277	4.1	4.1	-0.5	298	11.8	10.4	-5.6	280	12.9	12.7	-2.3	264	24.2	24.0	2.7	253	32.7	31.3	9.6	—	—	—	—
3	250	1.2	1.1	0.4	290	4.9	4.6	-1.7	297	11.4	10.1	-5.2	290	13.4	12.6	-4.6	270	21.0	21.0	-0.1	260	24.7	24.3	4.4	223	6.7	4.6	4.9
4	282	2.4	2.3	-0.5	303	7.6	6.4	-4.1	296	12.3	11.1	-5.3	281	10.2	10.0	-2.0	257	22.8	22.2	5.1	260	24.9	24.5	4.5	263	1.7	1.7	0.2
5	232	1.6	1.3	1.0	285	5.1	4.9	-1.3	293	10.0	9.2	-4.0	288	10.9	10.4	-3.4	271	22.9	22.9	-0.3	265	23.3	23.2	2.1	291	9.6	9.0	-3.4
6	241	1.3	1.1	0.6	294	4.9	4.5	-2.0	294	10.7	9.7	-4.4	298	13.1	11.6	-6.1	265	22.4	22.3	1.9	254	29.5	28.4	7.9	273	8.6	8.6	-0.4
7	231	2.1	1.6	1.3	257	4.3	4.2	1.0	294	13.0	11.9	-5.2	291	10.7	10.0	-3.8	277	19.3	19.2	-2.4	261	25.8	25.5	3.9	252	14.1	13.4	4.4
8	255	2.0	1.9	0.5	278	4.8	4.7	-0.7	286	11.3	10.9	-3.1	289	9.4	8.9	-3.0	284	18.1	17.6	-4.3	278	22.1	21.9	-3.2	321	10.7	6.7	-8.3
9	185	1.2	0.1	1.2	282	5.6	5.5	-1.2	295	10.6	9.6	-4.4	288	12.2	11.6	-3.7	273	22.1	22.1	-1.1	271	24.1	24.1	-0.5	351	6.7	1.0	-6.6
10	233	2.0	1.6	1.2	285	6.0	5.8	-1.5	299	11.1	9.7	-5.4	284	12.3	12.0	-2.9	271	23.3	23.3	-0.6	262	31.5	31.2	4.4	49	11.0	-8.3	-7.2
11	264	2.7	2.7	0.3	274	4.1	4.1	-0.3	291	8.8	8.2	-3.2	292	11.4	10.6	-4.2	266	22.9	22.8	1.7	273	21.5	21.5	-1.0	67	2.3	-2.1	-0.9
12	308	3.1	2.4	-1.9	285	4.6	4.4	-1.2	301	11.1	9.5	-5.7	292	13.6	12.6	-5.0	280	18.9	18.6	-3.4	269	25.0	25.0	0.4	83	4.6	-4.6	-0.6
13	233	0.5	0.4	0.3	289	4.2	4.0	-1.4	301	11.2	9.6	-5.8	287	10.2	9.8	-3.0	276	17.7	17.6	-1.9	308	18.7	14.8	-11.4	360	2.5	0.0	-2.5
14	99	0.6	-0.6	0.1	287	3.4	3.2	-1.0	305	11.6	9.6	-6.6	288	13.4	12.8	-4.1	270	16.6	16.6	0.0	268	18.8	18.8	0.6	117	2.0	-1.8	0.9
15	77	2.6	-2.5	-0.6	293	2.5	2.3	-1.0	294	10.0	9.1	-4.1	293	10.9	10.0	-4.3	264	19.5	19.4	2.0	270	19.2	19.2	0.0	322	9.5	5.9	-7.5
16	90	1.5	-1.5	0.0	294	3.0	2.7	-1.2	300	10.4	9.0	-5.2	306	10.8	8.8	-6.3	282	15.7	15.4	-3.2	270	19.1	19.1	0.1	286	1.9	1.8	-0.5
17	122	2.8	-2.4	1.5	273	1.8	1.8	-0.1	295	8.7	7.9	-3.7	288	9.8	9.3	-3.0	274	15.3	15.3	-1.0	268	17.3	17.3	0.5	360	1.1	0.0	-1.1
18	265	2.3	2.3	0.2	288	5.1	4.8	-1.6	294	9.8	9.0	-4.0	289	9.4	8.9	-3.0	283	16.8	16.3	-3.9	264	11.3	11.2	1.2	276	3.1	3.1	-0.3
19	256	0.8	0.8	0.2	292	3.5	3.3	-1.3	310	9.8	7.5	-6.3	308	9.5	7.5	-5.8	270	17.1	17.1	0.1	253	16.0	15.3	4.7	325	1.2	0.7	-1.0
20	78	2.5	-2.4	-0.5	306	1.9	1.5	-1.1	304	9.6	8.0	-5.3	291	11.3	10.6	-4.0	274	12.9	12.9	-0.9	252	15.6	14.9	4.7	249	5.1	4.8	1.8
21	119	4.5	-3.9	2.2	270	0.7	0.7	0.0	298	9.7	8.6	-4.5	290	9.8	9.2	-3.3	262	17.5	17.3	2.3	243	20.5	18.2	9.4	236	1.8	1.5	1.0
22	176	1.6	-0.1	1.6	294	3.6	3.3	-1.5	286	9.7	9.3	-2.7	292	10.0	9.3	-3.7	262	12.4	12.3	1.7	251	13.0	12.3	4.3	196	3.2	0.9	3.1
23	229	2.0	1.5	1.3	287	4.8	4.6	-1.4	305	9.7	7.9	-5.6	298	9.0	8.0	-4.2	277	14.1	14.0	-1.8	251	15.4	14.6	4.9	194	6.0	1.4	5.8
24	162	2.6	-0.8	2.5	293	2.8	2.6	-1.1	308	9.3	7.3	-5.8	299	7.9	6.9	-3.8	264	11.2	11.1	1.2	252	17.8	17.0	5.4	248	3.8	3.5	1.4
25	141	0.6	-0.4	0.5	298	2.6	2.3	-1.2	303	8.7	7.3	-4.8	287	8.2	7.8	-2.4	275	9.9	9.9	-0.8	244	7.9	7.1	3.4	266	4.8	4.8	0.3
26	90	0.1	-0.1	0.0	277	2.5	2.5	-0.3	295	8.1	7.4	-3.4	317	8.1	5.5	-5.9	270	8.3	8.3	0.0	247	11.4	10.5	4.5	68	2.7	-2.5	-1.0
27	118	2.1	-1.9	1.0	291	1.4	1.3	-0.5	299	6.5	5.7	-3.2	301	9.5	8.1	-4.9	266	10.8	10.8	0.8	256	13.4	13.0	3.3	277	9.0	8.9	-1.1
28	159	1.4	-0.5	1.3	297	4.2	3.8	-1.9	299	10.8	9.5	-5.2	304	9.1	7.5	-5.1	268	10.9	10.9	0.4	259	11.9	11.7	2.3	291	6.4	6.0	-2.3
29	132	2.7	-2.0	1.8	263	2.5	2.5	0.3	301	9.9	8.5	-5.1	298	8.9	7.9	-4.2	253	14.1	13.5	4.0	239	11.6	10.0	5.9	234	3.1	2.5	1.8
30	153	2.0	-0.9	1.8	268	4.7	4.7	0.2	307	11.6	9.3	-6.9	289	11.8	11.2	-3.8	271	15.1	15.1	-0.2	252	14.7	14.0	4.6	219	3.6	2.3	2.8
31	215	1.9	1.1	1.6	277	4.9	4.9	-0.6	302	11.3	9.6	-5.9	290	9.7	9.1	-3.4	264	11.2	11.1	1.1	261	14.0	13.8	2.1	177	5.6	-0.3	5.6

Daily Normals of Upper Air Winds (1971-2000)

PATNA **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	291	3.1	2.9	-1.1	293	5.6	5.2	-2.2	293	11.7	10.8	-4.6	285	9.7	9.4	-2.5	258	12.9	12.6	2.7	247	11.7	10.8	4.5	161	3.1	-1.0	2.9
2	285	1.1	1.1	-0.3	280	5.1	5.0	-0.9	285	12.9	12.5	-3.3	276	12.1	12.0	-1.2	248	13.5	12.5	5.0	239	13.7	11.8	7.0	243	22.0	19.6	10.0
3	195	2.7	0.7	2.6	257	3.5	3.4	0.8	294	8.7	7.9	-3.6	278	9.3	9.2	-1.3	260	8.8	8.7	1.6	260	10.6	10.4	1.8	64	5.5	-5.0	-2.4
4	146	2.2	-1.2	1.8	297	1.6	1.4	-0.7	301	8.1	6.9	-4.2	297	8.5	7.6	-3.8	258	9.6	9.4	2.0	234	7.3	5.9	4.3	43	4.5	-3.1	-3.3
5	161	1.8	-0.6	1.7	301	3.1	2.7	-1.6	305	7.6	6.2	-4.4	307	9.0	7.2	-5.4	245	11.3	10.2	4.8	240	8.9	7.7	4.4	70	3.2	-3.0	-1.1
6	315	1.1	0.8	-0.8	248	2.4	2.2	0.9	281	6.2	6.1	-1.2	280	6.0	5.9	-1.0	246	9.8	9.0	4.0	248	11.8	10.9	4.4	108	2.9	-2.8	0.9
7	198	1.3	0.4	1.2	281	3.7	3.6	-0.7	285	9.4	9.1	-2.4	278	8.2	8.1	-1.2	253	7.5	7.2	2.2	235	8.0	6.6	4.6	117	4.5	-4.0	2.0
8	108	0.6	-0.6	0.2	292	4.5	4.2	-1.7	281	8.3	8.1	-1.6	279	4.7	4.6	-0.7	250	6.8	6.4	2.3	318	2.4	1.6	-1.8	91	4.0	-4.0	0.1
9	138	1.2	-0.8	0.9	284	3.2	3.1	-0.8	301	4.9	4.2	-2.5	264	2.0	2.0	0.2	279	6.1	6.0	-1.0	301	4.5	3.9	-2.3	98	8.1	-8.0	1.1
10	135	0.6	-0.4	0.4	245	1.4	1.3	0.6	313	4.5	3.3	-3.1	293	1.5	1.4	-0.6	280	2.8	2.8	-0.5	278	6.1	6.0	-0.8	36	6.2	-3.6	-5.0
11	150	2.4	-1.2	2.1	270	1.4	1.4	0.0	319	4.3	2.8	-3.2	286	3.3	3.2	-0.9	326	2.2	1.2	-1.8	292	1.6	1.5	-0.6	62	6.2	-5.5	-2.9
12	132	3.6	-2.7	2.4	120	2.8	-2.4	1.4	320	2.5	1.6	-1.9	291	1.4	1.3	-0.5	315	1.0	0.7	-0.7	225	1.8	1.3	1.3	116	5.7	-5.1	2.5
13	134	4.7	-3.4	3.3	198	0.3	0.1	0.3	286	3.6	3.5	-1.0	238	1.3	1.1	0.7	95	1.1	-1.1	0.1	199	2.8	0.9	2.6	124	5.8	-4.8	3.2
14	163	2.1	-0.6	2.0	96	1.0	-1.0	0.1	331	2.6	1.3	-2.3	253	1.4	1.3	0.4	160	2.7	-0.9	2.5	117	1.1	-1.0	0.5	99	8.5	-8.4	1.4
15	149	2.9	-1.5	2.5	315	2.0	1.4	-1.4	336	3.5	1.4	-3.2	221	2.1	1.4	1.6	167	2.7	-0.6	2.6	81	3.0	-3.0	-0.5	106	9.9	-9.5	2.8
16	152	2.7	-1.3	2.4	236	0.7	0.6	0.4	324	4.4	2.6	-3.6	210	2.0	1.0	1.7	204	2.7	1.1	2.5	231	0.6	0.5	0.4	34	5.8	-3.2	-4.8
17	109	5.0	-4.7	1.6	90	0.6	-0.6	0.0	20	2.7	-0.9	-2.5	162	1.3	-0.4	1.2	123	2.7	-2.3	1.5	142	3.4	-2.1	2.7	124	8.5	-7.0	4.8
18	103	7.2	-7.0	1.6	96	2.8	-2.8	0.3	32	0.9	-0.5	-0.8	277	0.8	0.8	-0.1	126	3.9	-3.2	2.3	129	3.2	-2.5	2.0	54	6.4	-5.2	-3.8
19	125	4.2	-3.4	2.4	157	1.3	-0.5	1.2	128	1.6	-1.3	1.0	121	1.7	-1.5	0.9	202	1.8	0.7	1.7	107	5.0	-4.8	1.5	102	11.4	-11.1	2.4
20	141	3.2	-2.0	2.5	180	0.9	0.0	0.9	312	1.5	1.1	-1.0	114	3.0	-2.7	1.2	131	3.7	-2.8	2.4	67	1.5	-1.4	-0.6	85	10.9	-10.9	-0.9
21	104	3.4	-3.3	0.8	96	1.9	-1.9	0.2	353	3.1	0.4	-3.1	84	2.8	-2.8	-0.3	94	4.2	-4.2	0.3	103	4.0	-3.9	0.9	64	12.0	-10.8	-5.3
22	108	3.6	-3.4	1.1	90	4.1	-4.1	0.0	45	3.8	-2.7	-2.7	90	5.7	-5.7	0.0	116	4.8	-4.3	2.1	121	5.0	-4.3	2.6	91	10.8	-10.8	0.1
23	107	5.9	-5.6	1.7	93	3.9	-3.9	0.2	52	3.1	-2.4	-1.9	66	2.4	-2.2	-1.0	128	5.6	-4.4	3.4	113	3.9	-3.6	1.5	90	12.6	-12.6	-0.1
24	115	1.7	-1.5	0.7	252	0.3	0.3	0.1	344	4.4	1.2	-4.2	41	0.9	-0.6	-0.7	122	4.7	-4.0	2.5	127	5.0	-4.0	3.0	99	12.4	-12.2	2.0
25	156	1.0	-0.4	0.9	343	1.0	0.3	-1.0	340	2.9	1.0	-2.7	31	2.1	-1.1	-1.8	113	3.9	-3.6	1.5	105	5.6	-5.4	1.4	101	16.9	-16.6	3.1
26	120	2.2	-1.9	1.1	278	0.7	0.7	-0.1	349	1.6	0.3	-1.6	35	1.2	-0.7	-1.0	115	4.5	-4.1	1.9	118	7.9	-7.0	3.7	88	14.1	-14.1	-0.4
27	133	3.7	-2.7	2.5	94	1.6	-1.6	0.1	9	3.0	-0.5	-3.0	95	2.5	-2.5	0.2	136	6.9	-4.8	5.0	115	7.3	-6.6	3.1	59	15.7	-13.4	-8.2
28	125	6.3	-5.2	3.6	99	4.9	-4.8	0.8	70	2.0	-1.9	-0.7	114	6.2	-5.7	2.5	130	4.5	-3.5	2.9	104	7.8	-7.6	1.9	95	17.3	-17.2	1.5
29	108	2.2	-2.1	0.7	119	1.8	-1.6	0.9	105	2.7	-2.6	0.7	134	3.7	-2.7	2.6	122	2.6	-2.2	1.4	102	5.7	-5.6	1.2	93	14.3	-14.3	0.8
30	168	3.0	-0.6	2.9	218	1.6	1.0	1.3	262	2.2	2.2	0.3	274	1.6	1.6	-0.1	143	3.4	-2.0	2.7	102	6.4	-6.3	1.3	81	11.9	-11.7	-1.9

Daily Normals of Upper Air Winds (1971-2000)

PATNA **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	200	2.7	0.9	2.5	267	2.0	2.0	0.1	296	3.7	3.3	-1.6	337	1.3	0.5	-1.2	79	2.6	-2.6	-0.5	100	6.8	-6.7	1.2	104	5.6	-5.4	1.3
2	214	2.3	1.3	1.9	255	2.8	2.7	0.7	306	1.7	1.4	-1.0	117	0.9	-0.8	0.4	132	4.8	-3.6	3.2	104	6.2	-6.0	1.5	91	15.9	-15.9	0.3
3	166	1.6	-0.4	1.6	145	1.6	-0.9	1.3	22	1.8	-0.7	-1.7	180	0.5	0.0	0.5	105	5.7	-5.5	1.5	78	7.6	-7.4	-1.6	87	13.3	-13.3	-0.7
4	129	2.6	-2.0	1.6	242	1.7	1.5	0.8	291	3.0	2.8	-1.1	101	0.5	-0.5	0.1	110	5.1	-4.8	1.7	94	6.9	-6.9	0.5	89	14.9	-14.9	-0.2
5	225	0.7	0.5	0.5	273	2.2	2.2	-0.1	316	4.5	3.1	-3.2	173	0.8	-0.1	0.8	108	5.5	-5.2	1.7	89	10.6	-10.6	-0.2	87	17.0	-17.0	-0.9
6	268	3.4	3.4	0.1	287	5.0	4.8	-1.5	302	4.4	3.7	-2.3	247	0.8	0.7	0.3	85	2.1	-2.1	-0.2	105	7.8	-7.5	2.0	86	16.3	-16.3	-1.2
7	203	2.6	1.0	2.4	259	3.1	3.0	0.6	302	2.2	1.9	-1.2	122	1.5	-1.3	0.8	118	6.9	-6.1	3.2	83	8.5	-8.4	-1.1	69	12.2	-11.4	-4.4
8	207	2.7	1.2	2.4	257	4.1	4.0	0.9	293	4.4	4.1	-1.7	192	3.0	0.6	2.9	109	5.8	-5.5	1.9	93	8.5	-8.5	0.5	91	15.4	-15.4	0.2
9	232	1.6	1.3	1.0	252	2.9	2.8	0.9	265	2.3	2.3	0.2	18	2.0	-0.6	-1.9	96	3.6	-3.6	0.4	86	8.3	-8.3	-0.6	81	14.8	-14.6	-2.2
10	128	1.8	-1.4	1.1	270	1.7	1.7	0.0	292	0.5	0.5	-0.2	180	0.1	0.0	0.1	124	3.4	-2.8	1.9	81	8.1	-8.0	-1.3	103	14.1	-13.8	3.1
11	96	5.3	-5.3	0.6	141	1.4	-0.9	1.1	49	1.1	-0.8	-0.7	184	1.5	0.1	1.5	120	5.1	-4.4	2.5	73	7.7	-7.4	-2.2	87	17.1	-17.1	-1.0
12	125	5.0	-4.1	2.9	129	4.8	-3.7	3.0	123	4.2	-3.5	2.3	143	2.1	-1.3	1.7	122	3.6	-3.1	1.9	76	5.6	-5.4	-1.3	91	16.7	-16.7	0.3
13	114	6.2	-5.7	2.5	141	4.8	-3.0	3.7	136	3.6	-2.5	2.6	186	3.8	0.4	3.8	116	3.9	-3.5	1.7	69	6.9	-6.4	-2.5	86	13.9	-13.9	-0.9
14	112	5.5	-5.1	2.1	141	4.3	-2.7	3.3	119	3.1	-2.7	1.5	136	4.5	-3.1	3.2	153	4.2	-1.9	3.7	118	5.1	-4.5	2.4	95	18.7	-18.6	1.5
15	118	6.9	-6.1	3.2	135	4.7	-3.3	3.3	146	3.4	-1.9	2.8	135	3.7	-2.6	2.6	123	4.8	-4.0	2.6	103	9.8	-9.6	2.2	109	21.7	-20.5	7.0
16	127	3.9	-3.1	2.3	151	2.5	-1.2	2.2	132	2.5	-1.9	1.7	117	1.1	-1.0	0.5	106	8.9	-8.6	2.4	101	12.6	-12.3	2.5	103	21.1	-20.6	4.7
17	152	3.0	-1.4	2.6	118	4.2	-3.7	2.0	113	4.3	-4.0	1.7	117	2.9	-2.6	1.3	101	10.0	-9.8	1.9	84	14.7	-14.6	-1.6	90	19.6	-19.6	0.1
18	122	4.9	-4.2	2.6	108	6.0	-5.7	1.9	105	6.7	-6.5	1.8	104	5.7	-5.5	1.4	96	7.4	-7.4	0.8	87	13.1	-13.1	-0.7	110	23.3	-21.9	8.1
19	101	5.3	-5.2	1.0	116	4.9	-4.4	2.1	112	3.7	-3.4	1.4	116	5.2	-4.7	2.3	105	6.2	-6.0	1.6	80	13.1	-12.9	-2.2	87	16.8	-16.8	-1.0
20	114	5.6	-5.1	2.3	120	5.6	-4.8	2.8	124	3.2	-2.7	1.8	138	3.8	-2.5	2.8	108	7.8	-7.4	2.4	94	11.7	-11.7	0.9	100	19.1	-18.8	3.2
21	90	3.3	-3.3	0.0	109	4.3	-4.1	1.4	89	4.9	-4.9	-0.1	82	2.9	-2.9	-0.4	95	8.1	-8.1	0.7	86	13.8	-13.8	-0.9	103	18.4	-18.0	4.0
22	89	4.7	-4.7	-0.1	99	5.7	-5.6	0.9	105	7.0	-6.8	1.8	112	5.5	-5.1	2.1	94	8.2	-8.2	0.6	101	11.9	-11.7	2.2	94	21.0	-20.9	1.5
23	68	2.2	-2.0	-0.8	103	4.1	-4.0	0.9	111	3.6	-3.4	1.3	110	2.9	-2.7	1.0	98	8.6	-8.5	1.2	88	14.6	-14.6	-0.6	55	20.7	-16.9	-11.9
24	114	1.7	-1.6	0.7	113	2.5	-2.3	1.0	144	2.4	-1.4	1.9	157	2.5	-1.0	2.3	110	7.8	-7.3	2.7	82	16.5	-16.3	-2.3	80	16.9	-16.7	-2.9
25	125	1.9	-1.6	1.1	163	1.7	-0.5	1.6	141	2.1	-1.3	1.6	158	2.9	-1.1	2.7	97	9.3	-9.2	1.1	94	14.2	-14.2	1.1	72	21.3	-20.3	-6.5
26	98	2.7	-2.7	0.4	96	1.8	-1.8	0.2	107	1.0	-1.0	0.3	115	3.5	-3.2	1.5	113	9.2	-8.5	3.6	98	12.9	-12.8	1.9	85	21.3	-21.2	-1.9
27	126	4.4	-3.6	2.6	130	2.5	-1.9	1.6	112	2.4	-2.2	0.9	129	3.6	-2.8	2.3	103	10.3	-10.0	2.4	91	13.4	-13.4	0.3	82	21.1	-20.9	-2.8
28	112	7.6	-7.1	2.8	111	4.8	-4.5	1.7	113	3.4	-3.1	1.3	102	7.9	-7.7	1.7	94	9.6	-9.6	0.6	82	16.7	-16.5	-2.3	83	22.3	-22.1	-2.7
29	134	3.2	-2.3	2.2	121	4.2	-3.6	2.2	112	3.7	-3.4	1.4	115	5.0	-4.5	2.1	94	10.9	-10.9	0.8	102	16.5	-16.1	3.4	82	20.6	-20.4	-3.0
30	117	3.8	-3.4	1.7	113	2.1	-1.9	0.8	115	2.1	-1.9	0.9	126	3.2	-2.6	1.9	86	7.9	-7.9	-0.6	68	11.2	-10.4	-4.1	86	18.2	-18.2	-1.3
31	106	5.4	-5.2	1.5	127	3.5	-2.8	2.1	112	4.0	-3.7	1.5	120	2.4	-2.1	1.2	87	8.7	-8.7	-0.4	81	8.5	-8.4	-1.3	87	18.4	-18.4	-1.0

Daily Normals of Upper Air Winds (1971-2000)

PATNA **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	120	6.9	-6.0	3.4	102	4.3	-4.2	0.9	100	4.6	-4.5	0.8	105	4.2	-4.1	1.1	94	6.5	-6.5	0.5	82	6.9	-6.8	-0.9	83	18.6	-18.5	-2.3
2	180	2.8	0.0	2.8	113	3.0	-2.8	1.2	104	3.8	-3.7	0.9	103	4.8	-4.7	1.1	94	6.8	-6.8	0.5	90	7.7	-7.7	0.0	79	18.5	-18.1	-3.6
3	106	3.5	-3.4	1.0	107	5.6	-5.4	1.6	104	5.8	-5.6	1.4	97	7.2	-7.1	0.9	98	8.9	-8.8	1.3	92	9.0	-9.0	0.3	82	16.4	-16.2	-2.4
4	113	3.6	-3.3	1.4	127	5.8	-4.6	3.5	105	5.3	-5.1	1.4	104	5.8	-5.6	1.4	107	8.7	-8.3	2.6	91	11.3	-11.3	0.2	77	13.6	-13.3	-3.0
5	139	1.1	-0.7	0.8	117	3.9	-3.5	1.8	118	3.4	-3.0	1.6	102	5.3	-5.2	1.1	113	9.1	-8.4	3.5	90	8.3	-8.3	0.0	94	19.2	-19.2	1.3
6	292	0.5	0.5	-0.2	110	3.2	-3.0	1.1	105	3.4	-3.3	0.9	88	4.7	-4.7	-0.2	107	8.0	-7.7	2.3	98	13.0	-12.9	1.8	91	19.9	-19.9	0.5
7	107	3.1	-3.0	0.9	106	5.4	-5.2	1.5	104	6.8	-6.6	1.7	97	7.3	-7.2	0.9	98	7.7	-7.6	1.1	73	11.3	-10.8	-3.3	81	21.6	-21.4	-3.2
8	112	2.4	-2.2	0.9	105	4.9	-4.7	1.3	118	5.7	-5.0	2.7	114	5.8	-5.3	2.4	103	10.6	-10.3	2.3	93	13.7	-13.7	0.6	82	17.7	-17.5	-2.6
9	114	4.6	-4.2	1.9	125	5.0	-4.1	2.9	121	4.3	-3.7	2.2	120	5.6	-4.9	2.8	100	9.9	-9.8	1.7	78	11.4	-11.1	-2.4	80	18.8	-18.5	-3.1
10	125	7.2	-5.9	4.2	122	5.4	-4.6	2.9	122	4.7	-4.0	2.5	114	4.4	-4.0	1.8	98	9.5	-9.4	1.3	73	11.3	-10.8	-3.3	87	20.1	-20.1	-1.2
11	118	4.7	-4.2	2.2	120	3.2	-2.8	1.6	142	1.8	-1.1	1.4	127	3.4	-2.7	2.0	99	6.6	-6.5	1.0	100	13.9	-13.7	2.4	93	20.8	-20.8	1.2
12	137	4.4	-3.0	3.2	142	2.3	-1.4	1.8	175	1.1	-0.1	1.1	118	1.7	-1.5	0.8	93	9.1	-9.1	0.4	75	10.7	-10.4	-2.7	83	15.2	-15.1	-1.8
13	241	2.3	2.0	1.1	127	1.5	-1.2	0.9	270	1.0	1.0	0.0	151	2.3	-1.1	2.0	116	7.0	-6.3	3.1	102	7.7	-7.5	1.6	85	9.5	-9.5	-0.9
14	200	1.5	0.5	1.4	144	2.2	-1.3	1.8	194	1.2	0.3	1.2	120	2.0	-1.7	1.0	99	4.6	-4.5	0.7	84	10.8	-10.7	-1.2	76	15.7	-15.3	-3.7
15	113	1.3	-1.2	0.5	103	2.2	-2.1	0.5	114	2.2	-2.0	0.9	102	2.9	-2.8	0.6	119	6.6	-5.8	3.2	99	11.0	-10.9	1.8	80	20.3	-20.0	-3.7
16	133	1.8	-1.3	1.2	117	3.8	-3.4	1.7	126	4.3	-3.5	2.5	120	3.6	-3.1	1.8	97	7.2	-7.1	0.9	71	12.9	-12.2	-4.2	79	17.4	-17.1	-3.3
17	105	3.1	-3.0	0.8	117	4.2	-3.7	1.9	125	3.5	-2.9	2.0	101	4.1	-4.0	0.8	107	8.6	-8.2	2.5	95	11.8	-11.7	1.1	78	19.3	-18.9	-4.1
18	103	6.7	-6.5	1.5	109	7.9	-7.5	2.6	118	7.1	-6.3	3.3	122	6.6	-5.6	3.5	101	8.6	-8.4	1.6	84	13.3	-13.2	-1.5	76	14.5	-14.1	-3.5
19	112	6.2	-5.8	2.3	113	6.7	-6.2	2.6	121	5.0	-4.3	2.6	119	4.9	-4.3	2.4	89	8.2	-8.2	-0.1	85	13.6	-13.5	-1.2	76	17.9	-17.3	-4.4
20	111	6.5	-6.1	2.3	116	6.1	-5.5	2.7	108	5.4	-5.1	1.7	103	2.3	-2.2	0.5	96	5.1	-5.1	0.5	78	11.1	-10.9	-2.3	83	18.1	-18.0	-2.1
21	119	4.3	-3.8	2.1	103	4.3	-4.2	1.0	110	3.8	-3.6	1.3	94	5.9	-5.9	0.4	90	7.1	-7.1	0.0	83	9.4	-9.3	-1.1	84	15.6	-15.5	-1.7
22	117	4.8	-4.3	2.2	119	6.2	-5.4	3.0	129	5.7	-4.4	3.6	115	5.0	-4.5	2.1	113	6.4	-5.9	2.5	105	8.0	-7.7	2.1	83	18.7	-18.5	-2.4
23	122	4.7	-4.0	2.5	122	6.0	-5.1	3.2	115	6.2	-5.6	2.6	139	4.6	-3.0	3.5	93	3.4	-3.4	0.2	87	4.2	-4.2	-0.2	86	20.6	-20.5	-1.6
24	122	2.8	-2.4	1.5	126	2.9	-2.3	1.7	131	3.3	-2.5	2.2	159	2.6	-0.9	2.4	106	5.1	-4.9	1.4	74	5.5	-5.3	-1.5	90	16.5	-16.5	0.1
25	132	2.7	-2.0	1.8	128	1.6	-1.3	1.0	173	2.3	-0.3	2.3	112	0.5	-0.5	0.2	110	5.6	-5.3	1.9	105	10.2	-9.8	2.7	112	15.0	-13.9	5.6
26	128	3.9	-3.1	2.4	193	1.3	0.3	1.3	171	1.9	-0.3	1.9	162	1.3	-0.4	1.2	123	6.9	-5.8	3.7	104	9.1	-8.8	2.2	88	15.7	-15.7	-0.5
27	120	4.2	-3.6	2.1	117	4.2	-3.8	1.9	128	3.4	-2.7	2.1	130	5.2	-4.0	3.4	102	5.1	-5.0	1.1	72	6.2	-5.9	-1.9	89	14.5	-14.5	-0.2
28	120	5.0	-4.3	2.5	93	4.2	-4.2	0.2	87	3.7	-3.7	-0.2	99	3.3	-3.3	0.5	103	5.0	-4.9	1.1	93	7.6	-7.6	0.4	82	13.3	-13.2	-1.9
29	105	5.0	-4.8	1.3	97	4.7	-4.7	0.6	113	4.1	-3.8	1.6	119	3.9	-3.4	1.9	120	4.8	-4.1	2.4	74	5.2	-5.0	-1.4	96	12.9	-12.8	1.4
30	106	7.4	-7.1	2.0	117	4.9	-4.4	2.2	114	3.4	-3.1	1.4	121	4.7	-4.0	2.4	126	7.5	-6.1	4.4	115	9.3	-8.4	3.9	89	14.6	-14.6	-0.2
31	121	4.2	-3.6	2.2	104	2.9	-2.8	0.7	109	2.1	-2.0	0.7	132	3.1	-2.3	2.1	119	6.8	-5.9	3.3	112	4.6	-4.3	1.7	113	12.4	-11.4	4.8

Daily Normals of Upper Air Winds (1971-2000)

PATNA **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	103	7.7	-7.5	1.8	108	5.1	-4.8	1.6	83	3.5	-3.5	-0.4	94	4.8	-4.8	0.3	95	7.3	-7.3	0.6	110	9.7	-9.1	3.4	106	12.8	-12.3	3.6
2	107	8.3	-7.9	2.4	129	3.8	-3.0	2.4	117	3.1	-2.8	1.4	122	3.4	-2.9	1.8	116	6.1	-5.5	2.7	115	6.3	-5.7	2.6	94	8.3	-8.3	0.6
3	111	8.0	-7.5	2.9	108	4.2	-4.0	1.3	112	4.8	-4.4	1.8	115	3.5	-3.2	1.5	139	4.6	-3.0	3.5	137	9.5	-6.5	6.9	101	11.4	-11.2	2.1
4	125	6.7	-5.5	3.8	120	3.9	-3.4	2.0	118	2.7	-2.4	1.3	146	1.8	-1.0	1.5	91	4.4	-4.4	0.1	98	8.4	-8.3	1.2	93	10.5	-10.5	0.5
5	117	5.3	-4.7	2.4	124	2.5	-2.1	1.4	126	2.7	-2.2	1.6	130	3.1	-2.4	2.0	94	4.4	-4.4	0.3	60	5.2	-4.5	-2.6	75	10.3	-9.9	-2.7
6	120	5.3	-4.6	2.7	132	3.0	-2.2	2.0	118	2.1	-1.9	1.0	140	3.4	-2.2	2.6	123	6.1	-5.1	3.3	85	6.6	-6.6	-0.6	71	14.1	-13.3	-4.6
7	132	5.5	-4.1	3.7	119	2.6	-2.3	1.3	113	3.3	-3.0	1.3	133	4.1	-3.0	2.8	99	6.0	-5.9	0.9	56	4.0	-3.3	-2.2	55	13.7	-11.2	-7.9
8	109	5.4	-5.1	1.8	106	3.5	-3.4	1.0	103	4.0	-3.9	0.9	151	2.3	-1.1	2.0	141	4.1	-2.6	3.2	119	5.6	-4.9	2.7	96	11.3	-11.2	1.1
9	111	4.2	-3.9	1.5	134	2.8	-2.0	1.9	117	0.2	-0.2	0.1	152	2.6	-1.2	2.3	162	3.9	-1.2	3.7	156	4.6	-1.9	4.2	100	11.3	-11.1	2.0
10	121	5.1	-4.4	2.6	120	4.3	-3.7	2.1	128	3.9	-3.1	2.4	197	2.7	0.8	2.6	180	4.7	0.0	4.7	167	5.8	-1.3	5.7	118	10.4	-9.2	4.8
11	104	3.3	-3.2	0.8	111	2.2	-2.1	0.8	95	2.2	-2.2	0.2	148	4.4	-2.3	3.7	123	6.0	-5.0	3.3	121	5.7	-4.9	2.9	93	10.1	-10.1	0.6
12	110	2.0	-1.9	0.7	102	3.3	-3.2	0.7	111	4.0	-3.7	1.4	135	4.0	-2.8	2.8	126	2.7	-2.2	1.6	117	3.9	-3.5	1.8	81	9.6	-9.5	-1.5
13	159	1.9	-0.7	1.8	126	2.4	-1.9	1.4	129	2.2	-1.7	1.4	166	3.6	-0.9	3.5	141	0.6	-0.4	0.5	94	1.6	-1.6	0.1	85	10.1	-10.1	-0.8
14	130	3.4	-2.6	2.2	137	4.0	-2.7	2.9	153	4.5	-2.0	4.0	155	5.1	-2.1	4.6	63	1.8	-1.6	-0.8	35	2.1	-1.2	-1.7	95	8.4	-8.4	0.7
15	114	3.5	-3.2	1.4	135	4.1	-2.9	2.9	151	4.1	-2.0	3.6	174	5.1	-0.5	5.1	180	1.7	0.0	1.7	75	2.4	-2.3	-0.6	90	5.4	-5.4	0.0
16	111	1.9	-1.8	0.7	142	2.3	-1.4	1.8	139	3.5	-2.3	2.6	156	2.4	-1.0	2.2	214	3.0	1.7	2.5	207	1.3	0.6	1.2	78	8.4	-8.2	-1.7
17	112	2.4	-2.2	0.9	139	2.3	-1.5	1.7	180	2.5	0.0	2.5	251	3.7	3.5	1.2	277	4.0	4.0	-0.5	264	1.0	1.0	0.1	99	5.5	-5.4	0.9
18	92	5.2	-5.2	0.2	112	2.7	-2.5	1.0	159	0.9	-0.3	0.8	225	2.0	1.4	1.4	260	3.9	3.8	0.7	264	2.0	2.0	0.2	75	8.9	-8.6	-2.3
19	122	2.6	-2.2	1.4	90	0.2	-0.2	0.0	219	0.6	0.4	0.5	222	3.0	2.0	2.2	212	4.1	2.2	3.5	264	4.0	4.0	0.4	74	8.3	-8.0	-2.3
20	4	1.4	-0.1	-1.4	45	0.8	-0.6	-0.6	51	1.9	-1.5	-1.2	198	0.6	0.2	0.6	200	2.0	0.7	1.9	281	2.1	2.1	-0.4	81	4.9	-4.8	-0.8
21	39	0.6	-0.4	-0.5	114	1.2	-1.1	0.5	151	1.8	-0.9	1.6	229	0.9	0.7	0.6	218	3.1	1.9	2.4	237	5.9	5.0	3.2	78	5.3	-5.2	-1.1
22	319	1.1	0.7	-0.8	48	1.3	-1.0	-0.9	124	0.4	-0.3	0.2	212	1.9	1.0	1.6	233	2.5	2.0	1.5	260	3.4	3.3	0.6	98	1.4	-1.4	0.2
23	346	1.6	0.4	-1.6	76	1.2	-1.2	-0.3	90	1.2	-1.2	0.0	261	1.8	1.8	0.3	239	5.0	4.3	2.6	260	7.3	7.2	1.3	109	6.5	-6.2	2.1
24	87	1.8	-1.8	-0.1	119	1.0	-0.9	0.5	205	1.4	0.6	1.3	229	4.6	3.5	3.0	250	5.9	5.6	2.0	248	5.5	5.1	2.1	104	6.4	-6.2	1.5
25	98	2.2	-2.2	0.3	117	1.3	-1.2	0.6	223	2.5	1.7	1.8	270	4.2	4.2	0.0	257	5.5	5.4	1.2	260	4.0	3.9	0.7	109	8.4	-8.0	2.7
26	90	1.1	-1.1	0.0	22	0.5	-0.2	-0.5	319	2.1	1.4	-1.6	258	3.8	3.7	0.8	244	5.5	4.9	2.4	228	6.3	4.7	4.2	146	1.8	-1.0	1.5
27	42	2.8	-1.9	-2.1	360	2.3	0.0	-2.3	336	4.6	1.9	-4.2	275	4.3	4.3	-0.4	247	7.6	7.0	3.0	236	9.2	7.7	5.1	79	0.5	-0.5	-0.1
28	81	3.2	-3.2	-0.5	337	2.6	1.0	-2.4	324	3.1	1.8	-2.5	267	4.3	4.3	0.2	248	6.4	5.9	2.4	244	11.5	10.3	5.1	180	2.3	0.0	2.3
29	142	1.6	-1.0	1.3	277	1.7	1.7	-0.2	288	1.9	1.8	-0.6	269	4.1	4.1	0.1	250	7.5	7.0	2.6	223	1.9	1.3	1.4	98	4.4	-4.4	0.6
30	240	0.8	0.7	0.4	326	0.4	0.2	-0.3	257	0.9	0.9	0.2	248	5.5	5.1	2.1	243	10.7	9.5	4.9	247	8.8	8.1	3.4	145	3.3	-1.9	2.7

Daily Normals of Upper Air Winds (1971-2000)

PATNA **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	185	1.1	0.1	1.1	243	0.2	0.2	0.1	309	1.3	1.0	-0.8	255	4.3	4.2	1.1	250	8.0	7.5	2.8	257	9.2	9.0	2.1	240	1.4	1.2	0.7
2	187	1.6	0.2	1.6	175	1.2	-0.1	1.2	225	1.3	0.9	0.9	255	3.9	3.8	1.0	252	10.1	9.6	3.1	252	9.6	9.1	2.9	231	0.6	0.5	0.4
3	193	1.3	0.3	1.3	189	0.6	0.1	0.6	256	1.6	1.6	0.4	253	4.7	4.5	1.4	257	11.9	11.6	2.7	258	14.7	14.4	3.0	228	1.2	0.9	0.8
4	127	2.6	-2.1	1.6	107	1.7	-1.6	0.5	264	1.0	1.0	0.1	238	3.8	3.2	2.0	262	11.2	11.1	1.5	263	13.1	13.0	1.6	305	6.5	5.3	-3.7
5	129	1.9	-1.5	1.2	191	0.5	0.1	0.5	277	2.3	2.3	-0.3	265	6.3	6.3	0.6	256	13.6	13.2	3.3	245	14.5	13.2	6.1	249	6.1	5.7	2.2
6	63	0.9	-0.8	-0.4	23	0.8	-0.3	-0.7	166	0.4	-0.1	0.4	254	5.6	5.4	1.5	260	12.6	12.4	2.2	242	13.5	11.9	6.4	243	7.4	6.6	3.3
7	201	0.9	0.3	0.8	307	2.0	1.6	-1.2	274	1.4	1.4	-0.1	245	6.3	5.7	2.6	254	14.9	14.3	4.1	265	15.7	15.6	1.3	331	2.5	1.2	-2.2
8	331	1.3	0.6	-1.1	311	1.1	0.8	-0.7	304	2.3	1.9	-1.3	256	6.3	6.1	1.5	254	14.7	14.1	4.0	251	18.2	17.2	5.9	260	7.3	7.2	1.3
9	48	1.2	-0.9	-0.8	63	0.9	-0.8	-0.4	262	0.7	0.7	0.1	261	6.7	6.6	1.1	260	16.7	16.5	2.8	259	17.1	16.8	3.3	244	7.1	6.4	3.1
10	225	0.4	0.3	0.3	23	0.8	-0.3	-0.7	302	2.8	2.4	-1.5	273	7.5	7.5	-0.4	267	15.3	15.3	0.9	271	17.4	17.4	-0.2	255	8.5	8.2	2.2
11	234	0.9	0.7	0.5	320	0.8	0.5	-0.6	285	3.8	3.7	-1.0	273	9.1	9.1	-0.4	261	15.0	14.8	2.4	253	18.1	17.3	5.3	219	4.3	2.7	3.3
12	291	1.4	1.3	-0.5	298	1.5	1.3	-0.7	283	3.2	3.1	-0.7	263	7.8	7.7	1.0	258	13.0	12.7	2.6	245	15.5	14.0	6.6	255	7.3	7.1	1.9
13	284	1.2	1.2	-0.3	302	2.6	2.2	-1.4	285	3.8	3.7	-1.0	268	7.1	7.1	0.3	252	14.9	14.2	4.5	255	15.9	15.3	4.2	195	4.1	1.1	4.0
14	288	2.5	2.4	-0.8	306	2.9	2.3	-1.7	309	3.3	2.6	-2.1	269	8.2	8.2	0.2	249	19.3	18.1	6.8	249	21.2	19.8	7.7	225	8.8	6.3	6.2
15	343	1.7	0.5	-1.6	309	1.3	1.0	-0.8	294	3.0	2.7	-1.2	255	7.3	7.0	1.9	248	17.8	16.5	6.6	248	18.6	17.2	7.1	304	7.1	5.9	-4.0
16	37	1.0	-0.6	-0.8	326	1.1	0.6	-0.9	263	2.4	2.4	0.3	271	8.2	8.2	-0.1	259	18.8	18.5	3.6	254	23.0	22.1	6.2	265	10.0	10.0	0.9
17	360	1.0	0.0	-1.0	289	2.8	2.6	-0.9	258	4.0	3.9	0.8	275	6.3	6.3	-0.6	266	16.0	16.0	1.1	261	19.1	18.8	3.1	258	8.7	8.5	1.8
18	72	0.3	-0.3	-0.1	270	2.8	2.8	0.0	279	3.0	3.0	-0.5	282	9.4	9.2	-2.0	260	16.4	16.1	2.9	263	20.1	20.0	2.3	284	8.8	8.5	-2.1
19	21	0.9	-0.3	-0.8	270	2.6	2.6	0.0	277	3.8	3.8	-0.5	274	9.7	9.7	-0.7	258	16.7	16.4	3.4	256	18.8	18.2	4.7	271	13.0	13.0	-0.3
20	280	1.1	1.1	-0.2	304	2.9	2.4	-1.6	281	5.2	5.1	-1.0	268	10.3	10.3	0.4	262	21.8	21.6	3.1	261	24.8	24.5	4.0	263	5.0	5.0	0.6
21	328	1.3	0.7	-1.1	295	3.1	2.8	-1.3	285	3.4	3.3	-0.9	267	10.9	10.9	0.6	263	23.0	22.8	2.9	258	27.9	27.2	6.0	267	6.3	6.3	0.3
22	352	1.5	0.2	-1.5	320	2.5	1.6	-1.9	310	2.5	1.9	-1.6	279	8.3	8.2	-1.3	267	20.9	20.9	1.1	259	25.1	24.7	4.7	274	12.1	12.1	-0.8
23	314	2.9	2.1	-2.0	332	2.7	1.3	-2.4	290	3.0	2.8	-1.0	276	9.7	9.6	-1.0	260	20.7	20.4	3.6	266	26.1	26.1	1.6	276	14.6	14.5	-1.5
24	320	2.3	1.5	-1.8	331	3.3	1.6	-2.9	300	2.2	1.9	-1.1	274	10.1	10.1	-0.7	269	21.0	21.0	0.3	259	22.7	22.2	4.5	269	9.1	9.1	0.2
25	297	2.0	1.8	-0.9	328	2.5	1.3	-2.1	278	4.4	4.4	-0.6	273	10.3	10.3	-0.6	272	24.6	24.6	-1.0	268	25.3	25.3	0.7	263	9.3	9.2	1.2
26	313	2.6	1.9	-1.8	302	3.9	3.3	-2.1	295	4.7	4.2	-2.0	284	12.3	12.0	-2.9	269	21.0	21.0	0.4	263	26.1	25.9	3.4	275	18.7	18.6	-1.6
27	355	1.2	0.1	-1.2	328	1.9	1.0	-1.6	302	3.2	2.7	-1.7	274	7.9	7.9	-0.5	261	22.5	22.2	3.6	252	28.1	26.7	8.6	264	10.9	10.8	1.2
28	6	1.0	-0.1	-1.0	349	2.0	0.4	-2.0	323	3.6	2.2	-2.9	277	10.2	10.1	-1.2	254	25.5	24.5	7.1	256	29.7	28.8	7.2	234	10.9	8.8	6.5
29	55	2.4	-2.0	-1.4	344	1.9	0.5	-1.8	305	1.9	1.6	-1.1	275	10.8	10.8	-1.0	254	23.6	22.7	6.4	255	29.7	28.6	7.9	249	13.3	12.4	4.7
30	62	1.7	-1.5	-0.8	32	1.9	-1.0	-1.6	282	3.3	3.2	-0.7	268	9.1	9.1	0.3	258	25.9	25.3	5.6	247	28.8	26.4	11.4	257	15.4	15.0	3.4
31	40	0.8	-0.5	-0.6	63	0.9	-0.8	-0.4	253	2.1	2.0	0.6	270	10.1	10.1	0.0	255	24.5	23.7	6.2	253	29.5	28.3	8.5	290	6.7	6.3	-2.3

Daily Normals of Upper Air Winds (1971-2000)

PATNA **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	17	1.4	-0.4	-1.3	345	1.6	0.4	-1.5	277	3.3	3.3	-0.4	272	12.6	12.6	-0.4	257	27.4	26.7	6.2	259	29.6	29.1	5.6	—	—	—	—
2	51	1.3	-1.0	-0.8	315	1.0	0.7	-0.7	277	2.3	2.3	-0.3	277	11.9	11.8	-1.4	264	24.0	23.9	2.6	260	28.0	27.6	4.9	258	15.5	15.1	3.3
3	340	2.0	0.7	-1.9	352	1.4	0.2	-1.4	301	2.1	1.8	-1.1	284	12.1	11.7	-3.0	267	25.3	25.3	1.5	257	28.1	27.4	6.4	—	—	—	—
4	360	2.0	0.0	-2.0	18	0.3	-0.1	-0.3	315	2.4	1.7	-1.7	287	10.4	9.9	-3.1	266	25.9	25.8	1.7	265	34.7	34.6	3.0	262	13.7	13.6	2.0
5	322	1.6	1.0	-1.3	303	1.7	1.4	-0.9	313	3.3	2.4	-2.2	282	12.1	11.8	-2.5	259	28.6	28.0	5.6	260	33.6	33.0	6.1	228	10.4	7.7	7.0
6	318	1.5	1.0	-1.1	322	1.8	1.1	-1.4	281	4.4	4.3	-0.8	273	12.6	12.6	-0.6	269	28.4	28.4	0.4	258	33.4	32.6	7.2	238	11.4	9.6	6.1
7	297	1.1	1.0	-0.5	294	2.2	2.0	-0.9	290	5.1	4.8	-1.7	276	13.1	13.0	-1.4	265	29.2	29.1	2.5	256	37.4	36.3	8.8	276	11.6	11.5	-1.3
8	302	1.5	1.3	-0.8	302	3.1	2.6	-1.6	306	5.4	4.4	-3.2	278	12.7	12.6	-1.7	264	27.7	27.6	2.7	258	34.9	34.1	7.4	268	16.7	16.7	0.7
9	291	1.7	1.6	-0.6	308	2.3	1.8	-1.4	309	4.4	3.4	-2.8	285	14.7	14.2	-3.7	274	28.7	28.6	-1.9	252	29.7	28.2	9.4	265	23.6	23.5	2.0
10	5	1.2	-0.1	-1.2	284	2.1	2.0	-0.5	285	6.8	6.6	-1.8	279	14.0	13.8	-2.1	265	30.1	30.0	2.4	255	31.3	30.3	7.9	267	10.6	10.6	0.6
11	292	1.8	1.7	-0.7	298	1.5	1.3	-0.7	301	4.9	4.2	-2.5	278	11.4	11.3	-1.5	265	29.0	28.9	2.4	251	38.8	36.8	12.4	264	9.9	9.8	1.0
12	313	2.5	1.8	-1.7	309	1.9	1.5	-1.2	297	4.5	4.0	-2.0	291	11.2	10.5	-4.0	282	24.0	23.5	-4.8	261	33.6	33.1	5.5	278	28.4	28.1	-3.9
13	314	2.8	2.0	-1.9	318	2.7	1.8	-2.0	297	4.5	4.0	-2.0	285	10.6	10.2	-2.8	281	24.5	24.0	-4.8	260	28.6	28.2	4.8	268	55.0	55.0	1.9
14	311	1.8	1.4	-1.2	317	2.1	1.4	-1.5	308	5.6	4.4	-3.4	287	10.2	9.8	-3.0	279	26.0	25.7	-4.2	265	36.7	36.6	3.1	290	14.3	13.5	-4.8
15	56	0.7	-0.6	-0.4	306	2.2	1.8	-1.3	295	5.6	5.1	-2.4	283	12.2	11.9	-2.8	273	26.1	26.1	-1.3	260	31.2	30.8	5.2	252	7.7	7.3	2.4
16	32	0.9	-0.5	-0.8	311	1.8	1.4	-1.2	292	5.3	4.9	-2.0	290	11.4	10.7	-4.0	277	26.8	26.6	-3.3	269	32.6	32.6	0.5	267	15.7	15.7	0.9
17	30	0.8	-0.4	-0.7	281	2.5	2.5	-0.5	289	5.2	4.9	-1.7	279	12.0	11.8	-1.9	273	26.7	26.7	-1.2	264	34.8	34.6	3.5	279	27.4	27.1	-4.3
18	79	0.5	-0.5	-0.1	320	0.8	0.5	-0.6	290	5.1	4.8	-1.7	283	13.9	13.5	-3.2	269	33.6	33.6	0.5	262	42.8	42.3	6.2	295	15.0	13.6	-6.3
19	304	1.8	1.5	-1.0	301	2.7	2.3	-1.4	295	5.3	4.8	-2.2	277	15.4	15.3	-1.9	270	33.3	33.3	0.1	262	41.0	40.6	6.0	272	24.0	24.0	-0.8
20	279	1.3	1.3	-0.2	293	2.1	1.9	-0.8	285	3.5	3.4	-0.9	270	13.4	13.4	0.1	267	36.2	36.1	2.0	263	43.2	42.9	5.4	280	25.0	24.6	-4.5
21	300	1.4	1.2	-0.7	308	1.8	1.4	-1.1	287	4.7	4.5	-1.4	280	14.2	14.0	-2.5	266	32.0	31.9	2.4	258	39.2	38.3	8.4	265	46.0	45.8	4.0
22	294	1.2	1.1	-0.5	287	1.7	1.6	-0.5	301	3.7	3.2	-1.9	273	15.4	15.4	-0.8	259	34.6	34.0	6.6	261	41.8	41.3	6.6	258	20.0	19.6	4.0
23	275	2.2	2.2	-0.2	289	2.8	2.6	-0.9	286	5.1	4.9	-1.4	265	17.6	17.5	1.6	262	32.5	32.2	4.7	254	40.4	38.8	11.1	244	14.8	13.4	6.4
24	302	3.4	2.9	-1.8	314	3.3	2.4	-2.3	295	6.5	5.9	-2.7	281	15.1	14.8	-2.8	264	31.7	31.5	3.2	258	28.4	27.8	5.8	245	9.0	8.2	3.8
25	297	3.3	2.9	-1.5	293	4.4	4.1	-1.7	296	8.8	7.9	-3.9	288	14.7	14.0	-4.5	269	27.8	27.8	0.7	271	32.0	32.0	-0.6	—	—	—	—
26	294	3.0	2.7	-1.2	300	3.8	3.3	-1.9	290	8.0	7.5	-2.7	287	18.4	17.6	-5.4	267	32.9	32.9	1.6	270	36.8	36.8	0.0	203	29.0	11.2	26.8
27	288	2.0	1.9	-0.6	285	2.8	2.7	-0.7	295	7.1	6.4	-3.0	281	18.7	18.3	-3.7	275	37.7	37.5	-3.5	264	38.7	38.5	4.1	289	14.4	13.6	-4.7
28	309	0.6	0.5	-0.4	295	2.3	2.1	-1.0	298	7.0	6.2	-3.3	281	19.8	19.4	-3.9	267	39.9	39.8	2.1	262	44.4	44.0	6.2	281	8.7	8.6	-1.6
29	312	2.7	2.0	-1.8	304	3.2	2.7	-1.8	289	7.1	6.7	-2.3	274	15.1	15.1	-1.1	269	35.1	35.1	0.7	266	41.3	41.2	3.1	269	12.3	12.3	0.3
30	325	3.2	1.8	-2.6	311	3.2	2.4	-2.1	307	7.3	5.8	-4.4	280	17.1	16.8	-3.0	281	34.5	33.9	-6.4	268	37.5	37.5	1.3	294	14.9	13.6	-6.0

Daily Normals of Upper Air Winds (1971-2000)

PATNA **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	301	2.6	2.2	-1.3	297	2.8	2.5	-1.3	300	6.9	6.0	-3.5	289	19.5	18.5	-6.2	275	37.8	37.6	-3.6	264	37.9	37.7	4.1	261	22.2	21.9	3.5
2	284	3.6	3.5	-0.9	299	3.9	3.4	-1.9	300	8.2	7.1	-4.1	289	19.3	18.2	-6.3	275	32.5	32.4	-2.8	255	33.9	32.8	8.5	180	4.0	0.0	4.0
3	317	2.2	1.5	-1.6	294	3.4	3.1	-1.4	292	6.9	6.4	-2.6	288	14.7	14.0	-4.5	281	33.6	33.0	-6.5	276	31.7	31.5	-3.2	251	25.2	23.8	8.4
4	307	2.5	2.0	-1.5	301	3.1	2.7	-1.6	296	8.2	7.4	-3.6	285	16.5	15.9	-4.3	279	30.3	30.0	-4.5	267	31.6	31.6	1.6	269	16.4	16.4	0.3
5	295	1.9	1.7	-0.8	290	3.3	3.1	-1.1	304	8.2	6.8	-4.6	290	18.2	17.1	-6.3	279	32.4	32.0	-5.2	270	36.8	36.8	-0.2	306	14.5	11.7	-8.6
6	308	1.1	0.9	-0.7	290	1.5	1.4	-0.5	297	9.6	8.5	-4.4	288	17.9	17.0	-5.5	273	29.2	29.2	-1.3	258	41.9	41.0	8.8	267	13.4	13.4	0.8
7	318	3.0	2.0	-2.2	317	2.6	1.8	-1.9	312	9.1	6.8	-6.1	292	18.9	17.5	-7.1	278	33.6	33.3	-4.4	269	47.8	47.8	1.0	—	—	—	—
8	301	3.3	2.8	-1.7	306	2.6	2.1	-1.5	305	10.9	8.9	-6.3	285	18.8	18.2	-4.8	269	35.2	35.2	0.6	268	43.4	43.4	1.6	276	19.9	19.8	-2.0
9	296	3.2	2.9	-1.4	314	3.3	2.4	-2.3	301	11.9	10.2	-6.2	282	18.7	18.3	-3.9	271	41.4	41.4	-1.0	264	39.4	39.2	4.4	295	17.0	15.4	-7.2
10	291	3.3	3.1	-1.2	284	4.2	4.1	-1.0	283	9.6	9.3	-2.2	278	21.4	21.2	-3.0	278	42.3	41.9	-5.8	276	41.6	41.3	-4.7	288	30.0	28.5	-9.3
11	306	2.6	2.1	-1.5	294	3.6	3.3	-1.5	294	10.4	9.5	-4.3	282	16.9	16.6	-3.4	284	40.4	39.2	-9.8	272	44.0	44.0	-1.5	266	26.0	25.9	1.8
12	300	4.3	3.7	-2.1	301	4.9	4.2	-2.5	298	11.6	10.2	-5.5	285	21.7	21.0	-5.5	276	40.5	40.3	-3.9	271	39.3	39.3	-1.0	279	21.4	21.1	-3.5
13	311	3.8	2.9	-2.5	303	4.6	3.9	-2.5	292	10.6	9.8	-4.0	290	19.7	18.6	-6.6	272	34.0	34.0	-1.4	273	39.2	39.1	-2.3	286	31.0	29.8	-8.5
14	295	3.8	3.5	-1.6	296	5.2	4.7	-2.3	295	10.6	9.6	-4.4	285	21.1	20.4	-5.3	279	38.0	37.5	-5.9	267	40.4	40.3	2.2	270	28.8	28.8	-0.1
15	298	4.3	3.8	-2.0	290	5.8	5.4	-2.0	301	12.0	10.3	-6.1	278	19.5	19.3	-2.6	274	38.2	38.1	-2.5	266	44.8	44.7	3.0	261	35.9	35.5	5.6
16	282	3.4	3.3	-0.7	302	4.6	3.9	-2.4	302	10.4	8.8	-5.6	290	19.8	18.6	-6.9	275	32.9	32.8	-2.9	283	39.2	38.2	-8.6	279	39.0	38.5	-6.1
17	291	2.2	2.1	-0.8	292	4.2	3.9	-1.6	298	11.4	10.0	-5.4	282	20.8	20.4	-4.2	270	41.2	41.2	-0.3	258	39.8	39.0	8.1	—	—	—	—
18	297	1.1	1.0	-0.5	258	2.5	2.4	0.5	289	7.8	7.4	-2.5	279	18.2	18.0	-3.0	279	37.1	36.7	-5.7	276	41.7	41.5	-4.0	276	21.0	20.9	-2.2
19	286	1.9	1.8	-0.5	299	3.5	3.1	-1.7	302	9.0	7.6	-4.8	290	15.0	14.1	-5.2	276	32.6	32.4	-3.5	272	51.6	51.6	-2.0	268	16.9	16.9	0.7
20	281	1.6	1.6	-0.3	295	3.1	2.8	-1.3	294	9.1	8.3	-3.7	280	19.8	19.5	-3.5	262	28.9	28.6	4.0	267	41.6	41.5	2.3	266	19.0	19.0	1.3
21	315	2.5	1.8	-1.8	305	4.2	3.4	-2.4	299	10.5	9.2	-5.1	287	20.4	19.5	-6.1	283	37.4	36.5	-8.3	271	37.5	37.5	-0.6	—	—	—	—
22	290	2.9	2.7	-1.0	297	4.0	3.6	-1.8	305	8.6	7.1	-4.9	296	17.4	15.7	-7.5	291	33.3	31.2	-11.7	285	37.0	35.8	-9.4	—	—	—	—
23	320	2.6	1.7	-2.0	308	3.4	2.7	-2.1	300	6.7	5.8	-3.4	289	16.8	15.9	-5.4	286	27.8	26.8	-7.5	268	35.6	35.6	1.5	265	14.0	13.9	1.2
24	310	1.6	1.2	-1.0	298	1.9	1.7	-0.9	294	6.8	6.2	-2.8	280	19.7	19.4	-3.4	269	31.8	31.8	0.8	260	41.4	40.8	7.2	260	21.7	21.4	3.7
25	79	1.0	-1.0	-0.2	9	1.3	-0.2	-1.3	297	8.0	7.2	-3.6	277	19.0	18.9	-2.3	277	39.4	39.1	-5.0	273	44.7	44.6	-2.5	299	14.0	12.2	-6.8
26	313	2.2	1.6	-1.5	322	1.8	1.1	-1.4	291	8.1	7.6	-2.9	281	22.1	21.7	-4.2	274	36.7	36.6	-2.3	269	50.8	50.8	1.1	264	26.0	25.9	2.7
27	303	2.0	1.7	-1.1	282	3.5	3.4	-0.7	292	10.4	9.6	-3.9	282	22.0	21.5	-4.6	274	49.2	49.1	-3.3	277	45.2	44.9	-5.2	—	—	—	—
28	297	3.4	3.0	-1.5	302	5.3	4.5	-2.8	289	9.8	9.3	-3.2	274	19.0	19.0	-1.3	269	41.6	41.6	1.0	269	38.0	38.0	0.7	—	—	—	—
29	300	3.2	2.8	-1.6	292	4.5	4.2	-1.7	293	10.3	9.5	-4.1	290	19.8	18.6	-6.7	283	40.4	39.4	-8.8	256	51.2	49.7	12.1	280	25.0	24.6	-4.3
30	309	2.7	2.1	-1.7	292	4.3	4.0	-1.6	294	13.3	12.1	-5.5	279	18.2	18.0	-2.8	266	39.7	39.6	3.1	263	35.3	35.0	4.5	—	—	—	—
31	289	3.1	2.9	-1.0	280	4.2	4.1	-0.7	287	9.8	9.4	-2.9	278	22.5	22.3	-3.0	263	33.2	32.9	4.2	268	36.0	36.0	1.3	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	70	6.3	-5.9	-2.2	81	4.4	-4.3	-0.7	94	2.7	-2.7	0.2	52	4.1	-3.2	-2.5	256	1.6	1.6	0.4	202	6.5	2.4	6.0	283	2.7	2.6	-0.6
2	68	6.8	-6.3	-2.5	85	4.8	-4.8	-0.4	90	2.1	-2.1	0.0	49	3.2	-2.4	-2.1	205	1.7	0.7	1.5	220	4.5	2.9	3.5	110	5.5	-5.2	1.9
3	67	6.5	-6.0	-2.5	101	3.6	-3.5	0.7	106	1.8	-1.7	0.5	65	2.1	-1.9	-0.9	186	0.9	0.1	0.9	220	5.9	3.8	4.5	152	4.9	-2.3	4.3
4	71	6.9	-6.5	-2.2	98	4.9	-4.9	0.7	95	3.3	-3.3	0.3	77	2.2	-2.1	-0.5	304	0.7	0.6	-0.4	221	5.5	3.6	4.2	183	1.8	0.1	1.8
5	78	6.6	-6.4	-1.4	84	5.0	-5.0	-0.5	97	3.3	-3.3	0.4	58	3.1	-2.6	-1.6	198	0.9	0.3	0.9	220	5.0	3.2	3.8	128	2.3	-1.8	1.4
6	80	6.7	-6.6	-1.2	96	4.9	-4.9	0.5	88	3.0	-3.0	-0.1	57	2.0	-1.7	-1.1	208	2.1	1.0	1.9	193	7.2	1.6	7.0	146	2.9	-1.6	2.4
7	84	6.2	-6.2	-0.7	96	5.1	-5.1	0.5	87	1.8	-1.8	-0.1	20	1.2	-0.4	-1.1	210	3.8	1.9	3.3	206	7.6	3.3	6.9	230	2.3	1.8	1.5
8	72	5.7	-5.4	-1.8	90	5.2	-5.2	0.0	95	3.4	-3.4	0.3	62	2.1	-1.9	-1.0	246	4.6	4.2	1.9	202	9.3	3.5	8.6	166	0.8	-0.2	0.8
9	69	5.3	-4.9	-1.9	79	4.8	-4.7	-0.9	81	2.6	-2.6	-0.4	81	1.3	-1.3	-0.2	246	5.6	5.1	2.3	231	9.4	7.3	5.9	192	4.5	0.9	4.4
10	76	4.4	-4.3	-1.1	90	5.0	-5.0	0.0	93	3.6	-3.6	0.2	107	1.0	-1.0	0.3	243	4.4	3.9	2.0	215	11.5	6.6	9.4	189	2.5	0.4	2.5
11	67	6.6	-6.1	-2.6	80	4.8	-4.7	-0.8	100	2.8	-2.8	0.5	111	2.8	-2.6	1.0	229	4.4	3.3	2.9	191	9.8	1.8	9.6	148	3.8	-2.0	3.2
12	78	4.3	-4.2	-0.9	96	4.9	-4.9	0.5	80	3.9	-3.8	-0.7	97	2.6	-2.6	0.3	193	3.1	0.7	3.0	199	8.3	2.7	7.8	73	4.1	-3.9	-1.2
13	76	4.0	-3.9	-1.0	93	5.6	-5.6	0.3	95	3.8	-3.8	0.3	122	1.3	-1.1	0.7	228	4.7	3.5	3.2	234	11.2	9.1	6.5	197	2.8	0.8	2.7
14	69	4.4	-4.1	-1.6	95	5.4	-5.4	0.5	98	2.9	-2.9	0.4	111	0.9	-0.8	0.3	253	6.2	5.9	1.8	219	9.6	6.0	7.5	150	6.1	-3.1	5.3
15	74	4.1	-3.9	-1.1	97	5.8	-5.8	0.7	87	3.7	-3.7	-0.2	111	0.9	-0.8	0.3	257	4.6	4.5	1.0	231	7.1	5.5	4.5	90	3.6	-3.6	0.0
16	72	4.9	-4.7	-1.5	89	5.4	-5.4	-0.1	94	2.7	-2.7	0.2	315	0.3	0.2	-0.2	268	3.4	3.4	0.1	207	8.5	3.8	7.6	131	7.3	-5.5	4.8
17	64	5.3	-4.8	-2.3	81	6.0	-5.9	-0.9	94	3.1	-3.1	0.2	27	0.2	-0.1	-0.2	260	4.1	4.0	0.7	222	8.0	5.4	5.9	229	3.5	2.6	2.3
18	67	5.8	-5.3	-2.3	80	5.4	-5.3	-0.9	96	1.9	-1.9	0.2	51	1.3	-1.0	-0.8	234	2.6	2.1	1.5	207	7.5	3.4	6.7	97	5.2	-5.2	0.6
19	64	5.1	-4.6	-2.2	87	5.0	-5.0	-0.3	112	1.1	-1.0	0.4	331	1.3	0.6	-1.1	238	3.9	3.3	2.1	215	8.0	4.6	6.5	179	4.2	-0.1	4.2
20	64	5.0	-4.5	-2.2	98	4.9	-4.8	0.7	83	0.8	-0.8	-0.1	90	0.1	-0.1	0.0	255	3.8	3.7	1.0	218	6.8	4.2	5.4	270	1.3	1.3	0.0
21	66	4.5	-4.1	-1.8	99	4.4	-4.3	0.7	135	2.0	-1.4	1.4	180	0.1	0.0	0.1	227	2.6	1.9	1.8	219	6.7	4.2	5.2	155	5.3	-2.2	4.8
22	84	5.0	-5.0	-0.5	97	4.1	-4.1	0.5	98	2.1	-2.1	0.3	297	0.7	0.6	-0.3	217	4.0	2.4	3.2	198	8.3	2.6	7.9	200	2.0	0.7	1.9
23	59	4.2	-3.6	-2.2	91	3.9	-3.9	0.1	90	2.0	-2.0	0.0	270	0.2	0.2	0.0	220	5.0	3.2	3.8	214	7.5	4.2	6.2	151	5.7	-2.8	5.0
24	57	5.0	-4.2	-2.7	87	4.3	-4.3	-0.2	77	1.8	-1.8	-0.4	288	0.9	0.9	-0.3	245	6.8	6.2	2.9	233	7.5	6.0	4.5	328	3.8	2.0	-3.2
25	50	5.0	-3.8	-3.2	89	4.3	-4.3	-0.1	80	2.3	-2.3	-0.4	328	0.9	0.5	-0.8	237	3.5	2.9	1.9	205	7.1	3.0	6.4	100	5.9	-5.8	1.0
26	40	5.5	-3.5	-4.2	95	3.8	-3.8	0.3	101	2.1	-2.1	0.4	158	0.5	-0.2	0.5	202	1.8	0.7	1.7	197	5.9	1.7	5.6	132	9.6	-7.1	6.4
27	69	4.0	-3.7	-1.4	102	4.2	-4.1	0.9	114	2.0	-1.8	0.8	360	0.4	0.0	-0.4	228	1.5	1.1	1.0	219	7.7	4.9	6.0	133	4.1	-3.0	2.8
28	87	5.9	-5.9	-0.3	105	4.2	-4.1	1.1	96	1.8	-1.8	0.2	293	0.8	0.7	-0.3	208	2.6	1.2	2.3	225	5.1	3.6	3.6	201	2.5	0.9	2.3
29	76	6.2	-6.0	-1.5	94	5.4	-5.4	0.4	90	1.9	-1.9	0.0	29	1.0	-0.5	-0.9	209	3.7	1.8	3.2	197	7.0	2.0	6.7	126	4.7	-3.8	2.8
30	80	6.0	-5.9	-1.0	85	4.5	-4.5	-0.4	95	2.5	-2.5	0.2	56	1.8	-1.5	-1.0	236	5.3	4.4	3.0	225	6.8	4.8	4.8	247	0.8	0.7	0.3
31	84	6.0	-6.0	-0.6	94	4.9	-4.9	0.3	92	2.8	-2.8	0.1	37	1.0	-0.6	-0.8	253	6.5	6.2	1.9	217	8.6	5.2	6.8	318	1.2	0.8	-0.9

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	93	4.1	-4.1	0.2	96	4.4	-4.4	0.5	120	2.2	-1.9	1.1	354	0.9	0.1	-0.9	234	6.1	4.9	3.6	227	7.5	5.5	5.1	136	4.5	-3.1	3.2
2	96	5.6	-5.6	0.6	108	4.5	-4.3	1.4	104	2.5	-2.4	0.6	315	0.1	0.1	-0.1	223	4.5	3.1	3.3	226	5.9	4.2	4.1	166	4.2	-1.0	4.1
3	100	5.4	-5.3	0.9	95	4.4	-4.4	0.4	99	2.4	-2.4	0.4	243	0.4	0.4	0.2	259	6.0	5.9	1.2	227	6.6	4.8	4.5	134	2.8	-2.0	1.9
4	66	6.0	-5.5	-2.4	97	4.0	-4.0	0.5	84	1.0	-1.0	-0.1	254	0.7	0.7	0.2	231	4.4	3.4	2.8	213	7.0	3.8	5.9	83	0.8	-0.8	-0.1
5	66	4.9	-4.5	-2.0	99	3.9	-3.9	0.6	73	1.4	-1.3	-0.4	285	1.1	1.1	-0.3	253	5.9	5.6	1.7	230	8.7	6.6	5.6	204	2.0	0.8	1.8
6	78	5.3	-5.2	-1.1	95	4.2	-4.2	0.4	84	0.9	-0.9	-0.1	247	2.1	1.9	0.8	243	4.5	4.0	2.0	216	7.5	4.4	6.1	171	2.4	-0.4	2.4
7	69	6.3	-5.9	-2.3	91	4.3	-4.3	0.1	84	1.0	-1.0	-0.1	263	1.6	1.6	0.2	252	3.8	3.6	1.2	213	8.2	4.5	6.8	158	1.1	-0.4	1.0
8	55	4.2	-3.4	-2.4	92	3.5	-3.5	0.1	207	0.2	0.1	0.2	287	1.7	1.6	-0.5	225	4.8	3.4	3.4	220	9.1	5.8	7.0	252	3.2	3.0	1.0
9	71	4.6	-4.3	-1.5	91	4.0	-4.0	0.1	126	1.4	-1.1	0.8	275	2.2	2.2	-0.2	238	7.0	5.9	3.7	227	10.1	7.4	6.9	240	2.0	1.7	1.0
10	81	1.3	-1.3	-0.2	82	4.3	-4.3	-0.6	99	0.6	-0.6	0.1	295	1.4	1.3	-0.6	236	5.8	4.8	3.2	244	7.3	6.6	3.2	300	5.0	4.3	-2.5
11	61	6.0	-5.2	-2.9	91	3.9	-3.9	0.1	98	0.7	-0.7	0.1	291	1.4	1.3	-0.5	230	3.9	3.0	2.5	204	7.8	3.2	7.1	126	3.6	-2.9	2.1
12	53	3.1	-2.5	-1.9	90	3.6	-3.6	0.0	94	1.4	-1.4	0.1	329	2.3	1.2	-2.0	275	3.8	3.8	-0.3	214	6.5	3.7	5.4	107	3.7	-3.5	1.1
13	52	3.1	-2.4	-1.9	80	3.9	-3.8	-0.7	75	1.6	-1.5	-0.4	329	1.2	0.6	-1.0	257	3.1	3.0	0.7	194	6.8	1.7	6.6	107	3.7	-3.5	1.1
14	52	3.3	-2.6	-2.0	90	3.9	-3.9	0.0	106	1.9	-1.8	0.5	340	1.2	0.4	-1.1	221	1.8	1.2	1.4	197	4.7	1.4	4.5	127	3.5	-2.8	2.1
15	39	1.3	-0.8	-1.0	80	2.8	-2.8	-0.5	108	1.6	-1.5	0.5	45	2.0	-1.4	-1.4	184	1.3	0.1	1.3	183	5.1	0.3	5.1	145	2.9	-1.7	2.4
16	53	2.1	-1.7	-1.3	102	3.4	-3.3	0.7	108	2.2	-2.1	0.7	79	1.5	-1.5	-0.3	323	0.5	0.3	-0.4	188	5.6	0.8	5.5	169	1.6	-0.3	1.6
17	64	2.8	-2.5	-1.2	89	4.6	-4.6	-0.1	100	2.9	-2.9	0.5	67	1.5	-1.4	-0.6	142	3.1	-1.9	2.4	179	4.2	-0.1	4.2	187	0.8	0.1	0.8
18	85	2.1	-2.1	-0.2	90	4.0	-4.0	0.0	106	1.8	-1.7	0.5	87	1.7	-1.7	-0.1	140	2.5	-1.6	1.9	170	4.8	-0.8	4.7	142	4.9	-3.0	3.9
19	72	1.3	-1.2	-0.4	76	3.3	-3.2	-0.8	80	1.7	-1.7	-0.3	51	1.4	-1.1	-0.9	145	1.6	-0.9	1.3	182	6.1	0.2	6.1	149	3.1	-1.6	2.7
20	76	2.5	-2.4	-0.6	90	3.5	-3.5	0.0	82	2.2	-2.2	-0.3	88	2.5	-2.5	-0.1	211	1.2	0.6	1.0	170	6.6	-1.2	6.5	180	2.4	0.0	2.4
21	40	1.7	-1.1	-1.3	88	3.1	-3.1	-0.1	112	2.9	-2.7	1.1	90	1.6	-1.6	0.0	184	2.7	0.2	2.7	182	7.5	0.2	7.5	125	2.8	-2.3	1.6
22	80	1.7	-1.7	-0.3	83	3.1	-3.1	-0.4	106	1.9	-1.8	0.5	68	0.5	-0.5	-0.2	297	0.2	0.2	-0.1	191	9.3	1.7	9.1	118	3.2	-2.8	1.5
23	63	3.0	-2.7	-1.4	94	3.0	-3.0	0.2	98	2.1	-2.1	0.3	90	1.3	-1.3	0.0	207	2.9	1.3	2.6	180	8.7	0.0	8.7	90	3.3	-3.3	0.0
24	63	3.1	-2.8	-1.4	87	3.5	-3.5	-0.2	100	2.7	-2.7	0.5	101	1.6	-1.6	0.3	201	1.9	0.7	1.8	186	6.3	0.7	6.3	87	2.2	-2.2	-0.1
25	66	3.6	-3.3	-1.5	88	3.4	-3.4	-0.1	90	2.5	-2.5	0.0	120	0.8	-0.7	0.4	215	3.2	1.8	2.6	189	5.8	0.9	5.7	160	5.2	-1.8	4.9
26	63	3.5	-3.1	-1.6	88	3.6	-3.6	-0.1	113	3.3	-3.0	1.3	315	0.6	0.4	-0.4	239	5.7	4.9	2.9	221	7.7	5.0	5.8	192	1.9	0.4	1.9
27	67	3.0	-2.8	-1.2	97	3.3	-3.3	0.4	126	3.2	-2.6	1.9	54	0.9	-0.7	-0.5	239	5.0	4.3	2.6	237	6.2	5.2	3.4	108	4.0	-3.8	1.2
28	67	2.8	-2.6	-1.1	98	2.8	-2.8	0.4	92	2.6	-2.6	0.1	198	0.3	0.1	0.3	237	4.3	3.6	2.3	204	5.8	2.4	5.3	180	1.1	0.0	1.1
29	85	3.4	-3.4	-0.3	84	2.9	-2.9	-0.3	57	3.3	-2.8	-1.8	14	3.8	-0.9	-3.7	126	0.9	-0.7	0.5	152	5.7	-2.7	5.0	107	11.0	-10.5	3.2

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	44	3.7	-2.6	-2.7	84	2.9	-2.9	-0.3	97	2.5	-2.5	0.3	315	0.4	0.3	-0.3	232	4.2	3.3	2.6	202	4.6	1.7	4.3	40	2.5	-1.6	-1.9
2	53	3.9	-3.1	-2.3	92	3.6	-3.6	0.1	102	2.9	-2.8	0.6	51	0.6	-0.5	-0.4	243	2.7	2.4	1.2	201	8.0	2.9	7.5	168	3.8	-0.8	3.7
3	59	4.5	-3.9	-2.3	96	4.6	-4.6	0.5	81	3.3	-3.3	-0.5	270	0.6	0.6	0.0	231	4.9	3.8	3.1	195	6.7	1.7	6.5	170	2.8	-0.5	2.8
4	47	2.6	-1.9	-1.8	81	4.3	-4.2	-0.7	84	2.7	-2.7	-0.3	84	1.8	-1.8	-0.2	203	4.9	1.9	4.5	198	7.1	2.2	6.7	143	2.5	-1.5	2.0
5	51	1.4	-1.1	-0.9	92	2.4	-2.4	0.1	84	3.0	-3.0	-0.3	59	1.7	-1.5	-0.9	218	4.9	3.0	3.9	217	7.1	4.3	5.7	164	3.3	-0.9	3.2
6	45	3.0	-2.1	-2.1	85	3.2	-3.2	-0.3	85	2.3	-2.3	-0.2	81	1.3	-1.3	-0.2	214	5.0	2.8	4.1	213	8.4	4.6	7.0	126	4.2	-3.4	2.5
7	25	2.6	-1.1	-2.4	85	3.3	-3.3	-0.3	88	2.5	-2.5	-0.1	68	1.6	-1.5	-0.6	208	4.7	2.2	4.1	212	9.1	4.8	7.7	247	4.1	3.8	1.6
8	49	2.9	-2.2	-1.9	90	3.9	-3.9	0.0	73	3.1	-3.0	-0.9	69	0.9	-0.8	-0.3	214	5.7	3.2	4.7	211	6.9	3.5	5.9	278	0.7	0.7	-0.1
9	48	2.7	-2.0	-1.8	81	3.8	-3.8	-0.6	68	3.1	-2.9	-1.2	125	2.1	-1.7	1.2	226	3.2	2.3	2.2	192	5.8	1.2	5.7	76	3.2	-3.1	-0.8
10	48	1.2	-0.9	-0.8	72	4.2	-4.0	-1.3	91	4.2	-4.2	0.1	72	0.9	-0.9	-0.3	185	2.2	0.2	2.2	177	4.2	-0.2	4.2	68	3.1	-2.9	-1.2
11	63	3.0	-2.7	-1.4	89	3.9	-3.9	-0.1	89	4.3	-4.3	-0.1	117	2.2	-2.0	1.0	231	3.8	3.0	2.4	203	6.2	2.4	5.7	118	3.4	-3.0	1.6
12	41	1.8	-1.2	-1.4	94	2.8	-2.8	0.2	97	3.3	-3.3	0.4	106	1.8	-1.7	0.5	245	6.1	5.5	2.6	215	9.9	5.7	8.1	352	1.4	0.2	-1.4
13	73	1.4	-1.3	-0.4	92	2.9	-2.9	0.1	98	3.5	-3.5	0.5	90	0.5	-0.5	0.0	243	3.7	3.3	1.7	226	7.2	5.2	5.0	346	1.6	0.4	-1.6
14	60	2.2	-1.9	-1.1	90	2.9	-2.9	0.0	92	3.7	-3.7	0.1	180	0.8	0.0	0.8	235	3.5	2.9	2.0	234	8.4	6.8	4.9	83	1.6	-1.6	-0.2
15	78	3.0	-2.9	-0.6	79	3.6	-3.5	-0.7	96	2.9	-2.9	0.3	207	0.4	0.2	0.4	239	6.8	5.8	3.5	252	8.4	8.0	2.6	197	1.7	0.5	1.6
16	68	2.7	-2.5	-1.0	75	3.5	-3.4	-0.9	90	3.0	-3.0	0.0	27	0.4	-0.2	-0.4	258	4.8	4.7	1.0	218	7.4	4.6	5.8	87	1.8	-1.8	-0.1
17	50	1.6	-1.2	-1.0	83	2.6	-2.6	-0.3	88	2.8	-2.8	-0.1	261	0.6	0.6	0.1	258	5.8	5.7	1.2	235	6.3	5.2	3.6	117	0.7	-0.6	0.3
18	32	2.6	-1.4	-2.2	72	2.5	-2.4	-0.8	80	2.2	-2.2	-0.4	28	1.7	-0.8	-1.5	256	3.6	3.5	0.9	230	7.1	5.4	4.6	238	1.5	1.3	0.8
19	33	2.0	-1.1	-1.7	80	2.7	-2.7	-0.5	81	3.3	-3.3	-0.5	344	0.7	0.2	-0.7	239	2.7	2.3	1.4	219	7.3	4.6	5.7	84	3.1	-3.1	-0.3
20	360	0.6	0.0	-0.6	84	2.8	-2.8	-0.3	100	2.9	-2.9	0.5	297	0.4	0.4	-0.2	235	3.2	2.6	1.8	227	7.1	5.2	4.9	148	1.3	-0.7	1.1
21	66	1.2	-1.1	-0.5	73	2.4	-2.3	-0.7	90	3.3	-3.3	0.0	53	1.0	-0.8	-0.6	268	5.0	5.0	0.2	237	7.7	6.4	4.2	141	2.8	-1.8	2.2
22	34	2.2	-1.2	-1.8	56	2.2	-1.8	-1.2	102	3.0	-2.9	0.6	45	0.7	-0.5	-0.5	261	4.6	4.5	0.7	220	7.6	4.9	5.8	147	4.2	-2.3	3.5
23	137	1.6	-1.1	1.2	80	2.3	-2.3	-0.4	101	2.6	-2.6	0.5	162	0.6	-0.2	0.6	243	6.3	5.6	2.8	213	6.7	3.7	5.6	139	3.8	-2.5	2.9
24	117	4.2	-3.7	1.9	98	2.8	-2.8	0.4	117	2.9	-2.6	1.3	135	0.1	-0.1	0.1	261	5.8	5.7	0.9	244	6.1	5.5	2.7	140	3.1	-2.0	2.4
25	118	2.6	-2.3	1.2	84	2.7	-2.7	-0.3	106	4.8	-4.6	1.3	27	0.9	-0.4	-0.8	250	6.6	6.2	2.2	236	7.3	6.1	4.1	267	1.9	1.9	0.1
26	98	3.6	-3.6	0.5	98	3.5	-3.5	0.5	100	3.9	-3.8	0.7	194	1.2	0.3	1.2	236	5.0	4.1	2.8	210	8.7	4.3	7.6	275	3.8	3.8	-0.3
27	102	2.5	-2.4	0.5	102	3.9	-3.8	0.8	104	4.5	-4.4	1.1	66	1.2	-1.1	-0.5	255	5.2	5.0	1.3	226	8.7	6.3	6.0	261	2.5	2.5	0.4
28	133	1.9	-1.4	1.3	101	3.6	-3.5	0.7	93	4.4	-4.4	0.2	87	1.9	-1.9	-0.1	250	6.6	6.2	2.2	246	7.0	6.4	2.8	259	3.3	3.2	0.6
29	83	1.6	-1.6	-0.2	90	3.7	-3.7	0.0	88	3.8	-3.8	-0.1	92	2.3	-2.3	0.1	263	4.8	4.8	0.6	236	8.2	6.8	4.6	24	2.4	-1.0	-2.2
30	119	2.5	-2.2	1.2	95	3.5	-3.5	0.3	100	3.9	-3.8	0.7	111	0.9	-0.8	0.3	239	3.7	3.2	1.9	222	9.3	6.3	6.9	142	2.9	-1.8	2.3
31	95	2.5	-2.5	0.2	96	3.9	-3.9	0.4	94	4.4	-4.4	0.3	82	1.5	-1.5	-0.2	250	5.9	5.6	2.0	227	8.9	6.5	6.1	270	1.1	1.1	0.0

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	78	2.5	-2.4	-0.5	96	2.8	-2.8	0.3	98	2.9	-2.9	0.4	90	3.0	-3.0	0.0	234	2.6	2.1	1.5	207	4.2	1.9	3.7	194	0.4	0.1	0.4
2	62	1.5	-1.3	-0.7	99	2.6	-2.6	0.4	99	3.6	-3.6	0.6	117	1.8	-1.6	0.8	246	3.0	2.7	1.2	231	7.2	5.6	4.6	323	3.4	2.0	-2.7
3	96	1.9	-1.9	0.2	112	2.9	-2.7	1.1	104	4.0	-3.9	1.0	115	1.9	-1.7	0.8	235	2.4	2.0	1.4	232	5.5	4.3	3.4	90	2.4	-2.4	0.0
4	61	1.0	-0.9	-0.5	86	2.9	-2.9	-0.2	95	4.5	-4.5	0.4	112	2.4	-2.2	0.9	237	3.0	2.5	1.6	227	5.2	3.8	3.6	120	2.0	-1.7	1.0
5	69	2.2	-2.1	-0.8	94	2.9	-2.9	0.2	89	4.4	-4.4	-0.1	86	1.6	-1.6	-0.1	237	3.0	2.5	1.6	214	7.9	4.4	6.6	114	4.9	-4.5	2.0
6	14	1.6	-0.4	-1.6	90	3.2	-3.2	0.0	87	4.3	-4.3	-0.2	115	1.7	-1.5	0.7	219	2.6	1.6	2.0	219	6.5	4.1	5.1	119	4.1	-3.6	2.0
7	333	1.8	0.8	-1.6	90	1.8	-1.8	0.0	87	3.5	-3.5	-0.2	84	1.0	-1.0	-0.1	268	2.7	2.7	0.1	219	5.8	3.7	4.5	79	2.1	-2.1	-0.4
8	337	1.3	0.5	-1.2	95	1.2	-1.2	0.1	86	2.9	-2.9	-0.2	96	1.0	-1.0	0.1	292	2.4	2.2	-0.9	231	5.8	4.5	3.7	110	3.5	-3.3	1.2
9	311	1.1	0.8	-0.7	103	1.3	-1.3	0.3	100	2.3	-2.3	0.4	63	0.4	-0.4	-0.2	328	1.9	1.0	-1.6	216	5.2	3.0	4.2	84	1.9	-1.9	-0.2
10	340	1.5	0.5	-1.4	101	1.6	-1.6	0.3	79	3.1	-3.0	-0.6	75	1.1	-1.1	-0.3	280	1.1	1.1	-0.2	207	4.4	2.0	3.9	97	1.6	-1.6	0.2
11	7	0.8	-0.1	-0.8	108	1.9	-1.8	0.6	92	3.6	-3.6	0.1	61	1.8	-1.6	-0.9	237	1.7	1.4	0.9	208	6.1	2.9	5.4	77	2.2	-2.1	-0.5
12	347	1.7	0.4	-1.7	96	1.9	-1.9	0.2	88	3.0	-3.0	-0.1	70	1.5	-1.4	-0.5	169	1.0	-0.2	1.0	217	6.4	3.8	5.1	97	1.6	-1.6	0.2
13	6	0.9	-0.1	-0.9	90	1.7	-1.7	0.0	78	2.9	-2.8	-0.6	58	2.6	-2.2	-1.4	275	2.1	2.1	-0.2	193	6.3	1.4	6.1	55	2.4	-2.0	-1.4
14	270	0.1	0.1	0.0	108	2.3	-2.2	0.7	84	2.9	-2.9	-0.3	55	1.9	-1.6	-1.1	219	1.4	0.9	1.1	212	6.8	3.6	5.8	85	2.3	-2.3	-0.2
15	90	1.1	-1.1	0.0	97	2.3	-2.3	0.3	90	3.8	-3.8	0.0	79	3.6	-3.5	-0.7	234	2.4	1.9	1.4	186	5.3	0.6	5.3	132	3.1	-2.3	2.1
16	45	0.8	-0.6	-0.6	106	1.8	-1.7	0.5	77	4.4	-4.3	-1.0	121	1.7	-1.5	0.9	235	4.4	3.6	2.5	208	5.4	2.5	4.8	111	3.3	-3.1	1.2
17	333	0.9	0.4	-0.8	108	1.3	-1.2	0.4	113	3.3	-3.0	1.3	104	1.2	-1.2	0.3	225	1.8	1.3	1.3	221	3.0	2.0	2.3	151	2.1	-1.0	1.8
18	283	0.9	0.9	-0.2	115	1.4	-1.3	0.6	119	1.8	-1.6	0.9	77	0.9	-0.9	-0.2	242	1.9	1.7	0.9	220	7.0	4.5	5.3	198	1.3	0.4	1.2
19	333	0.9	0.4	-0.8	119	1.3	-1.1	0.6	98	2.7	-2.7	0.4	135	1.0	-0.7	0.7	254	2.9	2.8	0.8	202	5.0	1.9	4.6	112	3.5	-3.3	1.3
20	336	1.0	0.4	-0.9	106	1.5	-1.4	0.4	106	3.2	-3.1	0.9	90	0.8	-0.8	0.0	268	2.8	2.8	0.1	216	5.4	3.2	4.4	138	2.7	-1.8	2.0
21	158	0.5	-0.2	0.5	117	1.8	-1.6	0.8	110	3.3	-3.1	1.1	90	1.6	-1.6	0.0	248	1.6	1.5	0.6	186	5.6	0.6	5.6	87	1.9	-1.9	-0.1
22	104	0.8	-0.8	0.2	111	1.4	-1.3	0.5	104	3.2	-3.1	0.8	90	2.1	-2.1	0.0	304	1.4	1.2	-0.8	208	4.9	2.3	4.3	84	4.1	-4.1	-0.4
23	56	0.4	-0.3	-0.2	130	1.7	-1.3	1.1	107	3.4	-3.3	1.0	125	1.6	-1.3	0.9	281	2.0	2.0	-0.4	237	5.3	4.4	2.9	193	1.7	0.4	1.7
24	243	0.4	0.4	0.2	130	1.6	-1.2	1.0	101	2.1	-2.1	0.4	153	0.7	-0.3	0.6	238	2.8	2.4	1.5	224	5.4	3.8	3.9	104	2.5	-2.4	0.6
25	207	1.3	0.6	1.2	151	1.8	-0.9	1.6	119	2.5	-2.2	1.2	107	1.0	-1.0	0.3	227	2.5	1.8	1.7	216	5.2	3.0	4.2	93	5.5	-5.5	0.3
26	83	1.7	-1.7	-0.2	98	2.7	-2.7	0.4	97	3.1	-3.1	0.4	114	2.0	-1.8	0.8	237	3.8	3.2	2.1	217	6.0	3.6	4.8	74	3.3	-3.2	-0.9
27	304	0.4	0.3	-0.2	159	1.9	-0.7	1.8	116	3.0	-2.7	1.3	151	1.8	-0.9	1.6	228	3.1	2.3	2.1	215	3.3	1.9	2.7	97	6.3	-6.2	0.8
28	328	0.9	0.5	-0.8	135	1.7	-1.2	1.2	119	1.0	-0.9	0.5	162	0.6	-0.2	0.6	214	4.6	2.6	3.8	222	5.8	3.9	4.3	99	5.9	-5.8	0.9
29	189	0.6	0.1	0.6	115	1.7	-1.5	0.7	90	2.2	-2.2	0.0	281	1.5	1.5	-0.3	235	2.8	2.3	1.6	217	4.3	2.6	3.4	69	7.4	-6.9	-2.7
30	283	1.3	1.3	-0.3	180	0.5	0.0	0.5	113	1.3	-1.2	0.5	234	0.9	0.7	0.5	248	2.7	2.5	1.0	215	3.5	2.0	2.9	97	7.2	-7.1	0.9

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	205	1.9	0.8	1.7	187	1.7	0.2	1.7	104	1.6	-1.6	0.4	232	1.6	1.3	1.0	252	2.2	2.1	0.7	198	3.9	1.2	3.7	91	6.3	-6.3	0.1
2	215	2.4	1.4	2.0	197	1.4	0.4	1.3	111	1.7	-1.6	0.6	197	1.4	0.4	1.3	218	1.1	0.7	0.9	196	3.7	1.0	3.6	94	8.7	-8.7	0.6
3	223	2.2	1.5	1.6	186	1.0	0.1	1.0	103	1.3	-1.3	0.3	151	1.3	-0.6	1.1	168	1.4	-0.3	1.4	231	2.8	2.2	1.8	100	8.0	-7.9	1.4
4	197	2.4	0.7	2.3	198	1.6	0.5	1.5	143	0.5	-0.3	0.4	160	2.0	-0.7	1.9	121	0.6	-0.5	0.3	121	1.2	-1.0	0.6	87	7.9	-7.9	-0.4
5	222	4.3	2.9	3.2	215	1.9	1.1	1.6	107	1.0	-1.0	0.3	157	1.3	-0.5	1.2	127	2.1	-1.7	1.3	103	3.6	-3.5	0.8	101	8.6	-8.5	1.6
6	212	3.8	2.0	3.2	219	2.7	1.7	2.1	120	1.6	-1.4	0.8	135	1.3	-0.9	0.9	63	0.4	-0.4	-0.2	157	3.8	-1.5	3.5	109	9.8	-9.3	3.2
7	258	3.3	3.2	0.7	228	1.5	1.1	1.0	138	1.3	-0.9	1.0	152	1.7	-0.8	1.5	117	1.3	-1.2	0.6	122	2.5	-2.1	1.3	104	9.4	-9.1	2.3
8	255	3.1	3.0	0.8	208	1.9	0.9	1.7	122	2.6	-2.2	1.4	194	0.4	0.1	0.4	156	3.0	-1.2	2.7	121	4.1	-3.5	2.1	92	9.7	-9.7	0.4
9	264	4.1	4.1	0.4	225	1.6	1.1	1.1	86	1.4	-1.4	-0.1	99	0.6	-0.6	0.1	162	0.6	-0.2	0.6	127	5.1	-4.1	3.1	98	7.6	-7.5	1.0
10	274	4.9	4.9	-0.3	215	1.2	0.7	1.0	53	0.5	-0.4	-0.3	243	0.4	0.4	0.2	143	2.5	-1.5	2.0	121	4.2	-3.6	2.2	91	8.2	-8.2	0.2
11	248	3.7	3.4	1.4	193	1.8	0.4	1.8	125	1.9	-1.6	1.1	144	1.7	-1.0	1.4	127	2.0	-1.6	1.2	121	4.2	-3.6	2.2	102	10.9	-10.7	2.2
12	269	3.9	3.9	0.1	216	2.4	1.4	1.9	155	1.7	-0.7	1.5	176	1.6	-0.1	1.6	111	2.2	-2.1	0.8	119	6.3	-5.5	3.1	114	9.8	-9.0	4.0
13	238	2.6	2.2	1.4	209	2.5	1.2	2.2	141	1.3	-0.8	1.0	217	1.5	0.9	1.2	99	3.2	-3.2	0.5	109	5.4	-5.1	1.8	83	8.7	-8.6	-1.0
14	242	3.6	3.2	1.7	218	2.4	1.5	1.9	190	1.1	0.2	1.1	198	2.5	0.8	2.4	101	3.3	-3.2	0.6	112	5.3	-4.9	2.0	88	15.0	-15.0	-0.5
15	200	3.7	1.3	3.5	231	4.8	3.7	3.0	225	2.1	1.5	1.5	218	3.1	1.9	2.4	127	2.5	-2.0	1.5	109	5.6	-5.3	1.8	90	13.3	-13.3	-0.1
16	230	5.9	4.5	3.8	227	5.3	3.9	3.6	218	3.6	2.2	2.8	231	2.6	2.0	1.6	146	2.9	-1.6	2.4	94	8.6	-8.6	0.6	90	11.6	-11.6	0.1
17	238	5.8	4.9	3.1	230	4.0	3.1	2.6	252	2.9	2.8	0.9	221	2.3	1.5	1.7	103	1.7	-1.7	0.4	112	7.2	-6.7	2.7	89	12.1	-12.1	-0.2
18	241	10.0	8.7	4.9	246	7.1	6.5	2.9	246	5.2	4.8	2.1	243	4.8	4.3	2.2	144	1.4	-0.8	1.1	82	7.9	-7.8	-1.1	76	12.2	-11.9	-2.9
19	242	7.3	6.5	3.4	254	5.4	5.2	1.5	268	2.5	2.5	0.1	272	3.0	3.0	-0.1	146	3.0	-1.7	2.5	113	7.3	-6.7	2.9	98	13.1	-13.0	1.8
20	247	9.5	8.8	3.7	259	5.1	5.0	1.0	247	2.5	2.3	1.0	236	2.3	1.9	1.3	149	2.1	-1.1	1.8	90	8.2	-8.2	0.0	90	16.3	-16.3	0.1
21	246	6.1	5.6	2.5	254	4.3	4.1	1.2	268	2.4	2.4	0.1	241	2.6	2.3	1.3	108	3.9	-3.7	1.2	102	8.7	-8.5	1.8	96	11.7	-11.6	1.3
22	253	6.6	6.3	1.9	244	5.9	5.3	2.6	252	3.3	3.1	1.0	240	3.4	2.9	1.7	138	3.0	-2.0	2.2	93	9.1	-9.1	0.4	100	13.4	-13.2	2.4
23	251	6.0	5.7	2.0	255	5.9	5.7	1.5	270	4.9	4.9	0.0	247	3.8	3.5	1.5	116	3.4	-3.1	1.5	98	9.4	-9.3	1.3	104	13.7	-13.3	3.2
24	241	6.4	5.6	3.1	246	6.4	5.9	2.6	252	4.3	4.1	1.3	250	4.1	3.9	1.4	126	3.1	-2.5	1.8	88	9.7	-9.7	-0.4	92	14.2	-14.2	0.6
25	236	6.0	5.0	3.4	252	6.3	6.0	1.9	258	4.3	4.2	0.9	215	3.7	2.1	3.0	103	4.8	-4.7	1.1	88	9.4	-9.4	-0.3	109	15.9	-15.0	5.3
26	244	4.8	4.3	2.1	241	5.5	4.8	2.7	246	3.9	3.6	1.6	245	4.2	3.8	1.8	114	3.6	-3.3	1.5	92	8.5	-8.5	0.3	95	14.8	-14.8	1.2
27	245	7.6	6.9	3.2	240	6.1	5.3	3.1	246	5.2	4.8	2.1	228	2.5	1.9	1.7	125	2.8	-2.3	1.6	101	8.4	-8.2	1.6	96	14.4	-14.3	1.5
28	243	9.1	8.1	4.1	242	6.9	6.1	3.3	239	4.4	3.8	2.3	234	3.1	2.5	1.8	117	2.8	-2.5	1.3	87	10.5	-10.5	-0.6	89	19.6	-19.6	-0.2
29	244	8.4	7.5	3.7	247	9.0	8.3	3.6	247	6.1	5.6	2.4	246	3.4	3.1	1.4	45	1.7	-1.2	-1.2	83	9.7	-9.6	-1.1	87	19.3	-19.3	-1.1
30	232	9.8	7.7	6.0	243	8.3	7.4	3.8	249	5.0	4.7	1.8	237	4.3	3.6	2.3	110	4.1	-3.9	1.4	81	10.0	-9.9	-1.5	87	20.4	-20.4	-1.0
31	242	8.5	7.5	4.0	244	8.8	7.9	3.9	236	6.6	5.5	3.7	244	4.9	4.4	2.1	139	0.9	-0.6	0.7	73	9.9	-9.5	-2.9	106	19.1	-18.3	5.3

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	245	6.7	6.1	2.8	246	7.7	7.1	3.1	250	6.1	5.7	2.1	232	5.3	4.2	3.3	105	6.2	-6.0	1.6	80	10.9	-10.7	-1.9	89	17.8	-17.8	-0.3
2	249	4.8	4.5	1.7	241	7.2	6.3	3.5	240	5.2	4.5	2.6	216	3.9	2.3	3.2	114	3.0	-2.7	1.2	87	13.3	-13.3	-0.7	89	21.2	-21.2	-0.2
3	241	4.7	4.1	2.3	242	7.8	6.9	3.7	243	5.3	4.7	2.4	216	4.3	2.5	3.5	100	4.1	-4.0	0.7	74	11.2	-10.8	-3.0	87	24.1	-24.1	-1.2
4	240	5.6	4.8	2.8	241	6.6	5.8	3.2	240	4.4	3.8	2.2	212	3.1	1.6	2.6	103	5.0	-4.9	1.1	75	12.7	-12.3	-3.2	87	22.2	-22.2	-1.0
5	212	3.6	1.9	3.1	240	7.5	6.5	3.7	246	6.7	6.1	2.7	227	2.5	1.8	1.7	84	5.3	-5.3	-0.6	75	11.6	-11.2	-2.9	88	27.4	-27.4	-1.1
6	233	9.2	7.3	5.6	246	8.5	7.7	3.5	256	6.4	6.2	1.6	239	2.9	2.5	1.5	87	5.6	-5.6	-0.3	64	12.3	-11.1	-5.3	90	23.3	-23.3	-0.1
7	230	6.9	5.3	4.4	247	7.9	7.3	3.1	250	5.8	5.4	2.0	249	5.1	4.8	1.8	84	5.9	-5.9	-0.6	86	12.7	-12.7	-0.9	92	25.3	-25.3	0.7
8	235	7.2	5.9	4.1	252	8.6	8.2	2.7	251	5.6	5.3	1.8	237	4.0	3.4	2.2	98	2.9	-2.9	0.4	73	12.2	-11.7	-3.6	80	29.1	-28.6	-5.2
9	217	6.3	3.8	5.0	244	9.0	8.1	3.9	248	7.8	7.2	2.9	239	4.9	4.2	2.5	99	3.3	-3.3	0.5	75	11.5	-11.1	-2.9	83	26.1	-25.9	-3.4
10	228	7.5	5.6	5.0	241	9.8	8.6	4.8	244	7.5	6.7	3.3	249	5.0	4.7	1.8	91	5.5	-5.5	0.1	71	14.8	-14.0	-4.7	78	21.3	-20.8	-4.4
11	227	6.4	4.7	4.4	236	10.5	8.7	5.8	241	8.8	7.7	4.2	236	5.0	4.1	2.8	86	4.7	-4.7	-0.3	81	15.3	-15.1	-2.3	89	26.4	-26.4	-0.5
12	223	10.3	7.0	7.5	234	9.8	7.9	5.8	233	8.5	6.8	5.1	233	5.1	4.1	3.1	92	7.6	-7.6	0.3	84	14.3	-14.2	-1.5	79	23.7	-23.2	-4.6
13	225	11.0	7.8	7.8	237	11.3	9.4	6.2	243	9.1	8.1	4.1	241	5.6	4.9	2.7	95	6.3	-6.3	0.6	77	14.7	-14.3	-3.2	83	21.0	-20.9	-2.4
14	240	9.5	8.2	4.8	239	10.6	9.1	5.5	247	8.8	8.1	3.4	241	4.8	4.2	2.3	98	6.8	-6.7	0.9	72	15.5	-14.8	-4.7	80	27.7	-27.3	-4.9
15	229	8.6	6.5	5.7	242	10.7	9.4	5.1	243	9.8	8.7	4.5	243	5.5	4.9	2.5	75	6.1	-5.9	-1.6	59	15.8	-13.5	-8.2	82	26.9	-26.6	-3.8
16	230	8.9	6.9	5.7	241	10.0	8.8	4.8	255	9.4	9.1	2.5	248	6.2	5.8	2.3	86	7.1	-7.1	-0.5	75	15.7	-15.2	-4.0	93	21.6	-21.6	1.1
17	234	11.2	9.0	6.6	245	12.0	10.9	5.1	257	9.7	9.4	2.2	250	5.0	4.7	1.7	70	7.3	-6.9	-2.5	67	19.0	-17.5	-7.3	84	27.7	-27.5	-3.1
18	235	10.5	8.6	6.1	247	11.1	10.2	4.3	258	9.3	9.1	1.9	255	4.9	4.7	1.3	68	8.2	-7.6	-3.0	72	17.6	-16.7	-5.4	86	31.7	-31.6	-2.1
19	236	11.0	9.1	6.2	250	11.1	10.4	3.8	262	9.1	9.0	1.3	276	6.0	6.0	-0.6	70	8.2	-7.7	-2.8	71	17.8	-16.8	-5.9	89	30.1	-30.1	-0.7
20	243	9.6	8.5	4.4	251	11.5	10.9	3.8	254	8.7	8.4	2.4	240	5.0	4.3	2.5	74	5.7	-5.5	-1.6	65	19.8	-18.0	-8.3	84	28.4	-28.3	-2.9
21	234	10.9	8.8	6.5	247	11.1	10.2	4.4	257	8.8	8.6	2.0	259	6.3	6.2	1.2	71	10.0	-9.5	-3.2	73	20.6	-19.7	-5.9	77	32.3	-31.4	-7.4
22	236	11.5	9.5	6.5	246	10.9	9.9	4.5	254	9.7	9.3	2.6	248	6.5	6.0	2.4	75	8.0	-7.7	-2.0	67	17.9	-16.5	-7.0	88	28.3	-28.3	-1.2
23	238	10.3	8.8	5.4	241	10.8	9.5	5.2	253	9.2	8.8	2.7	278	4.8	4.7	-0.7	85	9.4	-9.4	-0.9	75	18.6	-17.9	-4.9	81	25.9	-25.6	-4.2
24	245	11.9	10.7	5.1	245	11.5	10.4	4.9	253	10.1	9.7	2.9	262	5.0	5.0	0.7	75	9.0	-8.7	-2.4	71	21.6	-20.5	-6.9	85	31.5	-31.4	-2.5
25	246	11.6	10.6	4.7	252	11.0	10.5	3.4	256	8.6	8.3	2.1	273	5.9	5.9	-0.3	76	8.3	-8.1	-2.0	76	20.9	-20.3	-5.1	80	31.4	-30.9	-5.5
26	241	11.6	10.1	5.7	249	11.5	10.7	4.1	256	9.7	9.4	2.4	267	5.3	5.3	0.3	76	8.9	-8.7	-2.1	72	20.1	-19.2	-6.1	84	29.0	-28.8	-3.1
27	238	11.1	9.4	5.9	245	11.0	10.0	4.6	254	9.1	8.8	2.5	275	5.5	5.5	-0.5	81	8.7	-8.6	-1.3	72	19.2	-18.3	-5.8	89	30.3	-30.3	-0.7
28	249	10.4	9.7	3.7	248	11.3	10.4	4.3	257	9.0	8.8	2.1	267	3.8	3.8	0.2	93	8.5	-8.5	0.5	75	18.6	-18.0	-4.7	86	27.9	-27.8	-1.8
29	248	10.5	9.7	3.9	250	9.9	9.3	3.4	256	8.1	7.9	1.9	269	3.9	3.9	0.1	78	8.6	-8.4	-1.8	73	17.2	-16.4	-5.1	87	31.7	-31.7	-1.4
30	240	9.9	8.6	4.9	249	10.6	9.9	3.8	265	8.7	8.7	0.8	262	5.5	5.4	0.8	81	9.6	-9.5	-1.5	75	18.5	-17.9	-4.8	84	30.7	-30.5	-3.1

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	245	10.3	9.3	4.4	251	9.5	9.0	3.1	252	8.0	7.6	2.5	252	3.8	3.6	1.2	94	7.3	-7.3	0.5	70	16.2	-15.2	-5.5	83	29.2	-29.0	-3.6
2	240	8.8	7.6	4.4	247	9.1	8.4	3.6	256	8.2	8.0	2.0	235	3.9	3.2	2.2	83	8.4	-8.3	-1.0	67	17.1	-15.7	-6.7	86	23.8	-23.7	-1.6
3	215	5.2	3.0	4.3	242	8.9	7.8	4.2	243	6.2	5.5	2.8	228	3.0	2.2	2.0	75	9.0	-8.7	-2.4	83	19.9	-19.8	-2.3	82	25.3	-25.0	-3.7
4	237	7.2	6.0	3.9	245	8.8	8.0	3.7	260	6.8	6.7	1.2	255	3.1	3.0	0.8	87	7.6	-7.6	-0.4	74	19.0	-18.3	-5.1	86	27.9	-27.8	-1.9
5	240	9.0	7.8	4.5	242	10.5	9.3	4.9	248	8.3	7.7	3.1	278	3.0	3.0	-0.4	74	9.1	-8.8	-2.5	77	19.8	-19.3	-4.3	80	29.4	-29.0	-5.1
6	238	6.7	5.7	3.6	249	9.3	8.7	3.3	256	7.0	6.8	1.7	243	3.5	3.1	1.6	78	8.6	-8.4	-1.8	76	18.2	-17.6	-4.5	80	27.5	-27.1	-4.7
7	240	8.4	7.3	4.2	248	9.8	9.1	3.7	256	8.1	7.9	2.0	245	2.3	2.1	1.0	83	8.8	-8.7	-1.0	71	20.5	-19.3	-6.8	80	28.9	-28.5	-4.9
8	240	10.1	8.7	5.1	243	9.7	8.7	4.4	255	7.9	7.6	2.1	239	3.7	3.2	1.9	79	9.7	-9.5	-1.9	69	18.6	-17.3	-6.8	84	30.5	-30.3	-3.1
9	239	6.8	5.8	3.5	248	8.0	7.4	3.0	261	7.3	7.2	1.2	274	4.0	4.0	-0.3	81	8.1	-8.0	-1.2	71	18.4	-17.4	-5.9	85	25.2	-25.1	-2.1
10	236	9.7	8.0	5.4	246	8.6	7.9	3.5	257	6.4	6.2	1.4	254	3.2	3.1	0.9	75	6.9	-6.7	-1.8	67	18.0	-16.6	-6.9	78	29.4	-28.7	-6.3
11	235	9.5	7.8	5.5	241	9.0	7.9	4.4	250	7.1	6.7	2.4	234	3.4	2.8	2.0	78	8.5	-8.3	-1.7	80	18.6	-18.3	-3.1	82	24.2	-24.0	-3.4
12	233	11.3	9.0	6.8	243	8.9	7.9	4.0	253	7.4	7.1	2.2	255	4.1	4.0	1.1	82	11.8	-11.7	-1.7	64	18.4	-16.6	-8.0	90	25.7	-25.7	0.0
13	237	10.9	9.2	5.9	241	9.2	8.1	4.4	258	7.2	7.0	1.5	264	3.7	3.7	0.4	80	8.2	-8.1	-1.5	73	18.9	-18.1	-5.5	85	25.2	-25.1	-2.3
14	235	9.2	7.5	5.3	245	9.1	8.2	3.9	252	7.6	7.2	2.4	259	4.7	4.6	0.9	75	7.2	-6.9	-1.9	76	17.0	-16.5	-4.2	83	23.4	-23.2	-2.9
15	238	10.4	8.8	5.5	242	10.6	9.4	4.9	249	7.5	7.0	2.7	241	3.5	3.1	1.7	89	8.0	-8.0	-0.2	73	20.2	-19.4	-5.8	84	27.8	-27.6	-3.1
16	235	9.1	7.5	5.2	240	9.3	8.0	4.7	247	7.8	7.2	3.1	243	4.7	4.2	2.1	85	7.3	-7.3	-0.6	70	17.7	-16.6	-6.1	81	26.9	-26.6	-4.2
17	235	10.0	8.2	5.7	233	9.3	7.4	5.6	248	7.7	7.1	2.9	233	3.8	3.0	2.3	83	6.3	-6.2	-0.8	72	17.1	-16.3	-5.2	86	25.5	-25.4	-1.9
18	231	9.2	7.1	5.8	244	8.7	7.8	3.8	244	6.2	5.6	2.7	245	2.6	2.4	1.1	87	8.2	-8.2	-0.4	77	19.3	-18.8	-4.2	85	27.0	-26.9	-2.4
19	230	8.5	6.5	5.4	244	8.4	7.5	3.7	247	5.7	5.3	2.2	248	1.6	1.5	0.6	89	7.4	-7.4	-0.1	76	17.1	-16.6	-4.1	82	25.6	-25.3	-3.7
20	241	10.1	8.8	4.9	248	8.7	8.0	3.3	257	5.7	5.6	1.3	282	1.4	1.4	-0.3	91	9.0	-9.0	0.2	75	18.9	-18.3	-4.8	87	29.2	-29.2	-1.4
21	253	8.8	8.4	2.6	242	8.1	7.1	3.8	240	6.7	5.8	3.3	219	2.1	1.3	1.6	92	7.6	-7.6	0.2	75	19.2	-18.5	-5.0	90	30.6	-30.6	-0.2
22	239	9.7	8.3	5.0	239	9.6	8.2	4.9	246	5.1	4.7	2.1	232	2.4	1.9	1.5	73	9.2	-8.8	-2.7	82	19.6	-19.4	-2.7	86	30.2	-30.1	-1.9
23	243	12.4	11.0	5.7	245	8.9	8.1	3.7	254	7.6	7.3	2.1	257	2.3	2.2	0.5	76	8.6	-8.3	-2.1	77	18.3	-17.8	-4.2	85	28.8	-28.7	-2.7
24	249	10.3	9.6	3.7	244	8.9	8.0	3.9	254	7.5	7.2	2.0	272	3.0	3.0	-0.1	67	5.7	-5.3	-2.2	71	16.7	-15.8	-5.3	84	30.9	-30.7	-3.2
25	249	12.0	11.2	4.2	251	8.8	8.3	2.8	259	7.0	6.9	1.4	238	4.5	3.8	2.4	82	6.8	-6.7	-1.0	74	19.2	-18.5	-5.3	87	25.2	-25.2	-1.3
26	242	13.6	12.0	6.4	248	9.4	8.7	3.5	253	7.7	7.3	2.3	240	3.9	3.4	2.0	73	8.1	-7.7	-2.4	68	18.0	-16.7	-6.6	80	27.1	-26.7	-4.5
27	245	13.6	12.3	5.8	246	10.0	9.1	4.1	255	7.6	7.3	2.0	240	3.2	2.8	1.6	87	9.4	-9.4	-0.5	75	18.5	-17.9	-4.7	83	26.3	-26.1	-3.3
28	250	13.5	12.7	4.5	248	10.2	9.5	3.8	250	7.4	7.0	2.5	239	2.6	2.2	1.3	81	6.9	-6.8	-1.1	76	19.0	-18.4	-4.6	81	25.1	-24.8	-3.8
29	245	10.6	9.6	4.5	248	9.2	8.5	3.5	256	8.0	7.8	1.9	243	4.9	4.4	2.2	84	7.3	-7.3	-0.8	74	20.1	-19.3	-5.5	87	29.2	-29.2	-1.3
30	244	10.3	9.3	4.5	243	9.2	8.2	4.1	254	7.5	7.2	2.1	242	4.2	3.7	2.0	69	6.1	-5.7	-2.2	69	17.5	-16.3	-6.3	85	27.0	-26.9	-2.2
31	239	10.6	9.1	5.5	247	10.0	9.2	3.9	258	7.8	7.6	1.6	249	5.8	5.4	2.1	85	8.7	-8.7	-0.8	75	18.8	-18.1	-4.9	87	29.2	-29.2	-1.4

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	227	8.3	6.1	5.7	249	10.1	9.4	3.7	260	8.7	8.6	1.5	236	4.3	3.6	2.4	74	10.8	-10.4	-3.0	62	18.3	-16.1	-8.7	84	28.4	-28.2	-3.2
2	234	10.6	8.6	6.2	246	9.9	9.0	4.1	259	7.8	7.7	1.5	224	3.6	2.5	2.6	88	9.8	-9.8	-0.4	72	19.6	-18.6	-6.2	86	29.6	-29.5	-2.3
3	236	10.0	8.3	5.6	242	8.8	7.8	4.1	249	6.0	5.6	2.1	225	3.3	2.3	2.3	81	10.1	-10.0	-1.6	77	20.3	-19.8	-4.5	82	30.1	-29.8	-4.4
4	239	10.4	8.9	5.3	238	9.3	7.9	4.9	241	6.5	5.7	3.2	218	1.8	1.1	1.4	82	11.2	-11.1	-1.5	80	20.9	-20.6	-3.6	83	25.5	-25.3	-2.9
5	241	10.8	9.4	5.3	244	10.0	9.0	4.4	248	7.2	6.7	2.7	249	3.1	2.9	1.1	79	10.2	-10.0	-1.9	70	20.6	-19.3	-7.1	85	24.9	-24.8	-2.0
6	241	12.9	11.2	6.3	249	10.7	10.0	3.8	260	7.9	7.8	1.4	262	5.3	5.3	0.7	85	8.2	-8.2	-0.7	73	19.5	-18.7	-5.6	82	28.9	-28.6	-4.2
7	245	13.2	11.9	5.6	249	11.0	10.3	3.9	254	8.5	8.2	2.3	264	6.0	6.0	0.6	75	7.7	-7.4	-2.0	74	18.5	-17.8	-5.2	78	28.6	-27.9	-6.1
8	251	11.9	11.2	3.9	254	10.7	10.3	3.0	260	8.4	8.3	1.4	260	4.8	4.7	0.8	85	9.4	-9.4	-0.8	70	17.9	-16.8	-6.2	80	25.8	-25.4	-4.6
9	240	10.9	9.4	5.5	248	9.9	9.2	3.7	259	8.3	8.1	1.6	252	4.1	3.9	1.3	84	9.4	-9.3	-1.0	74	19.6	-18.8	-5.5	85	25.8	-25.7	-2.4
10	241	10.2	8.9	5.0	248	10.8	10.0	4.0	255	8.8	8.5	2.3	250	3.5	3.3	1.2	72	8.5	-8.1	-2.6	70	18.5	-17.4	-6.4	87	27.0	-27.0	-1.2
11	237	9.7	8.1	5.3	244	10.4	9.4	4.5	254	8.8	8.5	2.4	251	5.9	5.6	1.9	75	8.6	-8.3	-2.3	76	20.4	-19.8	-5.0	86	27.6	-27.5	-1.8
12	244	9.1	8.2	4.0	249	11.6	10.9	4.1	253	9.6	9.2	2.9	262	5.5	5.4	0.8	76	6.8	-6.6	-1.6	72	17.5	-16.7	-5.3	90	29.0	-29.0	0.1
13	238	9.1	7.7	4.9	243	11.6	10.4	5.2	254	10.6	10.2	2.9	267	4.0	4.0	0.2	75	6.4	-6.2	-1.7	72	20.1	-19.1	-6.2	80	28.3	-27.9	-4.8
14	238	9.6	8.1	5.1	251	12.0	11.3	4.0	260	8.4	8.3	1.4	238	3.6	3.1	1.9	82	10.6	-10.5	-1.4	76	20.3	-19.7	-5.0	84	26.0	-25.9	-2.6
15	241	9.9	8.7	4.8	248	10.3	9.6	3.8	256	8.9	8.6	2.2	238	2.8	2.4	1.5	82	10.9	-10.8	-1.6	75	18.4	-17.7	-4.9	77	27.8	-27.1	-6.1
16	243	10.0	8.9	4.5	249	10.4	9.7	3.8	257	7.6	7.4	1.7	244	3.2	2.9	1.4	73	11.3	-10.8	-3.2	75	20.1	-19.4	-5.3	89	25.2	-25.2	-0.4
17	247	7.7	7.1	3.0	247	9.5	8.8	3.7	262	6.9	6.8	0.9	291	2.6	2.4	-0.9	76	9.9	-9.6	-2.4	78	17.7	-17.3	-3.7	83	20.9	-20.8	-2.5
18	241	8.6	7.5	4.2	241	9.0	7.9	4.3	257	7.3	7.1	1.6	285	3.5	3.4	-0.9	80	10.0	-9.8	-1.8	75	19.7	-19.1	-5.0	90	25.8	-25.8	0.0
19	240	8.2	7.1	4.1	248	9.5	8.8	3.6	252	6.6	6.3	2.0	245	1.7	1.5	0.7	86	8.7	-8.7	-0.6	79	17.9	-17.6	-3.5	90	26.7	-26.7	-0.1
20	251	7.5	7.1	2.4	249	8.9	8.3	3.2	261	6.7	6.6	1.0	252	2.8	2.7	0.9	87	8.4	-8.4	-0.4	79	17.3	-17.0	-3.3	86	26.2	-26.1	-1.8
21	249	8.7	8.1	3.1	251	9.7	9.2	3.1	261	8.0	7.9	1.3	252	3.5	3.3	1.1	82	9.2	-9.1	-1.3	78	16.5	-16.2	-3.3	89	27.0	-27.0	-0.5
22	237	8.2	6.9	4.5	242	10.0	8.8	4.7	256	7.6	7.4	1.9	255	1.1	1.1	0.3	85	9.8	-9.8	-0.8	76	17.0	-16.5	-4.0	86	29.7	-29.6	-1.9
23	244	8.5	7.7	3.7	246	8.5	7.7	3.5	257	6.6	6.4	1.5	257	1.3	1.3	0.3	88	9.4	-9.4	-0.4	84	20.4	-20.3	-2.3	79	27.2	-26.7	-5.3
24	247	9.9	9.1	3.8	250	8.6	8.1	2.9	253	6.5	6.2	1.9	283	2.3	2.2	-0.5	83	8.8	-8.7	-1.0	78	19.0	-18.6	-3.8	88	25.9	-25.9	-0.7
25	244	8.7	7.8	3.8	242	10.3	9.1	4.8	256	7.7	7.5	1.9	277	2.6	2.6	-0.3	80	10.8	-10.6	-1.9	67	22.4	-20.6	-8.8	85	22.2	-22.1	-2.1
26	248	10.9	10.1	4.0	248	10.8	10.0	4.1	259	8.6	8.4	1.6	245	2.9	2.6	1.2	75	9.4	-9.1	-2.4	86	18.5	-18.5	-1.2	82	26.6	-26.4	-3.6
27	245	12.5	11.3	5.3	249	11.5	10.7	4.1	250	9.1	8.6	3.1	232	4.3	3.4	2.7	91	9.0	-9.0	0.1	76	18.0	-17.5	-4.3	85	26.5	-26.4	-2.1
28	247	11.0	10.1	4.3	252	9.8	9.3	3.0	253	7.7	7.3	2.3	243	2.9	2.6	1.3	74	9.3	-8.9	-2.6	82	18.9	-18.7	-2.6	84	29.0	-28.9	-2.9
29	248	10.8	10.0	4.0	250	9.4	8.8	3.2	264	6.8	6.8	0.7	260	2.7	2.7	0.5	81	8.9	-8.8	-1.4	79	16.1	-15.8	-3.2	86	25.8	-25.7	-1.7
30	247	10.2	9.4	4.0	253	9.3	8.9	2.7	264	6.9	6.9	0.7	273	3.3	3.3	-0.2	81	8.4	-8.3	-1.3	80	17.5	-17.3	-2.9	91	23.3	-23.3	0.4
31	248	12.4	11.5	4.7	256	9.4	9.1	2.3	261	6.7	6.6	1.0	299	2.1	1.8	-1.0	77	10.3	-10.0	-2.3	81	17.5	-17.3	-2.6	92	24.8	-24.8	0.7

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	243	9.8	8.7	4.5	250	9.4	8.8	3.2	256	6.6	6.4	1.6	259	2.0	2.0	0.4	93	9.7	-9.7	0.5	85	19.3	-19.2	-1.8	81	20.6	-20.4	-3.1
2	243	10.0	8.9	4.5	246	8.0	7.3	3.2	255	6.2	6.0	1.6	245	1.7	1.5	0.7	73	10.7	-10.2	-3.1	78	19.1	-18.7	-3.9	84	20.5	-20.4	-2.0
3	239	9.3	8.0	4.8	253	8.5	8.1	2.5	259	6.3	6.2	1.2	233	1.0	0.8	0.6	83	10.1	-10.0	-1.2	79	17.2	-16.9	-3.4	88	22.3	-22.3	-0.8
4	238	7.7	6.5	4.1	252	7.5	7.1	2.3	268	5.3	5.3	0.2	162	0.6	-0.2	0.6	78	11.6	-11.4	-2.4	83	19.2	-19.1	-2.3	91	22.5	-22.5	0.3
5	255	9.7	9.4	2.5	258	7.9	7.7	1.7	253	5.6	5.4	1.6	253	1.0	1.0	0.3	86	9.0	-9.0	-0.7	82	19.7	-19.5	-2.6	87	22.6	-22.6	-1.0
6	245	10.3	9.3	4.4	260	8.9	8.8	1.6	270	6.0	6.0	0.0	305	2.8	2.3	-1.6	76	9.2	-8.9	-2.2	81	21.0	-20.7	-3.4	91	23.2	-23.2	0.6
7	245	10.1	9.1	4.3	259	8.6	8.5	1.6	266	5.9	5.9	0.4	309	1.3	1.0	-0.8	84	9.4	-9.3	-1.0	81	17.5	-17.3	-2.7	83	19.0	-18.8	-2.4
8	239	7.9	6.8	4.1	255	8.7	8.4	2.2	263	6.3	6.2	0.8	243	2.2	2.0	1.0	83	6.7	-6.7	-0.8	82	16.1	-15.9	-2.2	80	17.2	-17.0	-2.9
9	249	8.9	8.3	3.2	248	7.0	6.5	2.6	245	5.9	5.3	2.5	220	1.7	1.1	1.3	85	7.4	-7.4	-0.7	92	15.4	-15.4	0.5	89	21.5	-21.5	-0.4
10	242	8.1	7.1	3.8	238	7.5	6.3	4.0	244	4.8	4.3	2.1	207	2.0	0.9	1.8	89	8.8	-8.8	-0.2	85	17.3	-17.2	-1.4	91	18.6	-18.6	0.4
11	247	8.3	7.7	3.2	242	7.2	6.3	3.4	239	4.9	4.2	2.5	214	1.1	0.6	0.9	76	6.8	-6.6	-1.6	82	16.3	-16.1	-2.4	94	22.0	-21.9	1.7
12	257	7.7	7.5	1.7	248	6.4	5.9	2.4	259	4.7	4.6	0.9	270	1.2	1.2	0.0	75	8.1	-7.8	-2.1	84	13.9	-13.8	-1.4	88	21.5	-21.5	-0.8
13	246	10.4	9.5	4.2	258	5.9	5.8	1.2	259	3.7	3.6	0.7	6	1.0	-0.1	-1.0	76	8.9	-8.7	-2.1	83	15.5	-15.4	-2.0	86	20.5	-20.4	-1.6
14	254	9.9	9.5	2.7	246	5.5	5.0	2.2	270	3.0	3.0	0.0	360	0.7	0.0	-0.7	80	7.9	-7.8	-1.4	90	14.1	-14.1	-0.1	86	19.2	-19.2	-1.2
15	265	10.7	10.7	0.9	257	5.0	4.9	1.1	260	3.6	3.5	0.6	331	1.0	0.5	-0.9	78	6.6	-6.4	-1.4	91	14.5	-14.5	0.3	90	22.2	-22.2	-0.1
16	264	9.1	9.1	0.9	254	4.7	4.5	1.3	270	2.7	2.7	0.0	72	0.3	-0.3	-0.1	102	9.0	-8.8	1.9	86	13.6	-13.6	-0.9	89	17.4	-17.4	-0.3
17	262	8.8	8.7	1.3	266	4.3	4.3	0.3	275	2.3	2.3	-0.2	102	1.4	-1.4	0.3	94	7.7	-7.7	0.6	95	14.8	-14.8	1.2	90	18.0	-18.0	-0.1
18	254	6.4	6.1	1.8	261	3.8	3.8	0.6	276	2.9	2.9	-0.3	117	0.4	-0.4	0.2	94	6.6	-6.6	0.5	97	15.5	-15.4	1.8	85	18.3	-18.2	-1.6
19	256	7.3	7.1	1.8	261	5.1	5.0	0.8	262	2.9	2.9	0.4	90	0.3	-0.3	0.0	102	5.6	-5.5	1.2	94	14.8	-14.8	1.0	87	19.7	-19.7	-0.9
20	249	7.5	7.0	2.7	255	5.8	5.6	1.5	254	3.6	3.5	1.0	174	1.0	-0.1	1.0	96	5.8	-5.8	0.6	91	15.0	-15.0	0.3	82	20.1	-19.9	-2.9
21	251	7.6	7.2	2.5	244	5.7	5.1	2.5	248	3.2	3.0	1.2	156	1.0	-0.4	0.9	94	6.7	-6.7	0.5	88	14.3	-14.3	-0.6	81	18.7	-18.5	-2.9
22	256	5.9	5.7	1.4	243	4.5	4.0	2.0	239	2.9	2.5	1.5	191	1.0	0.2	1.0	92	7.1	-7.1	0.2	79	13.1	-12.8	-2.6	85	21.8	-21.7	-2.0
23	240	5.1	4.4	2.5	232	5.0	3.9	3.1	227	4.1	3.0	2.8	164	2.2	-0.6	2.1	91	8.0	-8.0	0.1	93	13.2	-13.2	0.6	92	20.3	-20.3	0.8
24	237	5.3	4.4	2.9	238	3.6	3.0	1.9	234	2.2	1.8	1.3	122	1.3	-1.1	0.7	95	7.6	-7.6	0.7	84	15.2	-15.1	-1.5	82	18.9	-18.7	-2.6
25	245	4.4	4.0	1.9	239	2.9	2.5	1.5	228	1.3	1.0	0.9	87	2.1	-2.1	-0.1	94	7.9	-7.9	0.6	86	13.6	-13.6	-1.0	88	18.4	-18.4	-0.8
26	245	2.1	1.9	0.9	244	3.4	3.1	1.5	230	2.5	1.9	1.6	124	1.8	-1.5	1.0	101	7.6	-7.5	1.4	88	13.3	-13.3	-0.4	87	18.5	-18.5	-1.0
27	222	2.4	1.6	1.8	242	3.4	3.0	1.6	232	1.6	1.3	1.0	122	1.5	-1.3	0.8	99	7.0	-6.9	1.1	93	13.7	-13.7	0.8	89	18.4	-18.4	-0.3
28	235	4.4	3.6	2.5	252	3.3	3.1	1.0	240	1.4	1.2	0.7	114	3.2	-2.9	1.3	85	7.2	-7.2	-0.6	88	15.0	-15.0	-0.4	87	20.2	-20.2	-1.0
29	277	2.3	2.3	-0.3	239	2.7	2.3	1.4	185	1.2	0.1	1.2	137	2.6	-1.8	1.9	97	6.5	-6.5	0.8	85	14.4	-14.3	-1.2	88	20.7	-20.7	-0.7
30	261	2.4	2.4	0.4	240	4.3	3.7	2.1	215	2.4	1.4	2.0	145	1.6	-0.9	1.3	86	6.0	-6.0	-0.4	87	13.9	-13.9	-0.7	82	16.6	-16.4	-2.4

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	249	2.8	2.6	1.0	248	4.6	4.3	1.7	246	2.7	2.5	1.1	146	1.4	-0.8	1.2	88	5.2	-5.2	-0.2	85	13.0	-12.9	-1.2	92	16.1	-16.1	0.5
2	272	2.4	2.4	-0.1	248	4.6	4.3	1.7	248	3.2	3.0	1.2	165	2.8	-0.7	2.7	85	5.9	-5.9	-0.5	83	10.8	-10.7	-1.4	85	15.9	-15.8	-1.4
3	263	4.0	4.0	0.5	248	4.6	4.3	1.7	240	2.8	2.4	1.4	151	1.0	-0.5	0.9	96	6.8	-6.8	0.7	88	12.6	-12.6	-0.5	90	16.7	-16.7	0.1
4	264	1.9	1.9	0.2	228	3.6	2.7	2.4	236	2.5	2.1	1.4	99	1.2	-1.2	0.2	99	7.3	-7.2	1.2	94	13.0	-13.0	1.0	87	14.4	-14.4	-0.7
5	250	1.2	1.1	0.4	236	4.0	3.3	2.2	237	2.4	2.0	1.3	61	1.0	-0.9	-0.5	93	6.9	-6.9	0.4	88	13.6	-13.6	-0.5	85	16.4	-16.3	-1.4
6	235	1.2	1.0	0.7	221	4.0	2.6	3.0	216	2.4	1.4	1.9	117	1.6	-1.4	0.7	87	6.8	-6.8	-0.3	80	13.8	-13.6	-2.3	89	13.8	-13.8	-0.3
7	209	4.3	2.1	3.8	227	4.0	2.9	2.7	225	2.3	1.6	1.6	173	0.8	-0.1	0.8	89	7.4	-7.4	-0.1	88	12.6	-12.6	-0.4	95	15.2	-15.1	1.4
8	207	2.9	1.3	2.6	235	3.2	2.6	1.8	221	1.8	1.2	1.4	103	2.3	-2.2	0.5	92	6.8	-6.8	0.2	93	13.1	-13.1	0.7	87	13.8	-13.8	-0.7
9	235	3.3	2.7	1.9	248	3.5	3.2	1.3	218	1.8	1.1	1.4	98	2.8	-2.8	0.4	96	7.4	-7.4	0.8	87	12.3	-12.3	-0.6	93	15.6	-15.6	0.9
10	261	1.9	1.9	0.3	261	1.9	1.9	0.3	270	0.6	0.6	0.0	97	2.5	-2.5	0.3	91	7.7	-7.7	0.1	89	12.7	-12.7	-0.2	98	13.2	-13.1	1.8
11	286	1.9	1.8	-0.5	283	0.9	0.9	-0.2	8	0.7	-0.1	-0.7	84	2.9	-2.9	-0.3	98	6.2	-6.1	0.9	91	10.0	-10.0	0.2	86	15.1	-15.1	-1.0
12	288	0.3	0.3	-0.1	259	1.5	1.5	0.3	207	0.4	0.2	0.4	90	2.8	-2.8	0.0	91	5.8	-5.8	0.1	94	10.2	-10.2	0.8	90	11.0	-11.0	0.0
13	176	1.5	-0.1	1.5	238	0.9	0.8	0.5	172	0.7	-0.1	0.7	111	2.6	-2.4	0.9	96	5.7	-5.7	0.6	88	10.1	-10.1	-0.3	95	16.5	-16.4	1.3
14	239	1.7	1.5	0.9	241	2.3	2.0	1.1	219	1.9	1.2	1.5	115	1.7	-1.5	0.7	95	4.4	-4.4	0.4	100	10.0	-9.9	1.7	95	14.9	-14.8	1.3
15	233	3.6	2.9	2.2	213	2.0	1.1	1.7	176	1.3	-0.1	1.3	116	2.8	-2.5	1.2	122	3.1	-2.6	1.6	102	8.8	-8.6	1.8	100	13.7	-13.5	2.3
16	221	2.9	1.9	2.2	204	1.7	0.7	1.6	174	0.9	-0.1	0.9	113	2.6	-2.4	1.0	105	5.4	-5.2	1.4	105	10.6	-10.2	2.7	100	13.9	-13.7	2.4
17	100	5.3	-5.2	0.9	180	2.1	0.0	2.1	153	1.8	-0.8	1.6	113	3.6	-3.3	1.4	92	6.4	-6.4	0.2	99	10.3	-10.2	1.6	90	13.4	-13.4	0.1
18	198	4.2	1.3	4.0	180	1.7	0.0	1.7	144	0.9	-0.5	0.7	103	3.6	-3.5	0.8	86	6.5	-6.5	-0.4	93	11.1	-11.1	0.5	92	15.8	-15.8	0.6
19	240	2.8	2.4	1.4	168	1.4	-0.3	1.4	159	1.7	-0.6	1.6	99	3.6	-3.6	0.6	102	6.1	-6.0	1.3	93	9.5	-9.5	0.5	92	15.5	-15.5	0.5
20	234	1.4	1.1	0.8	132	1.2	-0.9	0.8	105	2.0	-1.9	0.5	97	4.0	-4.0	0.5	105	6.1	-5.9	1.6	89	9.8	-9.8	-0.2	90	18.0	-18.0	0.1
21	216	0.9	0.5	0.7	105	2.0	-1.9	0.5	105	3.0	-2.9	0.8	95	4.4	-4.4	0.4	97	5.7	-5.7	0.7	97	8.6	-8.5	1.1	100	13.1	-12.9	2.3
22	97	1.6	-1.6	0.2	90	2.4	-2.4	0.0	98	3.5	-3.5	0.5	100	4.5	-4.4	0.8	95	4.7	-4.7	0.4	92	5.6	-5.6	0.2	99	13.1	-12.9	2.1
23	81	1.2	-1.2	-0.2	86	3.1	-3.1	-0.2	92	3.0	-3.0	0.1	84	3.6	-3.6	-0.4	93	3.4	-3.4	0.2	110	5.9	-5.6	2.0	106	10.4	-10.0	2.9
24	87	2.1	-2.1	-0.1	98	3.4	-3.4	0.5	90	3.4	-3.4	0.0	98	3.6	-3.6	0.5	100	4.5	-4.4	0.8	110	4.8	-4.5	1.6	99	13.9	-13.7	2.1
25	45	0.4	-0.3	-0.3	94	2.7	-2.7	0.2	105	2.8	-2.7	0.7	108	3.2	-3.0	1.0	93	5.5	-5.5	0.3	96	7.1	-7.1	0.8	96	11.6	-11.5	1.2
26	112	1.1	-1.0	0.4	109	2.4	-2.3	0.8	109	2.1	-2.0	0.7	105	2.4	-2.3	0.6	97	4.3	-4.3	0.5	105	6.8	-6.6	1.8	97	9.6	-9.5	1.2
27	169	2.0	-0.4	2.0	124	2.7	-2.2	1.5	101	3.3	-3.2	0.6	99	3.6	-3.6	0.6	118	4.4	-3.9	2.1	100	6.9	-6.8	1.2	98	9.0	-8.9	1.2
28	209	2.1	1.0	1.8	109	2.4	-2.3	0.8	108	2.8	-2.7	0.9	99	5.4	-5.3	0.8	93	5.5	-5.5	0.3	102	9.5	-9.3	1.9	92	11.0	-11.0	0.4
29	142	2.3	-1.4	1.8	118	3.0	-2.6	1.4	118	3.2	-2.8	1.5	111	4.4	-4.1	1.6	109	6.5	-6.1	2.1	114	8.2	-7.5	3.3	101	12.2	-12.0	2.3
30	129	1.3	-1.0	0.8	116	3.0	-2.7	1.3	116	3.7	-3.3	1.6	113	4.4	-4.1	1.7	114	4.6	-4.2	1.9	123	8.0	-6.7	4.4	99	9.4	-9.3	1.5
31	111	2.8	-2.6	1.0	116	4.3	-3.9	1.9	107	3.4	-3.2	1.0	98	4.1	-4.1	0.6	114	5.2	-4.8	2.1	94	7.4	-7.4	0.5	100	7.2	-7.1	1.2

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	101	3.3	-3.2	0.6	106	4.6	-4.4	1.3	110	4.1	-3.9	1.4	102	3.8	-3.7	0.8	100	6.0	-5.9	1.0	99	7.9	-7.8	1.2	101	7.0	-6.9	1.4
2	90	4.8	-4.8	0.0	95	5.5	-5.5	0.5	107	5.1	-4.9	1.5	104	4.4	-4.3	1.1	110	4.7	-4.4	1.6	109	8.3	-7.8	2.7	89	9.8	-9.8	-0.2
3	94	4.5	-4.5	0.3	90	4.4	-4.4	0.0	92	5.0	-5.0	0.2	101	5.6	-5.5	1.1	109	4.2	-4.0	1.4	110	5.5	-5.2	1.9	94	8.6	-8.6	0.6
4	81	3.3	-3.3	-0.5	103	3.5	-3.4	0.8	119	3.9	-3.4	1.9	99	5.4	-5.3	0.8	108	4.4	-4.2	1.4	104	6.1	-5.9	1.5	101	8.6	-8.4	1.6
5	93	2.0	-2.0	0.1	104	3.3	-3.2	0.8	116	3.0	-2.7	1.3	112	4.1	-3.8	1.5	105	3.8	-3.7	1.0	115	4.0	-3.6	1.7	117	6.2	-5.5	2.8
6	102	3.3	-3.2	0.7	125	2.8	-2.3	1.6	154	2.8	-1.2	2.5	119	4.3	-3.8	2.1	112	4.5	-4.2	1.7	130	6.0	-4.6	3.8	98	8.9	-8.8	1.2
7	104	3.6	-3.5	0.9	126	3.6	-2.9	2.1	130	3.1	-2.4	2.0	108	3.9	-3.7	1.2	124	5.0	-4.2	2.8	121	6.8	-5.8	3.5	88	10.0	-10.0	-0.3
8	91	4.0	-4.0	0.1	105	3.8	-3.7	1.0	126	3.1	-2.5	1.8	117	2.8	-2.5	1.3	104	4.2	-4.1	1.0	105	5.9	-5.7	1.5	99	9.1	-9.0	1.5
9	81	4.7	-4.6	-0.7	114	4.3	-3.9	1.7	118	3.4	-3.0	1.6	99	3.3	-3.3	0.5	98	5.5	-5.4	0.8	100	5.7	-5.6	1.0	128	3.9	-3.1	2.4
10	83	6.1	-6.1	-0.7	112	4.3	-4.0	1.6	126	3.9	-3.2	2.3	100	4.0	-3.9	0.7	103	4.8	-4.7	1.1	121	4.2	-3.6	2.2	108	3.8	-3.6	1.2
11	94	6.8	-6.8	0.5	108	5.2	-4.9	1.6	108	3.9	-3.7	1.2	90	4.0	-4.0	0.0	87	3.6	-3.6	-0.2	103	2.6	-2.5	0.6	100	5.5	-5.4	1.0
12	98	5.1	-5.1	0.7	103	6.1	-5.9	1.4	105	4.6	-4.4	1.2	96	4.8	-4.8	0.5	103	2.3	-2.2	0.5	124	3.6	-3.0	2.0	85	6.5	-6.5	-0.6
13	105	5.1	-4.9	1.3	100	5.6	-5.5	1.0	100	3.5	-3.4	0.6	122	3.8	-3.2	2.0	117	2.8	-2.5	1.3	153	4.2	-1.9	3.7	108	7.4	-7.0	2.3
14	98	5.0	-5.0	0.7	105	5.6	-5.4	1.4	119	4.6	-4.0	2.2	76	2.5	-2.4	-0.6	117	2.9	-2.6	1.3	118	4.7	-4.2	2.2	113	7.4	-6.8	2.9
15	98	5.6	-5.5	0.8	102	5.1	-5.0	1.1	109	4.6	-4.3	1.5	103	4.7	-4.6	1.1	84	4.9	-4.9	-0.5	95	4.3	-4.3	0.4	81	6.4	-6.3	-1.0
16	83	7.4	-7.3	-0.9	108	6.6	-6.3	2.0	110	5.4	-5.1	1.9	94	3.1	-3.1	0.2	91	4.1	-4.1	0.1	126	4.9	-4.0	2.9	97	8.8	-8.7	1.1
17	77	7.2	-7.0	-1.6	120	4.6	-4.0	2.3	122	3.9	-3.3	2.1	91	4.8	-4.8	0.1	77	3.1	-3.0	-0.7	131	4.4	-3.3	2.9	128	6.7	-5.3	4.1
18	82	6.9	-6.8	-0.9	104	4.4	-4.3	1.1	120	2.8	-2.4	1.4	95	3.6	-3.6	0.3	127	3.9	-3.1	2.3	157	5.1	-2.0	4.7	123	7.2	-6.1	3.9
19	84	8.1	-8.1	-0.8	96	5.3	-5.3	0.6	102	3.5	-3.4	0.7	107	3.0	-2.9	0.9	103	3.2	-3.1	0.7	149	5.1	-2.6	4.4	117	9.3	-8.3	4.2
20	82	6.6	-6.5	-0.9	94	5.9	-5.9	0.4	103	5.1	-5.0	1.2	93	4.4	-4.4	0.2	106	4.7	-4.5	1.3	153	6.5	-3.0	5.8	103	4.5	-4.4	1.0
21	75	6.4	-6.2	-1.7	91	5.9	-5.9	0.1	90	4.4	-4.4	0.0	110	3.8	-3.6	1.3	122	5.2	-4.4	2.7	143	9.0	-5.4	7.2	118	10.8	-9.6	5.0
22	78	5.0	-4.9	-1.0	97	5.5	-5.5	0.7	107	5.0	-4.8	1.5	106	4.6	-4.4	1.3	136	6.5	-4.5	4.7	132	7.4	-5.5	5.0	72	2.6	-2.5	-0.8
23	73	6.6	-6.3	-1.9	98	7.4	-7.3	1.0	104	5.6	-5.4	1.3	108	5.2	-4.9	1.6	123	4.8	-4.0	2.6	144	10.1	-5.9	8.2	137	7.9	-5.4	5.7
24	70	5.6	-5.3	-1.9	94	6.0	-6.0	0.4	104	4.2	-4.1	1.0	110	3.5	-3.3	1.2	138	2.5	-1.7	1.9	137	3.4	-2.3	2.5	141	6.9	-4.3	5.4
25	69	5.5	-5.1	-2.0	85	4.8	-4.8	-0.4	108	3.9	-3.7	1.2	103	3.7	-3.6	0.8	105	3.9	-3.8	1.0	139	6.5	-4.3	4.9	99	5.3	-5.2	0.8
26	76	6.6	-6.4	-1.6	105	5.3	-5.1	1.4	107	3.8	-3.6	1.1	104	4.2	-4.1	1.0	105	3.8	-3.7	1.0	140	5.2	-3.4	4.0	116	7.2	-6.5	3.2
27	86	5.2	-5.2	-0.4	108	4.5	-4.3	1.4	120	3.2	-2.8	1.6	83	3.1	-3.1	-0.4	108	4.8	-4.6	1.5	147	6.1	-3.3	5.1	114	7.6	-6.9	3.1
28	106	5.0	-4.8	1.4	114	5.1	-4.7	2.1	117	3.5	-3.1	1.6	87	3.7	-3.7	-0.2	142	3.6	-2.2	2.8	164	6.1	-1.7	5.9	126	6.1	-4.9	3.6
29	102	4.0	-3.9	0.8	107	5.1	-4.9	1.5	118	3.8	-3.4	1.8	105	4.9	-4.7	1.3	132	3.1	-2.3	2.1	141	5.9	-3.7	4.6	75	6.0	-5.8	-1.5
30	92	3.4	-3.4	0.1	104	5.8	-5.6	1.4	110	4.9	-4.6	1.7	97	3.9	-3.9	0.5	109	4.3	-4.1	1.4	140	7.5	-4.8	5.8	95	6.6	-6.6	0.6

Daily Normals of Upper Air Winds (1971-2000)

PORTBLAIR **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	86	4.2	-4.2	-0.3	103	6.6	-6.4	1.5	100	5.4	-5.3	0.9	106	5.0	-4.8	1.4	138	3.8	-2.5	2.8	148	5.8	-3.1	4.9	125	6.5	-5.3	3.7
2	81	5.3	-5.2	-0.8	93	6.3	-6.3	0.3	101	5.6	-5.5	1.1	94	5.3	-5.3	0.4	151	3.8	-1.8	3.3	157	5.8	-2.3	5.3	105	5.7	-5.5	1.5
3	84	5.4	-5.4	-0.6	89	6.7	-6.7	-0.1	86	4.9	-4.9	-0.3	77	5.1	-5.0	-1.2	139	2.9	-1.9	2.2	169	6.5	-1.2	6.4	103	7.9	-7.7	1.8
4	74	6.1	-5.9	-1.7	88	7.0	-7.0	-0.3	88	5.5	-5.5	-0.2	98	5.0	-5.0	0.7	108	2.8	-2.7	0.9	161	5.0	-1.6	4.7	142	4.9	-3.0	3.9
5	75	6.6	-6.4	-1.7	97	6.4	-6.3	0.8	101	4.2	-4.1	0.8	93	5.2	-5.2	0.3	141	4.3	-2.7	3.3	160	5.4	-1.9	5.1	145	5.8	-3.3	4.8
6	68	6.8	-6.3	-2.5	91	5.7	-5.7	0.1	105	4.1	-4.0	1.1	95	4.2	-4.2	0.4	143	3.9	-2.3	3.1	171	7.3	-1.2	7.2	87	3.7	-3.7	-0.2
7	78	8.1	-7.9	-1.7	100	6.0	-5.9	1.0	117	3.3	-2.9	1.5	104	3.6	-3.5	0.9	153	2.5	-1.1	2.2	166	6.4	-1.6	6.2	116	6.8	-6.1	3.0
8	86	5.9	-5.9	-0.4	105	5.6	-5.4	1.4	117	3.1	-2.8	1.4	104	3.8	-3.7	0.9	148	3.6	-1.9	3.0	172	5.6	-0.8	5.5	107	5.7	-5.4	1.7
9	75	4.1	-4.0	-1.1	94	4.9	-4.9	0.3	96	3.7	-3.7	0.4	82	4.4	-4.4	-0.6	133	3.5	-2.6	2.4	166	6.9	-1.7	6.7	123	6.6	-5.5	3.6
10	76	6.2	-6.0	-1.5	95	6.0	-6.0	0.5	97	4.0	-4.0	0.5	93	4.5	-4.5	0.2	118	4.4	-3.9	2.1	158	7.9	-3.0	7.3	117	4.2	-3.7	1.9
11	71	5.3	-5.0	-1.7	86	5.4	-5.4	-0.4	103	4.6	-4.5	1.0	81	4.9	-4.8	-0.8	112	1.8	-1.7	0.7	150	6.9	-3.5	6.0	105	6.9	-6.7	1.8
12	77	5.8	-5.7	-1.3	90	6.6	-6.6	0.0	92	5.3	-5.3	0.2	82	4.9	-4.8	-0.7	125	2.8	-2.3	1.6	184	5.3	0.4	5.3	136	6.4	-4.5	4.6
13	70	5.3	-5.0	-1.8	89	6.5	-6.5	-0.1	80	5.1	-5.0	-0.9	75	5.2	-5.0	-1.3	120	3.4	-2.9	1.7	174	5.1	-0.5	5.1	103	2.2	-2.1	0.5
14	69	6.1	-5.7	-2.2	90	6.5	-6.5	0.0	91	5.2	-5.2	0.1	91	4.5	-4.5	0.1	119	2.6	-2.3	1.3	182	6.9	0.3	6.9	168	2.9	-0.6	2.8
15	83	6.6	-6.6	-0.8	91	7.1	-7.1	0.1	91	4.1	-4.1	0.1	109	2.8	-2.6	0.9	207	4.0	1.8	3.6	239	5.8	5.0	3.0	204	2.7	1.1	2.5
16	62	8.1	-7.1	-3.8	91	7.8	-7.8	0.2	95	4.4	-4.4	0.4	85	3.2	-3.2	-0.3	205	3.1	1.3	2.8	211	6.1	3.1	5.2	124	4.8	-4.0	2.7
17	63	8.0	-7.1	-3.6	82	7.6	-7.5	-1.0	94	4.6	-4.6	0.3	100	2.9	-2.9	0.5	250	2.3	2.2	0.8	201	6.0	2.1	5.6	148	3.1	-1.6	2.6
18	75	7.8	-7.5	-2.0	85	6.7	-6.7	-0.6	106	4.1	-3.9	1.1	94	2.9	-2.9	0.2	193	4.0	0.9	3.9	198	6.3	1.9	6.0	191	1.5	0.3	1.5
19	68	6.3	-5.8	-2.4	75	5.9	-5.7	-1.5	97	3.2	-3.2	0.4	93	3.4	-3.4	0.2	261	1.8	1.8	0.3	177	6.0	-0.3	6.0	109	1.8	-1.7	0.6
20	66	5.4	-4.9	-2.2	90	6.3	-6.3	0.0	90	4.5	-4.5	0.0	84	2.0	-2.0	-0.2	215	2.4	1.4	2.0	207	8.4	3.8	7.5	332	3.2	1.5	-2.8
21	72	6.1	-5.8	-1.9	83	7.0	-6.9	-0.9	107	3.9	-3.7	1.1	90	2.7	-2.7	0.0	180	2.0	0.0	2.0	200	8.8	3.0	8.3	167	1.3	-0.3	1.3
22	68	6.5	-6.0	-2.4	93	6.1	-6.1	0.3	99	2.4	-2.4	0.4	60	1.4	-1.2	-0.7	208	3.8	1.8	3.4	215	7.1	4.1	5.8	95	2.3	-2.3	0.2
23	71	5.7	-5.4	-1.9	89	5.5	-5.5	-0.1	90	3.5	-3.5	0.0	73	1.7	-1.6	-0.5	236	2.7	2.2	1.5	208	7.1	3.3	6.3	168	4.5	-0.9	4.4
24	70	6.3	-5.9	-2.2	87	5.0	-5.0	-0.3	106	2.9	-2.8	0.8	95	3.3	-3.3	0.3	216	3.6	2.1	2.9	212	7.7	4.1	6.5	192	3.9	0.8	3.8
25	82	5.1	-5.1	-0.7	89	5.6	-5.6	-0.1	93	4.1	-4.1	0.2	117	2.5	-2.2	1.1	275	3.4	3.4	-0.3	222	7.4	4.9	5.5	239	4.1	3.5	2.1
26	70	5.2	-4.9	-1.8	84	5.3	-5.3	-0.6	104	3.6	-3.5	0.9	90	1.8	-1.8	0.0	194	2.1	0.5	2.0	187	7.9	1.0	7.8	142	3.9	-2.4	3.1
27	68	5.2	-4.8	-1.9	97	4.6	-4.6	0.6	106	3.2	-3.1	0.9	90	3.3	-3.3	0.0	228	2.5	1.9	1.7	209	9.6	4.6	8.4	142	2.8	-1.7	2.2
28	63	5.6	-5.0	-2.6	92	4.6	-4.6	0.2	109	3.4	-3.2	1.1	83	4.1	-4.1	-0.5	198	0.9	0.3	0.9	184	5.2	0.4	5.2	90	3.5	-3.5	0.0
29	68	5.6	-5.2	-2.1	89	4.3	-4.3	-0.1	90	2.5	-2.5	0.0	94	2.8	-2.8	0.2	189	2.0	0.3	2.0	198	8.4	2.6	8.0	236	2.3	1.9	1.3
30	68	5.6	-5.2	-2.1	103	4.1	-4.0	0.9	99	2.4	-2.4	0.4	54	1.9	-1.5	-1.1	270	1.5	1.5	0.0	202	6.1	2.3	5.6	124	3.2	-2.7	1.8
31	57	5.6	-4.7	-3.0	91	4.8	-4.8	0.1	88	2.6	-2.6	-0.1	61	2.9	-2.5	-1.4	275	2.2	2.2	-0.2	198	5.4	1.7	5.1	120	2.4	-2.1	1.2

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	54	2.6	-2.1	-1.5	310	3.5	2.7	-2.3	288	8.0	7.6	-2.5	275	18.5	18.4	-1.6	262	32.4	32.1	4.4	259	41.6	40.8	8.0	265	9.0	9.0	0.8
2	47	2.2	-1.6	-1.5	315	3.3	2.3	-2.3	290	9.0	8.5	-3.1	278	17.2	17.0	-2.4	268	39.5	39.5	1.7	268	41.1	41.1	1.6	285	27.9	27.0	-7.2
3	58	0.9	-0.8	-0.5	317	4.2	2.9	-3.1	294	8.4	7.7	-3.4	280	17.5	17.2	-3.1	279	37.8	37.3	-6.0	266	38.5	38.4	2.8	263	48.0	47.6	5.8
4	42	1.5	-1.0	-1.1	309	4.3	3.3	-2.7	295	8.1	7.3	-3.4	271	16.3	16.3	-0.3	273	36.9	36.9	-1.8	268	36.9	36.9	1.6	294	26.7	24.4	-10.9
5	40	1.6	-1.0	-1.2	309	3.2	2.5	-2.0	291	7.3	6.8	-2.6	272	19.0	19.0	-0.7	267	34.9	34.9	1.6	285	37.8	36.5	-10.0	280	26.9	26.5	-4.8
6	14	0.4	-0.1	-0.4	294	3.9	3.6	-1.6	276	9.6	9.5	-1.0	275	21.6	21.5	-2.0	265	35.8	35.6	3.3	276	33.9	33.7	-3.8	273	28.4	28.4	-1.4
7	106	1.9	-1.8	0.5	315	2.4	1.7	-1.7	270	9.3	9.3	0.0	269	19.3	19.3	0.5	261	35.2	34.7	5.7	262	33.8	33.5	4.7	288	34.0	32.3	-10.5
8	16	0.7	-0.2	-0.7	253	3.4	3.2	1.0	274	9.3	9.3	-0.7	271	18.1	18.1	-0.2	266	33.4	33.3	2.5	274	39.7	39.6	-2.7	292	48.0	44.5	-18.0
9	39	1.4	-0.9	-1.1	295	2.6	2.4	-1.1	280	9.4	9.3	-1.6	267	18.9	18.9	1.0	270	39.6	39.6	-0.1	295	40.1	36.3	-17.1	275	24.0	23.9	-2.1
10	86	1.4	-1.4	-0.1	297	2.7	2.4	-1.2	289	10.2	9.6	-3.3	265	20.6	20.5	1.9	261	33.2	32.8	5.0	270	38.9	38.9	0.2	—	—	—	—
11	106	1.8	-1.7	0.5	286	2.5	2.4	-0.7	279	7.7	7.6	-1.2	259	21.2	20.8	3.9	262	34.6	34.3	4.8	254	24.1	23.2	6.5	—	—	—	—
12	36	1.7	-1.0	-1.4	287	3.9	3.7	-1.1	275	8.7	8.7	-0.7	268	19.5	19.5	0.6	265	30.2	30.1	2.5	261	27.6	27.3	4.2	259	44.0	43.2	8.4
13	354	0.9	0.1	-0.9	292	3.1	2.9	-1.2	284	8.9	8.7	-2.1	265	21.6	21.5	2.0	261	34.1	33.6	5.6	252	49.0	46.7	14.8	264	34.1	33.9	3.3
14	22	1.1	-0.4	-1.0	281	3.3	3.2	-0.6	278	8.8	8.7	-1.2	270	20.4	20.4	-0.1	264	36.4	36.2	3.6	250	42.2	39.7	14.2	240	25.0	21.7	12.4
15	187	1.7	0.2	1.7	245	5.5	5.0	2.3	275	11.2	11.2	-0.9	265	23.4	23.3	2.1	265	41.2	41.1	3.3	260	31.3	30.9	5.2	251	43.3	41.0	14.0
16	241	2.5	2.2	1.2	267	5.6	5.6	0.3	275	10.9	10.9	-0.9	277	22.8	22.6	-2.7	273	32.5	32.5	-1.6	257	28.4	27.7	6.2	259	18.9	18.6	3.5
17	331	2.3	1.1	-2.0	277	5.4	5.4	-0.7	281	11.0	10.8	-2.1	277	21.6	21.4	-2.8	277	34.6	34.3	-4.4	270	36.8	36.8	0.0	275	35.7	35.5	-3.4
18	37	2.1	-1.3	-1.7	283	6.1	5.9	-1.4	284	9.4	9.1	-2.3	283	19.8	19.3	-4.4	268	38.5	38.5	1.5	268	37.1	37.1	1.2	272	23.6	23.6	-0.9
19	356	1.5	0.1	-1.5	290	5.2	4.9	-1.8	284	10.2	9.9	-2.4	276	18.9	18.8	-2.0	274	38.5	38.4	-2.9	258	41.3	40.3	8.9	259	8.7	8.5	1.7
20	301	0.6	0.5	-0.3	291	4.9	4.6	-1.8	282	10.8	10.6	-2.2	275	21.1	21.0	-1.7	265	35.2	35.1	3.1	256	32.0	31.1	7.5	252	29.1	27.7	9.0
21	16	2.2	-0.6	-2.1	280	4.2	4.1	-0.7	289	12.7	12.0	-4.1	278	23.5	23.3	-3.4	262	33.0	32.7	4.6	255	34.5	33.3	8.9	248	27.1	25.1	10.3
22	18	1.9	-0.6	-1.8	289	4.3	4.1	-1.4	279	11.3	11.2	-1.8	274	21.9	21.9	-1.4	259	31.0	30.5	5.7	258	42.7	41.7	9.2	238	19.3	16.3	10.3
23	22	3.2	-1.2	-3.0	301	5.8	5.0	-3.0	284	12.2	11.8	-2.9	273	21.6	21.6	-1.1	255	31.3	30.2	8.1	259	40.0	39.3	7.4	242	13.1	11.6	6.1
24	33	3.3	-1.8	-2.8	318	4.3	2.9	-3.2	294	11.0	10.0	-4.5	280	20.7	20.4	-3.6	269	29.2	29.2	0.7	255	32.5	31.4	8.3	262	16.8	16.6	2.3
25	7	3.2	-0.4	-3.2	305	4.5	3.7	-2.6	288	9.5	9.0	-3.0	282	17.8	17.4	-3.6	264	25.0	24.9	2.6	249	27.6	25.8	9.7	257	11.5	11.2	2.5
26	61	1.3	-1.1	-0.6	283	3.7	3.6	-0.8	297	8.0	7.2	-3.6	278	16.4	16.2	-2.4	262	28.0	27.7	4.0	260	29.5	29.1	5.0	239	8.7	7.4	4.5
27	34	1.8	-1.0	-1.5	292	3.2	3.0	-1.2	291	9.3	8.7	-3.3	273	19.2	19.2	-1.1	254	28.7	27.6	7.9	250	33.5	31.4	11.6	286	11.7	11.2	-3.3
28	17	2.1	-0.6	-2.0	294	4.5	4.1	-1.8	296	8.4	7.5	-3.7	270	16.6	16.6	0.1	257	24.8	24.1	5.7	242	33.8	29.9	15.7	255	13.1	12.6	3.4
29	9	2.0	-0.3	-2.0	291	4.0	3.7	-1.4	287	9.6	9.2	-2.9	277	20.4	20.3	-2.4	268	33.2	33.2	1.3	253	38.4	36.7	11.2	250	25.0	23.5	8.6
30	19	2.1	-0.7	-2.0	280	3.9	3.8	-0.7	280	9.3	9.2	-1.6	283	20.9	20.3	-4.8	268	36.3	36.3	1.2	267	35.6	35.6	1.7	256	17.2	16.7	4.3
31	42	2.4	-1.6	-1.8	281	5.1	5.0	-1.0	284	10.5	10.2	-2.6	281	22.6	22.2	-4.4	266	36.5	36.4	2.6	265	44.1	43.9	3.7	261	29.8	29.4	4.8

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	93	1.7	-1.7	0.1	279	3.8	3.8	-0.6	278	10.2	10.1	-1.4	266	24.5	24.4	1.7	260	36.1	35.6	6.0	244	46.9	42.3	20.3	344	10.0	2.8	-9.6
2	180	0.1	0.0	0.1	277	4.7	4.7	-0.6	285	10.2	9.8	-2.7	279	20.6	20.3	-3.2	270	36.9	36.9	-0.3	283	29.5	28.7	-6.7	283	21.6	21.0	-5.0
3	250	1.5	1.4	0.5	284	4.4	4.3	-1.1	282	10.9	10.7	-2.3	277	22.5	22.3	-2.9	271	38.6	38.6	-0.6	267	45.4	45.4	2.0	274	33.3	33.2	-2.6
4	39	2.1	-1.3	-1.6	298	4.1	3.6	-1.9	277	10.2	10.1	-1.3	283	21.0	20.5	-4.6	272	39.8	39.8	-1.1	265	42.1	41.9	3.9	276	32.9	32.7	-3.5
5	19	2.8	-0.9	-2.6	297	4.6	4.1	-2.1	280	10.5	10.3	-1.8	277	24.1	23.9	-2.9	271	36.5	36.5	-0.9	279	41.0	40.5	-6.4	265	53.6	53.4	4.9
6	34	5.3	-3.0	-4.4	294	3.9	3.6	-1.6	287	9.7	9.3	-2.8	285	21.5	20.8	-5.4	266	40.2	40.1	2.7	268	39.7	39.7	1.2	258	31.8	31.1	6.8
7	61	3.1	-2.7	-1.5	298	4.0	3.5	-1.9	291	10.1	9.4	-3.6	270	18.2	18.2	0.1	268	32.3	32.3	1.2	251	23.1	21.8	7.7	284	18.4	17.8	-4.5
8	88	2.5	-2.5	-0.1	297	3.3	2.9	-1.5	277	9.8	9.7	-1.2	274	19.2	19.2	-1.3	272	31.1	31.1	-1.0	270	29.5	29.5	-0.1	280	17.1	16.9	-2.9
9	296	2.8	2.5	-1.2	292	3.8	3.5	-1.4	274	8.6	8.6	-0.6	277	20.5	20.4	-2.4	266	34.4	34.3	2.2	260	39.2	38.6	6.7	279	26.1	25.8	-4.0
10	21	2.5	-0.9	-2.3	274	3.0	3.0	-0.2	283	9.4	9.2	-2.1	280	21.2	20.9	-3.8	280	34.3	33.8	-5.9	269	34.1	34.1	0.6	285	22.1	21.4	-5.7
11	43	1.8	-1.2	-1.3	276	3.0	3.0	-0.3	282	10.6	10.4	-2.2	287	18.1	17.3	-5.3	275	31.6	31.5	-2.6	271	33.8	33.8	-0.3	247	13.4	12.3	5.3
12	6	2.0	-0.2	-2.0	296	3.0	2.7	-1.3	283	9.8	9.5	-2.2	278	16.4	16.3	-2.2	273	31.6	31.5	-1.8	261	33.1	32.7	4.9	261	26.1	25.7	4.3
13	11	1.5	-0.3	-1.5	276	3.9	3.9	-0.4	280	9.6	9.5	-1.6	280	19.2	18.9	-3.4	278	33.1	32.7	-4.8	280	41.6	41.0	-6.9	265	23.0	22.9	1.9
14	16	2.5	-0.7	-2.4	288	3.5	3.3	-1.1	273	10.1	10.1	-0.6	265	19.0	18.9	1.6	256	45.6	44.2	11.3	260	41.0	40.4	7.1	258	18.1	17.7	3.8
15	351	1.2	0.2	-1.2	280	2.8	2.8	-0.5	278	10.2	10.1	-1.4	272	19.1	19.1	-0.8	259	39.2	38.5	7.6	251	38.9	36.8	12.5	262	13.5	13.4	2.0
16	9	0.6	-0.1	-0.6	288	3.8	3.6	-1.2	278	11.1	11.0	-1.5	270	20.2	20.2	0.0	271	34.3	34.3	-0.3	260	40.1	39.5	6.9	247	18.6	17.2	7.2
17	328	2.5	1.3	-2.1	284	4.9	4.7	-1.2	275	12.1	12.0	-1.1	271	21.1	21.1	-0.4	262	34.3	33.9	5.0	241	40.4	35.4	19.4	248	22.9	21.2	8.7
18	354	3.8	0.4	-3.8	273	5.4	5.4	-0.3	272	12.5	12.5	-0.5	270	23.0	23.0	-0.2	269	35.8	35.8	0.9	261	49.2	48.6	7.5	267	38.1	38.0	2.3
19	21	1.7	-0.6	-1.6	299	5.5	4.8	-2.7	272	10.9	10.9	-0.3	270	19.8	19.8	0.1	267	29.4	29.4	1.6	257	32.7	31.8	7.6	252	17.6	16.8	5.3
20	53	2.5	-2.0	-1.5	291	3.3	3.1	-1.2	271	10.7	10.7	-0.2	275	18.6	18.5	-1.6	270	32.3	32.3	0.1	258	41.9	41.0	8.6	251	23.0	21.7	7.5
21	38	3.1	-1.9	-2.4	281	3.6	3.5	-0.7	263	10.1	10.0	1.2	269	20.9	20.9	0.5	253	36.0	34.4	10.5	258	38.5	37.7	7.8	239	27.5	23.7	14.0
22	8	2.9	-0.4	-2.9	306	4.2	3.4	-2.5	277	10.6	10.5	-1.2	278	20.9	20.7	-2.8	257	32.0	31.1	7.4	267	42.8	42.8	1.9	270	37.3	37.3	-0.2
23	7	3.9	-0.5	-3.9	309	4.6	3.6	-2.9	282	10.7	10.4	-2.3	279	19.9	19.7	-3.0	267	34.8	34.8	1.7	265	47.1	47.0	3.7	256	17.4	16.9	4.3
24	9	1.8	-0.3	-1.8	297	3.1	2.8	-1.4	279	9.7	9.6	-1.6	275	20.7	20.6	-1.8	267	32.5	32.4	1.9	259	39.2	38.5	7.2	264	11.4	11.3	1.1
25	243	1.8	1.6	0.8	271	4.2	4.2	-0.1	277	10.0	9.9	-1.2	275	20.0	19.9	-1.8	264	30.8	30.7	3.0	251	34.5	32.7	11.0	265	11.3	11.3	0.9
26	119	1.3	-1.1	0.6	288	5.2	5.0	-1.6	272	11.0	11.0	-0.3	272	19.5	19.5	-0.7	273	29.9	29.8	-1.8	274	37.3	37.2	-2.9	279	45.8	45.3	-6.9
27	37	2.6	-1.6	-2.1	285	5.2	5.0	-1.3	280	11.0	10.8	-1.9	275	20.3	20.2	-1.8	267	30.2	30.2	1.7	261	31.2	30.8	4.8	236	18.2	15.1	10.2
28	58	1.5	-1.3	-0.8	267	3.9	3.9	0.2	283	10.8	10.5	-2.5	279	18.8	18.6	-3.0	270	28.5	28.5	0.1	255	36.3	35.1	9.1	278	22.6	22.4	-3.2
29	275	1.1	1.1	-0.1	287	3.1	3.0	-0.9	299	11.3	9.9	-5.5	283	13.2	12.9	-3.0	239	27.5	23.7	14.0	227	25.0	18.3	17.0	279	21.0	20.7	-3.3

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	4	2.9	-0.2	-2.9	292	5.6	5.2	-2.1	285	10.3	9.9	-2.7	279	17.6	17.4	-2.8	269	38.9	38.9	0.8	265	38.7	38.5	3.6	280	24.2	23.8	-4.4
2	357	2.0	0.1	-2.0	315	4.8	3.4	-3.4	271	11.5	11.5	-0.3	273	17.6	17.6	-1.0	268	31.3	31.3	1.3	249	40.0	37.3	14.5	262	36.5	36.1	5.2
3	40	0.8	-0.5	-0.6	313	5.0	3.7	-3.4	282	11.6	11.3	-2.5	279	16.4	16.2	-2.7	264	28.2	28.1	2.9	260	32.4	31.9	5.5	273	19.6	19.6	-0.9
4	357	1.9	0.1	-1.9	322	5.5	3.4	-4.3	293	9.3	8.6	-3.6	286	15.8	15.2	-4.4	272	27.8	27.8	-0.9	271	32.0	32.0	-0.3	268	18.2	18.2	0.7
5	7	0.8	-0.1	-0.8	280	2.3	2.3	-0.4	287	8.8	8.4	-2.6	275	16.6	16.5	-1.5	264	30.8	30.6	3.4	269	34.9	34.9	0.9	262	30.7	30.4	4.2
6	22	0.5	-0.2	-0.5	291	3.6	3.4	-1.3	279	10.9	10.8	-1.8	278	20.7	20.5	-2.9	263	30.7	30.5	3.7	258	34.2	33.5	6.9	262	17.4	17.2	2.5
7	279	1.2	1.2	-0.2	288	2.8	2.7	-0.9	281	10.1	9.9	-1.9	280	19.2	18.9	-3.5	264	29.7	29.5	3.1	262	32.9	32.6	4.7	267	11.8	11.8	0.7
8	354	3.0	0.3	-3.0	292	4.2	3.9	-1.6	283	9.2	9.0	-2.1	282	15.5	15.2	-3.2	269	30.7	30.7	0.4	270	30.0	30.0	0.2	279	21.5	21.3	-3.2
9	2	3.4	-0.1	-3.4	300	5.2	4.5	-2.6	268	10.3	10.3	0.3	274	17.2	17.2	-1.1	263	25.9	25.7	3.0	256	36.2	35.1	9.0	265	21.9	21.8	2.0
10	40	2.5	-1.6	-1.9	255	3.8	3.7	1.0	279	11.2	11.1	-1.8	276	17.9	17.8	-1.8	265	28.7	28.6	2.5	269	32.3	32.3	0.7	277	12.5	12.4	-1.5
11	41	2.1	-1.4	-1.6	245	3.3	3.0	1.4	270	8.7	8.7	0.0	278	14.8	14.7	-2.0	262	25.9	25.6	3.7	264	27.6	27.4	3.1	265	11.2	11.2	1.0
12	222	1.2	0.8	0.9	262	3.7	3.7	0.5	284	9.2	8.9	-2.3	279	16.2	16.0	-2.4	262	28.9	28.6	3.8	262	38.9	38.5	5.5	267	28.8	28.8	1.6
13	274	2.9	2.9	-0.2	279	6.0	5.9	-0.9	275	11.7	11.7	-1.0	273	17.0	17.0	-0.8	277	25.6	25.4	-3.0	270	38.4	38.4	0.2	264	27.9	27.7	3.1
14	354	5.0	0.5	-5.0	293	4.6	4.2	-1.8	273	10.9	10.9	-0.6	282	18.4	18.0	-3.8	281	26.7	26.2	-4.9	263	30.8	30.6	3.6	281	29.4	28.9	-5.5
15	58	2.6	-2.2	-1.4	284	4.2	4.1	-1.0	285	9.3	9.0	-2.4	289	17.1	16.2	-5.5	284	21.7	21.0	-5.4	277	36.5	36.2	-4.6	278	15.5	15.3	-2.2
16	360	3.8	0.0	-3.8	320	5.0	3.2	-3.8	280	8.8	8.7	-1.6	286	16.3	15.6	-4.6	279	29.5	29.1	-4.7	271	33.7	33.7	-0.3	268	17.0	17.0	0.7
17	325	3.7	2.1	-3.0	277	4.3	4.3	-0.5	284	9.7	9.4	-2.4	280	15.0	14.8	-2.6	267	25.6	25.6	1.4	268	33.2	33.2	1.2	267	16.5	16.5	0.9
18	332	2.1	1.0	-1.9	280	4.6	4.5	-0.8	275	11.7	11.6	-1.1	267	15.4	15.4	0.8	268	24.4	24.4	0.7	266	28.2	28.1	1.8	230	4.5	3.4	2.9
19	338	4.3	1.6	-4.0	291	4.8	4.5	-1.7	284	11.1	10.8	-2.7	279	16.4	16.2	-2.6	262	28.0	27.8	3.7	261	30.4	30.0	4.7	274	15.3	15.3	-1.0
20	352	3.5	0.5	-3.5	315	5.7	4.0	-4.0	271	12.6	12.6	-0.2	275	17.0	16.9	-1.6	265	31.0	30.9	2.7	263	35.7	35.4	4.5	249	27.4	25.6	9.9
21	7	3.2	-0.4	-3.2	301	7.5	6.4	-3.9	270	11.6	11.6	0.1	277	17.9	17.8	-2.3	276	24.0	23.9	-2.5	266	29.7	29.6	2.3	—	—	—	—
22	254	2.6	2.5	0.7	282	5.0	4.9	-1.0	280	8.1	8.0	-1.4	280	15.1	14.9	-2.6	269	28.4	28.4	0.5	268	30.4	30.4	1.1	288	12.3	11.7	-3.7
23	274	3.0	3.0	-0.2	297	6.5	5.8	-2.9	268	9.9	9.9	0.3	278	20.7	20.5	-3.0	277	36.5	36.2	-4.7	270	39.4	39.4	0.3	273	10.5	10.5	-0.6
24	30	3.4	-1.7	-2.9	296	3.9	3.5	-1.7	273	11.6	11.6	-0.7	275	18.0	17.9	-1.7	267	29.5	29.5	1.4	278	24.7	24.4	-3.6	274	17.0	17.0	-1.1
25	27	3.9	-1.8	-3.5	308	2.4	1.9	-1.5	275	10.1	10.1	-0.9	274	14.7	14.7	-0.9	262	25.8	25.5	3.8	256	34.4	33.4	8.3	266	15.7	15.7	1.2
26	286	4.0	3.8	-1.1	311	4.0	3.0	-2.6	272	7.9	7.9	-0.3	275	19.6	19.5	-1.7	272	26.0	26.0	-1.1	256	34.1	33.1	8.4	257	16.3	15.9	3.6
27	336	3.6	1.5	-3.3	309	6.3	4.9	-4.0	277	10.0	9.9	-1.3	285	14.9	14.4	-3.8	282	26.5	25.9	-5.7	266	28.5	28.4	2.2	263	18.5	18.3	2.4
28	36	2.7	-1.6	-2.2	300	6.0	5.2	-3.0	284	8.4	8.2	-2.0	286	11.5	11.0	-3.2	286	20.3	19.5	-5.6	271	32.4	32.4	-0.3	270	11.7	11.7	0.0
29	67	1.5	-1.4	-0.6	295	4.2	3.8	-1.8	297	9.5	8.5	-4.3	288	12.1	11.5	-3.8	282	22.3	21.8	-4.6	275	29.4	29.3	-2.6	297	21.3	19.0	-9.6
30	322	1.8	1.1	-1.4	302	3.4	2.9	-1.8	287	8.8	8.4	-2.6	284	12.3	12.0	-2.9	285	26.3	25.4	-6.7	289	24.7	23.4	-7.9	285	23.1	22.3	-5.9
31	48	2.5	-1.9	-1.7	308	3.3	2.6	-2.0	284	10.3	10.0	-2.5	283	12.2	11.9	-2.7	281	23.4	22.9	-4.6	276	24.9	24.8	-2.4	263	18.2	18.1	2.1

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	50	1.7	-1.3	-1.1	321	1.9	1.2	-1.5	281	7.0	6.9	-1.3	280	14.8	14.6	-2.7	268	22.8	22.8	0.6	273	30.2	30.2	-1.4	292	18.1	16.7	-6.9
2	45	0.1	-0.1	-0.1	274	4.7	4.7	-0.3	274	9.8	9.8	-0.6	270	16.7	16.7	0.1	266	24.8	24.7	1.9	263	31.6	31.4	3.7	267	17.2	17.2	0.9
3	36	0.9	-0.5	-0.7	297	4.0	3.6	-1.8	276	9.0	9.0	-0.9	284	14.9	14.5	-3.6	273	25.2	25.2	-1.5	266	24.5	24.4	1.9	269	16.9	16.9	0.4
4	190	1.1	0.2	1.1	280	4.7	4.6	-0.8	267	8.5	8.5	0.5	278	14.6	14.5	-2.0	264	25.1	25.0	2.5	265	30.6	30.5	2.6	236	16.2	13.4	9.1
5	231	4.1	3.2	2.6	296	4.9	4.4	-2.1	269	7.7	7.7	0.1	278	15.7	15.5	-2.3	274	25.2	25.1	-1.6	266	33.6	33.5	2.5	250	10.0	9.4	3.5
6	236	5.9	4.9	3.3	277	4.6	4.6	-0.6	279	9.4	9.3	-1.4	288	14.3	13.6	-4.3	282	24.6	24.0	-5.2	267	28.7	28.7	1.6	265	18.1	18.0	1.7
7	284	3.3	3.2	-0.8	294	6.0	5.5	-2.4	290	8.3	7.8	-2.9	296	11.5	10.3	-5.1	285	21.7	21.0	-5.6	279	23.0	22.7	-3.4	271	14.0	14.0	-0.2
8	275	4.5	4.5	-0.4	294	4.4	4.0	-1.8	287	7.7	7.3	-2.3	284	11.9	11.6	-2.8	277	25.1	24.9	-2.9	255	30.6	29.6	7.7	261	18.7	18.5	2.8
9	246	6.4	5.9	2.6	290	6.4	6.0	-2.2	261	9.3	9.2	1.4	272	12.8	12.8	-0.4	264	29.4	29.2	3.2	247	40.3	37.2	15.5	258	24.4	23.9	4.9
10	360	0.8	0.0	-0.8	306	3.7	3.0	-2.2	265	9.2	9.2	0.8	265	14.8	14.7	1.4	264	27.8	27.6	2.9	251	31.1	29.5	10.0	246	20.8	19.0	8.5
11	335	2.1	0.9	-1.9	304	2.3	1.9	-1.3	276	7.9	7.9	-0.8	287	12.1	11.6	-3.6	267	19.4	19.4	0.9	252	31.1	29.5	9.7	161	6.0	-2.0	5.7
12	272	2.3	2.3	-0.1	289	5.3	5.0	-1.7	267	6.3	6.3	0.3	273	13.2	13.2	-0.6	267	26.9	26.9	1.5	241	34.0	29.8	16.3	247	19.0	17.5	7.4
13	315	1.3	0.9	-0.9	293	4.8	4.4	-1.9	271	7.9	7.9	-0.2	285	13.6	13.1	-3.6	270	26.1	26.1	-0.1	251	31.4	29.8	10.0	270	20.1	20.1	0.0
14	56	0.4	-0.3	-0.2	347	3.1	0.7	-3.0	268	7.0	7.0	0.2	273	12.9	12.9	-0.6	260	28.5	28.0	5.1	245	36.0	32.6	15.2	262	8.0	7.9	1.1
15	120	0.8	-0.7	0.4	292	2.9	2.7	-1.1	272	5.8	5.8	-0.2	277	11.4	11.3	-1.3	265	24.8	24.7	2.2	261	32.6	32.2	5.0	263	17.2	17.1	2.0
16	73	1.7	-1.6	-0.5	277	2.3	2.3	-0.3	266	8.7	8.7	0.6	274	13.6	13.6	-1.0	255	24.9	24.1	6.3	257	34.2	33.3	7.8	268	14.3	14.3	0.5
17	241	2.6	2.3	1.3	273	5.4	5.4	-0.3	292	7.9	7.3	-2.9	279	12.1	12.0	-1.9	258	27.2	26.6	5.8	261	35.2	34.7	5.7	272	25.5	25.5	-0.9
18	286	2.5	2.4	-0.7	279	2.6	2.6	-0.4	283	7.4	7.2	-1.7	283	11.4	11.1	-2.5	260	24.2	23.8	4.3	257	33.5	32.6	7.8	285	18.0	17.4	-4.6
19	255	2.8	2.7	0.7	287	3.7	3.5	-1.1	283	6.7	6.5	-1.5	290	10.3	9.7	-3.5	256	22.3	21.6	5.4	252	38.0	36.1	11.8	241	10.5	9.2	5.0
20	283	2.6	2.5	-0.6	305	4.2	3.4	-2.4	284	6.4	6.2	-1.5	284	10.8	10.5	-2.7	266	21.0	20.9	1.6	255	39.2	37.9	10.2	299	6.6	5.8	-3.2
21	276	4.8	4.8	-0.5	281	4.8	4.7	-0.9	288	7.5	7.1	-2.3	289	11.4	10.8	-3.7	258	21.5	21.0	4.6	254	33.8	32.5	9.2	245	5.3	4.8	2.2
22	271	4.7	4.7	-0.1	306	4.8	3.9	-2.8	282	4.9	4.8	-1.0	277	10.3	10.2	-1.3	258	23.9	23.4	4.9	264	38.2	38.0	3.8	270	12.7	12.7	-0.1
23	257	1.3	1.3	0.3	280	4.5	4.4	-0.8	293	6.5	6.0	-2.6	288	12.2	11.6	-3.7	280	26.3	25.9	-4.4	265	29.0	28.9	2.6	263	19.8	19.6	2.5
24	261	3.7	3.7	0.6	286	4.5	4.3	-1.2	287	7.3	7.0	-2.2	289	12.6	11.9	-4.2	280	23.5	23.2	-3.9	268	31.1	31.1	0.9	273	17.0	17.0	-0.8
25	239	6.9	5.9	3.6	279	6.7	6.6	-1.1	293	7.3	6.7	-2.9	297	9.4	8.4	-4.2	273	23.4	23.4	-1.3	260	29.3	28.9	5.0	259	12.1	11.9	2.4
26	251	5.7	5.4	1.9	289	5.4	5.1	-1.8	303	6.4	5.4	-3.5	298	10.4	9.2	-4.8	274	21.2	21.1	-1.5	261	25.7	25.4	4.1	251	27.5	26.1	8.8
27	256	5.5	5.3	1.3	277	5.1	5.1	-0.6	300	6.4	5.6	-3.2	301	10.4	8.9	-5.3	269	24.0	24.0	0.5	257	24.6	24.0	5.5	269	15.6	15.6	0.3
28	294	5.1	4.7	-2.1	303	6.3	5.3	-3.4	307	7.1	5.7	-4.3	298	7.5	6.6	-3.5	274	19.3	19.2	-1.5	249	22.6	21.1	8.1	245	3.8	3.5	1.6
29	305	4.2	3.4	-2.4	307	5.0	4.0	-3.0	309	6.9	5.4	-4.3	305	10.1	8.3	-5.8	280	20.5	20.2	-3.4	264	22.7	22.6	2.4	261	13.5	13.3	2.1
30	301	4.8	4.1	-2.5	310	5.6	4.3	-3.6	305	7.1	5.8	-4.1	313	9.6	7.0	-6.6	283	19.4	18.9	-4.5	273	22.5	22.5	-1.3	261	12.3	12.2	1.9

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	274	5.6	5.6	-0.4	285	6.5	6.3	-1.7	294	6.9	6.3	-2.8	299	8.8	7.7	-4.3	269	19.0	19.0	0.2	260	21.3	21.0	3.7	178	6.4	-0.2	6.4
2	271	7.2	7.2	-0.1	291	6.6	6.1	-2.4	303	3.3	2.8	-1.8	286	7.1	6.8	-1.9	264	17.5	17.4	1.9	250	20.1	18.9	6.8	231	5.3	4.1	3.3
3	268	5.5	5.5	0.2	304	4.2	3.5	-2.4	306	5.3	4.3	-3.1	297	9.3	8.3	-4.3	262	21.2	21.0	2.9	251	13.4	12.7	4.3	191	6.1	1.2	6.0
4	279	6.6	6.5	-1.0	302	5.2	4.4	-2.8	282	5.9	5.8	-1.2	285	9.4	9.1	-2.5	257	18.0	17.5	4.1	253	19.1	18.2	5.7	198	8.0	2.5	7.6
5	248	2.9	2.7	1.1	301	5.1	4.4	-2.6	302	7.8	6.6	-4.1	283	8.5	8.3	-1.9	258	19.3	18.9	4.0	254	20.9	20.1	5.8	231	2.2	1.7	1.4
6	284	3.6	3.5	-0.9	308	4.3	3.4	-2.7	298	6.4	5.7	-3.0	296	10.4	9.3	-4.6	260	17.2	16.9	3.0	263	21.6	21.5	2.5	257	15.2	14.8	3.4
7	283	4.7	4.6	-1.1	298	5.0	4.4	-2.3	297	5.1	4.6	-2.3	298	7.2	6.4	-3.4	264	12.7	12.6	1.3	248	19.8	18.4	7.3	260	16.0	15.8	2.8
8	253	3.9	3.7	1.1	283	3.6	3.5	-0.8	306	6.2	5.0	-3.6	301	6.9	5.9	-3.6	272	17.1	17.1	-0.5	258	20.3	19.8	4.3	262	5.6	5.5	0.8
9	277	5.1	5.1	-0.6	294	5.1	4.7	-2.1	305	6.0	4.9	-3.4	283	7.9	7.7	-1.8	262	16.8	16.6	2.4	255	18.7	18.1	4.8	278	7.4	7.3	-1.0
10	279	3.6	3.6	-0.6	286	5.0	4.8	-1.4	295	6.3	5.7	-2.7	286	9.4	9.0	-2.6	266	20.5	20.5	1.4	244	22.3	20.1	9.7	206	4.1	1.8	3.7
11	42	2.5	-1.7	-1.9	321	1.3	0.8	-1.0	297	4.7	4.2	-2.1	291	10.1	9.4	-3.6	268	17.9	17.9	0.6	254	15.9	15.3	4.3	253	3.4	3.2	1.0
12	316	3.7	2.6	-2.7	305	3.9	3.2	-2.2	309	7.2	5.6	-4.5	306	7.7	6.3	-4.5	262	14.8	14.7	2.1	250	20.8	19.5	7.1	207	6.1	2.8	5.4
13	327	2.0	1.1	-1.7	312	4.8	3.6	-3.2	314	6.2	4.5	-4.3	307	8.2	6.6	-4.9	270	13.8	13.8	0.0	261	15.4	15.2	2.5	225	8.3	5.8	5.9
14	275	4.3	4.3	-0.4	292	3.5	3.3	-1.3	310	7.0	5.4	-4.5	294	7.1	6.5	-2.9	268	12.3	12.3	0.4	250	12.8	12.0	4.4	233	3.8	3.0	2.3
15	288	6.0	5.7	-1.9	300	5.0	4.3	-2.5	311	7.7	5.8	-5.0	294	6.9	6.3	-2.8	262	9.9	9.8	1.4	258	11.8	11.5	2.5	198	2.9	0.9	2.8
16	285	3.5	3.4	-0.9	294	6.2	5.7	-2.5	309	7.5	5.8	-4.7	293	6.5	6.0	-2.5	263	14.1	14.0	1.7	248	14.5	13.4	5.5	138	1.2	-0.8	0.9
17	274	7.3	7.3	-0.5	291	6.0	5.6	-2.1	312	7.2	5.4	-4.8	291	8.4	7.8	-3.0	272	12.9	12.9	-0.4	249	11.8	11.0	4.2	130	5.0	-3.8	3.2
18	263	4.0	4.0	0.5	285	5.6	5.4	-1.4	307	8.0	6.4	-4.8	324	9.2	5.4	-7.4	279	11.4	11.3	-1.7	259	9.3	9.1	1.8	18	2.5	-0.8	-2.4
19	257	5.2	5.1	1.2	288	5.9	5.6	-1.8	325	7.0	4.0	-5.8	314	9.1	6.6	-6.3	270	12.5	12.5	-0.1	244	15.5	13.9	6.9	31	3.9	-2.0	-3.3
20	280	4.6	4.5	-0.8	275	5.3	5.3	-0.5	320	7.0	4.5	-5.4	298	6.9	6.1	-3.3	252	11.2	10.7	3.4	243	16.4	14.6	7.5	180	2.6	0.0	2.6
21	270	5.0	5.0	0.0	284	4.9	4.7	-1.2	313	5.3	3.9	-3.6	295	6.2	5.6	-2.6	247	6.5	6.0	2.5	242	14.5	12.8	6.9	114	3.4	-3.1	1.4
22	274	5.2	5.2	-0.4	285	5.7	5.5	-1.5	316	6.2	4.3	-4.4	317	5.2	3.5	-3.8	262	4.2	4.2	0.6	241	8.4	7.3	4.1	155	5.3	-2.2	4.8
23	259	6.0	5.9	1.1	300	3.4	3.0	-1.7	320	7.3	4.7	-5.6	317	6.5	4.4	-4.8	249	8.4	7.8	3.0	237	9.8	8.3	5.3	92	10.3	-10.3	0.3
24	223	4.1	2.8	3.0	297	3.9	3.5	-1.8	301	6.0	5.1	-3.1	322	6.1	3.7	-4.8	264	6.7	6.7	0.7	220	10.4	6.7	7.9	157	3.3	-1.3	3.0
25	260	4.1	4.0	0.7	306	3.1	2.5	-1.8	322	7.1	4.3	-5.6	298	4.7	4.1	-2.2	273	6.6	6.6	-0.3	225	10.5	7.4	7.4	138	5.0	-3.3	3.7
26	269	5.9	5.9	0.1	291	4.3	4.0	-1.5	323	5.4	3.2	-4.3	332	5.3	2.5	-4.7	266	4.5	4.5	0.3	224	7.7	5.4	5.5	66	10.0	-9.1	-4.1
27	271	7.7	7.7	-0.1	305	7.1	5.8	-4.1	329	6.5	3.3	-5.6	309	4.0	3.1	-2.5	269	7.2	7.2	0.1	223	8.1	5.5	5.9	97	13.8	-13.7	1.8
28	247	8.3	7.6	3.3	304	6.6	5.5	-3.7	323	5.1	3.1	-4.1	316	5.9	4.1	-4.3	258	8.0	7.8	1.7	237	10.3	8.7	5.6	140	7.1	-4.6	5.4
29	271	7.7	7.7	-0.1	300	6.4	5.5	-3.2	322	6.2	3.8	-4.9	314	4.7	3.4	-3.3	261	7.3	7.2	1.2	238	9.7	8.3	5.1	118	8.5	-7.5	4.0
30	291	4.3	4.0	-1.5	304	4.8	4.0	-2.7	304	5.3	4.4	-3.0	272	2.8	2.8	-0.1	259	6.7	6.6	1.3	213	7.0	3.8	5.9	143	8.4	-5.0	6.7
31	280	2.2	2.2	-0.4	288	3.8	3.6	-1.2	289	3.7	3.5	-1.2	293	3.8	3.5	-1.5	249	5.6	5.2	2.0	206	9.0	3.9	8.1	136	10.5	-7.3	7.5

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	248	4.1	3.8	1.5	308	4.6	3.6	-2.8	322	4.2	2.6	-3.3	291	3.9	3.6	-1.4	248	6.1	5.7	2.3	208	9.4	4.5	8.3	146	9.5	-5.3	7.9
2	273	5.9	5.9	-0.3	296	4.9	4.4	-2.1	313	4.4	3.2	-3.0	288	4.8	4.6	-1.5	244	5.5	4.9	2.4	198	7.3	2.3	6.9	98	5.5	-5.4	0.8
3	250	5.2	4.9	1.8	309	4.6	3.6	-2.9	339	8.2	2.9	-7.7	307	3.1	2.5	-1.9	180	2.7	0.0	2.7	180	5.6	0.0	5.6	123	9.0	-7.5	4.9
4	234	5.9	4.8	3.5	326	4.5	2.5	-3.7	347	9.2	2.1	-9.0	30	2.4	-1.2	-2.1	227	2.5	1.8	1.7	193	7.8	1.7	7.6	116	11.4	-10.2	5.0
5	216	5.2	3.0	4.2	291	4.2	3.9	-1.5	332	5.5	2.6	-4.8	344	3.2	0.9	-3.1	209	3.8	1.8	3.3	179	5.8	-0.1	5.8	105	15.4	-14.8	4.1
6	279	1.9	1.9	-0.3	295	3.3	3.0	-1.4	320	6.2	4.0	-4.7	313	4.4	3.2	-3.0	241	3.3	2.9	1.6	176	6.2	-0.4	6.2	98	11.6	-11.5	1.7
7	240	5.6	4.8	2.8	282	5.9	5.8	-1.2	308	6.0	4.7	-3.7	317	4.0	2.7	-2.9	207	0.7	0.3	0.6	122	4.4	-3.7	2.3	97	14.8	-14.7	1.8
8	275	4.2	4.2	-0.4	293	4.9	4.5	-1.9	296	4.3	3.9	-1.9	275	2.1	2.1	-0.2	329	1.2	0.6	-1.0	103	5.5	-5.4	1.2	90	15.5	-15.5	-0.1
9	255	6.6	6.4	1.7	281	5.6	5.5	-1.1	319	4.4	2.9	-3.3	290	4.1	3.9	-1.4	18	2.2	-0.7	-2.1	89	5.4	-5.4	-0.1	89	20.0	-20.0	-0.2
10	253	7.7	7.4	2.3	283	6.1	5.9	-1.4	318	3.8	2.5	-2.8	358	3.4	0.1	-3.4	68	3.5	-3.2	-1.3	81	5.1	-5.0	-0.8	86	17.4	-17.4	-1.1
11	249	8.5	7.9	3.0	275	7.6	7.6	-0.6	333	4.8	2.2	-4.3	351	3.0	0.5	-3.0	64	3.4	-3.1	-1.5	100	3.9	-3.8	0.7	88	12.8	-12.8	-0.5
12	260	5.4	5.3	0.9	296	5.1	4.6	-2.2	317	3.4	2.3	-2.5	336	2.4	1.0	-2.2	117	1.8	-1.6	0.8	114	4.5	-4.1	1.8	104	19.0	-18.4	4.6
13	248	6.1	5.6	2.3	273	5.3	5.3	-0.3	333	3.5	1.6	-3.1	32	1.3	-0.7	-1.1	98	2.8	-2.8	0.4	88	4.6	-4.6	-0.2	84	20.4	-20.3	-2.0
14	251	3.6	3.4	1.2	313	5.2	3.8	-3.5	351	5.7	0.9	-5.6	59	2.6	-2.2	-1.3	86	3.1	-3.1	-0.2	97	7.2	-7.1	0.9	109	21.3	-20.2	6.9
15	241	2.9	2.5	1.4	308	4.9	3.9	-3.0	359	4.1	0.1	-4.1	42	2.4	-1.6	-1.8	91	7.0	-7.0	0.1	84	11.0	-10.9	-1.1	79	8.8	-8.6	-1.7
16	275	3.4	3.4	-0.3	289	5.2	4.9	-1.7	316	3.3	2.3	-2.4	346	0.4	0.1	-0.4	82	4.4	-4.4	-0.6	75	8.0	-7.7	-2.0	87	16.9	-16.9	-0.9
17	278	4.1	4.1	-0.6	287	5.9	5.6	-1.7	325	3.3	1.9	-2.7	23	3.3	-1.3	-3.0	87	3.9	-3.9	-0.2	79	2.5	-2.5	-0.5	77	13.4	-13.1	-3.0
18	249	3.6	3.4	1.3	282	6.0	5.9	-1.3	353	3.8	0.5	-3.8	360	1.7	0.0	-1.7	98	5.9	-5.8	0.8	110	7.6	-7.1	2.6	99	10.9	-10.8	1.8
19	235	8.0	6.6	4.6	280	7.2	7.1	-1.3	358	3.5	0.1	-3.5	291	0.9	0.8	-0.3	71	4.2	-4.0	-1.4	89	7.5	-7.5	-0.1	88	21.1	-21.1	-0.9
20	251	6.4	6.0	2.1	275	8.2	8.2	-0.7	319	2.9	1.9	-2.2	284	6.3	6.1	-1.5	85	2.5	-2.5	-0.2	82	9.0	-8.9	-1.3	93	12.0	-12.0	0.6
21	262	7.6	7.5	1.1	286	8.7	8.4	-2.4	320	5.5	3.5	-4.2	317	2.2	1.5	-1.6	90	3.1	-3.1	0.0	96	9.2	-9.2	0.9	87	20.3	-20.3	-1.2
22	271	8.9	8.9	-0.2	298	7.6	6.7	-3.5	330	6.0	3.0	-5.2	358	3.5	0.1	-3.5	73	5.6	-5.4	-1.6	89	6.6	-6.6	-0.1	88	16.5	-16.5	-0.5
23	255	7.7	7.4	2.0	296	8.1	7.3	-3.5	321	5.4	3.4	-4.2	324	1.7	1.0	-1.4	96	6.2	-6.2	0.7	110	11.3	-10.6	3.8	85	17.5	-17.4	-1.6
24	266	11.0	11.0	0.8	279	8.0	7.9	-1.2	339	5.1	1.8	-4.8	312	1.3	1.0	-0.9	85	4.6	-4.6	-0.4	99	11.3	-11.2	1.8	114	22.7	-20.7	9.2
25	260	9.7	9.5	1.7	281	8.4	8.2	-1.6	328	4.7	2.5	-4.0	291	3.9	3.6	-1.4	68	5.4	-5.0	-2.0	93	10.5	-10.5	0.6	102	24.2	-23.7	5.1
26	274	8.3	8.3	-0.6	304	9.5	7.9	-5.3	321	5.1	3.2	-4.0	346	1.6	0.4	-1.6	85	6.3	-6.3	-0.6	90	17.6	-17.6	0.1	85	24.8	-24.7	-2.2
27	260	7.6	7.5	1.3	297	6.0	5.4	-2.7	333	3.6	1.6	-3.2	18	1.6	-0.5	-1.5	81	8.5	-8.4	-1.3	92	15.8	-15.8	0.5	93	20.5	-20.5	1.1
28	260	7.7	7.6	1.4	283	6.9	6.7	-1.5	331	3.1	1.5	-2.7	81	3.9	-3.9	-0.6	93	10.1	-10.1	0.5	90	16.2	-16.2	0.0	82	31.0	-30.7	-4.3
29	249	4.7	4.4	1.7	309	6.0	4.7	-3.8	325	2.9	1.7	-2.4	45	2.1	-1.5	-1.5	90	7.8	-7.8	0.0	95	12.5	-12.5	1.0	79	22.7	-22.3	-4.3
30	246	5.5	5.0	2.2	276	6.1	6.1	-0.6	304	2.3	1.9	-1.3	69	3.0	-2.8	-1.1	94	6.1	-6.1	0.4	84	16.8	-16.7	-1.8	80	32.4	-31.9	-5.5

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	258	6.8	6.7	1.4	290	6.8	6.4	-2.3	302	3.4	2.9	-1.8	101	1.0	-1.0	0.2	80	5.5	-5.4	-1.0	76	11.4	-11.1	-2.7	82	25.6	-25.3	-3.7
2	253	5.4	5.2	1.6	277	7.5	7.4	-0.9	298	5.2	4.6	-2.4	10	1.1	-0.2	-1.1	88	8.9	-8.9	-0.3	79	15.9	-15.6	-3.1	80	29.4	-29.0	-4.9
3	255	5.4	5.2	1.4	285	6.1	5.9	-1.6	329	2.3	1.2	-2.0	104	2.1	-2.0	0.5	73	6.7	-6.4	-2.0	74	16.6	-15.9	-4.7	100	26.6	-26.2	4.5
4	260	7.4	7.3	1.3	287	6.1	5.8	-1.8	310	3.0	2.3	-1.9	211	1.2	0.6	1.0	81	6.6	-6.5	-1.0	84	16.0	-15.9	-1.6	87	23.0	-23.0	-1.3
5	252	6.9	6.6	2.1	280	8.2	8.1	-1.4	313	2.3	1.7	-1.6	57	3.0	-2.5	-1.6	81	7.4	-7.3	-1.2	89	15.6	-15.6	-0.3	78	30.5	-29.8	-6.3
6	252	7.6	7.2	2.4	282	7.0	6.8	-1.5	315	4.0	2.8	-2.8	78	1.4	-1.4	-0.3	98	7.3	-7.2	1.0	92	15.8	-15.8	0.5	74	26.5	-25.5	-7.2
7	253	5.2	5.0	1.5	283	6.7	6.5	-1.5	323	4.4	2.6	-3.5	90	2.2	-2.2	0.0	82	6.4	-6.3	-0.9	92	14.5	-14.5	0.6	93	26.0	-26.0	1.5
8	254	4.3	4.1	1.2	276	5.9	5.9	-0.6	272	2.7	2.7	-0.1	146	1.4	-0.8	1.2	96	7.8	-7.8	0.8	79	15.2	-14.9	-2.8	84	26.1	-25.9	-2.9
9	234	7.8	6.3	4.6	267	4.4	4.4	0.2	279	2.5	2.5	-0.4	143	1.0	-0.6	0.8	86	4.7	-4.7	-0.3	86	15.6	-15.6	-1.2	103	25.9	-25.2	6.0
10	253	6.8	6.5	2.0	286	7.4	7.1	-2.0	337	3.4	1.3	-3.1	113	3.4	-3.1	1.3	87	7.5	-7.5	-0.4	81	18.2	-18.0	-3.0	83	30.2	-30.0	-3.6
11	258	6.0	5.9	1.3	282	5.5	5.4	-1.1	303	5.0	4.2	-2.7	135	1.4	-1.0	1.0	94	8.1	-8.1	0.5	77	16.6	-16.2	-3.7	78	30.3	-29.6	-6.3
12	247	6.5	6.0	2.5	286	7.5	7.2	-2.1	302	3.8	3.2	-2.0	93	1.8	-1.8	0.1	99	6.6	-6.5	1.0	69	17.8	-16.6	-6.4	89	29.4	-29.4	-0.5
13	253	7.5	7.2	2.2	274	7.4	7.4	-0.5	282	3.3	3.2	-0.7	292	0.5	0.5	-0.2	88	7.6	-7.6	-0.3	76	14.5	-14.1	-3.5	80	32.9	-32.4	-5.9
14	239	6.6	5.7	3.4	266	6.3	6.3	0.4	292	3.7	3.4	-1.4	135	0.7	-0.5	0.5	95	7.6	-7.6	0.7	83	18.0	-17.9	-2.1	74	31.4	-30.1	-8.8
15	294	5.2	4.8	-2.1	296	7.2	6.5	-3.2	291	4.7	4.4	-1.7	217	0.5	0.3	0.4	109	5.9	-5.6	1.9	80	13.4	-13.2	-2.4	90	27.4	-27.4	0.1
16	261	8.5	8.4	1.3	280	7.4	7.3	-1.3	313	3.5	2.6	-2.4	108	1.9	-1.8	0.6	81	11.9	-11.8	-1.8	74	18.3	-17.6	-5.0	87	33.2	-33.2	-1.8
17	259	7.4	7.3	1.4	289	5.4	5.1	-1.8	336	1.7	0.7	-1.6	94	4.0	-4.0	0.3	98	9.7	-9.6	1.3	80	17.5	-17.3	-2.9	77	21.2	-20.7	-4.6
18	257	6.6	6.4	1.5	305	4.7	3.9	-2.7	321	2.1	1.3	-1.6	73	3.1	-3.0	-0.9	97	9.6	-9.5	1.2	76	17.7	-17.1	-4.4	77	35.4	-34.4	-8.2
19	247	7.6	7.0	2.9	277	6.2	6.1	-0.8	296	2.8	2.5	-1.2	148	0.9	-0.5	0.8	94	5.3	-5.3	0.4	70	16.5	-15.5	-5.7	80	26.7	-26.3	-4.7
20	252	8.6	8.2	2.6	278	7.1	7.0	-1.0	301	4.1	3.5	-2.1	27	0.4	-0.2	-0.4	106	8.2	-7.9	2.3	76	16.7	-16.2	-4.1	83	28.7	-28.5	-3.7
21	266	7.4	7.4	0.5	301	6.6	5.7	-3.4	313	2.1	1.5	-1.4	122	1.5	-1.3	0.8	86	7.0	-7.0	-0.5	84	16.5	-16.4	-1.7	87	36.2	-36.2	-1.9
22	262	8.2	8.1	1.2	290	6.3	5.9	-2.1	338	3.8	1.4	-3.5	36	1.4	-0.8	-1.1	96	6.5	-6.5	0.7	83	14.0	-13.9	-1.8	85	29.7	-29.6	-2.5
23	273	8.5	8.5	-0.4	291	5.9	5.5	-2.1	313	2.5	1.8	-1.7	90	3.0	-3.0	0.0	96	8.3	-8.3	0.8	85	19.0	-18.9	-1.5	86	34.0	-33.9	-2.4
24	259	8.5	8.3	1.6	257	5.7	5.5	1.3	245	3.8	3.4	1.6	158	1.8	-0.7	1.7	86	8.5	-8.5	-0.6	78	14.2	-13.9	-2.9	84	22.3	-22.2	-2.2
25	252	8.4	8.0	2.6	269	6.9	6.9	0.1	264	4.5	4.5	0.5	151	2.5	-1.2	2.2	84	8.3	-8.3	-0.9	81	19.4	-19.2	-3.1	72	22.2	-21.1	-6.9
26	264	10.2	10.2	1.0	282	8.0	7.8	-1.6	266	4.0	4.0	0.3	191	0.5	0.1	0.5	89	9.8	-9.8	-0.1	93	20.4	-20.4	0.9	91	32.4	-32.4	0.4
27	265	8.5	8.5	0.7	291	7.3	6.8	-2.6	298	4.3	3.8	-2.0	18	0.3	-0.1	-0.3	88	10.0	-10.0	-0.4	74	16.6	-15.9	-4.6	77	31.8	-31.0	-6.9
28	265	6.3	6.3	0.6	290	8.2	7.7	-2.8	296	3.4	3.1	-1.5	9	1.8	-0.3	-1.8	88	8.5	-8.5	-0.3	76	17.8	-17.3	-4.3	80	25.3	-24.9	-4.5
29	259	7.0	6.9	1.4	299	8.5	7.4	-4.1	316	3.6	2.5	-2.6	90	2.3	-2.3	0.0	86	13.6	-13.6	-0.9	84	28.4	-28.2	-3.2	92	22.4	-22.4	0.8
30	273	4.4	4.4	-0.2	296	5.3	4.8	-2.3	301	3.5	3.0	-1.8	93	3.3	-3.3	0.2	86	11.0	-11.0	-0.8	84	17.9	-17.8	-1.9	84	36.0	-35.8	-3.5
31	261	5.3	5.2	0.8	297	7.2	6.4	-3.2	311	3.2	2.4	-2.1	90	3.0	-3.0	0.0	77	9.0	-8.8	-2.1	88	19.5	-19.5	-0.7	88	29.2	-29.2	-0.9

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	268	7.0	7.0	0.2	304	5.9	4.9	-3.3	333	3.3	1.5	-2.9	65	4.2	-3.8	-1.8	79	9.1	-8.9	-1.8	73	16.9	-16.1	-5.0	81	33.2	-32.8	-5.2
2	260	6.5	6.4	1.1	296	6.0	5.4	-2.6	321	2.2	1.4	-1.7	59	3.5	-3.0	-1.8	95	9.8	-9.8	0.8	84	16.5	-16.4	-1.8	87	29.0	-29.0	-1.5
3	256	8.1	7.9	2.0	293	5.9	5.4	-2.3	307	1.5	1.2	-0.9	128	3.3	-2.6	2.0	109	10.5	-9.9	3.4	81	13.2	-13.0	-2.1	73	23.6	-22.5	-7.0
4	269	6.6	6.6	0.1	300	5.2	4.5	-2.6	270	2.4	2.4	0.0	132	2.8	-2.1	1.9	95	9.0	-9.0	0.8	73	9.1	-8.7	-2.7	68	21.4	-19.8	-8.2
5	262	11.1	11.0	1.5	289	9.4	8.9	-3.0	289	4.2	4.0	-1.4	220	1.7	1.1	1.3	98	5.2	-5.2	0.7	69	14.6	-13.6	-5.3	81	29.0	-28.6	-4.7
6	263	9.2	9.1	1.1	291	9.2	8.6	-3.3	284	6.3	6.1	-1.5	10	1.1	-0.2	-1.1	80	9.0	-8.9	-1.5	79	14.0	-13.8	-2.6	76	32.6	-31.6	-8.1
7	258	8.5	8.3	1.8	294	7.1	6.5	-2.9	47	2.1	-1.5	-1.4	86	5.4	-5.4	-0.4	92	8.7	-8.7	0.3	63	29.5	-26.4	-13.2	80	26.4	-26.0	-4.5
8	269	5.3	5.3	0.1	310	3.8	2.9	-2.4	69	6.0	-5.6	-2.1	87	7.6	-7.6	-0.4	96	9.9	-9.8	1.1	81	16.2	-16.0	-2.4	79	29.5	-29.0	-5.5
9	278	7.5	7.4	-1.0	263	2.3	2.3	0.3	180	0.5	0.0	0.5	98	11.5	-11.4	1.7	106	10.2	-9.8	2.8	97	14.8	-14.7	1.9	79	29.5	-29.0	-5.6
10	276	4.9	4.9	-0.5	261	3.2	3.2	0.5	132	1.2	-0.9	0.8	110	7.4	-7.0	2.5	98	12.7	-12.6	1.8	82	16.7	-16.5	-2.4	100	20.3	-20.0	3.7
11	261	3.3	3.3	0.5	272	2.8	2.8	-0.1	297	0.2	0.2	-0.1	118	4.1	-3.6	1.9	95	10.2	-10.2	0.9	82	17.0	-16.8	-2.5	93	21.3	-21.3	1.3
12	249	6.4	6.0	2.3	295	4.7	4.3	-2.0	328	2.5	1.3	-2.1	81	3.2	-3.2	-0.5	94	9.7	-9.7	0.7	78	18.2	-17.8	-3.8	78	24.2	-23.7	-4.9
13	256	7.3	7.1	1.8	294	4.6	4.2	-1.9	296	2.8	2.5	-1.2	135	1.6	-1.1	1.1	93	5.9	-5.9	0.3	76	15.3	-14.8	-3.7	95	30.5	-30.4	2.4
14	270	7.8	7.8	0.0	305	6.1	5.0	-3.5	288	3.3	3.1	-1.0	156	2.0	-0.8	1.8	81	5.0	-4.9	-0.8	79	10.9	-10.7	-2.1	80	14.0	-13.8	-2.4
15	298	5.9	5.2	-2.8	308	6.2	4.9	-3.8	272	3.6	3.6	-0.1	83	1.7	-1.7	-0.2	78	9.3	-9.1	-1.9	79	14.4	-14.1	-2.7	84	36.0	-35.8	-3.7
16	293	7.3	6.7	-2.9	322	4.1	2.5	-3.2	352	1.5	0.2	-1.5	73	5.4	-5.2	-1.6	81	7.4	-7.3	-1.1	82	9.7	-9.6	-1.3	77	22.4	-21.8	-5.1
17	283	6.9	6.7	-1.5	319	4.3	2.8	-3.2	352	2.1	0.3	-2.1	60	6.6	-5.7	-3.3	86	11.4	-11.4	-0.8	81	21.3	-21.0	-3.4	85	28.0	-27.9	-2.6
18	290	6.2	5.8	-2.1	323	2.5	1.5	-2.0	180	1.2	0.0	1.2	95	3.2	-3.2	0.3	110	8.6	-8.1	2.9	79	12.0	-11.8	-2.2	88	34.2	-34.2	-1.1
19	287	5.3	5.1	-1.6	300	3.0	2.6	-1.5	353	1.6	0.2	-1.6	111	6.3	-5.9	2.3	99	8.7	-8.6	1.3	87	20.3	-20.3	-0.9	—	—	—	—
20	262	4.2	4.2	0.6	290	3.3	3.1	-1.1	337	2.5	1.0	-2.3	125	2.4	-2.0	1.4	88	9.5	-9.5	-0.3	83	12.1	-12.0	-1.4	—	—	—	—
21	291	4.3	4.0	-1.5	319	2.8	1.8	-2.1	336	3.6	1.5	-3.3	92	2.3	-2.3	0.1	85	8.5	-8.5	-0.7	74	15.2	-14.6	-4.1	81	28.0	-27.6	-4.5
22	313	1.8	1.3	-1.2	340	3.2	1.1	-3.0	11	1.0	-0.2	-1.0	101	1.6	-1.6	0.3	100	7.2	-7.1	1.3	79	13.2	-12.9	-2.6	97	25.5	-25.3	3.1
23	331	1.0	0.5	-0.9	332	2.7	1.3	-2.4	6	2.0	-0.2	-2.0	106	3.7	-3.6	1.0	93	8.4	-8.4	0.5	83	12.5	-12.4	-1.6	72	19.4	-18.5	-6.0
24	346	1.2	0.3	-1.2	319	3.0	2.0	-2.3	286	0.7	0.7	-0.2	142	3.3	-2.0	2.6	105	10.9	-10.5	2.8	83	15.2	-15.1	-1.9	93	25.3	-25.3	1.5
25	303	1.7	1.4	-0.9	296	3.9	3.5	-1.7	295	1.9	1.7	-0.8	107	3.1	-3.0	0.9	83	8.9	-8.8	-1.1	82	14.9	-14.8	-2.0	99	26.5	-26.1	4.3
26	265	3.3	3.3	0.3	308	5.3	4.2	-3.3	297	1.3	1.2	-0.6	113	3.9	-3.6	1.5	91	7.7	-7.7	0.2	89	14.9	-14.9	-0.3	94	25.0	-24.9	1.6
27	278	1.5	1.5	-0.2	317	4.1	2.8	-3.0	25	2.1	-0.9	-1.9	69	4.4	-4.1	-1.6	105	8.1	-7.8	2.1	88	15.2	-15.2	-0.5	93	21.0	-21.0	1.1
28	277	2.4	2.4	-0.3	329	5.0	2.6	-4.3	23	2.3	-0.9	-2.1	100	3.4	-3.3	0.6	100	8.5	-8.4	1.5	80	15.4	-15.2	-2.7	76	25.5	-24.7	-6.2
29	275	5.6	5.6	-0.5	322	5.3	3.3	-4.2	5	4.8	-0.4	-4.8	83	4.1	-4.1	-0.5	90	10.2	-10.2	0.0	79	13.5	-13.3	-2.5	90	13.0	-13.0	0.0
30	270	5.8	5.8	0.0	303	4.5	3.8	-2.5	329	2.3	1.2	-2.0	77	1.8	-1.8	-0.4	85	6.3	-6.3	-0.6	84	12.5	-12.4	-1.3	77	22.5	-21.9	-5.2
31	278	5.9	5.8	-0.8	305	5.0	4.1	-2.9	311	2.9	2.2	-1.9	53	0.5	-0.4	-0.3	98	4.9	-4.9	0.7	57	8.9	-7.5	-4.8	78	19.4	-19.0	-4.0

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	281	6.2	6.1	-1.2	299	4.7	4.1	-2.3	290	4.0	3.8	-1.4	162	0.9	-0.3	0.9	110	6.3	-5.9	2.2	78	13.2	-12.9	-2.7	94	20.8	-20.8	1.3
2	265	6.4	6.4	0.6	297	5.4	4.8	-2.4	306	4.9	4.0	-2.9	127	1.0	-0.8	0.6	96	5.7	-5.7	0.6	77	12.7	-12.4	-2.8	101	22.2	-21.8	4.4
3	267	7.2	7.2	0.4	306	6.4	5.2	-3.8	258	2.9	2.8	0.6	135	2.4	-1.7	1.7	98	4.9	-4.9	0.7	91	11.4	-11.4	0.1	92	19.7	-19.7	0.6
4	289	4.3	4.1	-1.4	296	6.0	5.4	-2.6	281	3.7	3.6	-0.7	107	1.4	-1.3	0.4	83	6.0	-6.0	-0.7	81	13.1	-12.9	-2.0	87	19.4	-19.4	-0.9
5	287	2.8	2.7	-0.8	292	5.1	4.7	-1.9	288	2.5	2.4	-0.8	325	1.2	0.7	-1.0	82	5.5	-5.4	-0.8	75	11.6	-11.2	-2.9	99	19.3	-19.1	2.9
6	267	4.0	4.0	0.2	295	5.1	4.6	-2.1	308	3.1	2.4	-1.9	360	0.4	0.0	-0.4	83	5.5	-5.5	-0.7	88	13.3	-13.3	-0.5	98	17.5	-17.3	2.4
7	257	5.1	5.0	1.2	309	5.7	4.4	-3.6	323	3.4	2.0	-2.7	356	1.5	0.1	-1.5	85	4.7	-4.7	-0.4	88	9.4	-9.4	-0.4	91	16.4	-16.4	0.2
8	290	3.5	3.3	-1.2	317	4.7	3.2	-3.4	304	2.3	1.9	-1.3	149	1.2	-0.6	1.0	111	4.9	-4.6	1.8	100	9.5	-9.3	1.7	105	17.8	-17.2	4.7
9	277	3.3	3.3	-0.4	329	5.0	2.6	-4.3	329	2.6	1.3	-2.2	129	2.1	-1.6	1.3	99	4.9	-4.8	0.8	100	11.3	-11.1	2.0	86	18.2	-18.2	-1.3
10	303	2.0	1.7	-1.1	344	2.9	0.8	-2.8	345	3.1	0.8	-3.0	93	1.9	-1.9	0.1	115	4.5	-4.1	1.9	83	11.3	-11.2	-1.4	98	14.0	-13.9	2.0
11	264	3.1	3.1	0.3	288	2.6	2.5	-0.8	306	1.4	1.1	-0.8	207	1.3	0.6	1.2	85	3.3	-3.3	-0.3	96	7.5	-7.5	0.8	94	15.6	-15.6	1.2
12	263	3.3	3.3	0.4	277	3.2	3.2	-0.4	288	2.0	1.9	-0.6	189	2.0	0.3	2.0	114	4.8	-4.4	2.0	81	7.2	-7.1	-1.1	84	10.2	-10.2	-1.0
13	286	3.3	3.2	-0.9	317	5.0	3.4	-3.6	342	1.9	0.6	-1.8	126	0.9	-0.7	0.5	102	3.8	-3.7	0.8	102	8.0	-7.8	1.7	88	13.5	-13.5	-0.5
14	295	2.6	2.4	-1.1	314	3.5	2.5	-2.4	335	3.8	1.6	-3.5	82	0.7	-0.7	-0.1	80	4.7	-4.6	-0.8	89	7.8	-7.8	-0.1	90	12.6	-12.6	0.1
15	265	3.6	3.6	0.3	288	3.8	3.6	-1.2	299	2.6	2.3	-1.3	246	2.0	1.8	0.8	89	3.9	-3.9	-0.1	81	6.6	-6.5	-1.0	103	8.7	-8.5	2.0
16	272	5.0	5.0	-0.2	298	3.8	3.4	-1.8	312	2.4	1.8	-1.6	235	1.2	1.0	0.7	119	2.9	-2.5	1.4	94	5.9	-5.9	0.4	110	12.7	-11.9	4.3
17	290	4.1	3.9	-1.4	330	2.8	1.4	-2.4	322	3.4	2.1	-2.7	284	1.2	1.2	-0.3	23	0.8	-0.3	-0.7	103	1.7	-1.7	0.4	85	10.9	-10.9	-1.0
18	265	4.6	4.6	0.4	318	2.7	1.8	-2.0	345	2.3	0.6	-2.2	297	0.7	0.6	-0.3	137	2.5	-1.7	1.8	139	3.3	-2.2	2.5	86	8.0	-8.0	-0.5
19	266	4.3	4.3	0.3	318	1.5	1.0	-1.1	333	2.7	1.2	-2.4	146	1.4	-0.8	1.2	88	3.0	-3.0	-0.1	82	2.7	-2.7	-0.4	96	11.6	-11.5	1.3
20	333	4.2	1.9	-3.8	293	1.5	1.4	-0.6	283	0.9	0.9	-0.2	188	3.5	0.5	3.5	174	1.8	-0.2	1.8	159	3.3	-1.2	3.1	77	10.3	-10.0	-2.3
21	351	3.6	0.6	-3.6	335	1.7	0.7	-1.5	356	2.6	0.2	-2.6	201	1.4	0.5	1.3	124	3.4	-2.8	1.9	117	3.1	-2.8	1.4	96	9.8	-9.7	1.1
22	349	4.3	0.8	-4.2	10	2.2	-0.4	-2.2	10	2.2	-0.4	-2.2	150	2.0	-1.0	1.7	94	3.0	-3.0	0.2	152	1.5	-0.7	1.3	87	8.1	-8.1	-0.4
23	356	2.7	0.2	-2.7	22	1.6	-0.6	-1.5	21	1.4	-0.5	-1.3	185	2.5	0.2	2.5	214	1.4	0.8	1.2	180	0.7	0.0	0.7	72	2.0	-1.9	-0.6
24	335	1.7	0.7	-1.5	153	0.9	-0.4	0.8	51	0.6	-0.5	-0.4	123	2.0	-1.7	1.1	113	3.6	-3.3	1.4	81	5.4	-5.3	-0.8	76	8.0	-7.8	-1.9
25	342	2.5	0.8	-2.4	353	0.8	0.1	-0.8	13	1.7	-0.4	-1.7	259	0.5	0.5	0.1	101	1.5	-1.5	0.3	101	3.2	-3.1	0.6	87	9.4	-9.4	-0.5
26	34	1.8	-1.0	-1.5	356	2.8	0.2	-2.8	354	2.9	0.3	-2.9	333	0.7	0.3	-0.6	180	0.1	0.0	0.1	143	3.4	-2.0	2.7	100	11.5	-11.3	1.9
27	21	1.9	-0.7	-1.8	352	3.0	0.4	-3.0	331	3.3	1.6	-2.9	214	0.7	0.4	0.6	200	2.9	1.0	2.7	196	1.9	0.5	1.8	95	11.8	-11.8	1.0
28	18	1.6	-0.5	-1.5	318	2.7	1.8	-2.0	313	2.2	1.6	-1.5	196	1.5	0.4	1.4	197	3.0	0.9	2.9	191	3.3	0.6	3.2	103	7.6	-7.4	1.7
29	74	0.7	-0.7	-0.2	332	1.9	0.9	-1.7	318	1.3	0.9	-1.0	232	2.3	1.8	1.4	237	3.5	2.9	1.9	158	2.4	-0.9	2.2	101	7.6	-7.4	1.5
30	12	2.5	-0.5	-2.4	351	3.6	0.6	-3.6	322	2.8	1.7	-2.2	245	1.7	1.5	0.7	245	4.5	4.1	1.9	228	4.5	3.3	3.0	109	9.0	-8.5	3.0

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	37	1.0	-0.6	-0.8	8	2.7	-0.4	-2.7	358	2.8	0.1	-2.8	218	1.1	0.7	0.9	202	2.9	1.1	2.7	191	3.7	0.7	3.6	121	8.7	-7.4	4.5
2	24	1.0	-0.4	-0.9	8	1.4	-0.2	-1.4	352	2.2	0.3	-2.2	202	1.6	0.6	1.5	223	4.5	3.1	3.3	223	7.1	4.8	5.2	112	5.4	-5.0	2.0
3	360	0.9	0.0	-0.9	19	2.1	-0.7	-2.0	352	2.1	0.3	-2.1	212	2.5	1.3	2.1	221	5.5	3.6	4.2	226	5.9	4.3	4.1	91	5.7	-5.7	0.1
4	34	1.1	-0.6	-0.9	15	2.3	-0.6	-2.2	355	2.4	0.2	-2.4	238	2.8	2.4	1.5	248	5.1	4.7	1.9	198	4.9	1.5	4.7	104	2.9	-2.8	0.7
5	58	2.5	-2.1	-1.3	49	1.8	-1.4	-1.2	4	2.6	-0.2	-2.6	225	2.4	1.7	1.7	231	6.5	5.1	4.1	220	7.2	4.6	5.5	139	6.5	-4.2	4.9
6	62	2.4	-2.1	-1.1	14	0.8	-0.2	-0.8	8	0.7	-0.1	-0.7	226	4.0	2.9	2.8	226	7.6	5.5	5.3	230	8.7	6.6	5.6	125	1.2	-1.0	0.7
7	58	3.6	-3.0	-1.9	7	1.6	-0.2	-1.6	328	1.5	0.8	-1.3	236	4.1	3.4	2.3	237	7.6	6.4	4.1	239	10.0	8.6	5.2	221	7.9	5.2	6.0
8	127	3.0	-2.4	1.8	24	1.0	-0.4	-0.9	284	1.2	1.2	-0.3	234	3.2	2.6	1.9	235	9.0	7.4	5.2	223	9.2	6.3	6.7	126	4.6	-3.7	2.7
9	38	2.4	-1.5	-1.9	349	2.6	0.5	-2.6	329	3.7	1.9	-3.2	272	3.0	3.0	-0.1	247	6.7	6.2	2.6	241	9.0	7.8	4.4	160	3.0	-1.0	2.8
10	95	2.1	-2.1	0.2	13	1.8	-0.4	-1.8	346	2.9	0.7	-2.8	260	2.9	2.9	0.5	250	6.1	5.7	2.1	242	6.9	6.1	3.2	242	4.7	4.1	2.2
11	106	3.3	-3.2	0.9	348	2.4	0.5	-2.3	349	3.6	0.7	-3.5	266	3.2	3.2	0.2	259	7.1	7.0	1.4	243	11.4	10.1	5.2	131	4.1	-3.1	2.7
12	113	1.5	-1.4	0.6	5	3.6	-0.3	-3.6	11	3.2	-0.6	-3.1	275	2.1	2.1	-0.2	233	6.9	5.5	4.1	252	9.2	8.8	2.8	245	1.9	1.7	0.8
13	79	2.0	-2.0	-0.4	5	3.5	-0.3	-3.5	353	3.9	0.5	-3.9	266	3.0	3.0	0.2	241	9.7	8.5	4.7	228	9.9	7.4	6.6	184	3.1	0.2	3.1
14	90	3.1	-3.1	0.0	15	3.5	-0.9	-3.4	341	3.4	1.1	-3.2	265	2.5	2.5	0.2	250	9.5	8.9	3.2	233	12.4	9.9	7.5	211	13.4	6.8	11.5
15	49	2.3	-1.7	-1.5	6	3.8	-0.4	-3.8	354	3.1	0.3	-3.1	268	3.3	3.3	0.1	232	12.5	9.9	7.6	224	17.3	12.0	12.5	135	1.8	-1.3	1.3
16	64	5.5	-4.9	-2.4	10	2.9	-0.5	-2.9	338	2.9	1.1	-2.7	274	4.1	4.1	-0.3	245	10.3	9.4	4.3	241	15.3	13.3	7.5	128	3.3	-2.6	2.0
17	58	3.4	-2.9	-1.8	346	2.1	0.5	-2.0	317	2.1	1.4	-1.5	267	1.7	1.7	0.1	250	8.1	7.6	2.8	244	13.3	11.9	5.9	82	3.6	-3.6	-0.5
18	67	2.1	-1.9	-0.8	20	2.0	-0.7	-1.9	311	1.1	0.8	-0.7	293	2.1	1.9	-0.8	244	8.3	7.5	3.6	241	10.2	9.0	4.9	205	6.3	2.7	5.7
19	61	2.1	-1.8	-1.0	29	3.8	-1.8	-3.3	360	2.6	0.0	-2.6	255	3.4	3.3	0.9	250	10.2	9.6	3.5	237	17.9	15.0	9.8	77	4.0	-3.9	-0.9
20	46	2.8	-2.0	-1.9	16	3.6	-1.0	-3.5	6	1.8	-0.2	-1.8	244	5.8	5.2	2.5	248	12.3	11.4	4.6	245	16.1	14.5	6.9	216	8.5	5.0	6.9
21	360	2.3	0.0	-2.3	6	3.6	-0.4	-3.6	315	3.0	2.1	-2.1	257	7.1	6.9	1.6	250	12.2	11.5	4.2	238	10.6	9.0	5.6	306	2.7	2.2	-1.6
22	22	2.4	-0.9	-2.2	16	2.5	-0.7	-2.4	337	3.3	1.3	-3.0	294	5.4	4.9	-2.2	254	12.6	12.1	3.4	248	14.7	13.7	5.4	210	5.2	2.6	4.5
23	21	1.9	-0.7	-1.8	15	3.0	-0.8	-2.9	330	2.2	1.1	-1.9	277	4.2	4.2	-0.5	254	12.6	12.1	3.5	244	15.7	14.1	6.9	229	12.5	9.5	8.2
24	76	0.4	-0.4	-0.1	21	2.5	-0.9	-2.3	341	3.1	1.0	-2.9	260	6.3	6.2	1.1	258	11.4	11.1	2.4	252	12.3	11.7	3.8	153	4.7	-2.1	4.2
25	42	2.4	-1.6	-1.8	9	2.4	-0.4	-2.4	320	3.3	2.1	-2.5	264	8.3	8.3	0.8	261	12.9	12.7	2.1	262	17.2	17.0	2.3	198	5.6	1.7	5.3
26	48	4.6	-3.4	-3.1	23	3.0	-1.2	-2.8	317	3.3	2.2	-2.4	277	6.4	6.4	-0.8	265	16.0	15.9	1.3	257	16.8	16.4	3.8	245	10.3	9.4	4.3
27	45	4.5	-3.2	-3.2	26	3.2	-1.4	-2.9	334	3.7	1.6	-3.3	268	6.2	6.2	0.2	258	17.0	16.6	3.6	247	19.6	18.0	7.8	229	6.9	5.2	4.6
28	42	5.5	-3.7	-4.1	19	2.4	-0.8	-2.3	322	5.4	3.3	-4.3	271	8.1	8.1	-0.2	251	16.6	15.7	5.4	241	16.1	14.1	7.8	178	5.4	-0.2	5.4
29	33	4.5	-2.5	-3.8	15	2.7	-0.7	-2.6	342	4.1	1.3	-3.9	274	7.8	7.8	-0.6	248	16.9	15.7	6.3	248	19.1	17.7	7.1	260	9.6	9.5	1.6
30	47	5.1	-3.7	-3.5	27	3.6	-1.6	-3.2	344	3.7	1.0	-3.6	286	6.5	6.2	-1.8	261	17.0	16.8	2.6	249	21.7	20.3	7.6	237	9.8	8.2	5.4
31	52	5.2	-4.1	-3.2	38	3.1	-1.9	-2.4	345	1.6	0.4	-1.5	260	7.2	7.1	1.3	261	16.6	16.4	2.7	251	21.1	20.0	6.8	304	2.2	1.8	-1.2

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	51	4.4	-3.4	-2.8	28	3.0	-1.4	-2.6	335	2.3	1.0	-2.1	271	7.6	7.6	-0.1	260	18.4	18.1	3.1	261	18.6	18.4	2.9	280	2.3	2.3	-0.4
2	65	4.7	-4.3	-2.0	52	3.4	-2.7	-2.1	351	1.9	0.3	-1.9	281	6.3	6.2	-1.2	270	16.0	16.0	-0.1	250	19.2	18.0	6.7	268	11.1	11.1	0.3
3	41	4.5	-3.0	-3.4	50	3.4	-2.6	-2.2	307	2.5	2.0	-1.5	291	6.3	5.9	-2.3	271	18.4	18.4	-0.4	257	19.7	19.2	4.5	297	9.3	8.3	-4.3
4	57	4.9	-4.1	-2.7	45	2.7	-1.9	-1.9	323	3.8	2.3	-3.0	272	8.2	8.2	-0.3	272	18.8	18.8	-0.8	260	24.0	23.6	4.1	294	8.0	7.3	-3.2
5	67	3.8	-3.5	-1.5	23	2.8	-1.1	-2.6	340	2.7	0.9	-2.5	289	8.9	8.4	-2.9	260	22.4	22.1	3.7	257	27.3	26.6	6.1	240	7.2	6.2	3.6
6	62	3.6	-3.2	-1.7	41	2.9	-1.9	-2.2	333	3.3	1.5	-2.9	286	8.8	8.5	-2.4	263	21.0	20.9	2.4	255	26.9	26.0	6.8	246	11.0	10.1	4.4
7	56	4.1	-3.4	-2.3	29	3.8	-1.8	-3.3	320	3.1	2.0	-2.4	290	8.8	8.3	-3.0	267	23.1	23.1	1.4	255	27.7	26.7	7.3	265	10.7	10.7	1.0
8	69	3.4	-3.2	-1.2	22	2.7	-1.0	-2.5	320	3.3	2.1	-2.5	283	7.7	7.5	-1.8	266	19.2	19.2	1.3	248	24.9	23.1	9.4	273	11.0	11.0	-0.5
9	57	3.3	-2.8	-1.8	21	2.5	-0.9	-2.3	324	2.9	1.7	-2.3	286	8.0	7.7	-2.2	275	22.0	21.9	-2.1	253	26.0	24.9	7.5	303	12.7	10.6	-7.0
10	38	2.4	-1.5	-1.9	340	2.9	1.0	-2.7	297	3.9	3.5	-1.8	279	10.5	10.4	-1.6	264	19.4	19.3	2.1	265	22.0	21.9	1.9	317	3.4	2.3	-2.5
11	33	3.0	-1.6	-2.5	355	3.3	0.3	-3.3	312	4.3	3.2	-2.9	286	10.3	9.9	-2.8	268	21.5	21.5	0.6	252	24.0	22.8	7.5	296	9.9	8.9	-4.4
12	47	2.1	-1.5	-1.4	9	1.8	-0.3	-1.8	319	3.7	2.4	-2.8	295	7.2	6.5	-3.1	267	21.1	21.1	1.0	251	26.8	25.4	8.7	294	6.9	6.3	-2.8
13	56	2.2	-1.8	-1.2	360	3.1	0.0	-3.1	322	4.1	2.5	-3.2	282	8.2	8.0	-1.7	268	20.7	20.7	0.6	256	29.2	28.4	6.9	249	8.0	7.5	2.9
14	40	3.0	-1.9	-2.3	18	2.9	-0.9	-2.8	326	3.0	1.7	-2.5	302	6.5	5.5	-3.4	271	19.1	19.1	-0.4	260	26.5	26.1	4.7	270	12.1	12.1	-0.1
15	64	4.1	-3.7	-1.8	30	2.8	-1.4	-2.4	324	2.4	1.4	-1.9	280	7.9	7.8	-1.4	265	21.0	20.9	1.7	257	25.9	25.2	5.8	279	7.6	7.5	-1.2
16	55	5.9	-4.8	-3.4	47	2.5	-1.8	-1.7	309	2.1	1.6	-1.3	278	6.4	6.3	-0.9	269	20.7	20.7	0.4	259	25.0	24.5	4.9	273	8.2	8.2	-0.4
17	47	2.2	-1.6	-1.5	360	1.7	0.0	-1.7	287	4.2	4.0	-1.2	271	8.0	8.0	-0.2	262	21.0	20.8	2.9	254	26.7	25.6	7.5	252	12.7	12.1	3.9
18	32	2.6	-1.4	-2.2	17	1.4	-0.4	-1.3	294	3.0	2.7	-1.2	266	7.9	7.9	0.5	263	23.0	22.8	3.0	251	27.8	26.3	8.9	270	12.0	12.0	0.1
19	40	3.1	-2.0	-2.4	360	2.2	0.0	-2.2	286	3.6	3.5	-1.0	264	10.8	10.7	1.2	262	22.4	22.2	3.3	255	28.6	27.6	7.6	209	10.4	5.0	9.1
20	54	4.1	-3.3	-2.4	358	2.7	0.1	-2.7	288	4.7	4.5	-1.5	279	12.2	12.0	-2.0	257	27.3	26.6	6.1	242	30.7	27.2	14.3	262	16.8	16.7	2.2
21	51	3.8	-3.0	-2.4	22	2.2	-0.8	-2.0	309	4.1	3.2	-2.6	274	10.6	10.6	-0.7	259	25.9	25.4	5.0	241	35.9	31.4	17.3	252	9.5	9.0	2.9
22	67	3.6	-3.3	-1.4	12	2.4	-0.5	-2.3	280	4.6	4.5	-0.8	261	11.0	10.9	1.7	252	25.8	24.6	7.8	240	29.6	25.7	14.7	248	14.1	13.1	5.2
23	56	2.7	-2.2	-1.5	351	2.6	0.4	-2.6	286	4.8	4.6	-1.3	259	11.1	10.9	2.1	252	26.9	25.6	8.4	243	29.6	26.3	13.5	282	10.9	10.7	-2.2
24	40	4.3	-2.8	-3.3	4	3.9	-0.3	-3.9	300	3.9	3.4	-2.0	266	11.6	11.6	0.8	258	22.7	22.2	4.9	239	24.9	21.4	12.8	227	10.2	7.5	6.9
25	28	4.2	-2.0	-3.7	348	3.5	0.7	-3.4	314	5.4	3.9	-3.8	282	13.5	13.2	-2.9	271	27.8	27.8	-0.3	255	33.3	32.2	8.5	249	16.5	15.5	5.8
26	33	2.7	-1.5	-2.3	338	2.9	1.1	-2.7	300	5.0	4.3	-2.5	280	13.6	13.4	-2.3	270	26.6	26.6	-0.2	261	28.3	27.9	4.6	271	14.9	14.9	-0.2
27	38	2.4	-1.5	-1.9	344	3.3	0.9	-3.2	295	6.1	5.5	-2.6	277	13.0	12.9	-1.6	269	28.2	28.2	0.3	254	31.3	30.1	8.5	256	9.6	9.3	2.3
28	63	3.7	-3.3	-1.7	2	3.0	-0.1	-3.0	300	6.7	5.8	-3.3	273	13.4	13.4	-0.7	268	25.5	25.5	0.8	255	32.0	30.9	8.3	263	12.7	12.6	1.5
29	51	3.2	-2.5	-2.0	12	3.3	-0.7	-3.2	305	6.5	5.3	-3.7	287	12.7	12.1	-3.7	266	24.6	24.5	1.6	248	31.2	29.0	11.6	257	16.2	15.8	3.6
30	61	3.1	-2.7	-1.5	23	2.3	-0.9	-2.1	307	6.3	5.0	-3.8	290	12.5	11.8	-4.2	266	25.6	25.6	1.6	257	33.1	32.3	7.2	248	18.4	17.1	6.8

Daily Normals of Upper Air Winds (1971-2000)

RAIPUR **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	51	3.2	-2.5	-2.0	5	2.2	-0.2	-2.2	296	5.5	5.0	-2.4	276	12.5	12.4	-1.2	271	24.9	24.9	-0.3	253	30.6	29.2	9.1	264	19.7	19.6	1.9
2	53	4.0	-3.2	-2.4	354	1.8	0.2	-1.8	293	5.4	5.0	-2.1	273	11.6	11.6	-0.6	265	26.3	26.2	2.4	251	30.8	29.2	9.8	239	9.6	8.3	4.9
3	58	3.8	-3.2	-2.0	4	1.4	-0.1	-1.4	281	5.4	5.3	-1.0	270	11.8	11.8	-0.1	262	22.7	22.5	3.0	249	24.8	23.1	9.0	222	8.5	5.7	6.3
4	66	2.4	-2.2	-1.0	317	2.5	1.7	-1.8	293	5.0	4.6	-2.0	276	12.0	11.9	-1.2	263	23.0	22.8	2.7	255	27.2	26.3	6.9	248	13.3	12.3	5.0
5	55	2.4	-2.0	-1.4	346	2.9	0.7	-2.8	312	5.4	4.0	-3.6	288	11.2	10.6	-3.5	269	21.9	21.9	0.5	252	25.1	23.9	7.7	243	10.5	9.4	4.7
6	54	2.7	-2.2	-1.6	2	3.6	-0.1	-3.6	313	5.1	3.7	-3.5	288	12.7	12.1	-4.0	260	23.6	23.2	4.2	261	24.8	24.5	3.9	277	14.3	14.2	-1.7
7	60	3.2	-2.8	-1.6	350	3.6	0.6	-3.5	299	5.3	4.6	-2.6	285	12.1	11.7	-3.1	269	21.1	21.1	0.4	261	27.9	27.6	4.3	232	25.7	20.2	15.9
8	25	4.7	-2.0	-4.3	354	4.0	0.4	-4.0	309	4.5	3.5	-2.8	280	8.2	8.1	-1.5	259	23.3	22.8	4.6	238	26.9	22.8	14.2	269	16.6	16.6	0.4
9	45	2.3	-1.6	-1.6	360	2.4	0.0	-2.4	293	3.8	3.5	-1.5	268	10.9	10.9	0.4	260	28.8	28.3	5.1	246	32.0	29.3	12.9	266	16.0	16.0	1.1
10	16	3.7	-1.0	-3.6	336	4.2	1.7	-3.8	276	5.8	5.8	-0.6	269	13.6	13.6	0.2	267	26.7	26.7	1.3	255	28.7	27.8	7.2	254	15.9	15.3	4.4
11	31	3.1	-1.6	-2.7	339	1.7	0.6	-1.6	285	5.5	5.3	-1.4	271	12.3	12.3	-0.2	269	23.7	23.7	0.3	259	25.6	25.2	4.7	282	17.3	16.9	-3.7
12	41	3.0	-2.0	-2.3	302	1.9	1.6	-1.0	287	5.1	4.9	-1.5	279	13.2	13.0	-2.0	265	27.2	27.1	2.4	245	33.2	30.0	14.3	257	14.9	14.5	3.4
13	31	3.5	-1.8	-3.0	321	2.8	1.8	-2.2	290	6.7	6.3	-2.3	275	15.0	14.9	-1.3	262	25.6	25.4	3.5	259	28.5	28.0	5.3	276	17.5	17.4	-1.9
14	28	3.4	-1.6	-3.0	328	3.9	2.1	-3.3	286	6.0	5.8	-1.7	275	13.4	13.4	-1.1	261	23.5	23.2	3.8	254	29.3	28.1	8.2	258	10.9	10.7	2.3
15	38	2.3	-1.4	-1.8	338	3.1	1.2	-2.9	287	8.4	8.0	-2.5	274	16.7	16.7	-1.2	261	32.0	31.6	5.0	258	26.4	25.8	5.7	266	14.7	14.7	1.1
16	48	2.7	-2.0	-1.8	347	3.7	0.8	-3.6	297	6.8	6.1	-3.1	286	15.3	14.7	-4.1	272	29.3	29.3	-1.1	260	30.2	29.8	5.1	267	17.2	17.2	1.0
17	79	2.0	-2.0	-0.4	347	2.2	0.5	-2.1	295	6.1	5.5	-2.6	285	13.8	13.3	-3.5	270	27.0	27.0	-0.2	256	36.3	35.3	8.6	258	19.8	19.4	4.2
18	46	3.3	-2.4	-2.3	347	3.2	0.7	-3.1	305	7.7	6.3	-4.4	292	15.3	14.2	-5.6	277	27.8	27.6	-3.3	266	34.6	34.5	2.2	274	27.2	27.1	-1.7
19	46	3.6	-2.6	-2.5	339	3.9	1.4	-3.6	296	8.1	7.3	-3.5	283	14.9	14.5	-3.3	271	25.2	25.2	-0.6	265	36.0	35.9	2.9	264	17.2	17.1	1.9
20	48	1.5	-1.1	-1.0	324	1.7	1.0	-1.4	306	6.1	4.9	-3.6	275	13.7	13.6	-1.3	270	27.9	27.9	0.0	260	32.2	31.7	5.7	275	23.3	23.2	-2.2
21	45	2.1	-1.5	-1.5	312	2.5	1.9	-1.7	300	7.0	6.1	-3.5	283	13.9	13.5	-3.2	265	26.4	26.3	2.3	263	36.8	36.5	4.3	261	17.3	17.1	2.6
22	31	1.7	-0.9	-1.5	311	2.9	2.2	-1.9	295	6.3	5.7	-2.7	274	14.2	14.2	-1.0	270	28.6	28.6	-0.1	254	37.2	35.8	10.2	267	9.2	9.2	0.5
23	24	2.4	-1.0	-2.2	285	2.0	1.9	-0.5	300	6.7	5.8	-3.3	284	12.1	11.7	-2.9	271	29.5	29.5	-0.6	250	33.1	31.1	11.3	251	16.3	15.4	5.2
24	53	2.0	-1.6	-1.2	281	2.0	2.0	-0.4	274	7.5	7.5	-0.5	270	15.7	15.7	0.1	263	31.5	31.3	3.6	256	35.7	34.7	8.5	256	26.9	26.1	6.4
25	70	1.5	-1.4	-0.5	266	1.4	1.4	0.1	274	7.0	7.0	-0.5	276	18.0	17.9	-2.0	265	29.6	29.5	2.7	262	40.2	39.8	5.9	269	22.2	22.2	0.2
26	52	2.3	-1.8	-1.4	297	2.0	1.8	-0.9	277	6.6	6.6	-0.8	273	15.2	15.2	-0.8	268	30.8	30.8	0.9	256	32.8	31.8	7.9	249	18.8	17.6	6.6
27	60	2.4	-2.1	-1.2	328	2.2	1.2	-1.9	279	7.6	7.5	-1.2	273	16.3	16.3	-0.9	263	33.4	33.1	4.2	261	37.6	37.1	5.9	267	20.0	20.0	1.2
28	81	1.9	-1.9	-0.3	272	2.6	2.6	-0.1	285	7.0	6.8	-1.8	274	15.8	15.8	-1.2	266	29.4	29.3	1.8	264	37.9	37.7	3.8	272	21.8	21.8	-0.7
29	53	2.0	-1.6	-1.2	307	1.5	1.2	-0.9	283	7.4	7.2	-1.7	277	13.7	13.6	-1.7	268	28.0	28.0	1.1	263	33.6	33.4	4.0	264	12.0	11.9	1.2
30	360	1.6	0.0	-1.6	319	3.0	2.0	-2.3	284	7.6	7.4	-1.8	272	16.4	16.4	-0.7	265	26.2	26.1	2.2	253	40.7	38.9	12.0	268	23.6	23.6	0.9
31	60	2.4	-2.1	-1.2	307	3.4	2.7	-2.0	294	7.9	7.2	-3.2	271	17.2	17.2	-0.3	263	36.0	35.8	4.1	264	38.0	37.8	3.9	260	17.1	16.8	3.0

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	329	3.5	1.8	-3.0	293	4.9	4.5	-1.9	292	10.2	9.5	-3.8	280	23.4	23.1	-4.0	274	31.9	31.8	-2.5	268	39.6	39.6	1.1	—	—	—	—
2	317	2.6	1.8	-1.9	304	5.4	4.5	-3.0	287	10.9	10.4	-3.1	278	24.4	24.2	-3.4	269	39.3	39.3	0.7	273	45.1	45.1	-2.1	266	12.0	12.0	0.8
3	297	2.9	2.6	-1.3	308	6.2	4.9	-3.8	291	10.5	9.8	-3.8	284	23.4	22.7	-5.7	275	39.8	39.6	-3.5	266	35.8	35.7	2.2	276	21.0	20.9	-2.2
4	322	2.4	1.5	-1.9	304	4.7	3.9	-2.6	294	11.3	10.3	-4.6	289	20.9	19.8	-6.8	278	36.9	36.6	-5.0	279	47.9	47.4	-7.1	281	49.6	48.7	-9.5
5	312	1.5	1.1	-1.0	300	4.6	4.0	-2.3	291	10.7	10.0	-3.8	277	20.8	20.7	-2.4	271	39.7	39.7	-0.5	270	50.7	50.7	0.3	293	48.0	44.2	-18.8
6	287	1.4	1.3	-0.4	307	5.9	4.7	-3.5	291	11.8	11.0	-4.2	284	19.4	18.8	-4.7	267	40.0	40.0	1.9	266	39.2	39.1	2.9	133	18.0	-13.2	12.3
7	175	1.2	-0.1	1.2	288	3.8	3.6	-1.2	290	9.1	8.6	-3.1	271	21.4	21.4	-0.4	264	39.2	39.0	4.0	258	33.7	33.0	6.9	—	—	—	—
8	297	0.7	0.6	-0.3	287	3.8	3.6	-1.1	278	11.1	11.0	-1.5	270	23.7	23.7	-0.2	267	39.4	39.3	2.0	270	41.3	41.3	0.2	288	27.0	25.7	-8.3
9	349	1.5	0.3	-1.5	297	5.6	5.0	-2.6	287	10.1	9.7	-2.9	261	22.5	22.2	3.7	260	39.1	38.4	7.1	235	67.0	54.9	38.4	—	—	—	—
10	343	1.0	0.3	-1.0	294	6.7	6.1	-2.7	286	11.8	11.4	-3.2	274	23.4	23.3	-1.7	280	33.9	33.4	-5.8	262	44.1	43.7	6.2	280	17.0	16.7	-3.0
11	294	2.7	2.5	-1.1	300	5.6	4.8	-2.8	290	9.6	9.0	-3.3	265	21.4	21.3	1.8	268	36.0	36.0	1.0	283	37.4	36.4	-8.5	289	11.0	10.4	-3.6
12	323	2.5	1.5	-2.0	297	6.4	5.7	-2.9	286	13.3	12.8	-3.7	268	23.8	23.8	0.8	258	34.6	33.8	7.3	259	28.2	27.7	5.2	—	—	—	—
13	318	4.3	2.9	-3.2	290	4.1	3.9	-1.4	296	10.1	9.1	-4.4	275	24.1	24.0	-1.9	257	48.9	47.6	11.3	251	41.9	39.6	13.8	—	—	—	—
14	306	2.6	2.1	-1.5	298	7.0	6.2	-3.3	284	12.9	12.5	-3.1	288	25.4	24.2	-7.8	291	39.1	36.6	-13.7	273	49.7	49.6	-2.7	239	9.0	7.7	4.6
15	300	2.0	1.7	-1.0	279	4.5	4.4	-0.7	291	11.6	10.8	-4.1	273	21.7	21.7	-1.1	259	45.5	44.7	8.3	252	63.0	60.1	19.0	—	—	—	—
16	308	2.4	1.9	-1.5	286	4.7	4.5	-1.3	287	12.2	11.7	-3.6	275	23.1	23.0	-2.0	265	42.0	41.9	3.3	256	44.2	43.0	10.4	285	56.0	54.1	-14.5
17	318	4.6	3.1	-3.4	300	8.6	7.5	-4.3	286	12.7	12.2	-3.6	280	22.8	22.5	-3.8	279	34.1	33.7	-5.5	245	36.0	32.6	15.2	277	31.0	30.8	-3.8
18	324	3.4	2.0	-2.8	295	6.5	5.9	-2.7	294	12.4	11.4	-5.0	276	20.3	20.2	-2.3	278	38.8	38.4	-5.6	275	39.9	39.7	-3.7	285	29.0	28.0	-7.5
19	301	2.6	2.2	-1.3	295	7.3	6.6	-3.1	292	12.5	11.6	-4.7	280	21.5	21.2	-3.7	270	32.8	32.8	0.1	267	54.3	54.2	2.7	—	—	—	—
20	247	0.8	0.7	0.3	282	5.1	5.0	-1.1	286	14.3	13.7	-4.0	280	26.1	25.7	-4.4	275	40.0	39.9	-3.2	281	45.0	44.2	-8.3	311	19.0	14.3	-12.5
21	311	3.2	2.4	-2.1	290	5.5	5.2	-1.9	291	13.6	12.7	-5.0	286	25.9	24.8	-7.3	266	42.0	41.9	2.7	257	37.3	36.4	8.3	261	22.2	21.9	3.5
22	300	3.4	3.0	-1.7	285	7.3	7.0	-1.9	292	12.7	11.8	-4.7	277	27.4	27.2	-3.4	265	36.6	36.5	2.9	258	40.6	39.8	8.2	264	30.0	29.8	3.1
23	318	4.0	2.7	-3.0	305	6.4	5.2	-3.7	287	13.2	12.6	-3.9	278	27.4	27.1	-3.7	267	40.4	40.3	2.3	242	36.0	31.8	16.9	213	40.0	21.8	33.5
24	308	4.6	3.6	-2.8	283	8.2	8.0	-1.8	296	14.4	12.9	-6.3	284	23.2	22.5	-5.7	262	34.3	33.9	5.0	243	32.6	29.2	14.6	293	8.0	7.4	-3.1
25	314	6.5	4.7	-4.5	304	7.3	6.1	-4.1	296	11.9	10.7	-5.3	278	19.9	19.7	-2.7	260	24.3	24.0	4.1	247	39.2	36.0	15.6	273	20.2	20.2	-0.9
26	314	7.2	5.2	-5.0	303	7.1	5.9	-3.9	305	12.8	10.4	-7.4	282	17.2	16.8	-3.5	260	26.0	25.6	4.6	258	30.6	30.0	6.2	280	18.0	17.7	-3.1
27	314	5.7	4.1	-4.0	313	7.7	5.6	-5.3	302	10.7	9.0	-5.7	278	22.2	22.0	-3.0	264	31.2	31.0	3.2	260	40.9	40.3	6.8	270	19.0	19.0	0.0
28	321	4.6	2.9	-3.6	293	5.9	5.4	-2.3	290	9.9	9.3	-3.4	265	21.0	20.9	1.7	262	42.9	42.5	6.2	291	59.0	55.1	-21.1	282	46.0	45.0	-9.6
29	326	2.5	1.4	-2.1	294	6.0	5.5	-2.5	292	12.9	12.0	-4.8	278	23.6	23.4	-3.1	273	43.3	43.2	-2.2	287	55.9	53.6	-16.0	272	27.0	27.0	-0.9
30	312	3.9	2.9	-2.6	278	7.6	7.5	-1.1	284	13.3	12.9	-3.1	279	22.7	22.4	-3.7	278	36.3	36.0	-4.8	289	35.2	33.3	-11.5	290	4.0	3.8	-1.4
31	305	2.4	2.0	-1.4	285	5.2	5.0	-1.3	280	11.2	11.0	-1.9	278	24.2	24.0	-3.4	265	49.7	49.5	3.9	261	47.7	47.1	7.6	306	27.0	21.8	-15.9

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	352	2.9	0.4	-2.9	287	5.9	5.7	-1.7	282	13.9	13.6	-3.0	282	25.1	24.6	-5.1	268	38.9	38.9	1.2	258	43.5	42.6	9.0	—	—	—	—
2	270	1.4	1.4	0.0	290	4.7	4.4	-1.6	279	14.2	14.0	-2.1	275	26.8	26.7	-2.3	269	32.0	32.0	0.6	263	26.1	25.9	3.0	265	21.5	21.4	1.7
3	283	2.3	2.2	-0.5	277	5.0	5.0	-0.6	277	11.2	11.1	-1.4	272	24.2	24.2	-0.9	266	36.3	36.2	2.7	268	51.0	51.0	1.8	—	—	—	—
4	333	1.1	0.5	-1.0	285	4.6	4.4	-1.2	283	11.1	10.8	-2.5	283	23.8	23.2	-5.3	275	40.8	40.7	-3.4	263	53.9	53.5	6.3	254	19.0	18.3	5.2
5	309	1.9	1.5	-1.2	292	6.5	6.0	-2.4	289	12.7	12.0	-4.1	279	25.3	25.0	-4.0	271	39.6	39.6	-0.9	267	75.9	75.8	3.7	266	61.1	60.9	4.3
6	317	2.6	1.8	-1.9	287	6.1	5.8	-1.8	283	12.0	11.7	-2.7	278	19.8	19.6	-2.8	261	40.2	39.7	6.1	270	36.1	36.1	-0.3	281	29.9	29.4	-5.7
7	240	1.4	1.2	0.7	278	6.3	6.2	-0.9	286	12.2	11.7	-3.4	286	21.7	20.9	-5.8	282	27.5	26.9	-5.6	275	39.7	39.5	-3.7	307	24.8	19.7	-15.0
8	310	2.6	2.0	-1.7	289	5.4	5.1	-1.8	289	11.3	10.7	-3.7	278	21.0	20.8	-3.1	274	31.6	31.5	-2.4	271	39.8	39.8	-0.9	329	17.4	8.9	-15.0
9	242	1.5	1.3	0.7	271	4.2	4.2	-0.1	283	11.7	11.4	-2.7	279	20.8	20.5	-3.3	246	38.4	35.2	15.4	256	64.7	62.8	15.7	—	—	—	—
10	301	0.6	0.5	-0.3	284	3.7	3.6	-0.9	277	10.2	10.1	-1.2	277	20.6	20.5	-2.4	276	31.0	30.9	-3.0	249	46.9	43.7	16.9	—	—	—	—
11	312	4.2	3.1	-2.8	261	3.9	3.9	0.6	287	10.8	10.3	-3.2	280	21.9	21.6	-3.7	270	30.5	30.5	0.0	274	44.1	44.0	-2.8	311	26.0	19.7	-17.0
12	301	2.6	2.2	-1.3	287	6.4	6.1	-1.9	299	13.7	12.0	-6.6	289	22.8	21.5	-7.6	285	26.6	25.7	-7.0	260	56.0	55.2	9.4	30	14.0	-7.0	-12.1
13	309	4.0	3.1	-2.5	296	5.9	5.3	-2.6	287	13.9	13.3	-4.1	286	19.8	19.1	-5.4	273	33.6	33.6	-1.8	267	38.6	38.6	1.7	—	—	—	—
14	302	3.6	3.1	-1.9	296	6.1	5.5	-2.7	282	11.0	10.8	-2.3	272	23.0	23.0	-0.8	268	40.6	40.6	1.2	264	50.8	50.5	5.2	276	46.0	45.7	-4.8
15	270	2.9	2.9	0.0	281	6.2	6.1	-1.2	285	11.4	11.0	-2.9	264	23.3	23.2	2.5	248	44.7	41.4	16.9	244	43.7	39.3	19.1	—	—	—	—
16	294	4.4	4.0	-1.8	281	7.6	7.4	-1.5	287	13.2	12.6	-3.9	279	26.1	25.8	-3.9	289	48.5	45.8	-15.9	303	61.5	51.3	-33.9	—	—	—	—
17	300	4.3	3.7	-2.1	297	6.2	5.5	-2.8	283	12.7	12.4	-2.9	282	23.8	23.3	-4.8	260	38.5	38.0	6.4	252	51.4	48.8	16.1	252	23.0	21.9	7.1
18	314	3.6	2.6	-2.5	288	5.2	5.0	-1.6	272	12.5	12.5	-0.4	275	25.4	25.3	-2.3	251	37.4	35.5	11.9	249	49.5	46.2	17.8	—	—	—	—
19	310	3.0	2.3	-1.9	288	6.1	5.8	-1.9	274	13.3	13.3	-0.9	275	24.3	24.2	-2.0	264	33.9	33.7	3.7	242	44.1	39.0	20.6	—	—	—	—
20	351	1.8	0.3	-1.8	295	6.8	6.2	-2.9	277	12.8	12.7	-1.5	275	23.6	23.5	-1.9	261	44.1	43.5	7.0	270	43.0	43.0	-0.3	284	14.7	14.3	-3.5
21	339	1.4	0.5	-1.3	285	4.8	4.6	-1.2	288	12.2	11.6	-3.7	273	26.8	26.8	-1.4	263	37.6	37.3	4.6	267	43.9	43.8	2.5	270	35.0	35.0	0.0
22	300	1.6	1.4	-0.8	277	5.6	5.6	-0.7	280	15.2	15.0	-2.7	278	28.1	27.8	-4.0	282	46.2	45.3	-9.3	253	46.0	44.0	13.3	—	—	—	—
23	274	2.6	2.6	-0.2	290	6.3	5.9	-2.2	285	13.8	13.3	-3.5	286	25.5	24.5	-6.9	277	47.2	46.9	-5.4	263	31.8	31.5	4.0	—	—	—	—
24	328	0.9	0.5	-0.8	290	6.8	6.4	-2.3	286	12.7	12.2	-3.4	283	20.3	19.8	-4.4	272	39.5	39.5	-1.7	265	54.7	54.5	4.5	—	—	—	—
25	253	2.8	2.7	0.8	280	7.0	6.9	-1.2	294	13.2	12.0	-5.4	281	23.6	23.2	-4.5	268	42.2	42.2	1.2	279	74.0	73.2	-11.0	—	—	—	—
26	283	3.7	3.6	-0.8	295	7.9	7.2	-3.3	291	14.1	13.1	-5.1	282	24.4	23.9	-4.9	275	32.5	32.4	-2.6	268	39.9	39.9	1.2	—	—	—	—
27	322	3.6	2.2	-2.8	309	8.2	6.4	-5.2	288	16.1	15.3	-4.9	281	22.2	21.8	-4.1	263	45.5	45.1	5.8	259	37.9	37.2	7.1	276	13.0	12.9	-1.4
28	293	1.3	1.2	-0.5	296	6.7	6.0	-2.9	293	12.2	11.2	-4.8	284	23.2	22.5	-5.5	271	35.4	35.4	-0.4	273	56.2	56.1	-3.3	—	—	—	—
29	286	4.6	4.4	-1.3	299	10.9	9.5	-5.3	297	14.3	12.8	-6.4	281	20.2	19.9	-3.7	270	32.9	32.9	0.2	264	49.9	49.6	5.5	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	328	4.0	2.1	-3.4	286	6.0	5.8	-1.7	288	12.9	12.3	-3.9	282	22.1	21.6	-4.5	279	40.4	39.9	-6.6	277	37.9	37.6	-4.8	—	—	—	—
2	310	3.9	3.0	-2.5	299	8.1	7.1	-3.9	286	13.5	13.0	-3.7	289	19.4	18.4	-6.3	272	29.6	29.6	-1.2	265	40.9	40.7	3.5	—	—	—	—
3	304	4.5	3.7	-2.5	298	7.9	7.0	-3.7	279	12.5	12.4	-1.9	276	18.3	18.2	-1.8	278	34.6	34.2	-5.1	280	39.8	39.2	-6.8	249	30.0	28.0	10.8
4	294	2.4	2.2	-1.0	292	6.5	6.0	-2.4	292	11.1	10.3	-4.1	289	18.6	17.6	-5.9	275	31.0	30.9	-2.5	264	38.1	37.9	3.8	278	37.9	37.6	-5.0
5	309	5.4	4.2	-3.4	299	7.9	6.9	-3.9	293	13.8	12.7	-5.5	284	20.4	19.8	-4.8	269	38.4	38.4	0.9	263	29.6	29.4	3.8	274	34.2	34.1	-2.2
6	318	3.0	2.0	-2.2	282	6.0	5.9	-1.3	290	12.7	11.9	-4.4	279	20.6	20.4	-3.2	268	33.8	33.8	1.2	268	47.3	47.3	1.7	245	19.0	17.2	8.0
7	343	3.0	0.9	-2.9	302	6.2	5.2	-3.3	289	11.3	10.7	-3.7	280	21.5	21.2	-3.8	275	38.8	38.7	-3.4	272	37.2	37.2	-1.6	259	20.0	19.7	3.7
8	304	5.4	4.5	-3.0	290	7.8	7.3	-2.7	287	13.3	12.7	-4.0	288	19.4	18.4	-6.0	275	32.8	32.7	-2.7	267	36.8	36.8	1.7	280	17.6	17.3	-3.1
9	314	4.3	3.1	-3.0	287	8.6	8.2	-2.5	283	13.0	12.6	-3.0	278	18.2	18.0	-2.6	277	25.6	25.4	-3.0	270	35.9	35.9	0.3	285	36.0	34.8	-9.2
10	330	4.6	2.3	-4.0	297	6.9	6.2	-3.1	283	12.8	12.5	-2.8	283	20.1	19.6	-4.6	289	21.2	20.1	-6.8	258	27.7	27.1	5.7	290	23.4	22.0	-8.0
11	298	3.8	3.4	-1.8	290	8.0	7.5	-2.8	291	12.6	11.7	-4.6	277	21.1	20.9	-2.7	265	30.4	30.3	2.9	264	39.0	38.8	4.4	261	18.0	17.8	2.8
12	304	1.4	1.2	-0.8	291	5.3	4.9	-1.9	284	13.4	13.0	-3.2	272	21.6	21.6	-0.6	264	30.6	30.4	3.2	259	44.3	43.4	8.7	260	24.0	23.6	4.2
13	283	3.2	3.1	-0.7	288	8.2	7.8	-2.6	278	14.3	14.1	-2.1	280	21.1	20.8	-3.6	268	27.4	27.4	1.0	266	39.2	39.1	3.0	271	56.0	56.0	-1.0
14	312	3.9	2.9	-2.6	293	8.9	8.2	-3.4	283	14.2	13.9	-3.1	288	20.9	19.9	-6.4	280	23.8	23.4	-4.3	268	43.3	43.3	1.6	276	31.6	31.4	-3.3
15	319	4.0	2.6	-3.0	293	8.4	7.7	-3.3	283	12.8	12.5	-2.9	288	21.5	20.4	-6.7	295	32.4	29.3	-13.8	277	36.2	35.9	-4.7	276	17.6	17.5	-1.9
16	307	6.3	5.0	-3.8	304	8.7	7.2	-4.9	291	12.9	12.0	-4.6	286	18.3	17.6	-4.9	297	28.5	25.4	-13.0	279	36.2	35.7	-5.9	258	23.1	22.6	5.0
17	309	4.0	3.1	-2.5	293	8.3	7.6	-3.3	292	13.5	12.5	-5.0	289	20.4	19.3	-6.6	272	37.9	37.9	-1.3	275	36.7	36.6	-2.9	297	5.9	5.3	-2.7
18	284	3.7	3.6	-0.9	287	7.6	7.3	-2.2	286	13.4	12.9	-3.8	284	19.8	19.2	-4.9	280	35.0	34.4	-6.2	271	38.1	38.1	-0.6	271	11.6	11.6	-0.2
19	322	2.9	1.8	-2.3	298	7.4	6.5	-3.5	281	13.1	12.9	-2.4	288	19.8	18.8	-6.1	274	32.2	32.1	-2.3	267	30.7	30.7	1.5	269	33.4	33.4	0.5
20	328	3.6	1.9	-3.1	302	7.6	6.5	-4.0	284	15.5	15.1	-3.7	281	23.5	23.1	-4.4	269	37.4	37.4	0.5	262	39.9	39.5	5.7	257	10.3	10.0	2.3
21	311	2.9	2.2	-1.9	294	7.0	6.4	-2.8	281	14.7	14.4	-2.7	286	22.2	21.3	-6.1	264	41.5	41.3	4.3	272	39.8	39.8	-1.1	281	17.0	16.7	-3.2
22	300	1.4	1.2	-0.7	293	6.7	6.2	-2.6	296	14.2	12.7	-6.3	282	20.0	19.5	-4.3	278	35.0	34.6	-5.0	283	37.2	36.2	-8.4	274	17.0	17.0	-1.2
23	352	3.5	0.5	-3.5	298	6.6	5.8	-3.1	275	12.5	12.5	-1.1	282	22.4	21.9	-4.6	283	40.9	39.9	-9.2	296	36.3	32.5	-16.2	294	22.0	20.1	-8.9
24	325	2.4	1.4	-2.0	286	5.9	5.7	-1.6	276	12.7	12.6	-1.3	280	20.2	19.9	-3.6	272	32.1	32.1	-0.9	288	33.5	31.9	-10.3	280	15.1	14.9	-2.5
25	304	4.7	3.9	-2.6	293	6.5	6.0	-2.6	281	12.6	12.3	-2.5	281	18.3	17.9	-3.6	270	31.3	31.3	-0.2	269	41.4	41.4	0.4	287	18.2	17.4	-5.2
26	323	2.1	1.3	-1.7	296	4.1	3.7	-1.8	277	12.5	12.4	-1.5	277	17.9	17.8	-2.1	266	31.5	31.4	2.3	262	50.5	50.0	7.1	219	10.9	6.9	8.5
27	325	2.9	1.7	-2.4	293	6.0	5.5	-2.3	276	12.5	12.4	-1.3	283	19.2	18.7	-4.4	270	29.8	29.8	0.2	259	44.0	43.2	8.4	276	36.4	36.2	-4.1
28	306	3.1	2.5	-1.8	306	6.9	5.6	-4.1	285	11.8	11.4	-3.1	289	14.7	13.9	-4.7	277	26.8	26.6	-3.1	272	37.7	37.7	-1.6	294	20.5	18.7	-8.5
29	342	2.0	0.6	-1.9	307	4.3	3.4	-2.6	287	9.3	8.9	-2.7	287	14.1	13.5	-4.1	270	25.9	25.9	0.0	274	35.8	35.7	-2.5	268	13.3	13.3	0.4
30	254	1.9	1.8	0.5	290	5.5	5.2	-1.9	297	11.7	10.4	-5.4	291	16.5	15.4	-6.0	275	29.6	29.5	-2.4	276	25.2	25.0	-2.8	303	15.3	12.9	-8.3
31	329	2.1	1.1	-1.8	312	7.2	5.3	-4.8	295	13.2	11.9	-5.6	287	18.5	17.7	-5.4	279	27.8	27.5	-4.2	264	36.3	36.1	3.9	247	21.5	19.8	8.4

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	259	1.5	1.5	0.3	310	5.2	4.0	-3.3	283	10.3	10.0	-2.3	277	16.2	16.1	-2.1	261	28.0	27.7	4.3	259	45.2	44.4	8.6	296	28.5	25.5	-12.7
2	279	3.3	3.3	-0.5	293	6.0	5.5	-2.3	279	11.9	11.8	-1.8	282	19.1	18.7	-4.0	265	30.9	30.8	2.8	279	41.1	40.6	-6.1	273	23.9	23.9	-1.3
3	295	1.7	1.5	-0.7	290	5.5	5.2	-1.9	281	10.2	10.0	-1.9	280	19.1	18.8	-3.2	257	34.7	33.8	7.8	255	44.5	43.0	11.3	268	25.7	25.7	0.8
4	250	1.5	1.4	0.5	302	6.7	5.7	-3.5	272	12.2	12.2	-0.5	283	17.1	16.7	-3.9	266	31.5	31.4	2.1	264	39.4	39.2	4.1	289	27.0	25.5	-8.9
5	270	1.6	1.6	0.0	297	5.4	4.8	-2.4	281	10.9	10.7	-2.1	287	17.7	16.9	-5.1	264	33.2	33.0	3.4	276	35.0	34.8	-3.5	262	18.3	18.1	2.4
6	307	3.1	2.5	-1.9	301	6.9	5.9	-3.6	280	10.8	10.6	-1.9	288	17.4	16.5	-5.4	275	30.2	30.1	-2.5	281	35.6	34.9	-6.8	305	15.0	12.3	-8.6
7	294	3.4	3.1	-1.4	290	8.1	7.6	-2.8	297	11.0	9.8	-4.9	302	16.1	13.6	-8.6	290	28.3	26.7	-9.5	272	29.6	29.6	-1.2	276	18.0	17.9	-2.0
8	285	2.8	2.7	-0.7	292	6.9	6.4	-2.6	296	12.4	11.2	-5.4	287	16.3	15.6	-4.8	276	31.3	31.1	-3.4	268	35.5	35.5	1.5	258	21.9	21.4	4.6
9	255	3.4	3.3	0.9	294	6.9	6.3	-2.8	287	11.6	11.1	-3.3	287	17.0	16.3	-5.0	277	35.2	35.0	-4.0	271	30.8	30.8	-0.3	18	16.0	-4.9	-15.2
10	256	2.1	2.0	0.5	297	7.4	6.6	-3.4	283	12.9	12.5	-3.0	278	17.4	17.2	-2.3	267	28.2	28.2	1.6	261	38.2	37.8	5.8	307	11.7	9.3	-7.1
11	324	4.4	2.6	-3.6	307	6.4	5.1	-3.8	283	12.3	12.0	-2.8	285	17.2	16.6	-4.5	266	28.2	28.1	2.2	258	30.2	29.5	6.4	274	13.8	13.8	-1.0
12	284	2.9	2.8	-0.7	300	6.0	5.2	-3.0	292	10.7	9.9	-4.0	288	15.7	14.9	-4.9	273	29.8	29.8	-1.6	259	39.8	39.1	7.5	255	28.0	27.1	7.2
13	314	3.6	2.6	-2.5	298	5.8	5.1	-2.7	292	11.2	10.4	-4.1	284	16.7	16.2	-4.1	275	29.7	29.6	-2.6	274	29.9	29.8	-2.1	273	16.5	16.5	-1.0
14	301	2.1	1.8	-1.1	312	5.5	4.1	-3.7	283	10.6	10.3	-2.4	288	15.1	14.4	-4.7	274	23.2	23.2	-1.5	279	29.4	29.0	-4.7	247	17.7	16.3	7.0
15	247	2.8	2.6	1.1	288	5.7	5.4	-1.8	289	9.9	9.4	-3.2	288	12.7	12.1	-4.0	270	29.1	29.1	-0.1	266	37.3	37.2	2.5	270	23.9	23.9	0.2
16	263	2.6	2.6	0.3	298	4.7	4.1	-2.2	279	10.5	10.4	-1.7	275	12.7	12.6	-1.2	264	24.3	24.2	2.5	264	33.5	33.3	3.5	258	13.4	13.1	2.8
17	268	3.8	3.8	0.1	294	5.7	5.2	-2.3	285	11.9	11.5	-3.1	281	14.6	14.3	-2.9	265	28.1	28.0	2.4	256	26.1	25.3	6.3	247	26.5	24.4	10.4
18	322	2.4	1.5	-1.9	294	4.7	4.3	-1.9	280	12.0	11.8	-2.0	282	13.8	13.5	-2.8	263	26.1	25.9	3.3	257	33.0	32.1	7.5	243	12.3	10.9	5.6
19	253	2.4	2.3	0.7	296	5.0	4.5	-2.2	287	12.1	11.5	-3.6	286	13.3	12.8	-3.7	257	24.1	23.5	5.4	265	25.8	25.7	2.4	254	10.4	10.0	2.8
20	306	2.4	1.9	-1.4	307	3.8	3.0	-2.3	289	10.4	9.8	-3.4	288	14.3	13.6	-4.3	262	27.9	27.6	3.9	250	30.6	28.8	10.2	271	18.4	18.4	-0.3
21	237	2.4	2.0	1.3	295	5.3	4.8	-2.2	287	9.7	9.3	-2.9	286	13.3	12.8	-3.7	266	21.3	21.2	1.5	265	21.0	20.9	1.8	267	9.1	9.1	0.4
22	293	2.1	1.9	-0.8	299	6.0	5.2	-2.9	284	11.8	11.5	-2.8	279	11.0	10.9	-1.7	271	24.3	24.3	-0.4	261	29.6	29.2	4.6	266	11.5	11.5	0.8
23	260	2.3	2.3	0.4	279	4.4	4.3	-0.7	291	9.6	8.9	-3.5	286	12.0	11.5	-3.4	269	24.9	24.9	0.4	275	36.4	36.3	-2.9	282	17.7	17.3	-3.7
24	231	2.7	2.1	1.7	284	5.3	5.1	-1.3	280	10.3	10.1	-1.8	292	10.9	10.1	-4.1	272	26.2	26.2	-1.0	267	31.2	31.2	1.6	277	8.6	8.5	-1.0
25	243	2.8	2.5	1.3	278	4.8	4.7	-0.7	294	9.6	8.8	-3.9	281	11.1	10.9	-2.1	257	23.3	22.7	5.3	256	28.4	27.6	6.8	262	11.5	11.4	1.7
26	226	2.9	2.1	2.0	284	3.3	3.2	-0.8	289	8.8	8.3	-2.9	281	11.9	11.7	-2.3	255	20.9	20.2	5.5	257	25.6	25.0	5.7	257	5.4	5.3	1.2
27	219	4.8	3.0	3.7	261	5.7	5.6	0.9	297	9.6	8.6	-4.3	299	11.3	9.9	-5.5	269	21.6	21.6	0.2	261	28.3	28.0	4.2	275	5.9	5.9	-0.5
28	230	5.3	4.1	3.4	272	5.2	5.2	-0.2	294	9.9	9.0	-4.1	299	12.1	10.6	-5.8	282	22.2	21.7	-4.8	264	25.7	25.6	2.5	276	7.7	7.7	-0.8
29	260	3.4	3.3	0.6	288	4.8	4.6	-1.5	298	10.4	9.2	-4.9	299	11.0	9.6	-5.3	272	18.9	18.9	-0.7	255	21.5	20.8	5.4	277	11.1	11.0	-1.3
30	254	2.2	2.1	0.6	303	4.6	3.9	-2.5	304	9.6	8.0	-5.3	300	9.7	8.4	-4.9	281	20.8	20.4	-4.0	265	23.9	23.8	2.2	296	6.1	5.5	-2.7

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	240	3.2	2.8	1.6	277	5.1	5.1	-0.6	299	11.8	10.3	-5.7	306	12.6	10.2	-7.4	282	21.3	20.8	-4.6	278	21.9	21.7	-3.0	276	7.2	7.2	-0.7
2	224	4.3	3.0	3.1	279	5.0	4.9	-0.8	310	10.4	8.0	-6.7	293	10.2	9.4	-3.9	270	23.8	23.8	0.0	261	25.3	25.0	4.1	239	3.5	3.0	1.8
3	249	4.0	3.7	1.4	280	3.9	3.8	-0.7	305	9.0	7.4	-5.1	286	10.6	10.2	-2.9	262	20.4	20.2	3.0	262	24.0	23.8	3.2	269	4.1	4.1	0.1
4	229	4.0	3.0	2.6	294	5.1	4.7	-2.1	299	9.8	8.6	-4.8	294	9.4	8.6	-3.9	258	22.9	22.4	4.8	253	26.7	25.6	7.7	250	11.1	10.4	3.8
5	307	3.4	2.7	-2.0	302	4.5	3.8	-2.4	307	8.8	7.0	-5.3	296	8.1	7.3	-3.6	272	11.8	11.8	-0.4	250	15.5	14.6	5.2	246	5.1	4.7	2.1
6	249	4.3	4.0	1.5	304	5.0	4.1	-2.8	313	10.0	7.3	-6.8	302	12.2	10.4	-6.4	273	18.8	18.8	-0.9	249	15.2	14.2	5.4	333	0.7	0.3	-0.6
7	251	2.1	2.0	0.7	295	5.1	4.6	-2.1	300	8.9	7.7	-4.4	301	11.0	9.4	-5.7	268	17.5	17.5	0.6	256	20.8	20.2	5.1	260	6.8	6.7	1.2
8	252	2.2	2.1	0.7	282	4.4	4.3	-0.9	289	9.9	9.4	-3.2	303	10.6	8.9	-5.7	277	15.0	14.9	-1.7	259	25.6	25.1	4.8	270	8.7	8.7	0.0
9	221	3.3	2.2	2.5	272	5.3	5.3	-0.2	293	9.2	8.5	-3.6	280	12.4	12.2	-2.1	276	17.6	17.5	-1.8	256	22.3	21.7	5.3	300	7.9	6.8	-4.0
10	213	1.7	0.9	1.4	261	3.9	3.9	0.6	292	7.1	6.6	-2.6	281	9.7	9.5	-1.9	259	20.5	20.1	3.8	260	19.5	19.2	3.3	250	3.7	3.5	1.3
11	258	1.4	1.4	0.3	270	4.6	4.6	0.0	296	10.3	9.3	-4.5	290	9.7	9.1	-3.3	268	21.7	21.7	0.9	258	20.6	20.2	4.2	293	11.2	10.3	-4.4
12	223	1.6	1.1	1.2	266	4.3	4.3	0.3	297	9.2	8.2	-4.2	298	9.7	8.5	-4.6	264	22.1	22.0	2.3	259	20.0	19.7	3.7	229	3.5	2.6	2.3
13	273	1.9	1.9	-0.1	268	4.8	4.8	0.2	310	9.4	7.2	-6.0	306	9.1	7.3	-5.4	280	17.7	17.4	-3.1	271	16.9	16.9	-0.3	207	3.5	1.6	3.1
14	282	2.5	2.4	-0.5	262	3.7	3.7	0.5	306	8.5	6.9	-5.0	304	11.5	9.5	-6.4	268	21.3	21.3	0.9	267	19.7	19.7	1.1	187	13.9	1.6	13.8
15	239	2.6	2.2	1.3	281	5.2	5.1	-1.0	308	11.1	8.8	-6.8	301	10.6	9.1	-5.5	273	16.0	16.0	-0.7	268	18.9	18.9	0.7	201	7.1	2.5	6.6
16	260	3.5	3.4	0.6	283	5.5	5.4	-1.2	295	8.0	7.2	-3.4	294	10.2	9.3	-4.2	268	15.7	15.7	0.6	252	14.4	13.7	4.4	207	3.4	1.5	3.0
17	223	5.6	3.8	4.1	296	5.8	5.2	-2.5	295	9.5	8.6	-4.1	286	6.9	6.6	-1.9	261	14.5	14.3	2.2	254	17.1	16.4	4.7	237	6.0	5.0	3.3
18	90	0.8	-0.8	0.0	289	4.2	4.0	-1.4	304	7.6	6.3	-4.3	302	9.1	7.7	-4.9	266	16.1	16.1	1.1	253	18.2	17.4	5.2	230	9.3	7.1	6.0
19	274	1.6	1.6	-0.1	292	4.3	4.0	-1.6	311	9.1	6.9	-5.9	305	9.0	7.3	-5.2	263	13.3	13.2	1.6	241	13.6	11.9	6.5	267	3.4	3.4	0.2
20	270	2.4	2.4	0.0	272	4.9	4.9	-0.2	318	10.1	6.7	-7.5	306	9.0	7.3	-5.3	270	10.0	10.0	0.0	246	16.8	15.4	6.7	111	4.2	-3.9	1.5
21	281	1.5	1.5	-0.3	290	4.6	4.3	-1.6	314	8.8	6.4	-6.1	290	9.5	8.9	-3.2	262	9.9	9.8	1.3	229	11.9	9.0	7.8	166	4.4	-1.1	4.3
22	252	2.2	2.1	0.7	286	3.3	3.2	-0.9	303	7.7	6.4	-4.2	294	9.2	8.4	-3.8	260	11.5	11.3	2.0	240	11.6	10.1	5.8	172	5.0	-0.7	5.0
23	235	2.9	2.4	1.7	300	4.2	3.6	-2.1	313	10.3	7.5	-7.0	301	9.8	8.4	-5.0	256	13.0	12.6	3.2	235	12.1	9.9	7.0	153	0.2	-0.1	0.2
24	246	2.4	2.2	1.0	292	5.1	4.7	-1.9	312	9.6	7.2	-6.4	298	6.6	5.8	-3.1	259	9.6	9.4	1.9	240	18.0	15.6	8.9	103	4.6	-4.5	1.0
25	246	1.7	1.6	0.7	306	3.7	3.0	-2.2	301	10.2	8.7	-5.3	309	6.7	5.2	-4.2	275	6.7	6.7	-0.6	234	6.1	4.9	3.6	115	6.3	-5.7	2.7
26	252	2.2	2.1	0.7	272	5.1	5.1	-0.2	300	10.1	8.7	-5.1	304	6.8	5.6	-3.8	239	8.8	7.6	4.5	226	11.5	8.3	7.9	157	5.1	-2.0	4.7
27	283	1.7	1.7	-0.4	275	5.0	5.0	-0.4	305	7.5	6.1	-4.3	308	5.6	4.4	-3.4	274	6.8	6.8	-0.5	244	10.0	9.0	4.4	107	5.6	-5.4	1.6
28	249	2.2	2.1	0.8	289	5.6	5.3	-1.8	306	10.3	8.4	-6.0	295	6.5	5.9	-2.7	277	10.8	10.7	-1.3	269	9.5	9.5	0.2	146	4.0	-2.2	3.3
29	250	3.5	3.3	1.2	290	5.0	4.7	-1.7	312	9.4	7.0	-6.2	284	7.2	7.0	-1.7	262	9.1	9.0	1.2	229	10.2	7.7	6.7	133	5.0	-3.7	3.4
30	232	1.8	1.4	1.1	288	4.5	4.3	-1.4	312	9.4	7.0	-6.3	289	9.4	8.9	-3.1	252	8.0	7.6	2.4	236	10.0	8.3	5.6	118	4.3	-3.8	2.0
31	240	3.0	2.6	1.5	282	5.3	5.2	-1.1	296	9.3	8.4	-4.1	287	9.3	8.9	-2.8	268	9.3	9.3	0.4	224	9.3	6.5	6.7	207	3.5	1.6	3.1

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	247	3.6	3.3	1.4	290	5.9	5.5	-2.0	298	8.2	7.2	-3.9	297	6.0	5.4	-2.7	255	7.1	6.9	1.8	223	8.5	5.8	6.2	158	2.7	-1.0	2.5
2	259	1.5	1.5	0.3	299	3.7	3.2	-1.8	307	6.9	5.5	-4.1	293	6.3	5.8	-2.5	268	7.3	7.3	0.2	233	10.1	8.1	6.0	107	3.9	-3.7	1.1
3	235	2.4	2.0	1.4	275	3.6	3.6	-0.3	314	8.1	5.8	-5.6	292	5.6	5.2	-2.1	268	8.0	8.0	0.3	231	7.2	5.6	4.5	124	3.2	-2.7	1.8
4	188	3.0	0.4	3.0	287	5.1	4.9	-1.5	321	8.0	5.0	-6.2	316	5.0	3.5	-3.6	252	7.2	6.9	2.2	226	7.9	5.7	5.5	105	5.4	-5.2	1.4
5	230	2.3	1.8	1.5	303	4.0	3.4	-2.2	319	7.2	4.7	-5.4	290	5.8	5.4	-2.0	266	5.9	5.9	0.4	233	5.9	4.7	3.6	137	6.6	-4.5	4.8
6	236	3.7	3.1	2.1	279	5.4	5.3	-0.8	309	8.2	6.4	-5.1	288	5.6	5.3	-1.7	236	6.9	5.7	3.8	222	5.4	3.6	4.0	105	7.5	-7.3	1.9
7	238	3.2	2.7	1.7	271	6.5	6.5	-0.1	299	7.1	6.2	-3.4	290	6.2	5.8	-2.1	236	2.3	1.9	1.3	167	3.2	-0.7	3.1	108	6.0	-5.7	1.9
8	215	3.3	1.9	2.7	267	5.4	5.4	0.3	304	8.3	6.9	-4.6	285	5.3	5.1	-1.4	272	3.1	3.1	-0.1	175	2.4	-0.2	2.4	82	6.5	-6.4	-0.9
9	246	3.2	2.9	1.3	261	5.0	4.9	0.8	314	5.8	4.2	-4.0	273	4.1	4.1	-0.2	232	3.6	2.8	2.2	223	1.9	1.3	1.4	102	12.5	-12.2	2.7
10	231	3.2	2.5	2.0	277	4.0	4.0	-0.5	329	6.1	3.1	-5.2	308	3.4	2.7	-2.1	338	1.8	0.7	-1.7	251	5.6	5.3	1.8	71	5.7	-5.4	-1.9
11	266	2.8	2.8	0.2	268	3.8	3.8	0.1	339	5.5	2.0	-5.1	333	1.1	0.5	-1.0	246	1.0	0.9	0.4	158	2.2	-0.8	2.0	97	8.5	-8.4	1.0
12	233	3.0	2.4	1.8	262	4.2	4.2	0.6	311	4.5	3.4	-3.0	281	2.5	2.5	-0.5	217	1.0	0.6	0.8	116	3.0	-2.7	1.3	83	11.5	-11.4	-1.5
13	223	3.3	2.2	2.4	268	3.6	3.6	0.1	323	5.1	3.1	-4.1	288	1.6	1.5	-0.5	168	1.4	-0.3	1.4	141	1.9	-1.2	1.5	90	11.5	-11.5	0.1
14	210	3.4	1.7	2.9	299	1.8	1.6	-0.9	357	3.3	0.2	-3.3	25	1.4	-0.6	-1.3	204	2.0	0.8	1.8	163	2.4	-0.7	2.3	60	8.3	-7.2	-4.1
15	235	1.9	1.6	1.1	301	6.3	5.4	-3.3	329	6.6	3.4	-5.6	312	2.8	2.1	-1.9	133	1.9	-1.4	1.3	79	3.6	-3.5	-0.7	78	8.5	-8.3	-1.7
16	201	1.4	0.5	1.3	280	4.2	4.1	-0.7	329	5.4	2.8	-4.6	285	1.6	1.5	-0.4	144	1.4	-0.8	1.1	104	5.4	-5.2	1.3	85	13.9	-13.9	-1.1
17	227	1.8	1.3	1.2	286	3.5	3.4	-1.0	338	3.5	1.3	-3.3	45	0.4	-0.3	-0.3	65	2.6	-2.4	-1.1	84	5.4	-5.4	-0.6	74	12.8	-12.3	-3.6
18	188	1.5	0.2	1.5	281	4.3	4.2	-0.8	313	2.2	1.6	-1.5	132	1.3	-1.0	0.9	106	3.6	-3.5	1.0	121	5.6	-4.8	2.9	84	13.3	-13.2	-1.4
19	215	2.4	1.4	2.0	285	4.1	4.0	-1.1	310	1.7	1.3	-1.1	186	1.0	0.1	1.0	126	2.4	-1.9	1.4	96	4.4	-4.4	0.5	116	17.3	-15.5	7.6
20	259	1.6	1.6	0.3	289	3.9	3.7	-1.3	334	3.7	1.6	-3.3	213	2.4	1.3	2.0	130	6.1	-4.7	3.9	88	9.1	-9.1	-0.3	84	12.4	-12.3	-1.3
21	270	1.2	1.2	0.0	339	2.8	1.0	-2.6	337	4.3	1.7	-4.0	72	2.6	-2.5	-0.8	87	4.2	-4.2	-0.2	92	8.3	-8.3	0.3	77	18.1	-17.6	-4.1
22	315	0.7	0.5	-0.5	297	4.8	4.3	-2.2	318	4.5	3.0	-3.3	149	0.6	-0.3	0.5	88	4.8	-4.8	-0.2	89	9.4	-9.4	-0.2	86	19.4	-19.3	-1.5
23	243	2.7	2.4	1.2	289	5.3	5.0	-1.7	334	4.9	2.1	-4.4	99	2.4	-2.4	0.4	148	3.6	-1.9	3.1	99	5.9	-5.8	0.9	98	13.8	-13.7	2.0
24	270	2.9	2.9	0.0	315	3.5	2.5	-2.5	357	3.3	0.2	-3.3	113	3.0	-2.8	1.2	125	4.0	-3.3	2.3	89	7.5	-7.5	-0.1	84	20.2	-20.1	-2.0
25	237	2.4	2.0	1.3	288	5.1	4.8	-1.6	329	3.7	1.9	-3.2	59	2.1	-1.8	-1.1	105	6.0	-5.8	1.6	78	9.7	-9.5	-2.1	87	18.5	-18.5	-1.0
26	265	1.1	1.1	0.1	237	3.8	3.2	2.1	305	2.1	1.7	-1.2	115	3.3	-3.0	1.4	95	3.6	-3.6	0.3	81	7.7	-7.6	-1.2	71	12.9	-12.2	-4.3
27	270	1.8	1.8	0.0	310	2.6	2.0	-1.7	24	2.0	-0.8	-1.8	113	2.8	-2.6	1.1	111	6.1	-5.7	2.2	79	10.9	-10.7	-2.0	82	27.1	-26.8	-3.7
28	209	2.9	1.4	2.5	282	2.9	2.8	-0.6	360	2.4	0.0	-2.4	68	3.2	-3.0	-1.2	86	8.0	-8.0	-0.5	87	11.5	-11.5	-0.7	83	17.6	-17.5	-2.1
29	203	2.1	0.8	1.9	274	4.5	4.5	-0.3	275	2.3	2.3	-0.2	14	0.4	-0.1	-0.4	96	4.5	-4.5	0.5	83	9.4	-9.3	-1.1	83	25.9	-25.7	-3.2
30	283	2.2	2.1	-0.5	286	4.3	4.1	-1.2	333	3.6	1.6	-3.2	83	0.8	-0.8	-0.1	109	6.9	-6.5	2.3	89	14.1	-14.1	-0.2	79	22.7	-22.3	-4.3

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	208	1.9	0.9	1.7	299	5.8	5.1	-2.8	317	3.8	2.6	-2.8	98	1.5	-1.5	0.2	104	7.5	-7.3	1.8	98	13.1	-13.0	1.8	79	21.6	-21.2	-4.0
2	259	2.5	2.5	0.5	289	5.4	5.1	-1.8	298	2.7	2.4	-1.3	108	1.3	-1.2	0.4	82	7.5	-7.4	-1.0	79	11.7	-11.5	-2.3	97	16.6	-16.5	2.0
3	249	1.4	1.3	0.5	286	5.8	5.6	-1.6	329	2.6	1.3	-2.2	82	2.7	-2.7	-0.4	100	9.0	-8.9	1.6	98	15.5	-15.3	2.2	88	21.5	-21.5	-0.6
4	228	2.5	1.9	1.7	282	5.0	4.9	-1.0	270	1.5	1.5	0.0	207	0.4	0.2	0.4	96	9.3	-9.2	1.0	77	14.3	-13.9	-3.3	85	19.0	-18.9	-1.8
5	241	3.1	2.7	1.5	274	5.2	5.2	-0.4	297	2.5	2.2	-1.1	92	3.1	-3.1	0.1	90	8.5	-8.5	0.0	77	13.3	-13.0	-2.9	85	22.4	-22.3	-1.9
6	240	3.4	2.9	1.7	284	4.2	4.1	-1.0	328	1.5	0.8	-1.3	164	1.9	-0.5	1.8	103	7.8	-7.6	1.8	77	15.9	-15.5	-3.5	79	21.2	-20.8	-4.2
7	231	3.8	3.0	2.4	285	5.0	4.8	-1.3	324	1.7	1.0	-1.4	139	0.9	-0.6	0.7	100	7.0	-6.9	1.2	75	14.6	-14.1	-3.9	102	24.6	-24.0	5.2
8	235	2.9	2.4	1.7	277	2.6	2.6	-0.3	34	0.7	-0.4	-0.6	95	4.3	-4.3	0.4	113	7.4	-6.8	2.9	85	15.2	-15.1	-1.4	80	23.4	-23.0	-4.2
9	234	1.4	1.1	0.8	270	4.0	4.0	0.0	333	1.8	0.8	-1.6	92	2.5	-2.5	0.1	110	8.0	-7.5	2.7	96	14.5	-14.4	1.4	79	24.1	-23.6	-4.8
10	214	0.4	0.2	0.3	288	2.5	2.4	-0.8	297	0.7	0.6	-0.3	123	2.4	-2.0	1.3	111	4.5	-4.2	1.6	63	8.9	-7.9	-4.0	58	23.7	-20.1	-12.6
11	220	1.7	1.1	1.3	198	0.9	0.3	0.9	112	1.1	-1.0	0.4	108	2.2	-2.1	0.7	96	6.9	-6.9	0.7	73	10.9	-10.4	-3.2	67	23.2	-21.3	-9.2
12	235	3.2	2.6	1.8	242	2.4	2.1	1.1	194	1.6	0.4	1.6	138	4.7	-3.2	3.5	102	5.9	-5.8	1.2	80	12.0	-11.8	-2.0	67	20.1	-18.5	-7.9
13	248	2.9	2.7	1.1	272	2.8	2.8	-0.1	319	0.9	0.6	-0.7	138	3.1	-2.1	2.3	105	8.6	-8.3	2.2	87	12.0	-12.0	-0.6	94	17.2	-17.2	1.2
14	240	5.1	4.4	2.5	270	2.7	2.7	0.0	281	2.6	2.6	-0.5	106	0.7	-0.7	0.2	97	7.4	-7.3	0.9	76	14.7	-14.3	-3.5	87	24.6	-24.6	-1.5
15	245	3.1	2.8	1.3	288	3.6	3.4	-1.1	322	1.1	0.7	-0.9	92	3.5	-3.5	0.1	105	8.9	-8.6	2.3	77	16.3	-15.9	-3.7	79	30.1	-29.6	-5.6
16	262	2.2	2.2	0.3	288	2.9	2.8	-0.9	260	1.7	1.7	0.3	96	2.7	-2.7	0.3	111	8.5	-7.9	3.0	76	11.4	-11.1	-2.7	83	22.8	-22.6	-2.8
17	242	1.9	1.7	0.9	288	2.0	1.9	-0.6	193	0.9	0.2	0.9	87	4.1	-4.1	-0.2	100	12.7	-12.5	2.3	82	18.0	-17.8	-2.4	81	27.9	-27.6	-4.3
18	131	0.9	-0.7	0.6	266	3.1	3.1	0.2	202	1.1	0.4	1.0	106	1.5	-1.4	0.4	92	5.3	-5.3	0.2	79	12.9	-12.7	-2.5	91	12.2	-12.2	0.2
19	14	0.4	-0.1	-0.4	264	1.9	1.9	0.2	237	2.0	1.7	1.1	149	2.1	-1.1	1.8	110	7.9	-7.4	2.7	89	15.6	-15.6	-0.3	77	24.5	-23.9	-5.3
20	239	2.1	1.8	1.1	280	2.2	2.2	-0.4	250	1.5	1.4	0.5	139	1.8	-1.2	1.4	97	6.8	-6.8	0.8	74	12.1	-11.6	-3.3	81	25.8	-25.5	-4.0
21	251	2.8	2.6	0.9	295	3.8	3.5	-1.6	286	2.2	2.1	-0.6	329	0.6	0.3	-0.5	86	9.2	-9.2	-0.6	78	13.9	-13.6	-2.9	87	29.0	-29.0	-1.3
22	273	1.7	1.7	-0.1	285	3.4	3.3	-0.9	294	1.2	1.1	-0.5	132	1.3	-1.0	0.9	88	10.1	-10.1	-0.4	76	13.9	-13.5	-3.3	89	20.3	-20.3	-0.3
23	268	2.4	2.4	0.1	297	3.8	3.4	-1.7	221	2.3	1.5	1.7	216	1.9	1.1	1.5	89	5.6	-5.6	-0.1	88	13.7	-13.7	-0.5	91	23.2	-23.2	0.5
24	307	1.5	1.2	-0.9	258	3.0	2.9	0.6	218	1.1	0.7	0.9	131	3.2	-2.4	2.1	100	9.7	-9.5	1.7	78	15.6	-15.2	-3.3	80	25.6	-25.2	-4.3
25	287	1.7	1.6	-0.5	290	2.7	2.5	-0.9	284	0.8	0.8	-0.2	106	1.5	-1.4	0.4	92	7.4	-7.4	0.2	88	12.4	-12.4	-0.5	77	23.7	-23.1	-5.3
26	302	3.6	3.0	-1.9	276	3.9	3.9	-0.4	283	1.3	1.3	-0.3	146	0.7	-0.4	0.6	92	7.4	-7.4	0.3	79	13.4	-13.1	-2.6	85	20.9	-20.8	-2.0
27	256	1.2	1.2	0.3	273	3.8	3.8	-0.2	239	2.1	1.8	1.1	180	1.7	0.0	1.7	100	7.9	-7.8	1.4	80	13.1	-12.9	-2.3	81	25.1	-24.8	-3.9
28	225	0.8	0.6	0.6	292	2.2	2.0	-0.8	321	1.4	0.9	-1.1	121	1.7	-1.5	0.9	81	11.6	-11.5	-1.8	78	16.0	-15.7	-3.3	75	24.6	-23.7	-6.5
29	212	1.9	1.0	1.6	225	2.0	1.4	1.4	173	0.8	-0.1	0.8	120	4.6	-4.0	2.3	97	11.5	-11.4	1.5	88	14.5	-14.5	-0.4	87	31.2	-31.2	-1.7
30	247	0.8	0.7	0.3	34	0.4	-0.2	-0.3	121	2.7	-2.3	1.4	111	4.9	-4.6	1.8	88	8.7	-8.7	-0.3	83	18.8	-18.7	-2.2	78	30.2	-29.5	-6.5
31	234	1.4	1.1	0.8	45	0.3	-0.2	-0.2	59	1.2	-1.0	-0.6	79	3.8	-3.7	-0.7	74	10.1	-9.7	-2.7	78	17.5	-17.1	-3.7	96	14.2	-14.1	1.4

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	236	0.7	0.6	0.4	294	1.7	1.6	-0.7	27	0.4	-0.2	-0.4	102	4.9	-4.8	1.0	86	10.3	-10.3	-0.8	76	14.3	-13.9	-3.4	73	24.6	-23.5	-7.2
2	219	1.4	0.9	1.1	148	0.9	-0.5	0.8	120	2.0	-1.7	1.0	113	4.1	-3.8	1.6	85	9.1	-9.1	-0.8	77	13.2	-12.9	-2.9	73	23.1	-22.1	-6.7
3	276	1.8	1.8	-0.2	328	3.6	1.9	-3.0	7	2.4	-0.3	-2.4	104	3.0	-2.9	0.7	83	6.5	-6.5	-0.8	70	11.3	-10.6	-3.8	74	25.5	-24.5	-7.1
4	248	1.8	1.7	0.7	344	2.6	0.7	-2.5	11	1.0	-0.2	-1.0	101	4.2	-4.1	0.8	84	9.6	-9.5	-1.0	84	12.9	-12.8	-1.4	77	19.7	-19.2	-4.5
5	247	2.6	2.4	1.0	285	4.8	4.6	-1.2	298	1.9	1.7	-0.9	58	2.8	-2.4	-1.5	96	7.6	-7.6	0.8	76	15.0	-14.5	-3.7	81	21.4	-21.1	-3.4
6	261	2.4	2.4	0.4	314	5.0	3.6	-3.5	349	2.0	0.4	-2.0	67	5.3	-4.9	-2.1	101	7.9	-7.8	1.5	78	14.4	-14.1	-2.9	74	27.3	-26.2	-7.7
7	264	1.9	1.9	0.2	338	3.8	1.4	-3.5	23	1.5	-0.6	-1.4	82	4.2	-4.2	-0.6	102	9.1	-8.9	1.9	70	14.2	-13.3	-4.9	82	22.3	-22.1	-3.3
8	287	2.4	2.3	-0.7	7	2.5	-0.3	-2.5	74	3.3	-3.2	-0.9	85	3.3	-3.3	-0.3	83	8.6	-8.5	-1.1	81	17.5	-17.3	-2.6	80	22.8	-22.5	-3.9
9	218	1.1	0.7	0.9	288	0.6	0.6	-0.2	135	1.0	-0.7	0.7	130	4.0	-3.1	2.6	92	8.7	-8.7	0.3	77	14.3	-13.9	-3.3	80	24.3	-23.9	-4.4
10	249	0.9	0.8	0.3	210	1.6	0.8	1.4	150	2.0	-1.0	1.7	128	4.3	-3.4	2.7	103	8.7	-8.5	2.0	84	15.7	-15.6	-1.6	79	23.8	-23.3	-4.7
11	194	1.2	0.3	1.2	239	2.1	1.8	1.1	157	1.3	-0.5	1.2	133	3.8	-2.8	2.6	102	9.3	-9.1	2.0	81	14.6	-14.4	-2.4	81	23.1	-22.8	-3.7
12	229	2.0	1.5	1.3	290	2.3	2.2	-0.8	191	0.5	0.1	0.5	131	2.0	-1.5	1.3	105	6.0	-5.8	1.5	76	16.1	-15.6	-3.8	82	22.7	-22.5	-3.0
13	276	3.1	3.1	-0.3	301	3.3	2.8	-1.7	309	0.6	0.5	-0.4	108	2.0	-1.9	0.6	111	6.4	-6.0	2.3	88	15.2	-15.2	-0.6	83	23.2	-23.0	-2.8
14	240	4.3	3.7	2.1	274	3.1	3.1	-0.2	291	2.5	2.3	-0.9	146	1.1	-0.6	0.9	101	5.9	-5.8	1.1	87	15.3	-15.3	-0.9	86	19.3	-19.2	-1.5
15	281	2.6	2.6	-0.5	333	1.6	0.7	-1.4	128	1.1	-0.9	0.7	125	1.2	-1.0	0.7	88	8.0	-8.0	-0.3	80	11.9	-11.7	-2.0	83	17.8	-17.7	-2.3
16	270	1.3	1.3	0.0	180	0.2	0.0	0.2	138	2.4	-1.6	1.8	117	6.3	-5.6	2.8	97	12.3	-12.2	1.4	80	15.9	-15.7	-2.7	87	21.0	-21.0	-1.2
17	313	1.6	1.2	-1.1	194	0.8	0.2	0.8	151	3.3	-1.6	2.9	118	3.8	-3.4	1.8	95	6.8	-6.8	0.6	77	13.7	-13.3	-3.1	83	22.2	-22.0	-2.6
18	135	0.3	-0.2	0.2	23	0.8	-0.3	-0.7	110	2.0	-1.9	0.7	113	5.9	-5.4	2.3	91	8.6	-8.6	0.2	78	14.7	-14.4	-3.0	87	20.5	-20.5	-1.0
19	162	0.3	-0.1	0.3	270	0.4	0.4	0.0	121	2.9	-2.5	1.5	99	5.1	-5.0	0.8	90	7.3	-7.3	0.0	81	9.4	-9.3	-1.5	82	21.3	-21.1	-3.1
20	243	0.2	0.2	0.1	63	0.9	-0.8	-0.4	105	1.6	-1.5	0.4	119	3.3	-2.9	1.6	93	6.0	-6.0	0.3	94	12.2	-12.2	0.8	78	16.8	-16.4	-3.6
21	159	0.9	-0.3	0.8	63	0.2	-0.2	-0.1	108	0.6	-0.6	0.2	121	1.7	-1.5	0.9	100	8.9	-8.8	1.6	90	12.9	-12.9	0.0	84	22.3	-22.2	-2.4
22	218	1.6	1.0	1.3	288	0.6	0.6	-0.2	112	0.5	-0.5	0.2	119	4.1	-3.6	2.0	94	6.4	-6.4	0.5	102	7.7	-7.5	1.6	92	19.2	-19.2	0.6
23	270	1.9	1.9	0.0	263	1.6	1.6	0.2	212	1.3	0.7	1.1	97	0.8	-0.8	0.1	111	5.3	-4.9	1.9	76	11.2	-10.9	-2.7	83	19.1	-19.0	-2.2
24	254	1.9	1.8	0.5	260	4.1	4.0	0.7	228	2.4	1.8	1.6	202	2.4	0.9	2.2	123	4.3	-3.6	2.3	84	13.3	-13.2	-1.5	90	19.5	-19.5	0.1
25	236	1.8	1.5	1.0	279	3.2	3.2	-0.5	241	2.1	1.8	1.0	180	1.1	0.0	1.1	96	6.1	-6.1	0.6	87	12.6	-12.6	-0.7	87	10.4	-10.4	-0.6
26	214	0.7	0.4	0.6	298	4.4	3.9	-2.1	307	1.0	0.8	-0.6	104	2.9	-2.8	0.7	97	9.2	-9.1	1.1	90	13.2	-13.2	-0.1	87	18.5	-18.5	-1.0
27	113	1.3	-1.2	0.5	21	2.5	-0.9	-2.3	51	3.6	-2.8	-2.3	99	5.1	-5.0	0.8	97	10.4	-10.3	1.3	87	13.4	-13.4	-0.7	88	23.1	-23.1	-1.0
28	82	0.7	-0.7	-0.1	22	3.1	-1.2	-2.9	47	2.3	-1.7	-1.6	101	4.1	-4.0	0.8	111	9.7	-9.0	3.5	100	12.3	-12.1	2.1	98	20.3	-20.1	2.7
29	243	0.7	0.6	0.3	73	1.4	-1.3	-0.4	90	1.9	-1.9	0.0	122	3.8	-3.2	2.0	97	7.9	-7.8	1.0	85	10.9	-10.9	-0.9	94	16.4	-16.4	1.1
30	205	1.4	0.6	1.3	291	1.4	1.3	-0.5	279	0.6	0.6	-0.1	139	2.8	-1.8	2.1	127	6.9	-5.5	4.2	84	15.5	-15.4	-1.6	82	19.6	-19.4	-2.7
31	220	1.7	1.1	1.3	236	2.3	1.9	1.3	243	0.9	0.8	0.4	180	1.8	0.0	1.8	125	5.5	-4.5	3.1	82	14.5	-14.3	-2.1	90	17.2	-17.2	0.1

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	148	1.9	-1.0	1.6	286	0.7	0.7	-0.2	156	1.2	-0.5	1.1	145	4.9	-2.8	4.0	120	4.6	-4.0	2.3	71	8.6	-8.1	-2.8	101	15.3	-15.0	2.9
2	188	0.7	0.1	0.7	114	1.0	-0.9	0.4	99	1.8	-1.8	0.3	143	4.0	-2.4	3.2	115	7.1	-6.4	3.0	81	11.4	-11.3	-1.8	87	15.1	-15.1	-0.7
3	219	1.3	0.8	1.0	262	1.5	1.5	0.2	246	1.7	1.6	0.7	160	2.0	-0.7	1.9	96	4.5	-4.5	0.5	87	8.5	-8.5	-0.4	91	14.6	-14.6	0.2
4	233	1.0	0.8	0.6	345	7.8	2.0	-7.5	279	1.2	1.2	-0.2	139	3.2	-2.1	2.4	111	5.9	-5.5	2.1	96	12.1	-12.0	1.3	81	14.0	-13.8	-2.1
5	196	0.7	0.2	0.7	303	4.0	3.4	-2.2	295	1.4	1.3	-0.6	135	1.3	-0.9	0.9	92	4.8	-4.8	0.2	81	8.1	-8.0	-1.3	90	17.5	-17.5	0.0
6	163	1.4	-0.4	1.3	282	1.9	1.9	-0.4	270	0.5	0.5	0.0	118	3.4	-3.0	1.6	90	4.7	-4.7	0.0	84	9.8	-9.7	-1.1	94	14.5	-14.5	1.0
7	103	1.8	-1.8	0.4	287	1.0	1.0	-0.3	234	0.9	0.7	0.5	146	2.2	-1.2	1.8	102	8.1	-7.9	1.7	89	11.1	-11.1	-0.1	104	17.1	-16.6	4.0
8	93	1.9	-1.9	0.1	164	0.7	-0.2	0.7	146	0.7	-0.4	0.6	129	3.3	-2.6	2.1	114	6.7	-6.1	2.7	99	10.4	-10.3	1.6	102	15.8	-15.5	3.2
9	128	1.1	-0.9	0.7	216	0.9	0.5	0.7	150	1.4	-0.7	1.2	150	3.9	-2.0	3.4	94	5.1	-5.1	0.4	86	11.1	-11.1	-0.7	91	13.5	-13.5	0.2
10	163	2.1	-0.6	2.0	128	1.6	-1.3	1.0	135	3.4	-2.4	2.4	133	5.2	-3.8	3.5	110	5.2	-4.9	1.8	93	9.0	-9.0	0.4	97	16.9	-16.8	2.2
11	213	2.4	1.3	2.0	22	0.5	-0.2	-0.5	115	1.9	-1.7	0.8	133	1.6	-1.2	1.1	96	4.8	-4.8	0.5	86	5.3	-5.3	-0.4	93	15.1	-15.1	0.7
12	287	1.7	1.6	-0.5	230	0.8	0.6	0.5	225	0.4	0.3	0.3	140	2.6	-1.7	2.0	107	3.4	-3.3	1.0	80	8.4	-8.3	-1.4	86	12.3	-12.3	-0.8
13	246	1.0	0.9	0.4	295	1.9	1.7	-0.8	259	1.6	1.6	0.3	162	0.6	-0.2	0.6	93	3.4	-3.4	0.2	84	7.0	-7.0	-0.7	95	9.6	-9.6	0.9
14	261	1.3	1.3	0.2	317	3.4	2.3	-2.5	299	1.8	1.6	-0.9	191	2.1	0.4	2.1	77	2.7	-2.6	-0.6	57	5.9	-5.0	-3.2	89	7.7	-7.7	-0.2
15	260	1.1	1.1	0.2	311	2.3	1.7	-1.5	195	1.1	0.3	1.1	166	1.6	-0.4	1.6	87	3.3	-3.3	-0.2	91	4.9	-4.9	0.1	100	6.7	-6.6	1.2
16	276	0.9	0.9	-0.1	346	0.8	0.2	-0.8	27	0.2	-0.1	-0.2	180	1.0	0.0	1.0	128	2.9	-2.3	1.8	99	3.9	-3.9	0.6	107	7.5	-7.2	2.2
17	263	0.8	0.8	0.1	234	0.9	0.7	0.5	191	1.6	0.3	1.6	178	2.5	-0.1	2.5	124	1.4	-1.2	0.8	96	3.0	-3.0	0.3	75	6.7	-6.5	-1.7
18	270	2.3	2.3	0.0	238	2.8	2.4	1.5	220	1.6	1.0	1.2	252	1.3	1.2	0.4	270	3.5	3.5	0.0	198	2.6	0.8	2.5	74	7.1	-6.8	-2.0
19	266	1.5	1.5	0.1	221	2.0	1.3	1.5	190	2.7	0.5	2.7	208	3.6	1.7	3.2	111	2.2	-2.1	0.8	91	5.7	-5.7	0.1	111	7.1	-6.6	2.5
20	283	1.8	1.8	-0.4	188	0.7	0.1	0.7	200	2.0	0.7	1.9	207	2.8	1.3	2.5	171	1.9	-0.3	1.9	217	2.0	1.2	1.6	62	4.2	-3.7	-2.0
21	298	1.9	1.7	-0.9	313	1.9	1.4	-1.3	304	2.2	1.8	-1.2	201	3.3	1.2	3.1	137	4.0	-2.7	2.9	128	2.4	-1.9	1.5	117	4.8	-4.3	2.2
22	264	4.0	4.0	0.4	291	1.4	1.3	-0.5	212	1.3	0.7	1.1	188	2.1	0.3	2.1	172	2.8	-0.4	2.8	219	1.3	0.8	1.0	87	5.5	-5.5	-0.3
23	292	2.7	2.5	-1.0	247	2.1	1.9	0.8	234	0.9	0.7	0.5	158	2.4	-0.9	2.2	137	1.6	-1.1	1.2	125	1.9	-1.6	1.1	87	6.2	-6.2	-0.3
24	300	1.6	1.4	-0.8	312	1.3	1.0	-0.9	254	1.8	1.7	0.5	228	2.4	1.8	1.6	228	2.7	2.0	1.8	265	3.2	3.2	0.3	36	6.3	-3.7	-5.1
25	326	0.4	0.2	-0.3	306	1.4	1.1	-0.8	221	0.9	0.6	0.7	186	0.9	0.1	0.9	183	1.8	0.1	1.8	270	0.1	0.1	0.0	78	4.2	-4.1	-0.9
26	19	2.1	-0.7	-2.0	320	1.6	1.0	-1.2	306	1.9	1.5	-1.1	238	3.4	2.9	1.8	217	1.5	0.9	1.2	211	1.7	0.9	1.5	114	4.7	-4.3	1.9
27	319	3.3	2.2	-2.5	335	6.4	2.7	-5.8	318	5.5	3.7	-4.1	297	3.9	3.5	-1.8	261	3.6	3.6	0.6	182	2.9	0.1	2.9	88	4.6	-4.6	-0.2
28	303	3.7	3.1	-2.0	313	4.4	3.2	-3.0	311	4.0	3.0	-2.6	260	2.2	2.2	0.4	301	2.7	2.3	-1.4	222	1.5	1.0	1.1	87	5.7	-5.7	-0.3
29	279	1.9	1.9	-0.3	347	2.7	0.6	-2.6	322	2.4	1.5	-1.9	225	3.1	2.2	2.2	243	4.9	4.4	2.2	229	6.5	4.9	4.3	126	3.1	-2.5	1.8
30	278	2.2	2.2	-0.3	345	3.4	0.9	-3.3	293	2.1	1.9	-0.8	261	3.6	3.6	0.6	244	5.9	5.3	2.6	241	8.1	7.1	3.9	56	2.9	-2.4	-1.6

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	227	1.9	1.4	1.3	327	3.1	1.7	-2.6	239	3.1	2.7	1.6	240	4.8	4.1	2.4	237	7.3	6.1	4.0	219	6.2	3.9	4.8	165	3.4	-0.9	3.3
2	308	1.6	1.3	-1.0	350	1.1	0.2	-1.1	241	1.0	0.9	0.5	218	3.7	2.3	2.9	225	7.2	5.1	5.1	232	8.5	6.7	5.3	139	3.7	-2.4	2.8
3	265	2.3	2.3	0.2	352	1.4	0.2	-1.4	360	1.1	0.0	-1.1	232	2.8	2.2	1.7	236	6.9	5.7	3.9	248	8.7	8.1	3.2	199	3.1	1.0	2.9
4	281	1.0	1.0	-0.2	320	1.6	1.0	-1.2	90	0.1	-0.1	0.0	241	3.8	3.3	1.8	254	6.2	6.0	1.7	231	4.9	3.8	3.1	145	1.2	-0.7	1.0
5	232	1.8	1.4	1.1	276	2.0	2.0	-0.2	219	1.3	0.8	1.0	245	6.1	5.5	2.6	248	8.1	7.5	3.0	231	8.8	6.9	5.5	180	5.5	0.0	5.5
6	309	1.4	1.1	-0.9	325	3.2	1.8	-2.6	286	2.6	2.5	-0.7	242	5.4	4.8	2.5	236	8.7	7.2	4.8	234	9.4	7.6	5.6	234	2.6	2.1	1.5
7	241	1.0	0.9	0.5	317	2.1	1.4	-1.5	278	2.9	2.9	-0.4	253	5.9	5.6	1.7	235	9.9	8.1	5.7	248	9.6	8.9	3.6	231	6.2	4.8	3.9
8	360	1.5	0.0	-1.5	306	1.4	1.1	-0.8	291	1.9	1.8	-0.7	249	4.4	4.1	1.6	250	8.0	7.5	2.7	228	8.4	6.2	5.6	180	3.0	0.0	3.0
9	203	0.8	0.3	0.7	292	0.5	0.5	-0.2	208	1.5	0.7	1.3	241	4.3	3.8	2.1	249	9.6	8.9	3.5	251	8.3	7.8	2.7	135	3.4	-2.4	2.4
10	288	0.3	0.3	-0.1	322	2.3	1.4	-1.8	282	2.5	2.4	-0.5	276	7.2	7.2	-0.8	255	9.6	9.3	2.5	247	12.0	11.1	4.6	286	3.5	3.4	-1.0
11	275	1.2	1.2	-0.1	304	2.2	1.8	-1.2	309	2.1	1.6	-1.3	276	5.8	5.8	-0.6	255	9.8	9.4	2.6	252	10.9	10.4	3.3	278	6.8	6.7	-0.9
12	211	0.6	0.3	0.5	306	0.9	0.7	-0.5	270	0.9	0.9	0.0	261	5.3	5.2	0.8	250	7.7	7.2	2.6	240	9.8	8.5	4.9	279	3.9	3.9	-0.6
13	286	1.8	1.7	-0.5	350	2.8	0.5	-2.8	339	1.4	0.5	-1.3	262	6.4	6.3	0.9	255	10.1	9.8	2.6	246	13.1	11.9	5.4	258	4.9	4.8	1.0
14	305	1.2	1.0	-0.7	340	3.2	1.1	-3.0	331	3.1	1.5	-2.7	268	6.4	6.4	0.2	248	11.8	10.9	4.4	239	13.6	11.6	7.1	265	8.2	8.2	0.7
15	345	1.6	0.4	-1.5	354	3.1	0.3	-3.1	315	1.0	0.7	-0.7	246	5.5	5.0	2.2	252	16.4	15.6	5.0	237	17.9	15.0	9.8	223	9.6	6.5	7.0
16	305	1.9	1.6	-1.1	12	2.4	-0.5	-2.3	259	0.5	0.5	0.1	260	5.2	5.1	0.9	266	13.1	13.1	1.0	254	13.1	12.6	3.6	244	7.8	7.0	3.4
17	27	1.8	-0.8	-1.6	333	1.6	0.7	-1.4	272	2.4	2.4	-0.1	267	5.7	5.7	0.3	256	11.6	11.3	2.8	251	16.1	15.2	5.3	305	5.2	4.3	-3.0
18	301	0.6	0.5	-0.3	325	1.6	0.9	-1.3	273	2.2	2.2	-0.1	272	5.2	5.2	-0.2	260	10.1	10.0	1.7	249	12.3	11.5	4.5	292	6.9	6.4	-2.6
19	34	1.1	-0.6	-0.9	339	2.2	0.8	-2.1	262	1.5	1.5	0.2	261	6.0	5.9	0.9	256	13.2	12.8	3.3	258	14.9	14.6	3.2	229	6.2	4.7	4.1
20	6	2.7	-0.3	-2.7	329	2.9	1.5	-2.5	263	2.5	2.5	0.3	256	6.3	6.1	1.5	258	15.7	15.4	3.2	239	17.6	15.1	9.1	254	12.6	12.1	3.4
21	355	2.1	0.2	-2.1	329	2.1	1.1	-1.8	259	3.3	3.2	0.6	263	7.0	7.0	0.8	256	14.6	14.1	3.6	256	15.9	15.4	3.8	263	4.6	4.6	0.6
22	315	2.0	1.4	-1.4	333	3.4	1.5	-3.0	273	3.6	3.6	-0.2	264	9.3	9.2	1.0	267	16.1	16.1	0.9	258	19.4	19.0	4.0	249	6.1	5.7	2.2
23	13	1.7	-0.4	-1.7	339	3.3	1.2	-3.1	295	4.7	4.3	-2.0	264	6.2	6.2	0.7	264	14.5	14.4	1.4	264	18.5	18.4	1.8	242	7.2	6.3	3.4
24	298	1.5	1.3	-0.7	318	3.8	2.5	-2.8	296	4.3	3.9	-1.9	271	7.8	7.8	-0.2	268	16.5	16.5	0.5	264	16.2	16.1	1.6	233	15.8	12.7	9.4
25	328	0.9	0.5	-0.8	335	3.3	1.4	-3.0	287	4.9	4.7	-1.4	276	9.2	9.1	-1.0	264	14.8	14.7	1.6	258	19.6	19.1	4.2	266	6.8	6.8	0.5
26	318	1.2	0.8	-0.9	321	2.6	1.6	-2.0	286	4.4	4.2	-1.2	278	10.4	10.3	-1.4	258	19.4	19.0	3.9	253	21.1	20.1	6.3	244	7.1	6.4	3.1
27	20	2.0	-0.7	-1.9	343	2.1	0.6	-2.0	289	6.4	6.0	-2.1	262	9.6	9.5	1.3	256	16.9	16.4	4.1	259	25.6	25.1	5.1	203	10.2	4.0	9.4
28	49	0.9	-0.7	-0.6	333	4.2	1.9	-3.7	295	3.8	3.5	-1.6	256	8.9	8.6	2.1	261	20.9	20.6	3.4	256	25.7	24.9	6.3	257	12.4	12.1	2.9
29	6	2.7	-0.3	-2.7	343	3.1	0.9	-3.0	295	3.5	3.2	-1.5	268	10.7	10.7	0.3	259	20.5	20.1	4.0	257	22.6	22.0	5.2	223	9.3	6.3	6.8
30	6	2.0	-0.2	-2.0	349	3.3	0.6	-3.2	302	3.1	2.6	-1.6	272	9.0	9.0	-0.3	261	22.1	21.8	3.6	247	21.9	20.2	8.4	251	12.1	11.5	3.9
31	2	3.4	-0.1	-3.4	350	2.2	0.4	-2.2	270	2.5	2.5	0.0	267	9.1	9.1	0.4	255	20.5	19.8	5.2	251	22.2	21.0	7.1	270	7.4	7.4	0.0

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	45	0.8	-0.6	-0.6	360	0.9	0.0	-0.9	268	2.5	2.5	0.1	271	8.6	8.6	-0.2	260	20.5	20.2	3.4	255	22.5	21.7	5.8	262	17.4	17.2	2.4
2	23	1.5	-0.6	-1.4	11	2.1	-0.4	-2.1	268	2.5	2.5	0.1	259	9.3	9.1	1.8	256	20.6	20.0	5.0	247	23.5	21.7	9.1	275	12.6	12.6	-1.0
3	45	1.0	-0.7	-0.7	342	2.0	0.6	-1.9	278	4.4	4.4	-0.6	279	10.0	9.9	-1.6	259	21.4	21.0	4.1	249	27.2	25.5	9.6	237	13.4	11.3	7.2
4	22	1.8	-0.7	-1.7	342	2.2	0.7	-2.1	308	2.8	2.2	-1.7	277	9.3	9.2	-1.2	260	23.0	22.7	3.9	256	28.0	27.2	6.8	287	7.3	7.0	-2.2
5	18	2.2	-0.7	-2.1	357	1.9	0.1	-1.9	294	4.2	3.8	-1.7	285	10.3	10.0	-2.6	263	26.5	26.3	3.0	260	27.4	27.0	4.7	246	9.4	8.6	3.8
6	8	1.5	-0.2	-1.5	325	1.6	0.9	-1.3	273	4.3	4.3	-0.2	280	11.9	11.7	-2.0	267	23.1	23.1	1.2	271	26.9	26.9	-0.4	260	13.4	13.2	2.4
7	243	0.2	0.2	0.1	299	2.1	1.8	-1.0	303	5.1	4.3	-2.8	273	11.1	11.1	-0.6	267	25.5	25.5	1.3	257	29.1	28.4	6.3	280	12.1	11.9	-2.2
8	21	1.4	-0.5	-1.3	324	3.1	1.8	-2.5	297	4.9	4.4	-2.2	285	10.3	10.0	-2.6	273	21.9	21.9	-1.3	264	29.2	29.0	3.3	284	15.9	15.4	-3.8
9	352	1.5	0.2	-1.5	336	1.7	0.7	-1.6	301	3.7	3.2	-1.9	275	8.4	8.4	-0.7	267	19.4	19.4	1.1	257	28.4	27.6	6.6	263	11.3	11.2	1.3
10	313	1.9	1.4	-1.3	305	3.3	2.7	-1.9	291	7.4	6.9	-2.7	277	12.9	12.8	-1.5	274	24.8	24.7	-1.7	279	28.7	28.3	-4.5	299	25.6	22.4	-12.4
11	349	1.6	0.3	-1.6	319	3.2	2.1	-2.4	293	5.3	4.9	-2.1	273	11.1	11.1	-0.6	269	24.1	24.1	0.6	263	29.3	29.1	3.8	296	7.9	7.1	-3.4
12	337	1.5	0.6	-1.4	317	2.5	1.7	-1.8	298	5.2	4.6	-2.4	282	12.7	12.4	-2.6	266	23.6	23.5	1.6	269	31.6	31.6	0.7	268	15.7	15.7	0.6
13	15	2.0	-0.5	-1.9	342	3.5	1.1	-3.3	296	3.7	3.3	-1.6	275	10.1	10.1	-0.8	272	21.5	21.5	-0.7	278	20.0	19.8	-2.9	264	9.7	9.6	1.0
14	329	0.6	0.3	-0.5	344	3.3	0.9	-3.2	299	5.7	5.0	-2.8	303	9.8	8.2	-5.3	282	23.2	22.7	-4.7	276	30.9	30.8	-3.0	264	10.3	10.3	1.0
15	15	1.6	-0.4	-1.5	336	3.2	1.3	-2.9	291	5.3	5.0	-1.9	281	9.6	9.4	-1.9	277	22.6	22.4	-2.6	261	22.9	22.6	3.6	271	14.7	14.7	-0.2
16	28	1.9	-0.9	-1.7	340	2.0	0.7	-1.9	308	4.6	3.6	-2.8	281	10.1	9.9	-1.9	273	20.8	20.8	-1.1	263	25.4	25.2	3.1	255	12.5	12.1	3.2
17	198	1.3	0.4	1.2	303	2.0	1.7	-1.1	290	8.3	7.8	-2.9	285	11.8	11.4	-3.0	273	22.1	22.1	-1.3	260	28.2	27.8	4.7	261	18.6	18.4	2.8
18	284	0.4	0.4	-0.1	327	2.7	1.5	-2.3	288	5.7	5.4	-1.8	280	10.2	10.0	-1.8	273	22.8	22.8	-1.1	261	28.6	28.3	4.4	261	18.4	18.2	2.8
19	332	1.7	0.8	-1.5	319	4.0	2.6	-3.0	290	6.1	5.7	-2.1	276	15.0	14.9	-1.5	271	33.7	33.7	-0.5	257	32.7	31.9	7.1	268	11.1	11.1	0.3
20	315	1.0	0.7	-0.7	301	3.7	3.2	-1.9	286	6.8	6.5	-1.9	284	15.7	15.2	-3.9	260	21.8	21.5	3.6	258	31.5	30.9	6.3	—	—	—	—
21	9	1.2	-0.2	-1.2	328	3.2	1.7	-2.7	289	5.5	5.2	-1.8	275	14.5	14.4	-1.3	262	24.6	24.4	3.3	258	35.4	34.6	7.5	271	29.4	29.4	-0.5
22	343	1.0	0.3	-1.0	315	2.7	1.9	-1.9	297	5.6	5.0	-2.6	265	13.1	13.1	1.1	258	27.3	26.7	5.9	257	38.7	37.7	8.7	274	13.0	13.0	-0.8
23	315	0.6	0.4	-0.4	310	2.5	1.9	-1.6	287	6.6	6.3	-1.9	264	16.2	16.1	1.6	254	31.7	30.4	9.0	244	36.4	32.7	16.0	255	25.9	25.0	6.8
24	335	3.1	1.3	-2.8	318	3.9	2.6	-2.9	283	6.1	5.9	-1.4	274	14.4	14.4	-0.9	260	21.9	21.5	3.9	253	32.0	30.6	9.3	271	20.3	20.3	-0.5
25	333	2.5	1.1	-2.2	329	3.9	2.0	-3.3	295	7.2	6.5	-3.0	284	14.2	13.8	-3.4	270	26.8	26.8	0.2	269	36.6	36.6	0.9	273	31.0	31.0	-1.5
26	332	3.2	1.5	-2.8	309	5.8	4.5	-3.7	291	7.7	7.2	-2.7	279	17.3	17.1	-2.7	271	31.2	31.2	-0.8	263	36.6	36.3	4.5	269	12.7	12.7	0.3
27	356	2.7	0.2	-2.7	318	4.6	3.1	-3.4	293	8.5	7.8	-3.3	276	17.5	17.4	-1.9	264	29.0	28.8	3.0	259	35.1	34.5	6.7	269	16.8	16.8	0.4
28	339	1.7	0.6	-1.6	316	3.3	2.3	-2.4	275	8.5	8.5	-0.8	272	17.9	17.9	-0.7	266	33.5	33.4	2.1	258	38.4	37.5	8.3	294	17.2	15.7	-7.1
29	6	2.8	-0.3	-2.8	322	4.9	3.0	-3.9	287	7.4	7.1	-2.2	267	15.5	15.5	0.7	260	28.9	28.5	5.0	253	39.6	37.9	11.6	255	23.0	22.3	5.8
30	357	1.9	0.1	-1.9	325	2.9	1.7	-2.4	287	8.1	7.7	-2.4	272	15.4	15.4	-0.5	262	32.6	32.3	4.3	247	39.4	36.3	15.2	267	25.1	25.1	1.2

Daily Normals of Upper Air Winds (1971-2000)

RANCHI **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	342	2.6	0.8	-2.5	333	3.4	1.5	-3.0	287	6.8	6.5	-2.0	269	15.3	15.3	0.2	269	28.1	28.1	0.4	248	37.0	34.3	13.9	266	21.1	21.1	1.3
2	337	5.4	2.1	-5.0	295	4.7	4.3	-2.0	294	7.8	7.1	-3.2	277	18.2	18.1	-2.3	263	29.1	28.9	3.4	266	35.2	35.1	2.3	271	29.0	29.0	-0.7
3	338	3.1	1.2	-2.9	314	4.3	3.1	-3.0	298	7.6	6.7	-3.6	268	12.4	12.4	0.4	266	21.9	21.8	1.6	259	33.2	32.6	6.5	272	24.5	24.5	-0.7
4	311	3.7	2.8	-2.4	302	5.7	4.8	-3.0	287	8.7	8.3	-2.6	279	14.0	13.8	-2.1	265	27.2	27.1	2.4	262	31.9	31.6	4.2	256	16.7	16.2	3.9
5	332	4.1	1.9	-3.6	318	5.5	3.7	-4.1	297	6.9	6.2	-3.1	289	14.5	13.7	-4.6	270	27.7	27.7	0.1	259	34.1	33.5	6.4	238	9.9	8.4	5.3
6	330	3.6	1.8	-3.1	317	4.1	2.8	-3.0	298	7.7	6.8	-3.6	287	13.8	13.2	-4.0	264	24.1	23.9	2.7	254	37.7	36.2	10.7	263	17.1	17.0	2.2
7	333	3.9	1.8	-3.5	295	4.2	3.8	-1.8	304	8.0	6.6	-4.5	295	13.2	12.0	-5.5	273	24.7	24.7	-1.2	263	35.3	35.0	4.4	245	15.8	14.4	6.6
8	343	3.1	0.9	-3.0	325	3.7	2.1	-3.0	297	8.3	7.4	-3.7	280	13.2	13.0	-2.4	276	26.8	26.7	-2.6	259	36.9	36.2	7.1	261	18.8	18.6	2.8
9	336	3.0	1.2	-2.7	320	3.3	2.1	-2.5	288	7.1	6.7	-2.2	275	15.7	15.6	-1.3	268	28.4	28.4	1.0	260	34.3	33.8	6.1	267	20.0	20.0	1.0
10	313	3.7	2.7	-2.5	319	5.8	3.8	-4.4	288	7.9	7.5	-2.4	280	17.5	17.3	-2.9	269	31.9	31.9	0.8	270	38.1	38.1	-0.1	281	21.7	21.3	-4.0
11	326	3.0	1.7	-2.5	312	5.8	4.3	-3.9	290	9.2	8.7	-3.1	279	16.2	16.0	-2.6	267	31.1	31.1	1.6	268	32.1	32.1	1.3	285	21.2	20.5	-5.5
12	326	3.4	1.9	-2.8	307	5.4	4.3	-3.2	291	7.8	7.3	-2.8	279	17.7	17.5	-2.9	259	30.2	29.7	5.7	252	40.4	38.4	12.4	—	—	—	—
13	331	3.1	1.5	-2.7	303	4.4	3.7	-2.4	282	8.1	7.9	-1.7	281	16.3	16.0	-3.2	269	27.1	27.1	0.6	260	37.4	36.9	6.2	267	26.1	26.1	1.4
14	351	3.6	0.6	-3.6	305	5.4	4.4	-3.1	279	9.4	9.3	-1.5	280	18.1	17.8	-3.2	276	27.8	27.6	-2.9	260	38.5	37.9	7.0	270	16.5	16.5	0.1
15	339	3.4	1.2	-3.2	306	4.7	3.8	-2.8	287	9.3	8.9	-2.8	277	17.7	17.6	-2.1	264	35.1	34.9	3.8	265	35.9	35.8	2.9	333	8.0	3.6	-7.1
16	345	2.0	0.5	-1.9	300	5.4	4.7	-2.7	293	9.2	8.5	-3.6	284	16.6	16.1	-4.1	272	35.1	35.1	-1.4	270	39.5	39.5	0.2	284	20.8	20.2	-5.1
17	335	2.1	0.9	-1.9	309	4.3	3.3	-2.7	288	10.0	9.5	-3.1	277	19.9	19.8	-2.4	272	35.7	35.7	-1.4	254	47.4	45.6	12.9	178	24.0	-0.8	24.0
18	327	2.4	1.3	-2.0	298	4.3	3.8	-2.0	290	10.6	9.9	-3.7	283	20.4	19.9	-4.6	277	36.3	36.1	-4.2	267	49.5	49.4	2.9	267	39.0	38.9	2.0
19	325	2.1	1.2	-1.7	304	4.8	4.0	-2.7	299	9.6	8.4	-4.7	284	16.6	16.1	-4.1	278	32.3	32.0	-4.7	274	33.1	33.0	-2.4	272	24.4	24.4	-0.7
20	331	2.3	1.1	-2.0	305	6.0	4.9	-3.4	295	10.5	9.5	-4.4	279	18.9	18.6	-3.1	268	30.5	30.5	0.8	277	35.5	35.2	-4.4	263	22.3	22.1	2.8
21	319	2.1	1.4	-1.6	313	4.8	3.5	-3.3	289	11.3	10.7	-3.6	284	18.8	18.3	-4.4	274	32.0	31.9	-2.5	267	40.2	40.1	2.2	262	27.0	26.7	3.8
22	317	3.8	2.6	-2.8	308	5.6	4.4	-3.4	292	7.5	7.0	-2.8	276	13.0	12.9	-1.4	268	31.9	31.9	0.9	259	38.3	37.6	7.1	323	24.9	15.1	-19.8
23	291	2.2	2.1	-0.8	307	5.0	4.0	-3.0	294	9.1	8.3	-3.7	281	21.4	21.0	-4.1	274	37.0	36.9	-2.6	269	35.5	35.5	0.9	268	13.3	13.3	0.4
24	333	2.5	1.1	-2.2	311	4.4	3.3	-2.9	284	8.6	8.3	-2.1	274	19.7	19.7	-1.4	267	36.8	36.7	2.0	267	38.4	38.3	2.2	260	31.3	30.8	5.6
25	352	2.1	0.3	-2.1	299	2.5	2.2	-1.2	280	8.4	8.3	-1.5	272	17.7	17.7	-0.7	274	32.7	32.6	-2.3	261	43.2	42.7	6.5	288	21.2	20.2	-6.4
26	331	2.5	1.2	-2.2	310	4.2	3.2	-2.7	279	8.1	8.0	-1.3	282	17.9	17.5	-3.8	276	36.9	36.7	-3.7	270	42.6	42.6	0.0	276	29.9	29.8	-2.9
27	325	2.8	1.6	-2.3	308	4.2	3.3	-2.6	287	7.3	7.0	-2.1	271	19.9	19.9	-0.5	274	34.6	34.5	-2.4	268	32.1	32.1	1.4	247	5.0	4.6	2.0
28	304	1.4	1.2	-0.8	301	5.2	4.5	-2.7	280	9.5	9.4	-1.6	274	19.0	19.0	-1.2	269	42.7	42.7	1.1	261	35.9	35.5	5.6	261	36.6	36.2	5.6
29	306	1.7	1.4	-1.0	297	4.5	4.0	-2.0	292	9.5	8.8	-3.6	287	20.9	20.0	-6.0	262	33.8	33.5	4.7	263	35.6	35.4	4.1	265	29.8	29.7	2.8
30	328	1.5	0.8	-1.3	292	5.9	5.5	-2.2	291	10.2	9.5	-3.6	272	19.0	19.0	-0.8	275	36.4	36.3	-3.0	266	43.2	43.1	3.1	274	19.0	19.0	-1.3
31	328	1.9	1.0	-1.6	296	5.3	4.8	-2.3	287	12.1	11.6	-3.5	270	24.2	24.2	-0.2	266	37.8	37.7	2.8	264	40.0	39.8	4.1	257	42.0	40.9	9.4

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	45	1.4	-1.0	-1.0	103	2.2	-2.1	0.5	291	3.3	3.1	-1.2	281	18.3	17.9	-3.6	274	36.5	36.4	-2.4	276	45.3	45.0	-4.9	271	29.5	29.5	-0.7
2	80	1.7	-1.7	-0.3	88	2.4	-2.4	-0.1	296	4.1	3.7	-1.8	290	19.8	18.6	-6.9	283	35.7	34.8	-7.9	283	50.5	49.1	-11.6	293	24.7	22.8	-9.6
3	98	0.7	-0.7	0.1	97	2.5	-2.5	0.3	294	3.0	2.7	-1.2	288	17.2	16.4	-5.3	291	28.8	26.9	-10.4	290	40.3	37.8	-13.9	281	26.7	26.2	-5.0
4	342	0.9	0.3	-0.9	99	1.3	-1.3	0.2	288	2.5	2.4	-0.8	294	18.7	17.1	-7.5	283	31.7	30.9	-7.2	286	30.9	29.7	-8.7	287	26.7	25.6	-7.7
5	52	2.3	-1.8	-1.4	97	1.6	-1.6	0.2	284	6.5	6.3	-1.6	284	20.8	20.2	-5.1	283	29.1	28.4	-6.5	290	44.9	42.1	-15.6	277	37.0	36.7	-4.7
6	56	1.1	-0.9	-0.6	111	1.4	-1.3	0.5	280	5.1	5.0	-0.9	283	20.1	19.6	-4.4	278	35.4	35.0	-5.2	286	35.2	33.8	-9.7	263	20.8	20.6	2.7
7	53	2.0	-1.6	-1.2	76	1.2	-1.2	-0.3	278	5.0	5.0	-0.7	281	19.8	19.4	-3.9	275	37.6	37.4	-3.6	280	38.1	37.6	-6.4	271	23.8	23.8	-0.4
8	65	1.4	-1.3	-0.6	105	2.0	-1.9	0.5	291	3.0	2.8	-1.1	280	15.0	14.8	-2.7	275	34.5	34.4	-2.9	281	35.0	34.4	-6.4	271	29.0	29.0	-0.5
9	74	3.5	-3.4	-1.0	109	2.4	-2.3	0.8	277	8.5	8.4	-1.0	288	23.8	22.7	-7.3	270	37.3	37.3	0.3	271	24.0	24.0	-0.5	279	35.1	34.7	-5.5
10	162	0.3	-0.1	0.3	99	1.3	-1.3	0.2	283	5.8	5.7	-1.3	282	24.4	23.9	-4.9	267	41.5	41.5	1.9	274	31.4	31.3	-2.1	288	21.0	20.0	-6.5
11	77	1.3	-1.3	-0.3	76	1.2	-1.2	-0.3	282	7.5	7.3	-1.5	280	21.3	21.0	-3.8	255	33.4	32.3	8.4	259	47.5	46.7	8.8	295	9.0	8.2	-3.8
12	56	0.4	-0.3	-0.2	96	1.0	-1.0	0.1	281	7.7	7.6	-1.5	276	20.7	20.6	-2.2	266	34.1	34.0	2.5	271	49.6	49.6	-0.5	—	—	—	—
13	297	0.4	0.4	-0.2	9	0.6	-0.1	-0.6	268	5.8	5.8	0.2	284	21.5	20.9	-5.1	284	34.6	33.6	-8.3	267	34.8	34.7	2.0	—	—	—	—
14	56	0.7	-0.6	-0.4	99	1.2	-1.2	0.2	290	6.1	5.7	-2.1	279	11.4	11.3	-1.8	264	40.4	40.1	4.5	280	57.7	56.9	-9.8	272	16.0	16.0	-0.6
15	77	2.3	-2.2	-0.5	93	1.9	-1.9	0.1	284	6.7	6.5	-1.6	289	16.3	15.5	-5.2	275	35.6	35.5	-3.1	269	55.7	55.7	0.7	—	—	—	—
16	126	0.9	-0.7	0.5	105	1.6	-1.5	0.4	287	5.9	5.7	-1.7	272	15.5	15.5	-0.6	263	24.6	24.4	2.9	286	28.7	27.5	-8.1	282	18.9	18.5	-4.1
17	321	0.6	0.4	-0.5	135	0.3	-0.2	0.2	300	5.9	5.1	-2.9	290	24.9	23.4	-8.6	279	37.5	37.0	-5.9	283	48.0	46.8	-10.8	275	23.0	22.9	-2.0
18	77	2.3	-2.2	-0.5	29	1.0	-0.5	-0.9	277	7.0	6.9	-0.9	285	26.9	26.0	-7.0	274	25.5	25.4	-1.6	270	43.2	43.2	-0.3	273	28.3	28.3	-1.6
19	77	1.7	-1.7	-0.4	63	0.9	-0.8	-0.4	294	8.6	7.9	-3.5	285	23.8	23.0	-6.1	263	24.2	24.0	2.8	289	45.3	42.9	-14.6	283	19.3	18.8	-4.5
20	84	1.8	-1.8	-0.2	90	2.1	-2.1	0.0	261	3.1	3.1	0.5	281	19.3	19.0	-3.6	279	29.8	29.4	-4.6	269	29.2	29.2	0.7	273	54.0	53.9	-2.7
21	93	1.7	-1.7	0.1	101	1.5	-1.5	0.3	288	5.8	5.5	-1.8	282	22.6	22.1	-4.7	266	39.6	39.5	3.0	264	38.4	38.2	4.3	—	—	—	—
22	352	0.7	0.1	-0.7	162	0.3	-0.1	0.3	291	6.6	6.1	-2.4	289	22.2	20.9	-7.4	261	47.3	46.7	7.4	269	34.0	34.0	0.4	270	28.0	28.0	0.0
23	63	0.9	-0.8	-0.4	90	0.9	-0.9	0.0	287	6.7	6.4	-1.9	293	21.1	19.4	-8.4	274	33.7	33.6	-2.1	277	34.6	34.3	-4.4	265	28.0	27.9	2.4
24	84	1.0	-1.0	-0.1	81	1.9	-1.9	-0.3	289	6.7	6.3	-2.2	287	23.0	22.0	-6.6	261	43.6	43.1	6.6	258	32.8	32.0	7.0	169	7.0	-1.3	6.9
25	100	1.7	-1.7	0.3	95	2.3	-2.3	0.2	294	8.1	7.4	-3.3	284	22.7	22.0	-5.5	288	30.0	28.5	-9.3	281	44.2	43.3	-8.8	241	15.0	13.1	7.3
26	74	2.5	-2.4	-0.7	85	2.4	-2.4	-0.2	292	5.4	5.0	-2.0	284	25.2	24.5	-5.9	279	31.7	31.3	-4.8	274	22.5	22.5	-1.4	—	—	—	—
27	62	1.9	-1.7	-0.9	93	2.0	-2.0	0.1	297	5.1	4.6	-2.3	289	24.8	23.5	-8.0	288	34.7	33.0	-10.6	265	55.4	55.2	4.7	243	7.0	6.2	3.2
28	58	1.3	-1.1	-0.7	98	1.5	-1.5	0.2	282	7.9	7.7	-1.6	285	22.9	22.2	-5.8	280	31.7	31.2	-5.5	232	30.0	23.6	18.5	249	24.0	22.4	8.6
29	51	1.4	-1.1	-0.9	77	1.7	-1.7	-0.4	286	4.0	3.8	-1.1	275	18.5	18.4	-1.6	270	39.6	39.6	0.3	279	40.5	40.0	-6.5	342	6.2	1.9	-5.9
30	83	1.7	-1.7	-0.2	45	0.8	-0.6	-0.6	293	6.5	6.0	-2.5	291	18.2	17.0	-6.4	301	42.1	36.2	-21.4	288	27.7	26.3	-8.6	—	—	—	—
31	78	1.9	-1.9	-0.4	85	1.1	-1.1	-0.1	285	6.0	5.8	-1.5	285	27.6	26.6	-7.2	296	38.2	34.2	-17.0	269	51.8	51.8	1.1	252	36.0	34.2	11.1

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	81	1.8	-1.8	-0.3	94	1.6	-1.6	0.1	291	7.9	7.4	-2.8	284	21.0	20.4	-5.1	271	31.5	31.5	-0.8	262	43.9	43.5	6.2	254	15.0	14.4	4.1
2	62	1.9	-1.7	-0.9	135	0.6	-0.4	0.4	281	6.8	6.7	-1.3	279	22.9	22.6	-3.7	271	31.3	31.3	-0.3	266	41.5	41.4	2.8	—	—	—	—
3	63	0.7	-0.6	-0.3	93	2.0	-2.0	0.1	295	7.3	6.6	-3.1	287	18.2	17.4	-5.4	269	35.0	35.0	0.5	265	50.4	50.2	4.7	260	37.9	37.4	6.3
4	43	1.8	-1.2	-1.3	60	1.4	-1.2	-0.7	289	7.7	7.3	-2.5	286	18.0	17.3	-4.9	271	33.2	33.2	-0.8	267	48.6	48.6	2.2	—	—	—	—
5	92	2.3	-2.3	0.1	72	0.9	-0.9	-0.3	298	6.7	5.9	-3.1	288	21.4	20.4	-6.5	278	37.8	37.4	-5.4	273	40.2	40.1	-2.4	279	41.0	40.5	-6.4
6	88	2.6	-2.6	-0.1	45	0.6	-0.4	-0.4	290	9.2	8.6	-3.2	287	23.1	22.1	-6.8	291	27.8	25.9	-10.2	314	26.0	18.6	-18.1	319	14.0	9.2	-10.6
7	70	3.2	-3.0	-1.1	110	2.0	-1.9	0.7	285	7.6	7.3	-2.0	287	16.3	15.6	-4.7	281	25.9	25.4	-5.1	268	36.2	36.2	1.2	293	25.5	23.5	-9.8
8	78	1.4	-1.4	-0.3	97	0.8	-0.8	0.1	280	5.8	5.7	-1.0	292	18.8	17.5	-7.0	287	30.2	28.9	-8.9	270	41.9	41.9	0.1	262	27.0	26.7	3.8
9	80	1.7	-1.7	-0.3	86	1.5	-1.5	-0.1	295	5.6	5.1	-2.4	287	17.2	16.4	-5.1	284	30.8	29.9	-7.5	281	36.5	35.8	-6.9	339	12.0	4.3	-11.2
10	70	2.0	-1.9	-0.7	75	1.1	-1.1	-0.3	271	4.6	4.6	-0.1	292	12.9	12.0	-4.8	278	19.5	19.3	-2.6	277	32.5	32.3	-3.7	320	18.8	12.1	-14.4
11	78	1.9	-1.9	-0.4	102	1.4	-1.4	0.3	270	6.5	6.5	0.0	288	22.2	21.1	-6.9	283	33.8	33.0	-7.5	285	40.4	39.0	-10.4	262	18.3	18.1	2.7
12	90	1.8	-1.8	0.0	51	0.6	-0.5	-0.4	281	5.3	5.2	-1.0	281	20.5	20.1	-3.8	282	28.7	28.1	-5.9	274	47.1	47.0	-2.9	92	5.0	-5.0	0.2
13	72	2.2	-2.1	-0.7	122	1.3	-1.1	0.7	277	9.1	9.0	-1.1	287	17.9	17.1	-5.2	274	38.0	37.9	-2.6	274	41.3	41.2	-2.9	263	10.7	10.6	1.3
14	72	2.5	-2.4	-0.8	360	0.3	0.0	-0.3	272	8.1	8.1	-0.3	285	21.3	20.6	-5.5	274	48.7	48.6	-3.5	269	46.9	46.9	0.8	274	32.0	31.9	-2.2
15	79	1.0	-1.0	-0.2	297	0.4	0.4	-0.2	277	8.8	8.7	-1.1	282	20.2	19.8	-4.1	269	31.8	31.8	0.4	255	43.7	42.3	11.1	286	27.2	26.1	-7.7
16	292	0.5	0.5	-0.2	294	1.2	1.1	-0.5	278	10.5	10.4	-1.5	276	24.9	24.8	-2.5	276	36.2	36.0	-3.8	290	27.4	25.8	-9.2	264	12.8	12.7	1.3
17	90	2.3	-2.3	0.0	45	1.1	-0.8	-0.8	283	12.1	11.8	-2.8	278	22.6	22.4	-3.1	275	35.9	35.7	-3.4	268	48.9	48.9	1.4	274	51.2	51.1	-3.3
18	77	2.6	-2.5	-0.6	281	0.5	0.5	-0.1	275	10.8	10.8	-1.0	275	23.5	23.4	-2.1	279	35.2	34.8	-5.4	271	55.2	55.2	-1.2	249	29.0	27.1	10.4
19	74	1.9	-1.8	-0.5	83	0.8	-0.8	-0.1	286	9.1	8.7	-2.5	284	22.5	21.8	-5.5	268	40.4	40.4	1.3	271	45.5	45.5	-0.4	267	23.0	23.0	1.2
20	72	1.6	-1.5	-0.5	81	1.8	-1.8	-0.3	284	5.6	5.4	-1.3	283	22.9	22.3	-5.2	263	33.8	33.5	4.4	256	33.7	32.8	7.9	244	13.8	12.4	6.1
21	84	3.0	-3.0	-0.3	149	0.6	-0.3	0.5	278	9.1	9.0	-1.2	276	26.7	26.5	-2.9	270	41.8	41.8	0.1	265	22.3	22.2	1.9	255	17.3	16.7	4.5
22	93	2.2	-2.2	0.1	229	1.1	0.8	0.7	280	10.0	9.9	-1.7	280	19.7	19.4	-3.3	272	34.0	34.0	-1.0	283	61.4	59.9	-13.7	260	43.0	42.3	7.5
23	77	1.7	-1.7	-0.4	32	0.9	-0.5	-0.8	279	7.5	7.4	-1.2	275	17.2	17.1	-1.6	268	38.4	38.4	1.3	277	53.3	52.9	-6.3	—	—	—	—
24	97	2.6	-2.6	0.3	352	0.7	0.1	-0.7	268	5.7	5.7	0.2	278	20.4	20.2	-2.8	282	35.6	34.8	-7.4	283	40.3	39.3	-9.0	301	32.4	27.7	-16.9
25	80	1.7	-1.7	-0.3	72	0.6	-0.6	-0.2	284	8.0	7.8	-1.9	285	20.1	19.4	-5.2	268	40.4	40.4	1.4	291	50.6	47.3	-18.1	—	—	—	—
26	67	1.3	-1.2	-0.5	360	0.4	0.0	-0.4	288	8.6	8.2	-2.7	290	22.2	20.8	-7.7	284	36.6	35.6	-8.6	280	32.7	32.2	-5.9	306	18.4	14.9	-10.8
27	101	1.0	-1.0	0.2	81	0.6	-0.6	-0.1	276	8.6	8.6	-0.9	280	20.5	20.2	-3.4	277	40.2	39.9	-5.2	299	35.4	30.9	-17.2	—	—	—	—
28	86	2.8	-2.8	-0.2	349	0.5	0.1	-0.5	280	12.1	11.9	-2.0	286	20.4	19.6	-5.6	283	35.9	34.9	-8.2	260	33.8	33.2	6.1	290	31.0	29.1	-10.6
29	92	3.0	-3.0	0.1	72	3.8	-3.6	-1.2	300	7.5	6.5	-3.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	71	1.8	-1.7	-0.6	194	0.4	0.1	0.4	280	7.8	7.7	-1.3	283	17.5	17.0	-4.0	273	32.6	32.6	-1.7	276	34.9	34.7	-3.4	287	21.0	20.1	-6.0
2	73	3.1	-3.0	-0.9	82	2.2	-2.2	-0.3	289	6.8	6.4	-2.2	278	20.1	19.9	-2.9	276	35.2	35.0	-3.4	268	45.3	45.3	1.7	283	27.0	26.3	-6.1
3	79	0.5	-0.5	-0.1	61	1.3	-1.1	-0.6	289	7.7	7.3	-2.5	280	17.2	16.9	-3.0	272	31.6	31.6	-1.3	272	30.3	30.3	-1.2	280	14.0	13.8	-2.4
4	86	1.3	-1.3	-0.1	50	0.8	-0.6	-0.5	279	7.6	7.5	-1.2	283	15.9	15.5	-3.6	275	28.3	28.2	-2.3	275	18.4	18.3	-1.6	306	7.0	5.7	-4.1
5	68	2.7	-2.5	-1.0	263	0.8	0.8	0.1	282	8.0	7.8	-1.6	288	21.1	20.1	-6.5	276	34.4	34.2	-3.6	278	36.8	36.4	-5.4	263	24.0	23.8	2.8
6	77	4.1	-4.0	-0.9	45	0.4	-0.3	-0.3	283	9.2	9.0	-2.1	292	22.0	20.4	-8.2	281	30.8	30.2	-6.1	270	24.6	24.6	0.1	275	19.0	18.9	-1.7
7	62	1.5	-1.3	-0.7	286	1.5	1.4	-0.4	280	12.5	12.3	-2.1	285	20.3	19.7	-5.1	273	32.2	32.1	-1.9	278	21.5	21.3	-2.9	278	17.7	17.5	-2.4
8	66	2.0	-1.8	-0.8	117	0.7	-0.6	0.3	284	11.2	10.9	-2.7	287	18.6	17.8	-5.4	269	30.5	30.5	0.4	272	40.7	40.7	-1.4	278	27.9	27.6	-3.8
9	63	3.1	-2.8	-1.4	135	0.6	-0.4	0.4	284	7.7	7.5	-1.9	290	21.1	19.9	-7.1	275	28.3	28.2	-2.7	278	33.2	32.9	-4.7	273	28.1	28.1	-1.6
10	78	2.9	-2.8	-0.6	14	0.4	-0.1	-0.4	278	8.9	8.8	-1.2	283	20.0	19.5	-4.5	282	31.0	30.3	-6.7	268	32.9	32.9	1.1	256	28.6	27.8	6.9
11	93	1.7	-1.7	0.1	7	0.8	-0.1	-0.8	281	9.1	8.9	-1.8	277	23.9	23.7	-3.0	278	32.8	32.4	-4.8	276	26.3	26.1	-2.9	283	10.1	9.8	-2.3
12	105	4.3	-4.2	1.1	355	1.1	0.1	-1.1	282	10.5	10.3	-2.1	274	18.7	18.6	-1.4	270	32.9	32.9	0.1	271	37.7	37.7	-0.6	270	26.0	26.0	0.0
13	85	4.6	-4.6	-0.4	54	1.7	-1.4	-1.0	279	12.0	11.8	-1.9	280	17.9	17.6	-3.2	276	29.8	29.6	-3.3	272	27.3	27.3	-0.9	275	23.4	23.3	-1.9
14	90	2.4	-2.4	0.0	207	0.7	0.3	0.6	284	9.6	9.3	-2.3	274	17.9	17.9	-1.2	276	37.0	36.8	-3.9	272	44.6	44.6	-1.2	259	25.1	24.6	4.9
15	61	2.6	-2.3	-1.3	45	0.3	-0.2	-0.2	291	8.0	7.5	-2.9	297	17.8	15.9	-8.0	293	38.2	35.0	-15.2	283	29.4	28.7	-6.5	268	23.5	23.5	0.9
16	85	3.7	-3.7	-0.3	17	1.7	-0.5	-1.6	285	10.1	9.8	-2.6	287	20.5	19.6	-6.0	294	30.0	27.4	-12.2	286	40.8	39.2	-11.2	284	28.4	27.5	-7.1
17	75	3.1	-3.0	-0.8	84	0.9	-0.9	-0.1	281	9.2	9.0	-1.7	292	23.8	22.1	-8.9	275	34.2	34.1	-2.7	274	28.2	28.1	-2.2	289	21.6	20.4	-7.0
18	82	4.2	-4.2	-0.6	93	2.1	-2.1	0.1	288	8.2	7.8	-2.5	282	17.0	16.6	-3.5	274	34.6	34.5	-2.2	275	38.5	38.4	-3.1	274	23.9	23.8	-1.7
19	85	4.8	-4.8	-0.4	79	0.5	-0.5	-0.1	288	11.5	10.9	-3.6	284	25.7	24.9	-6.3	272	33.5	33.5	-1.0	274	27.9	27.8	-2.0	259	12.4	12.2	2.4
20	72	3.6	-3.4	-1.1	307	0.5	0.4	-0.3	276	10.3	10.3	-1.0	280	24.5	24.1	-4.4	266	35.8	35.7	2.4	262	34.3	34.0	4.8	251	21.3	20.2	6.9
21	60	3.2	-2.8	-1.6	63	0.4	-0.4	-0.2	277	10.7	10.6	-1.3	288	18.8	17.9	-5.8	270	26.7	26.7	0.0	262	34.6	34.3	4.8	267	23.9	23.9	1.2
22	83	4.1	-4.1	-0.5	62	1.5	-1.3	-0.7	282	10.6	10.4	-2.2	280	18.6	18.3	-3.2	263	39.7	39.4	4.7	273	32.0	32.0	-1.7	255	23.9	23.1	6.2
23	81	3.8	-3.8	-0.6	90	0.4	-0.4	0.0	281	13.9	13.6	-2.7	277	19.3	19.2	-2.2	271	29.0	29.0	-0.5	267	27.7	27.7	1.6	277	29.3	29.1	-3.8
24	49	2.0	-1.5	-1.3	261	0.6	0.6	0.1	277	11.5	11.4	-1.3	286	22.7	21.8	-6.4	281	32.1	31.5	-6.1	269	38.1	38.1	0.6	276	32.9	32.7	-3.6
25	63	3.4	-3.0	-1.5	81	1.8	-1.8	-0.3	267	9.6	9.6	0.5	275	15.9	15.8	-1.5	268	28.7	28.7	1.2	256	28.3	27.4	7.0	259	25.5	25.0	4.8
26	88	3.7	-3.7	-0.1	170	1.1	-0.2	1.1	285	10.5	10.1	-2.8	280	15.9	15.7	-2.8	270	29.0	29.0	-0.2	264	40.4	40.2	4.2	271	31.5	31.5	-0.3
27	88	2.8	-2.8	-0.1	82	1.5	-1.5	-0.2	287	6.5	6.2	-1.9	286	9.6	9.2	-2.7	283	23.4	22.8	-5.1	271	36.6	36.6	-0.5	293	31.1	28.7	-11.9
28	82	2.9	-2.9	-0.4	96	1.8	-1.8	0.2	286	5.2	5.0	-1.4	288	14.3	13.6	-4.4	290	24.5	23.0	-8.3	290	39.7	37.2	-13.9	283	26.5	25.8	-6.1
29	88	3.2	-3.2	-0.1	82	0.7	-0.7	-0.1	286	8.0	7.7	-2.2	290	17.6	16.6	-5.9	280	34.0	33.5	-6.0	278	30.1	29.8	-4.2	285	22.0	21.3	-5.6
30	95	3.7	-3.7	0.3	205	1.4	0.6	1.3	283	7.1	6.9	-1.6	284	17.1	16.6	-4.2	278	28.3	28.0	-3.9	274	29.5	29.4	-1.8	260	19.9	19.6	3.3
31	72	2.0	-1.9	-0.6	299	1.3	1.1	-0.6	281	8.8	8.6	-1.7	276	15.4	15.3	-1.5	287	26.2	25.1	-7.5	287	29.9	28.6	-8.8	266	22.3	22.2	1.5

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	79	2.5	-2.5	-0.5	214	0.7	0.4	0.6	275	8.7	8.7	-0.8	278	15.1	15.0	-2.1	274	21.1	21.1	-1.3	285	33.7	32.5	-8.9	264	22.3	22.2	2.2
2	72	3.2	-3.0	-1.0	360	0.1	0.0	-0.1	280	12.3	12.1	-2.2	285	17.1	16.5	-4.3	270	27.7	27.7	0.0	264	25.9	25.7	2.8	288	17.6	16.7	-5.4
3	84	3.9	-3.9	-0.4	72	0.9	-0.9	-0.3	286	12.6	12.1	-3.5	297	15.5	13.8	-7.1	277	21.5	21.3	-2.7	281	37.4	36.7	-7.4	260	29.6	29.2	5.1
4	79	3.7	-3.6	-0.7	270	0.5	0.5	0.0	275	16.3	16.2	-1.3	279	19.6	19.4	-3.1	253	31.1	29.7	9.2	259	48.2	47.3	9.4	250	25.8	24.2	8.9
5	81	4.0	-4.0	-0.6	45	0.3	-0.2	-0.2	278	10.2	10.1	-1.4	278	16.4	16.2	-2.4	262	27.2	26.9	3.9	265	38.1	38.0	3.3	271	18.9	18.9	-0.4
6	85	4.8	-4.8	-0.4	22	0.5	-0.2	-0.5	283	12.0	11.7	-2.6	286	17.0	16.4	-4.6	280	28.3	27.9	-4.7	278	35.9	35.6	-5.0	281	16.3	16.0	-3.1
7	78	5.2	-5.1	-1.1	69	1.9	-1.8	-0.7	279	9.4	9.3	-1.4	290	14.6	13.7	-5.1	283	17.2	16.8	-3.9	263	31.0	30.8	3.8	262	18.6	18.4	2.7
8	87	3.9	-3.9	-0.2	90	1.6	-1.6	0.0	287	9.0	8.6	-2.6	290	13.4	12.6	-4.5	278	23.2	23.0	-3.3	283	33.6	32.7	-7.8	275	15.5	15.4	-1.4
9	81	3.9	-3.9	-0.6	302	0.9	0.8	-0.5	286	11.3	10.9	-3.1	293	13.3	12.3	-5.1	274	29.0	28.9	-2.1	265	28.4	28.3	2.6	274	20.5	20.5	-1.4
10	79	4.6	-4.5	-0.9	118	1.5	-1.3	0.7	283	12.4	12.1	-2.9	286	16.6	16.0	-4.6	273	18.8	18.8	-1.1	263	35.9	35.6	4.4	281	8.1	7.9	-1.6
11	65	4.0	-3.6	-1.7	162	0.3	-0.1	0.3	291	9.1	8.5	-3.3	284	17.0	16.5	-4.1	270	23.4	23.4	0.2	251	23.5	22.2	7.6	271	13.4	13.4	-0.2
12	81	3.7	-3.7	-0.6	69	0.9	-0.8	-0.3	281	9.0	8.8	-1.7	286	12.9	12.4	-3.5	269	18.8	18.8	0.3	266	17.2	17.2	1.1	288	15.1	14.3	-4.7
13	85	2.2	-2.2	-0.2	180	0.7	0.0	0.7	286	7.4	7.1	-2.0	278	11.4	11.3	-1.6	276	18.6	18.5	-1.8	276	22.2	22.1	-2.2	280	11.6	11.4	-2.0
14	73	3.7	-3.5	-1.1	110	2.0	-1.9	0.7	278	8.0	7.9	-1.1	289	12.2	11.5	-4.0	265	17.5	17.4	1.6	265	24.2	24.1	1.9	271	18.1	18.1	-0.3
15	77	4.3	-4.2	-1.0	121	1.2	-1.0	0.6	280	9.3	9.2	-1.6	290	13.6	12.8	-4.6	274	21.3	21.2	-1.5	269	35.2	35.2	0.4	246	12.4	11.3	5.1
16	75	4.1	-4.0	-1.1	58	1.9	-1.6	-1.0	282	10.3	10.1	-2.2	286	16.3	15.6	-4.6	267	23.5	23.5	1.2	259	28.5	28.0	5.3	257	27.2	26.5	6.1
17	66	1.7	-1.6	-0.7	—	—	—	—	277	11.8	11.7	-1.4	277	14.9	14.8	-1.9	264	24.0	23.8	2.7	263	25.5	25.3	3.3	265	17.6	17.5	1.5
18	82	4.3	-4.3	-0.6	150	0.8	-0.4	0.7	280	8.7	8.6	-1.5	280	14.4	14.2	-2.5	276	26.2	26.1	-2.8	252	32.2	30.5	10.2	256	16.0	15.5	3.9
19	89	4.0	-4.0	-0.1	103	1.7	-1.7	0.4	274	6.8	6.8	-0.5	288	15.3	14.5	-4.8	265	19.7	19.6	1.7	268	26.4	26.4	1.0	248	6.2	5.8	2.3
20	91	4.4	-4.4	0.1	56	1.4	-1.2	-0.8	283	9.9	9.7	-2.2	284	12.2	11.8	-3.0	264	22.0	21.9	2.2	253	28.3	27.0	8.5	269	16.8	16.8	0.4
21	83	3.9	-3.9	-0.5	90	1.2	-1.2	0.0	283	10.5	10.2	-2.4	291	7.9	7.4	-2.9	280	15.8	15.6	-2.8	254	21.0	20.2	5.7	265	12.8	12.7	1.2
22	81	5.2	-5.1	-0.8	40	0.8	-0.5	-0.6	289	7.4	7.0	-2.4	284	12.8	12.4	-3.2	279	18.9	18.7	-2.9	266	23.8	23.8	1.5	276	15.5	15.4	-1.6
23	72	2.8	-2.7	-0.9	59	0.6	-0.5	-0.3	277	7.0	6.9	-0.9	289	14.2	13.4	-4.6	263	18.1	18.0	2.3	253	32.0	30.6	9.4	264	16.6	16.5	1.6
24	70	3.3	-3.1	-1.1	82	0.7	-0.7	-0.1	273	8.8	8.8	-0.4	274	12.9	12.9	-1.0	252	18.5	17.6	5.6	264	25.7	25.6	2.7	268	15.7	15.7	0.5
25	81	4.4	-4.3	-0.7	90	0.4	-0.4	0.0	280	7.7	7.6	-1.3	277	8.8	8.7	-1.0	259	13.3	13.1	2.5	279	20.7	20.4	-3.3	284	11.2	10.9	-2.7
26	86	5.3	-5.3	-0.4	122	0.9	-0.8	0.5	279	7.6	7.5	-1.2	272	9.6	9.6	-0.4	257	21.7	21.1	4.9	275	17.6	17.5	-1.4	299	11.5	10.0	-5.6
27	76	4.5	-4.4	-1.1	78	2.5	-2.4	-0.5	280	7.8	7.7	-1.3	287	11.1	10.6	-3.2	280	18.7	18.4	-3.4	274	22.6	22.6	-1.4	279	12.7	12.6	-1.9
28	80	3.5	-3.4	-0.6	83	0.8	-0.8	-0.1	281	7.9	7.8	-1.5	291	7.4	6.9	-2.6	278	12.4	12.3	-1.7	271	20.3	20.3	-0.2	279	12.5	12.4	-1.9
29	42	2.8	-1.9	-2.1	87	1.9	-1.9	-0.1	287	7.0	6.7	-2.1	297	8.2	7.3	-3.7	297	11.4	10.2	-5.1	272	11.6	11.6	-0.5	269	17.0	17.0	0.3
30	75	2.7	-2.6	-0.7	135	1.6	-1.1	1.1	276	4.6	4.6	-0.5	276	9.7	9.6	-1.0	260	14.2	14.0	2.4	270	18.1	18.1	0.0	299	12.0	10.5	-5.8

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	67	2.6	-2.4	-1.0	60	1.4	-1.2	-0.7	281	6.6	6.5	-1.3	295	7.8	7.1	-3.3	283	14.5	14.1	-3.3	280	20.1	19.8	-3.5	301	8.7	7.4	-4.5
2	90	4.6	-4.6	0.0	100	2.3	-2.3	0.4	289	6.2	5.9	-2.0	280	10.2	10.1	-1.7	262	17.9	17.7	2.6	263	25.0	24.8	3.2	285	19.4	18.8	-4.9
3	82	4.3	-4.3	-0.6	108	0.9	-0.9	0.3	279	7.2	7.1	-1.1	288	6.6	6.3	-2.0	265	12.9	12.9	1.1	266	21.7	21.6	1.5	279	6.9	6.8	-1.1
4	85	4.8	-4.8	-0.4	68	1.8	-1.7	-0.7	269	7.4	7.4	0.1	276	10.8	10.7	-1.2	269	19.6	19.6	0.4	262	23.9	23.7	3.2	277	20.8	20.6	-2.6
5	74	3.7	-3.6	-1.0	166	0.8	-0.2	0.8	282	7.1	6.9	-1.5	287	8.4	8.1	-2.4	260	21.2	20.9	3.7	271	22.7	22.7	-0.3	269	15.7	15.7	0.3
6	106	2.9	-2.8	0.8	180	1.1	0.0	1.1	284	7.6	7.4	-1.9	290	11.2	10.5	-3.8	263	18.3	18.2	2.3	261	24.7	24.4	3.7	309	7.3	5.7	-4.6
7	80	4.2	-4.1	-0.7	92	2.9	-2.9	0.1	284	5.8	5.6	-1.4	288	5.7	5.4	-1.8	258	16.7	16.3	3.6	255	22.1	21.4	5.6	272	9.4	9.4	-0.3
8	79	4.4	-4.3	-0.8	97	2.3	-2.3	0.3	280	6.2	6.1	-1.1	298	7.2	6.4	-3.4	277	13.7	13.6	-1.7	271	21.0	21.0	-0.2	274	10.2	10.2	-0.7
9	69	1.7	-1.6	-0.6	360	0.4	0.0	-0.4	274	5.7	5.7	-0.4	299	5.5	4.8	-2.7	291	13.8	12.9	-5.0	271	24.9	24.9	-0.5	213	11.0	6.0	9.2
10	96	1.0	-1.0	0.1	81	1.2	-1.2	-0.2	281	4.2	4.1	-0.8	295	9.1	8.2	-3.9	278	17.5	17.3	-2.4	270	29.7	29.7	0.0	291	18.7	17.4	-6.8
11	63	1.6	-1.4	-0.7	342	0.9	0.3	-0.9	270	5.8	5.8	0.0	280	9.4	9.3	-1.6	286	16.4	15.8	-4.5	281	24.7	24.2	-4.7	241	6.0	5.2	2.9
12	77	2.8	-2.7	-0.6	84	0.9	-0.9	-0.1	286	7.9	7.6	-2.2	281	8.6	8.4	-1.7	273	16.8	16.8	-1.0	269	20.2	20.2	0.4	281	5.2	5.1	-1.0
13	85	3.4	-3.4	-0.3	101	2.6	-2.6	0.5	290	6.3	5.9	-2.1	292	5.6	5.2	-2.1	287	15.1	14.4	-4.5	275	22.7	22.6	-1.9	275	9.7	9.7	-0.8
14	88	2.7	-2.7	-0.1	143	2.0	-1.2	1.6	289	5.2	4.9	-1.7	285	9.1	8.8	-2.3	270	14.7	14.7	0.1	278	21.6	21.4	-2.9	273	15.3	15.3	-0.8
15	97	2.6	-2.6	0.3	108	2.0	-1.9	0.6	287	6.7	6.4	-1.9	284	9.3	9.0	-2.2	261	13.6	13.4	2.2	272	17.2	17.2	-0.7	269	15.2	15.2	0.2
16	88	3.8	-3.8	-0.1	94	3.2	-3.2	0.2	284	5.6	5.4	-1.3	308	3.3	2.6	-2.0	262	16.5	16.3	2.3	264	18.7	18.6	2.0	236	7.5	6.2	4.2
17	72	1.9	-1.8	-0.6	102	2.4	-2.3	0.5	294	5.7	5.2	-2.3	280	7.7	7.6	-1.4	267	13.6	13.6	0.6	277	16.4	16.3	-2.0	340	5.0	1.7	-4.7
18	91	4.7	-4.7	0.1	101	1.5	-1.5	0.3	289	5.0	4.7	-1.6	265	7.8	7.8	0.7	245	16.6	15.1	6.9	246	18.9	17.3	7.6	246	9.4	8.6	3.8
19	74	2.6	-2.5	-0.7	110	3.5	-3.3	1.2	266	3.1	3.1	0.2	280	7.6	7.5	-1.3	259	15.2	14.9	2.8	253	19.5	18.6	5.7	320	9.2	5.9	-7.0
20	99	3.3	-3.3	0.5	127	3.9	-3.1	2.3	266	1.6	1.6	0.1	290	5.6	5.3	-1.9	257	14.8	14.4	3.3	257	17.1	16.7	3.8	269	10.7	10.7	0.2
21	85	2.1	-2.1	-0.2	105	2.4	-2.3	0.6	283	1.7	1.7	-0.4	262	5.5	5.4	0.8	263	15.1	15.0	1.8	257	17.0	16.6	3.7	282	8.6	8.4	-1.8
22	80	3.9	-3.8	-0.7	80	3.6	-3.5	-0.6	277	9.7	9.6	-1.1	293	7.6	7.0	-3.0	254	17.0	16.3	4.8	253	20.6	19.7	6.1	250	11.3	10.6	3.9
23	87	3.9	-3.9	-0.2	63	1.8	-1.6	-0.8	274	3.0	3.0	-0.2	293	8.3	7.6	-3.3	253	12.3	11.8	3.5	234	21.1	17.0	12.5	261	8.6	8.5	1.3
24	82	3.4	-3.4	-0.5	92	3.8	-3.8	0.1	274	3.9	3.9	-0.3	266	6.0	6.0	0.4	261	12.0	11.8	1.9	260	16.4	16.1	2.9	234	9.5	7.7	5.5
25	75	3.1	-3.0	-0.8	57	2.4	-2.0	-1.3	275	5.3	5.3	-0.5	279	6.3	6.2	-1.0	262	10.8	10.7	1.5	255	14.9	14.4	3.9	289	6.9	6.5	-2.3
26	75	4.2	-4.1	-1.1	101	2.6	-2.6	0.5	262	4.4	4.4	0.6	276	6.3	6.3	-0.7	247	8.5	7.8	3.3	222	18.0	12.1	13.3	244	13.3	12.0	5.8
27	103	2.8	-2.7	0.6	103	2.8	-2.7	0.6	278	2.1	2.1	-0.3	271	5.1	5.1	-0.1	270	13.4	13.4	-0.1	256	13.2	12.8	3.3	262	16.6	16.4	2.3
28	104	3.4	-3.3	0.8	99	1.2	-1.2	0.2	282	6.4	6.3	-1.3	290	7.2	6.8	-2.5	286	9.7	9.3	-2.6	247	14.5	13.3	5.7	269	17.3	17.3	0.3
29	103	2.3	-2.2	0.5	107	1.4	-1.3	0.4	293	4.0	3.7	-1.6	293	4.3	4.0	-1.7	260	14.4	14.2	2.6	252	16.4	15.6	5.1	264	14.2	14.1	1.4
30	99	3.3	-3.3	0.5	120	2.2	-1.9	1.1	281	3.8	3.7	-0.7	284	6.4	6.2	-1.5	260	16.0	15.8	2.7	243	23.7	21.1	10.8	258	14.3	14.0	3.0
31	83	3.4	-3.4	-0.4	102	1.4	-1.4	0.3	287	5.0	4.8	-1.5	282	5.9	5.8	-1.2	268	11.9	11.9	0.5	252	18.1	17.2	5.7	269	4.4	4.4	0.1

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	107	1.0	-1.0	0.3	360	0.1	0.0	-0.1	283	4.8	4.7	-1.1	273	6.7	6.7	-0.4	259	9.8	9.6	1.8	257	15.2	14.8	3.4	261	6.1	6.0	0.9
2	79	5.3	-5.2	-1.0	82	1.4	-1.4	-0.2	293	7.0	6.5	-2.7	261	7.5	7.4	1.2	257	14.6	14.2	3.2	246	20.4	18.7	8.2	258	12.0	11.7	2.5
3	87	4.4	-4.4	-0.2	75	1.6	-1.5	-0.4	266	4.4	4.4	0.3	275	9.0	9.0	-0.8	268	14.2	14.2	0.4	246	17.1	15.6	7.1	257	11.2	10.9	2.6
4	72	3.3	-3.1	-1.0	130	2.3	-1.8	1.5	285	2.0	1.9	-0.5	267	3.5	3.5	0.2	254	13.5	13.0	3.8	237	13.1	10.9	7.2	245	6.2	5.6	2.6
5	81	3.1	-3.1	-0.5	84	1.9	-1.9	-0.2	240	1.4	1.2	0.7	262	3.5	3.5	0.5	257	7.8	7.6	1.7	269	9.1	9.1	0.1	291	3.0	2.8	-1.1
6	86	2.8	-2.8	-0.2	108	0.9	-0.9	0.3	276	2.7	2.7	-0.3	255	6.1	5.9	1.6	248	12.5	11.6	4.6	250	11.1	10.4	3.8	253	6.7	6.4	1.9
7	75	5.0	-4.8	-1.3	79	3.3	-3.2	-0.6	232	1.1	0.9	0.7	228	7.0	5.2	4.7	240	12.3	10.6	6.2	227	13.2	9.7	8.9	178	2.3	-0.1	2.3
8	99	2.5	-2.5	0.4	95	3.6	-3.6	0.3	247	1.5	1.4	0.6	289	6.0	5.7	-2.0	255	6.7	6.5	1.8	251	6.9	6.5	2.3	320	2.6	1.7	-2.0
9	103	1.7	-1.7	0.4	117	0.7	-0.6	0.3	293	2.8	2.6	-1.1	295	2.6	2.4	-1.1	255	10.2	9.9	2.6	258	11.8	11.6	2.4	342	2.5	0.8	-2.4
10	92	3.6	-3.6	0.1	131	2.0	-1.5	1.3	249	2.6	2.4	0.9	243	4.2	3.7	1.9	282	7.9	7.7	-1.7	288	10.4	9.9	-3.2	296	8.0	7.2	-3.5
11	91	4.2	-4.2	0.1	98	3.5	-3.5	0.5	103	1.8	-1.8	0.4	262	1.4	1.4	0.2	292	4.2	3.9	-1.6	314	6.2	4.4	-4.3	160	3.0	-1.0	2.8
12	87	4.0	-4.0	-0.2	58	1.3	-1.1	-0.7	31	3.1	-1.6	-2.7	293	3.0	2.8	-1.2	266	7.3	7.3	0.5	299	4.7	4.1	-2.3	104	3.0	-2.9	0.7
13	85	4.9	-4.9	-0.4	103	3.2	-3.1	0.7	104	0.8	-0.8	0.2	245	5.2	4.7	2.2	237	3.1	2.6	1.7	209	7.1	3.5	6.2	343	3.4	1.0	-3.3
14	90	3.7	-3.7	0.0	99	3.9	-3.9	0.6	75	1.6	-1.5	-0.4	254	2.6	2.5	0.7	274	4.5	4.5	-0.3	230	8.1	6.2	5.2	100	6.6	-6.5	1.2
15	84	1.9	-1.9	-0.2	132	3.1	-2.3	2.1	138	1.5	-1.0	1.1	256	4.2	4.1	1.0	244	2.5	2.3	1.1	281	3.3	3.2	-0.6	280	11.0	10.8	-1.9
16	73	2.8	-2.7	-0.8	91	4.0	-4.0	0.1	91	4.7	-4.7	0.1	183	1.7	0.1	1.7	215	2.4	1.4	2.0	187	1.6	0.2	1.6	73	5.1	-4.9	-1.5
17	106	2.2	-2.1	0.6	119	3.3	-2.9	1.6	84	3.0	-3.0	-0.3	194	0.8	0.2	0.8	221	2.3	1.5	1.7	69	2.5	-2.3	-0.9	39	7.0	-4.4	-5.4
18	91	4.6	-4.6	0.1	87	3.8	-3.8	-0.2	85	3.5	-3.5	-0.3	216	2.2	1.3	1.8	176	2.6	-0.2	2.6	225	2.7	1.9	1.9	79	4.4	-4.3	-0.8
19	94	1.3	-1.3	0.1	125	1.2	-1.0	0.7	117	2.8	-2.5	1.3	252	2.3	2.2	0.7	234	1.4	1.1	0.8	315	0.8	0.6	-0.6	70	6.6	-6.2	-2.2
20	180	0.6	0.0	0.6	153	0.9	-0.4	0.8	98	2.7	-2.7	0.4	224	2.8	1.9	2.0	252	2.6	2.5	0.8	257	4.0	3.9	0.9	20	8.0	-2.7	-7.5
21	92	2.9	-2.9	0.1	99	3.7	-3.7	0.6	87	3.7	-3.7	-0.2	286	1.8	1.7	-0.5	311	0.9	0.7	-0.6	61	3.1	-2.7	-1.5	319	4.0	2.6	-3.0
22	80	3.5	-3.4	-0.6	91	4.4	-4.4	0.1	95	3.7	-3.7	0.3	125	3.8	-3.1	2.2	192	4.0	0.8	3.9	298	5.2	4.6	-2.4	25	4.0	-1.7	-3.6
23	83	4.9	-4.9	-0.6	87	5.4	-5.4	-0.3	100	3.9	-3.8	0.7	220	1.7	1.1	1.3	138	6.9	-4.6	5.1	305	1.6	1.3	-0.9	—	—	—	—
24	83	4.0	-4.0	-0.5	82	4.9	-4.9	-0.7	90	5.4	-5.4	0.0	150	2.2	-1.1	1.9	190	3.5	0.6	3.4	38	2.3	-1.4	-1.8	18	9.8	-3.1	-9.3
25	85	3.4	-3.4	-0.3	70	4.5	-4.2	-1.5	63	3.3	-2.9	-1.5	208	2.1	1.0	1.9	215	1.2	0.7	1.0	257	2.6	2.5	0.6	67	12.0	-11.0	-4.7
26	82	4.5	-4.5	-0.6	95	3.7	-3.7	0.3	96	3.0	-3.0	0.3	27	2.0	-0.9	-1.8	336	3.6	1.5	-3.3	321	2.1	1.3	-1.6	113	5.0	-4.6	2.0
27	95	4.2	-4.2	0.4	94	4.1	-4.1	0.3	94	3.9	-3.9	0.3	139	1.1	-0.7	0.8	108	5.2	-5.0	1.6	144	5.9	-3.5	4.8	66	9.0	-8.2	-3.7
28	68	4.2	-3.9	-1.6	106	5.5	-5.3	1.5	108	3.9	-3.7	1.2	175	2.5	-0.2	2.5	144	5.2	-3.0	4.2	111	3.9	-3.6	1.4	58	6.4	-5.4	-3.4
29	90	3.4	-3.4	0.0	129	3.3	-2.6	2.1	112	2.9	-2.7	1.1	183	4.4	0.2	4.4	126	4.8	-3.9	2.8	72	7.5	-7.1	-2.3	70	10.0	-9.4	-3.4
30	61	3.1	-2.7	-1.5	104	5.0	-4.9	1.2	90	3.0	-3.0	0.0	202	4.1	1.5	3.8	120	3.4	-2.9	1.7	218	3.6	2.2	2.8	62	6.0	-5.3	-2.8

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	102	2.5	-2.4	0.5	97	4.7	-4.7	0.6	141	2.7	-1.7	2.1	301	2.1	1.8	-1.1	153	1.3	-0.6	1.2	103	5.1	-5.0	1.2	84	11.7	-11.6	-1.2
2	69	2.8	-2.6	-1.0	79	2.1	-2.1	-0.4	90	1.0	-1.0	0.0	253	2.1	2.0	0.6	189	2.0	0.3	2.0	258	2.4	2.3	0.5	85	10.9	-10.9	-0.9
3	92	3.1	-3.1	0.1	236	0.4	0.3	0.2	140	1.7	-1.1	1.3	194	1.2	0.3	1.2	129	3.3	-2.6	2.1	138	3.1	-2.1	2.3	93	11.9	-11.9	0.7
4	84	3.0	-3.0	-0.3	80	2.2	-2.2	-0.4	107	1.4	-1.3	0.4	266	1.4	1.4	0.1	301	1.2	1.0	-0.6	35	2.9	-1.7	-2.4	75	11.4	-11.0	-3.0
5	143	0.5	-0.3	0.4	293	0.8	0.7	-0.3	209	1.0	0.5	0.9	345	1.1	0.3	-1.1	66	3.0	-2.7	-1.2	71	2.1	-2.0	-0.7	93	9.0	-9.0	0.5
6	97	0.8	-0.8	0.1	152	2.1	-1.0	1.9	111	2.8	-2.6	1.0	67	2.6	-2.4	-1.0	36	3.7	-2.2	-3.0	70	4.7	-4.4	-1.6	85	14.0	-13.9	-1.2
7	104	1.2	-1.2	0.3	119	2.6	-2.3	1.3	97	1.7	-1.7	0.2	75	1.6	-1.5	-0.4	74	2.5	-2.4	-0.7	5	3.3	-0.3	-3.3	76	5.7	-5.5	-1.4
8	77	2.6	-2.5	-0.6	101	3.3	-3.2	0.6	104	2.1	-2.0	0.5	166	3.2	-0.8	3.1	28	3.0	-1.4	-2.6	54	4.6	-3.7	-2.7	53	7.9	-6.3	-4.7
9	117	2.7	-2.4	1.2	87	4.0	-4.0	-0.2	95	3.6	-3.6	0.3	45	1.3	-0.9	-0.9	69	3.9	-3.6	-1.4	64	5.5	-5.0	-2.4	44	13.9	-9.6	-10.0
10	90	4.9	-4.9	0.0	108	4.3	-4.1	1.3	129	3.2	-2.5	2.0	90	1.3	-1.3	0.0	150	4.4	-2.2	3.8	36	0.9	-0.5	-0.7	35	10.3	-5.9	-8.4
11	86	3.0	-3.0	-0.2	105	5.3	-5.1	1.4	108	5.9	-5.6	1.8	166	1.6	-0.4	1.6	111	3.9	-3.6	1.4	45	1.3	-0.9	-0.9	10	7.0	-1.2	-6.9
12	90	4.7	-4.7	0.0	105	4.2	-4.1	1.1	114	3.4	-3.1	1.4	126	3.9	-3.2	2.3	95	3.5	-3.5	0.3	69	5.3	-4.9	-1.9	43	13.9	-9.5	-10.2
13	88	3.1	-3.1	-0.1	97	5.4	-5.4	0.7	138	5.9	-3.9	4.4	171	1.2	-0.2	1.2	110	2.0	-1.9	0.7	59	3.3	-2.8	-1.7	31	13.5	-7.0	-11.6
14	91	5.4	-5.4	0.1	96	4.9	-4.9	0.5	93	3.4	-3.4	0.2	125	1.2	-1.0	0.7	87	4.1	-4.1	-0.2	105	10.4	-10.0	2.7	93	18.0	-18.0	0.9
15	84	3.8	-3.8	-0.4	88	3.7	-3.7	-0.1	93	3.3	-3.3	0.2	94	1.3	-1.3	0.1	110	4.1	-3.9	1.4	88	8.6	-8.6	-0.3	54	12.1	-9.8	-7.1
16	101	3.1	-3.0	0.6	95	3.4	-3.4	0.3	96	3.1	-3.1	0.3	123	4.0	-3.4	2.2	85	7.4	-7.4	-0.7	85	13.2	-13.1	-1.2	87	12.4	-12.4	-0.7
17	137	1.6	-1.1	1.2	114	2.4	-2.2	1.0	129	2.1	-1.6	1.3	270	0.1	0.1	0.0	74	3.6	-3.5	-1.0	360	2.3	0.0	-2.3	56	14.5	-12.0	-8.1
18	99	2.6	-2.6	0.4	109	3.9	-3.7	1.3	110	5.0	-4.7	1.7	122	3.4	-2.9	1.8	319	0.9	0.6	-0.7	27	5.6	-2.5	-5.0	46	8.8	-6.4	-6.1
19	92	4.9	-4.9	0.2	97	4.8	-4.8	0.6	103	3.7	-3.6	0.8	135	8.2	-5.8	5.8	51	3.2	-2.5	-2.0	146	2.7	-1.5	2.2	48	9.8	-7.3	-6.6
20	89	4.2	-4.2	-0.1	99	2.6	-2.6	0.4	98	1.5	-1.5	0.2	310	0.8	0.6	-0.5	66	4.5	-4.1	-1.8	61	11.3	-9.9	-5.5	60	14.0	-12.1	-7.0
21	73	2.7	-2.6	-0.8	87	4.0	-4.0	-0.2	79	3.3	-3.2	-0.6	83	5.7	-5.7	-0.7	125	3.7	-3.0	2.1	126	4.1	-3.3	2.4	68	14.4	-13.4	-5.4
22	105	4.1	-4.0	1.1	103	4.7	-4.6	1.1	109	6.5	-6.2	2.1	107	5.0	-4.8	1.5	140	4.5	-2.9	3.5	115	5.7	-5.2	2.4	63	13.0	-11.6	-5.9
23	81	2.0	-2.0	-0.3	105	2.8	-2.7	0.7	180	1.2	0.0	1.2	117	2.2	-2.0	1.0	55	5.5	-4.5	-3.1	52	10.4	-8.2	-6.4	79	14.5	-14.2	-2.8
24	97	2.6	-2.6	0.3	90	3.7	-3.7	0.0	90	3.4	-3.4	0.0	115	1.4	-1.3	0.6	104	6.4	-6.2	1.5	87	9.1	-9.1	-0.4	84	14.0	-13.9	-1.5
25	72	1.3	-1.2	-0.4	108	3.9	-3.7	1.2	114	3.5	-3.2	1.4	104	3.0	-2.9	0.7	110	6.2	-5.8	2.1	80	11.6	-11.4	-2.1	88	9.9	-9.9	-0.3
26	85	3.2	-3.2	-0.3	105	3.1	-3.0	0.8	112	2.2	-2.0	0.8	97	4.1	-4.1	0.5	87	8.9	-8.9	-0.5	81	15.8	-15.6	-2.5	85	11.4	-11.4	-1.0
27	105	5.3	-5.1	1.4	120	2.4	-2.1	1.2	112	3.1	-2.9	1.2	144	2.4	-1.4	1.9	79	6.2	-6.1	-1.2	90	13.5	-13.5	0.1	94	17.9	-17.9	1.2
28	51	1.4	-1.1	-0.9	96	1.9	-1.9	0.2	114	2.0	-1.8	0.8	84	2.7	-2.7	-0.3	90	3.9	-3.9	0.0	88	7.2	-7.2	-0.2	69	16.3	-15.2	-5.8
29	119	2.6	-2.3	1.3	119	3.5	-3.1	1.7	90	3.0	-3.0	0.0	77	2.7	-2.6	-0.6	86	5.3	-5.3	-0.4	121	7.9	-6.7	4.1	59	12.5	-10.7	-6.4
30	85	3.7	-3.7	-0.3	81	2.5	-2.5	-0.4	111	2.5	-2.3	0.9	84	4.0	-4.0	-0.4	75	6.7	-6.5	-1.8	99	10.4	-10.3	1.6	62	22.3	-19.7	-10.5
31	66	3.7	-3.4	-1.5	100	5.3	-5.2	0.9	103	6.2	-6.0	1.4	90	3.9	-3.9	0.0	41	3.3	-2.2	-2.5	53	7.5	-6.0	-4.5	55	11.8	-9.6	-6.8

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	82	2.8	-2.8	-0.4	91	5.1	-5.1	0.1	110	5.1	-4.8	1.7	98	2.8	-2.8	0.4	92	6.9	-6.9	0.3	77	8.7	-8.5	-1.9	65	14.9	-13.5	-6.3
2	18	0.6	-0.2	-0.6	90	3.9	-3.9	0.0	90	5.1	-5.1	0.0	118	3.6	-3.2	1.7	97	2.3	-2.3	0.3	72	2.0	-1.9	-0.6	56	11.0	-9.1	-6.1
3	79	3.1	-3.0	-0.6	97	4.3	-4.3	0.5	92	6.9	-6.9	0.3	88	4.9	-4.9	-0.2	116	3.4	-3.1	1.5	72	5.8	-5.5	-1.8	73	11.6	-11.1	-3.4
4	71	2.4	-2.3	-0.8	88	2.9	-2.9	-0.1	100	3.9	-3.8	0.7	101	3.3	-3.2	0.6	76	3.4	-3.3	-0.8	15	2.8	-0.7	-2.7	73	12.8	-12.2	-3.8
5	68	1.1	-1.0	-0.4	90	1.5	-1.5	0.0	95	2.5	-2.5	0.2	84	3.7	-3.7	-0.4	96	15.0	-14.9	1.5	64	13.2	-11.9	-5.7	78	14.1	-13.8	-3.0
6	84	4.5	-4.5	-0.5	101	4.9	-4.8	0.9	104	5.5	-5.3	1.3	125	4.9	-4.0	2.8	100	5.3	-5.2	0.9	64	7.0	-6.3	-3.1	86	14.7	-14.7	-1.1
7	103	3.2	-3.1	0.7	87	3.9	-3.9	-0.2	98	4.4	-4.4	0.6	113	4.9	-4.5	1.9	90	3.7	-3.7	0.0	69	8.7	-8.1	-3.1	97	22.0	-21.9	2.5
8	63	0.9	-0.8	-0.4	75	1.1	-1.1	-0.3	111	2.6	-2.4	0.9	110	4.7	-4.4	1.6	89	7.2	-7.2	-0.1	88	6.9	-6.9	-0.2	77	15.0	-14.6	-3.4
9	98	2.7	-2.7	0.4	92	3.7	-3.7	0.1	104	6.5	-6.3	1.6	111	3.3	-3.1	1.2	86	7.1	-7.1	-0.5	72	8.9	-8.5	-2.8	53	10.7	-8.6	-6.4
10	80	2.2	-2.2	-0.4	84	4.0	-4.0	-0.4	75	1.1	-1.1	-0.3	116	2.8	-2.5	1.2	86	6.2	-6.2	-0.4	101	7.6	-7.4	1.5	106	10.0	-9.6	2.8
11	62	10.1	-8.9	-4.7	87	2.2	-2.2	-0.1	100	3.4	-3.3	0.6	117	2.2	-2.0	1.0	142	8.8	-5.4	7.0	97	7.9	-7.8	0.9	76	15.1	-14.6	-3.7
12	76	3.3	-3.2	-0.8	80	2.2	-2.2	-0.4	117	3.0	-2.7	1.4	243	0.2	0.2	0.1	64	3.7	-3.3	-1.6	87	9.4	-9.4	-0.5	77	10.5	-10.2	-2.3
13	40	3.5	-2.3	-2.7	111	1.9	-1.8	0.7	95	4.3	-4.3	0.4	109	5.0	-4.7	1.6	125	12.3	-10.1	7.0	94	8.3	-8.3	0.6	118	4.0	-3.5	1.9
14	80	2.3	-2.3	-0.4	90	2.1	-2.1	0.0	107	1.7	-1.6	0.5	88	2.7	-2.7	-0.1	101	5.1	-5.0	1.0	106	5.8	-5.6	1.6	97	12.5	-12.4	1.5
15	92	5.4	-5.4	0.2	101	4.6	-4.5	0.9	111	3.9	-3.6	1.4	148	3.1	-1.6	2.6	83	3.4	-3.4	-0.4	80	13.5	-13.3	-2.4	95	14.1	-14.0	1.3
16	85	2.4	-2.4	-0.2	77	2.8	-2.7	-0.6	101	3.2	-3.1	0.6	135	1.8	-1.3	1.3	72	3.2	-3.0	-1.0	70	9.4	-8.8	-3.2	82	9.3	-9.2	-1.3
17	125	1.2	-1.0	0.7	85	2.5	-2.5	-0.2	104	3.6	-3.5	0.9	109	3.4	-3.2	1.1	78	4.9	-4.8	-1.0	85	9.6	-9.6	-0.9	89	17.5	-17.5	-0.3
18	77	5.3	-5.2	-1.2	90	5.8	-5.8	0.0	99	5.4	-5.3	0.8	185	2.1	0.2	2.1	315	1.4	1.0	-1.0	78	15.0	-14.7	-3.1	67	16.0	-14.7	-6.3
19	82	4.9	-4.9	-0.7	80	3.9	-3.8	-0.7	98	3.6	-3.6	0.5	162	1.9	-0.6	1.8	114	3.2	-2.9	1.3	74	11.1	-10.7	-3.0	82	13.8	-13.7	-2.0
20	82	2.7	-2.7	-0.4	92	2.3	-2.3	0.1	103	2.7	-2.6	0.6	36	1.4	-0.8	-1.1	76	3.0	-2.9	-0.7	56	5.8	-4.8	-3.2	74	13.3	-12.8	-3.7
21	79	4.2	-4.1	-0.8	104	3.8	-3.7	0.9	99	3.8	-3.8	0.6	349	1.0	0.2	-1.0	180	0.4	0.0	0.4	330	3.9	2.0	-3.4	78	11.1	-10.9	-2.3
22	141	2.1	-1.3	1.6	96	3.7	-3.7	0.4	115	4.3	-3.9	1.8	360	0.5	0.0	-0.5	126	2.6	-2.1	1.5	50	3.9	-3.0	-2.5	86	13.3	-13.3	-0.9
23	66	2.2	-2.0	-0.9	87	3.4	-3.4	-0.2	118	4.2	-3.7	2.0	135	1.1	-0.8	0.8	80	2.2	-2.2	-0.4	86	6.5	-6.5	-0.4	116	5.5	-5.0	2.4
24	84	2.9	-2.9	-0.3	90	3.4	-3.4	0.0	127	1.5	-1.2	0.9	219	1.3	0.8	1.0	82	2.2	-2.2	-0.3	45	4.0	-2.8	-2.8	64	7.3	-6.6	-3.2
25	79	2.0	-2.0	-0.4	95	2.3	-2.3	0.2	115	2.1	-1.9	0.9	210	0.8	0.4	0.7	69	1.7	-1.6	-0.6	32	4.5	-2.4	-3.8	60	11.6	-10.1	-5.8
26	34	1.8	-1.0	-1.5	93	2.2	-2.2	0.1	100	1.7	-1.7	0.3	110	1.2	-1.1	0.4	94	1.3	-1.3	0.1	124	4.6	-3.8	2.6	56	6.0	-5.0	-3.4
27	69	2.6	-2.4	-0.9	115	1.7	-1.5	0.7	133	2.5	-1.8	1.7	107	1.4	-1.3	0.4	95	1.1	-1.1	0.1	115	3.3	-3.0	1.4	56	15.1	-12.5	-8.5
28	86	2.8	-2.8	-0.2	83	4.2	-4.2	-0.5	94	4.3	-4.3	0.3	129	2.1	-1.6	1.3	74	1.8	-1.7	-0.5	21	2.8	-1.0	-2.6	53	12.6	-10.1	-7.5
29	93	5.8	-5.8	0.3	101	5.3	-5.2	1.0	107	5.3	-5.1	1.6	141	2.2	-1.4	1.7	133	2.2	-1.6	1.5	125	1.2	-1.0	0.7	38	8.0	-4.9	-6.3
30	87	3.6	-3.6	-0.2	96	3.9	-3.9	0.4	87	3.3	-3.3	-0.2	276	0.9	0.9	-0.1	46	2.9	-2.1	-2.0	55	5.4	-4.4	-3.1	55	8.1	-6.6	-4.7
31	114	3.0	-2.7	1.2	107	2.7	-2.6	0.8	114	3.6	-3.3	1.5	108	3.6	-3.4	1.1	111	3.0	-2.8	1.1	29	7.4	-3.6	-6.5	53	10.0	-8.0	-6.0

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	103	4.5	-4.4	1.0	96	4.1	-4.1	0.4	104	3.6	-3.5	0.9	135	2.8	-2.0	2.0	74	3.6	-3.5	-1.0	81	3.1	-3.1	-0.5	55	8.0	-6.6	-4.6
2	107	3.0	-2.9	0.9	101	5.1	-5.0	1.0	101	3.8	-3.7	0.7	118	4.1	-3.6	1.9	162	0.3	-0.1	0.3	76	4.6	-4.5	-1.1	70	8.6	-8.1	-3.0
3	92	2.6	-2.6	0.1	106	3.3	-3.2	0.9	128	3.1	-2.4	1.9	150	3.9	-2.0	3.4	147	6.6	-3.6	5.5	108	8.9	-8.5	2.7	85	19.9	-19.8	-1.8
4	98	2.8	-2.8	0.4	95	3.7	-3.7	0.3	95	4.3	-4.3	0.4	167	1.3	-0.3	1.3	79	4.3	-4.2	-0.8	90	5.6	-5.6	0.0	52	10.1	-8.0	-6.2
5	99	1.2	-1.2	0.2	99	2.0	-2.0	0.3	90	2.2	-2.2	0.0	180	1.4	0.0	1.4	55	1.6	-1.3	-0.9	29	3.3	-1.6	-2.9	64	10.2	-9.2	-4.5
6	95	3.6	-3.6	0.3	89	4.5	-4.5	-0.1	102	3.9	-3.8	0.8	198	0.9	0.3	0.9	98	1.4	-1.4	0.2	53	4.9	-3.9	-2.9	78	12.3	-12.0	-2.6
7	102	4.0	-3.9	0.8	101	4.2	-4.1	0.8	95	4.3	-4.3	0.4	111	1.4	-1.3	0.5	16	1.8	-0.5	-1.7	35	4.2	-2.4	-3.4	91	10.8	-10.8	0.1
8	93	3.4	-3.4	0.2	84	4.1	-4.1	-0.4	113	3.6	-3.3	1.4	188	3.0	0.4	3.0	131	4.3	-3.2	2.8	74	6.5	-6.2	-1.8	97	10.5	-10.4	1.3
9	78	1.4	-1.4	-0.3	93	3.9	-3.9	0.2	112	3.5	-3.2	1.3	228	1.2	0.9	0.8	120	1.6	-1.4	0.8	345	3.4	0.9	-3.3	24	4.8	-2.0	-4.4
10	75	2.0	-1.9	-0.5	80	2.8	-2.8	-0.5	115	2.6	-2.4	1.1	171	2.5	-0.4	2.5	114	1.7	-1.6	0.7	203	1.3	0.5	1.2	104	9.8	-9.5	2.4
11	99	3.2	-3.2	0.5	102	4.9	-4.8	1.0	117	6.5	-5.8	2.9	151	3.9	-1.9	3.4	140	4.2	-2.7	3.2	131	4.4	-3.3	2.9	127	5.5	-4.4	3.3
12	80	4.0	-3.9	-0.7	92	4.9	-4.9	0.2	114	4.7	-4.3	1.9	157	3.0	-1.2	2.8	195	4.7	1.2	4.5	217	3.8	2.3	3.0	87	4.4	-4.4	-0.2
13	82	2.7	-2.7	-0.4	93	3.3	-3.3	0.2	109	4.9	-4.6	1.6	214	3.0	1.7	2.5	205	1.9	0.8	1.7	54	4.3	-3.5	-2.5	67	3.8	-3.5	-1.5
14	99	3.0	-3.0	0.5	84	2.0	-2.0	-0.2	109	2.4	-2.3	0.8	4	1.3	-0.1	-1.3	222	1.2	0.8	0.9	315	10.5	7.4	-7.4	335	5.0	2.1	-4.5
15	106	1.5	-1.4	0.4	93	3.3	-3.3	0.2	103	4.1	-4.0	0.9	194	0.8	0.2	0.8	196	1.5	0.4	1.4	214	2.9	1.6	2.4	59	3.9	-3.3	-2.0
16	70	1.2	-1.1	-0.4	97	1.7	-1.7	0.2	167	0.9	-0.2	0.9	223	1.9	1.3	1.4	237	5.1	4.3	2.8	243	3.4	3.0	1.5	38	2.8	-1.7	-2.2
17	96	1.8	-1.8	0.2	110	1.2	-1.1	0.4	131	1.1	-0.8	0.7	280	3.9	3.8	-0.7	224	2.9	2.0	2.1	190	5.9	1.0	5.8	96	4.1	-4.1	0.4
18	92	2.7	-2.7	0.1	115	1.4	-1.3	0.6	285	1.1	1.1	-0.3	296	4.8	4.3	-2.1	272	4.7	4.7	-0.2	288	6.1	5.8	-1.9	20	5.5	-1.9	-5.2
19	90	2.6	-2.6	0.0	102	2.9	-2.8	0.6	115	1.7	-1.5	0.7	288	1.9	1.8	-0.6	279	4.3	4.2	-0.7	280	5.6	5.5	-1.0	311	2.0	1.5	-1.3
20	81	3.0	-3.0	-0.5	94	2.7	-2.7	0.2	98	3.7	-3.7	0.5	242	2.6	2.3	1.2	246	3.0	2.7	1.2	233	5.8	4.6	3.5	173	3.8	-0.5	3.8
21	87	1.9	-1.9	-0.1	94	1.4	-1.4	0.1	135	1.3	-0.9	0.9	260	1.1	1.1	0.2	243	5.5	4.9	2.5	240	8.5	7.4	4.2	180	0.8	0.0	0.8
22	83	2.4	-2.4	-0.3	90	3.0	-3.0	0.0	80	2.2	-2.2	-0.4	252	2.0	1.9	0.6	279	5.5	5.4	-0.9	274	8.8	8.8	-0.6	26	2.8	-1.2	-2.5
23	83	3.2	-3.2	-0.4	88	2.4	-2.4	-0.1	214	0.4	0.2	0.3	294	2.0	1.8	-0.8	291	3.4	3.2	-1.2	260	5.2	5.1	0.9	224	5.0	3.5	3.6
24	94	3.1	-3.1	0.2	109	2.1	-2.0	0.7	153	1.1	-0.5	1.0	278	2.8	2.8	-0.4	270	1.0	1.0	0.0	280	3.9	3.8	-0.7	359	4.2	0.1	-4.2
25	121	0.6	-0.5	0.3	339	0.9	0.3	-0.8	270	0.9	0.9	0.0	264	6.0	6.0	0.6	266	9.6	9.6	0.7	279	12.2	12.1	-1.9	283	7.7	7.5	-1.8
26	62	1.5	-1.3	-0.7	93	1.7	-1.7	0.1	242	2.1	1.9	1.0	264	5.9	5.9	0.6	257	10.8	10.5	2.4	254	13.7	13.2	3.8	267	8.0	8.0	0.4
27	84	2.0	-2.0	-0.2	97	1.7	-1.7	0.2	88	2.3	-2.3	-0.1	249	5.6	5.2	2.0	250	8.4	7.9	2.9	251	12.2	11.6	3.9	280	6.1	6.0	-1.1
28	76	4.4	-4.3	-1.1	66	3.9	-3.6	-1.6	35	1.6	-0.9	-1.3	252	4.4	4.2	1.4	255	10.5	10.1	2.7	254	14.6	14.0	4.1	252	6.0	5.7	1.9
29	90	0.7	-0.7	0.0	85	2.4	-2.4	-0.2	279	2.4	2.4	-0.4	268	6.0	6.0	0.2	259	8.7	8.5	1.7	264	13.5	13.4	1.3	250	8.4	7.9	2.8
30	32	0.9	-0.5	-0.8	323	0.5	0.3	-0.4	241	2.1	1.8	1.0	268	7.2	7.2	0.3	251	12.6	11.9	4.1	264	14.5	14.4	1.4	258	10.1	9.9	2.1

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	76	1.6	-1.6	-0.4	101	1.6	-1.6	0.3	216	0.9	0.5	0.7	261	6.1	6.0	1.0	269	13.2	13.2	0.2	272	17.3	17.3	-0.5	299	7.7	6.7	-3.7
2	108	1.9	-1.8	0.6	90	0.6	-0.6	0.0	238	1.5	1.3	0.8	279	7.4	7.3	-1.2	256	10.4	10.1	2.5	250	13.1	12.3	4.4	234	8.3	6.7	4.9
3	349	1.0	0.2	-1.0	318	1.5	1.0	-1.1	278	1.5	1.5	-0.2	250	6.8	6.4	2.3	251	12.3	11.6	4.0	240	13.7	11.9	6.8	238	7.5	6.3	4.0
4	30	1.4	-0.7	-1.2	63	0.2	-0.2	-0.1	270	0.8	0.8	0.0	253	3.1	3.0	0.9	252	9.8	9.3	3.0	263	19.2	19.1	2.3	297	4.2	3.8	-1.9
5	46	2.8	-2.0	-1.9	63	1.6	-1.4	-0.7	248	0.5	0.5	0.2	255	9.0	8.7	2.3	258	14.7	14.4	3.0	256	28.8	27.9	7.0	237	15.0	12.6	8.2
6	51	1.3	-1.0	-0.8	14	0.4	-0.1	-0.4	257	1.3	1.3	0.3	268	9.1	9.1	0.3	265	15.2	15.2	1.2	255	12.7	12.3	3.3	273	10.7	10.7	-0.5
7	50	0.8	-0.6	-0.5	349	0.5	0.1	-0.5	315	0.1	0.1	-0.1	253	6.8	6.5	2.0	251	14.5	13.7	4.6	261	13.4	13.3	2.0	7	18.8	-2.2	-18.7
8	69	0.9	-0.8	-0.3	85	1.1	-1.1	-0.1	286	1.5	1.4	-0.4	255	9.1	8.8	2.3	249	14.7	13.7	5.2	245	13.7	12.4	5.9	266	9.0	9.0	0.6
9	50	0.8	-0.6	-0.5	342	0.3	0.1	-0.3	27	0.2	-0.1	-0.2	253	7.7	7.4	2.3	254	16.6	16.0	4.5	244	19.3	17.3	8.5	277	10.4	10.3	-1.3
10	63	0.4	-0.4	-0.2	290	1.5	1.4	-0.5	254	2.2	2.1	0.6	258	8.4	8.2	1.8	258	16.7	16.4	3.4	259	17.3	17.0	3.4	257	11.5	11.2	2.6
11	157	0.8	-0.3	0.7	202	1.1	0.4	1.0	270	3.0	3.0	0.0	271	10.6	10.6	-0.2	267	18.3	18.3	0.9	261	17.7	17.5	2.7	245	9.3	8.4	4.0
12	342	0.6	0.2	-0.6	166	0.4	-0.1	0.4	315	1.8	1.3	-1.3	264	11.0	10.9	1.2	250	20.8	19.5	7.1	240	25.5	22.0	12.8	248	8.7	8.1	3.3
13	22	0.5	-0.2	-0.5	135	0.4	-0.3	0.3	288	2.3	2.2	-0.7	266	7.8	7.8	0.6	267	16.5	16.5	0.9	274	29.2	29.1	-2.2	252	12.3	11.7	3.8
14	51	1.3	-1.0	-0.8	85	1.2	-1.2	-0.1	304	1.1	0.9	-0.6	259	5.8	5.7	1.1	261	12.8	12.7	1.9	261	18.6	18.4	2.8	263	10.4	10.3	1.2
15	45	0.7	-0.5	-0.5	87	2.1	-2.1	-0.1	203	1.5	0.6	1.4	261	7.3	7.2	1.1	251	19.5	18.4	6.4	244	25.0	22.4	11.0	249	17.6	16.4	6.3
16	36	2.4	-1.4	-1.9	72	0.9	-0.9	-0.3	299	3.9	3.4	-1.9	264	8.7	8.7	0.9	254	24.2	23.2	6.8	240	22.6	19.6	11.2	229	13.2	10.0	8.6
17	83	0.8	-0.8	-0.1	95	3.4	-3.4	0.3	300	2.4	2.1	-1.2	263	5.4	5.4	0.7	264	18.4	18.3	1.8	266	24.2	24.1	1.8	254	16.3	15.7	4.4
18	66	1.2	-1.1	-0.5	90	0.8	-0.8	0.0	283	2.3	2.2	-0.5	279	11.0	10.9	-1.7	259	19.6	19.3	3.6	259	21.1	20.7	4.2	267	23.6	23.6	1.1
19	73	1.4	-1.3	-0.4	115	1.4	-1.3	0.6	270	2.1	2.1	0.0	273	10.4	10.4	-0.5	268	16.5	16.5	0.7	272	24.4	24.4	-0.7	275	22.4	22.3	-1.9
20	51	0.6	-0.5	-0.4	86	1.5	-1.5	-0.1	225	1.8	1.3	1.3	265	14.3	14.2	1.2	269	23.6	23.6	0.3	274	21.5	21.5	-1.4	249	23.0	21.5	8.2
21	67	1.3	-1.2	-0.5	72	0.6	-0.6	-0.2	180	0.1	0.0	0.1	267	11.3	11.3	0.6	268	25.7	25.7	1.0	262	23.6	23.4	3.1	280	15.9	15.7	-2.8
22	39	1.3	-0.8	-1.0	99	1.9	-1.9	0.3	86	1.3	-1.3	-0.1	257	11.9	11.6	2.6	265	26.9	26.8	2.2	259	25.0	24.5	4.8	251	18.2	17.3	5.8
23	49	0.9	-0.7	-0.6	99	1.3	-1.3	0.2	99	1.3	-1.3	0.2	266	11.2	11.2	0.8	257	21.7	21.2	4.8	258	24.9	24.3	5.2	259	24.1	23.7	4.4
24	71	1.8	-1.7	-0.6	93	1.9	-1.9	0.1	145	1.2	-0.7	1.0	264	9.1	9.1	0.9	271	24.1	24.1	-0.3	262	21.4	21.2	2.8	252	16.7	15.9	5.2
25	50	1.6	-1.2	-1.0	93	1.7	-1.7	0.1	167	0.9	-0.2	0.9	265	11.7	11.7	1.0	261	23.2	22.9	3.8	267	27.1	27.1	1.5	263	16.4	16.3	1.9
26	65	1.7	-1.5	-0.7	72	0.9	-0.9	-0.3	286	0.7	0.7	-0.2	279	12.7	12.5	-2.0	260	21.6	21.3	3.8	266	27.0	26.9	2.1	296	21.2	19.1	-9.3
27	66	2.2	-2.0	-0.9	101	2.0	-2.0	0.4	239	0.6	0.5	0.3	272	12.8	12.8	-0.4	260	18.5	18.2	3.2	262	27.5	27.2	3.7	268	17.8	17.8	0.6
28	86	4.1	-4.1	-0.3	128	1.1	-0.9	0.7	94	1.5	-1.5	0.1	268	9.8	9.8	0.4	263	26.4	26.2	3.0	254	19.8	19.1	5.3	273	11.3	11.3	-0.6
29	72	3.8	-3.6	-1.2	75	2.3	-2.2	-0.6	98	1.4	-1.4	0.2	266	9.7	9.7	0.7	260	25.3	24.9	4.6	263	26.0	25.8	3.1	252	6.0	5.7	1.8
30	24	2.7	-1.1	-2.5	111	1.7	-1.6	0.6	110	1.2	-1.1	0.4	270	9.2	9.2	0.0	260	20.6	20.3	3.4	257	27.5	26.8	6.2	267	10.2	10.2	0.5
31	51	1.3	-1.0	-0.8	82	0.7	-0.7	-0.1	119	1.8	-1.6	0.9	274	12.1	12.1	-0.9	267	25.9	25.9	1.3	257	31.6	30.7	7.3	298	2.1	1.9	-1.0

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	97	0.8	-0.8	0.1	34	1.1	-0.6	-0.9	283	2.3	2.2	-0.5	259	13.0	12.8	2.4	279	26.1	25.8	-3.9	270	27.5	27.5	-0.1	276	12.6	12.5	-1.3
2	6	1.0	-0.1	-1.0	108	1.3	-1.2	0.4	339	0.9	0.3	-0.8	266	11.1	11.1	0.8	269	26.6	26.6	0.5	267	38.4	38.4	1.9	260	21.2	20.9	3.6
3	54	0.9	-0.7	-0.5	68	1.1	-1.0	-0.4	74	0.7	-0.7	-0.2	275	11.4	11.4	-1.0	273	30.3	30.3	-1.4	266	34.8	34.7	2.6	255	34.0	32.8	8.8
4	54	0.9	-0.7	-0.5	85	1.1	-1.1	-0.1	108	2.2	-2.1	0.7	281	10.9	10.7	-2.0	275	23.9	23.8	-2.1	261	23.6	23.3	3.5	277	14.6	14.5	-1.8
5	49	2.0	-1.5	-1.3	58	1.3	-1.1	-0.7	346	0.4	0.1	-0.4	277	12.5	12.4	-1.6	267	26.5	26.5	1.6	283	30.0	29.2	-6.7	280	21.0	20.7	-3.6
6	48	1.2	-0.9	-0.8	352	0.7	0.1	-0.7	272	2.5	2.5	-0.1	270	12.4	12.4	0.1	273	24.0	24.0	-1.3	263	33.7	33.5	4.0	277	14.2	14.1	-1.7
7	66	1.0	-0.9	-0.4	143	0.5	-0.3	0.4	256	1.2	1.2	0.3	274	11.7	11.7	-0.9	269	28.6	28.6	0.3	263	31.6	31.3	4.1	270	19.7	19.7	-0.1
8	47	1.9	-1.4	-1.3	79	1.0	-1.0	-0.2	146	0.4	-0.2	0.3	282	12.6	12.3	-2.7	276	27.0	26.9	-2.7	269	28.8	28.8	0.5	268	26.6	26.6	0.9
9	53	1.0	-0.8	-0.6	97	1.6	-1.6	0.2	106	1.8	-1.7	0.5	279	13.1	12.9	-2.1	271	27.9	27.9	-0.7	266	35.4	35.3	2.6	273	24.7	24.7	-1.3
10	78	1.4	-1.4	-0.3	101	0.5	-0.5	0.1	253	1.4	1.3	0.4	280	14.9	14.7	-2.7	263	32.3	32.0	4.2	272	39.0	39.0	-1.3	270	17.6	17.6	-0.1
11	77	2.3	-2.2	-0.5	79	2.1	-2.1	-0.4	14	0.4	-0.1	-0.4	289	8.6	8.1	-2.8	277	26.6	26.4	-3.4	275	28.4	28.3	-2.4	281	11.9	11.7	-2.3
12	59	0.6	-0.5	-0.3	73	1.0	-1.0	-0.3	292	2.4	2.2	-0.9	290	14.4	13.5	-5.0	275	27.3	27.2	-2.5	275	31.8	31.7	-3.0	282	11.5	11.3	-2.3
13	67	2.3	-2.1	-0.9	90	0.3	-0.3	0.0	267	2.1	2.1	0.1	280	11.3	11.1	-2.0	282	29.6	28.9	-6.4	277	33.6	33.3	-4.1	277	29.6	29.4	-3.5
14	60	1.4	-1.2	-0.7	49	0.9	-0.7	-0.6	315	1.3	0.9	-0.9	289	12.6	11.9	-4.2	282	27.3	26.7	-5.9	283	30.0	29.2	-6.7	267	24.5	24.5	1.3
15	75	1.6	-1.5	-0.4	81	1.3	-1.3	-0.2	253	1.0	1.0	0.3	282	10.6	10.4	-2.2	277	25.4	25.2	-3.1	278	27.1	26.8	-4.0	279	24.8	24.5	-3.9
16	48	1.5	-1.1	-1.0	117	1.1	-1.0	0.5	294	2.2	2.0	-0.9	291	12.9	12.0	-4.6	285	25.1	24.2	-6.6	273	33.3	33.2	-1.9	270	16.4	16.4	0.0
17	59	1.7	-1.5	-0.9	77	0.9	-0.9	-0.2	225	1.4	1.0	1.0	283	12.9	12.6	-2.9	280	25.7	25.3	-4.3	269	35.3	35.3	0.6	271	22.0	22.0	-0.3
18	304	0.4	0.3	-0.2	79	1.5	-1.5	-0.3	287	1.0	1.0	-0.3	277	14.0	13.9	-1.6	271	24.0	24.0	-0.5	258	36.4	35.6	7.7	270	22.5	22.5	-0.1
19	65	1.4	-1.3	-0.6	90	1.7	-1.7	0.0	235	1.2	1.0	0.7	277	15.3	15.2	-2.0	273	30.2	30.2	-1.4	259	33.4	32.8	6.5	264	33.2	33.0	3.7
20	63	1.3	-1.2	-0.6	66	1.2	-1.1	-0.5	270	1.3	1.3	0.0	282	14.2	13.9	-2.9	270	29.6	29.6	0.1	266	32.4	32.3	2.2	271	30.2	30.2	-0.4
21	180	2.0	0.0	2.0	78	1.4	-1.4	-0.3	293	1.5	1.4	-0.6	280	13.1	12.9	-2.3	275	33.4	33.3	-3.0	257	29.8	29.0	6.7	253	22.6	21.6	6.7
22	68	1.6	-1.5	-0.6	82	1.4	-1.4	-0.2	308	1.1	0.9	-0.7	277	16.4	16.3	-2.1	264	31.4	31.2	3.1	244	28.7	25.8	12.5	264	28.0	27.9	2.8
23	51	1.3	-1.0	-0.8	104	2.1	-2.0	0.5	292	2.4	2.2	-0.9	268	15.9	15.9	0.5	261	30.9	30.5	4.9	249	44.3	41.3	16.0	239	20.4	17.6	10.4
24	56	0.4	-0.3	-0.2	112	1.1	-1.0	0.4	285	1.6	1.5	-0.4	272	12.6	12.6	-0.5	267	32.2	32.1	1.9	270	30.1	30.1	0.0	260	28.7	28.2	5.2
25	77	3.2	-3.1	-0.7	73	2.1	-2.0	-0.6	252	0.6	0.6	0.2	277	17.2	17.1	-2.1	268	35.0	35.0	1.5	272	36.7	36.7	-1.5	265	22.0	21.9	1.9
26	65	1.7	-1.5	-0.7	87	1.8	-1.8	-0.1	290	1.5	1.4	-0.5	281	19.5	19.1	-3.7	276	31.6	31.4	-3.2	275	28.4	28.3	-2.7	262	36.7	36.3	5.1
27	41	2.0	-1.3	-1.5	83	1.6	-1.6	-0.2	273	2.1	2.1	-0.1	280	16.5	16.2	-3.0	276	30.7	30.6	-3.0	282	37.9	37.1	-7.6	278	23.4	23.2	-3.4
28	63	1.1	-1.0	-0.5	95	1.1	-1.1	0.1	291	3.3	3.1	-1.2	269	19.9	19.9	0.5	273	38.2	38.2	-1.7	276	35.8	35.6	-4.0	276	32.8	32.6	-3.3
29	90	1.2	-1.2	0.0	93	1.8	-1.8	0.1	276	3.7	3.7	-0.4	274	16.8	16.8	-1.1	265	30.0	29.9	2.5	270	29.9	29.9	-0.1	262	33.1	32.8	4.5
30	62	1.9	-1.7	-0.9	83	1.6	-1.6	-0.2	309	0.6	0.5	-0.4	283	16.9	16.5	-3.8	267	32.9	32.9	1.6	257	38.3	37.3	8.7	255	34.3	33.2	8.7

Daily Normals of Upper Air Winds (1971-2000)

SILIGURI **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	63	1.6	-1.4	-0.7	85	2.4	-2.4	-0.2	289	4.6	4.3	-1.5	282	18.8	18.4	-3.8	274	27.8	27.7	-1.7	264	35.0	34.8	3.4	285	13.2	12.8	-3.4
2	53	1.5	-1.2	-0.9	79	1.5	-1.5	-0.3	294	3.5	3.2	-1.4	290	15.1	14.2	-5.2	289	27.9	26.4	-8.9	281	38.1	37.4	-7.2	272	41.0	41.0	-1.4
3	43	1.8	-1.2	-1.3	82	1.5	-1.5	-0.2	286	4.5	4.3	-1.2	281	12.9	12.7	-2.5	288	30.7	29.1	-9.7	279	33.4	33.0	-5.1	276	39.6	39.4	-3.8
4	72	0.9	-0.9	-0.3	75	1.6	-1.5	-0.4	314	4.2	3.0	-2.9	295	14.9	13.5	-6.3	293	26.2	24.1	-10.2	283	36.1	35.2	-8.0	266	34.4	34.3	2.2
5	6	0.9	-0.1	-0.9	90	1.3	-1.3	0.0	247	1.5	1.4	0.6	297	16.3	14.5	-7.5	287	24.9	23.8	-7.3	279	45.3	44.8	-6.8	294	11.0	10.1	-4.4
6	63	1.1	-1.0	-0.5	93	1.8	-1.8	0.1	288	2.2	2.1	-0.7	295	13.5	12.2	-5.7	300	27.0	23.5	-13.3	279	35.1	34.7	-5.2	274	21.3	21.2	-1.6
7	59	0.6	-0.5	-0.3	106	1.5	-1.4	0.4	280	1.7	1.7	-0.3	292	15.7	14.5	-6.0	288	30.8	29.3	-9.5	290	33.6	31.6	-11.3	271	36.0	36.0	-0.6
8	39	1.3	-0.8	-1.0	110	2.0	-1.9	0.7	286	1.8	1.7	-0.5	293	20.4	18.8	-7.8	282	34.8	34.1	-7.1	272	41.4	41.4	-1.1	298	17.4	15.4	-8.1
9	53	1.5	-1.2	-0.9	80	1.1	-1.1	-0.2	298	2.1	1.9	-1.0	284	16.2	15.7	-3.8	281	31.6	31.0	-6.1	266	45.8	45.7	2.9	272	17.2	17.2	-0.6
10	65	2.1	-1.9	-0.9	95	2.1	-2.1	0.2	287	2.1	2.0	-0.6	282	16.7	16.3	-3.6	278	29.8	29.5	-4.2	267	39.0	38.9	2.1	279	26.9	26.6	-4.1
11	82	2.7	-2.7	-0.4	102	1.4	-1.4	0.3	295	3.3	3.0	-1.4	291	19.9	18.6	-7.0	289	39.4	37.3	-12.6	266	42.8	42.7	2.8	286	16.0	15.4	-4.4
12	86	1.5	-1.5	-0.1	104	0.8	-0.8	0.2	304	5.4	4.5	-3.0	290	20.3	19.1	-6.9	293	39.8	36.6	-15.6	279	52.7	52.1	-8.2	273	40.9	40.9	-2.0
13	42	1.5	-1.0	-1.1	94	1.6	-1.6	0.1	299	4.5	3.9	-2.2	280	20.2	19.9	-3.4	279	31.9	31.5	-4.8	276	41.4	41.2	-4.3	315	12.4	8.7	-8.8
14	355	1.1	0.1	-1.1	99	1.8	-1.8	0.3	276	2.8	2.8	-0.3	290	18.2	17.1	-6.3	289	30.5	28.9	-9.7	286	25.5	24.5	-7.2	295	13.0	11.8	-5.5
15	76	0.8	-0.8	-0.2	72	1.3	-1.2	-0.4	272	3.3	3.3	-0.1	289	20.2	19.1	-6.6	290	35.0	32.9	-12.0	285	37.5	36.2	-9.8	323	14.9	9.0	-11.9
16	80	1.7	-1.7	-0.3	84	2.0	-2.0	-0.2	272	2.4	2.4	-0.1	288	24.9	23.7	-7.5	281	40.9	40.2	-7.5	272	44.3	44.3	-1.6	278	23.4	23.2	-3.4
17	16	8.5	-2.3	-8.2	79	1.6	-1.6	-0.3	298	1.9	1.7	-0.9	287	18.0	17.2	-5.2	287	27.4	26.2	-8.0	288	33.8	32.1	-10.6	282	50.5	49.4	-10.4
18	28	1.5	-0.7	-1.3	81	2.4	-2.4	-0.4	285	3.1	3.0	-0.8	276	8.8	8.8	-0.9	300	22.1	19.2	-10.9	284	25.5	24.7	-6.2	290	26.9	25.4	-9.0
19	72	1.6	-1.5	-0.5	90	2.0	-2.0	0.0	289	4.6	4.4	-1.5	290	19.7	18.6	-6.6	278	25.8	25.5	-3.7	279	37.8	37.4	-5.6	293	31.4	28.8	-12.4
20	54	2.2	-1.8	-1.3	102	1.9	-1.9	0.4	301	4.4	3.8	-2.3	288	19.4	18.5	-5.9	285	27.0	26.1	-7.0	299	34.9	30.4	-17.1	280	20.9	20.6	-3.6
21	70	2.3	-2.2	-0.8	90	1.9	-1.9	0.0	278	2.1	2.1	-0.3	285	18.0	17.4	-4.7	285	28.2	27.2	-7.5	280	37.0	36.4	-6.6	277	27.4	27.2	-3.5
22	77	1.8	-1.8	-0.4	98	2.2	-2.2	0.3	14	0.8	-0.2	-0.8	293	16.5	15.2	-6.3	289	32.6	30.8	-10.7	279	47.6	47.0	-7.7	267	20.9	20.9	1.2
23	66	6.1	-5.6	-2.5	94	2.6	-2.6	0.2	287	2.7	2.6	-0.8	287	18.7	17.8	-5.6	286	28.4	27.4	-7.6	267	35.2	35.1	1.9	294	37.2	33.9	-15.4
24	52	1.8	-1.4	-1.1	84	1.8	-1.8	-0.2	285	1.1	1.1	-0.3	297	16.0	14.3	-7.2	275	29.8	29.7	-2.5	287	34.6	33.0	-10.4	282	36.5	35.7	-7.7
25	53	1.0	-0.8	-0.6	75	2.0	-1.9	-0.5	297	0.4	0.4	-0.2	284	13.4	13.0	-3.3	278	37.1	36.7	-5.1	287	27.9	26.7	-8.0	282	29.4	28.8	-5.9
26	63	1.1	-1.0	-0.5	60	1.4	-1.2	-0.7	289	4.6	4.3	-1.5	292	15.3	14.2	-5.6	291	28.7	26.8	-10.2	275	49.0	48.8	-4.0	282	50.4	49.2	-10.7
27	87	2.1	-2.1	-0.1	90	1.8	-1.8	0.0	285	3.8	3.7	-1.0	288	15.9	15.1	-5.0	294	30.5	28.0	-12.2	299	36.7	32.2	-17.7	287	33.2	31.7	-9.9
28	26	4.3	-1.9	-3.9	79	1.6	-1.6	-0.3	277	2.5	2.5	-0.3	278	16.2	16.0	-2.2	290	34.0	32.0	-11.4	277	34.2	34.0	-3.9	280	28.3	27.9	-5.0
29	80	1.7	-1.7	-0.3	104	2.1	-2.0	0.5	298	6.2	5.5	-2.9	289	21.5	20.3	-7.0	283	39.6	38.6	-8.7	279	42.9	42.4	-6.5	296	23.8	21.3	-10.6
30	42	1.5	-1.0	-1.1	96	2.0	-2.0	0.2	284	4.6	4.5	-1.1	283	17.5	17.0	-4.0	274	33.7	33.6	-2.3	267	29.7	29.7	1.3	303	19.3	16.3	-10.4
31	90	1.5	-1.5	0.0	106	1.8	-1.7	0.5	286	6.1	5.9	-1.7	286	19.0	18.2	-5.3	274	29.4	29.3	-1.9	271	49.9	49.9	-1.0	263	21.4	21.2	2.6

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	144	1.4	-0.8	1.1	216	6.7	3.9	5.4	266	16.0	16.0	1.2	267	33.3	33.2	1.9	270	20.0	20.0	0.0
2	—	—	—	—	—	—	—	—	137	1.8	-1.2	1.3	222	6.2	4.1	4.6	263	19.4	19.3	2.2	269	31.2	31.2	0.8	257	25.0	24.4	5.6
3	—	—	—	—	—	—	—	—	130	1.6	-1.2	1.0	236	5.5	4.6	3.1	263	22.1	21.9	2.8	276	25.2	25.1	-2.6	—	—	—	—
4	—	—	—	—	186	2.0	0.2	2.0	126	1.4	-1.1	0.8	251	7.2	6.8	2.3	268	22.5	22.5	0.8	266	32.1	32.0	2.1	310	19.0	14.6	-12.2
5	—	—	—	—	—	—	—	—	145	1.9	-1.1	1.6	239	7.8	6.7	4.0	275	20.3	20.2	-1.8	259	29.5	29.0	5.4	243	27.1	24.1	12.3
6	—	—	—	—	—	—	—	—	148	0.9	-0.5	0.8	252	5.7	5.4	1.8	262	16.9	16.7	2.4	272	28.4	28.4	-0.8	—	—	—	—
7	—	—	—	—	143	0.5	-0.3	0.4	140	1.6	-1.0	1.2	241	7.0	6.1	3.4	265	23.2	23.1	2.1	272	32.0	32.0	-1.0	—	—	—	—
8	—	—	—	—	180	0.5	0.0	0.5	129	1.4	-1.1	0.9	246	8.2	7.5	3.4	264	24.9	24.8	2.4	267	28.9	28.9	1.6	360	9.0	0.0	-9.0
9	—	—	—	—	—	—	—	—	146	1.1	-0.6	0.9	233	4.8	3.8	2.9	268	22.2	22.2	0.6	276	39.6	39.4	-4.3	—	—	—	—
10	—	—	—	—	—	—	—	—	144	2.2	-1.3	1.8	242	7.9	7.0	3.7	264	25.9	25.7	2.8	268	38.7	38.7	1.5	258	21.3	20.9	4.3
11	—	—	—	—	—	—	—	—	137	2.5	-1.7	1.8	225	8.3	5.9	5.9	262	20.8	20.6	2.9	273	21.8	21.8	-1.2	—	—	—	—
12	—	—	—	—	—	—	—	—	157	1.3	-0.5	1.2	215	5.5	3.2	4.5	256	17.1	16.6	4.2	270	29.4	29.4	0.0	—	—	—	—
13	—	—	—	—	—	—	—	—	141	3.2	-2.0	2.5	202	7.2	2.7	6.7	250	23.8	22.4	8.0	266	33.8	33.7	2.2	—	—	—	—
14	—	—	—	—	—	—	—	—	146	2.5	-1.4	2.1	214	8.5	4.8	7.0	256	21.0	20.4	5.0	256	34.7	33.7	8.4	—	—	—	—
15	—	—	—	—	—	—	—	—	147	3.1	-1.7	2.6	215	10.3	5.9	8.4	252	24.0	22.8	7.5	260	41.2	40.5	7.4	—	—	—	—
16	—	—	—	—	—	—	—	—	142	3.7	-2.3	2.9	240	8.3	7.2	4.1	269	26.7	26.7	0.6	267	45.1	45.0	2.5	294	25.0	22.8	-10.2
17	—	—	—	—	—	—	—	—	139	2.1	-1.4	1.6	236	8.5	7.0	4.8	272	19.9	19.9	-0.8	274	39.7	39.6	-2.8	—	—	—	—
18	—	—	—	—	—	—	—	—	144	1.9	-1.1	1.5	245	7.0	6.3	3.0	275	23.6	23.5	-2.1	271	35.1	35.1	-0.7	—	—	—	—
19	—	—	—	—	—	—	—	—	139	2.0	-1.3	1.5	237	10.3	8.7	5.6	274	23.9	23.8	-1.6	262	29.0	28.8	3.8	—	—	—	—
20	—	—	—	—	—	—	—	—	135	1.4	-1.0	1.0	249	6.0	5.6	2.2	274	24.0	23.9	-1.6	265	30.1	30.0	2.6	—	—	—	—
21	—	—	—	—	—	—	—	—	146	2.3	-1.3	1.9	217	7.6	4.6	6.1	251	21.1	20.0	6.8	259	21.0	20.6	4.0	—	—	—	—
22	—	—	—	—	—	—	—	—	137	1.9	-1.3	1.4	217	8.3	5.0	6.6	256	20.5	19.9	5.1	273	32.6	32.6	-1.8	—	—	—	—
23	—	—	—	—	105	3.0	-2.9	0.8	151	1.8	-0.9	1.6	225	7.4	5.2	5.2	258	21.4	20.9	4.4	254	34.4	33.1	9.3	—	—	—	—
24	—	—	—	—	323	0.5	0.3	-0.4	132	1.3	-1.0	0.9	244	8.1	7.3	3.6	268	26.5	26.5	0.8	277	37.0	36.8	-4.2	269	25.9	25.9	0.4
25	—	—	—	—	124	0.4	-0.3	0.2	167	2.3	-0.5	2.2	220	10.6	6.8	8.1	265	29.6	29.5	2.7	274	40.2	40.1	-3.0	—	—	—	—
26	—	—	—	—	—	—	—	—	141	4.5	-2.8	3.5	229	10.3	7.8	6.8	257	23.0	22.4	5.1	260	33.2	32.7	5.5	—	—	—	—
27	—	—	—	—	—	—	—	—	146	3.4	-1.9	2.8	217	8.5	5.1	6.8	250	21.9	20.5	7.6	259	28.3	27.7	5.6	—	—	—	—
28	—	—	—	—	135	1.0	-0.7	0.7	163	2.4	-0.7	2.3	222	10.2	6.8	7.6	274	22.1	22.0	-1.6	273	37.7	37.6	-2.0	270	32.0	32.0	0.0
29	—	—	—	—	—	—	—	—	142	1.1	-0.7	0.9	242	6.7	5.9	3.1	269	25.0	25.0	0.6	273	50.3	50.2	-3.0	—	—	—	—
30	—	—	—	—	—	—	—	—	143	2.5	-1.5	2.0	227	9.5	6.9	6.5	257	25.7	25.0	5.9	262	33.9	33.6	4.6	—	—	—	—
31	—	—	—	—	110	1.5	-1.4	0.5	141	2.6	-1.6	2.0	216	6.4	3.8	5.2	254	24.7	23.7	7.0	256	40.9	39.7	9.7	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	135	1.8	-1.3	1.3	217	5.4	3.2	4.3	266	19.2	19.1	1.5	263	33.4	33.2	3.8	271	39.0	39.0	-0.8
2	—	—	—	—	—	—	—	—	145	1.6	-0.9	1.3	226	5.9	4.3	4.1	269	23.3	23.3	0.3	266	34.6	34.5	2.2	227	12.0	8.8	8.2
3	—	—	—	—	—	—	—	—	153	2.5	-1.1	2.2	230	7.5	5.7	4.8	255	23.8	23.0	6.2	282	34.3	33.6	-7.1	—	—	—	—
4	—	—	—	—	—	—	—	—	152	2.4	-1.1	2.1	228	7.5	5.6	5.0	259	23.2	22.8	4.4	263	36.4	36.1	4.7	265	20.0	19.9	1.7
5	—	—	—	—	—	—	—	—	166	2.1	-0.5	2.0	237	6.9	5.8	3.8	266	23.7	23.6	1.7	270	29.0	29.0	0.1	—	—	—	—
6	—	—	—	—	—	—	—	—	160	1.2	-0.4	1.1	231	6.3	4.9	4.0	259	18.7	18.3	3.7	271	33.9	33.9	-0.7	—	—	—	—
7	—	—	—	—	—	—	—	—	144	1.7	-1.0	1.4	219	9.0	5.7	7.0	258	21.0	20.5	4.4	256	26.1	25.4	6.2	—	—	—	—
8	—	—	—	—	—	—	—	—	145	1.6	-0.9	1.3	239	5.2	4.5	2.7	285	15.4	14.9	-4.0	277	25.7	25.5	-3.0	—	—	—	—
9	—	—	—	—	—	—	—	—	124	0.4	-0.3	0.2	264	6.3	6.3	0.7	284	24.8	24.1	-5.8	273	34.9	34.9	-1.7	292	21.8	20.2	-8.2
10	—	—	—	—	—	—	—	—	167	1.3	-0.3	1.3	263	7.9	7.8	1.0	267	25.0	25.0	1.2	275	45.1	44.9	-3.8	—	—	—	—
11	—	—	—	—	—	—	—	—	193	1.3	0.3	1.3	254	9.4	9.0	2.6	273	21.2	21.2	-1.2	274	36.1	36.0	-2.4	—	—	—	—
12	—	—	—	—	—	—	—	—	144	2.4	-1.4	1.9	237	8.6	7.2	4.7	261	22.8	22.5	3.6	258	35.0	34.2	7.4	285	27.0	26.1	-7.0
13	—	—	—	—	—	—	—	—	138	2.5	-1.7	1.9	249	7.7	7.2	2.8	274	29.2	29.1	-2.2	270	38.8	38.8	0.0	—	—	—	—
14	—	—	—	—	—	—	—	—	139	1.8	-1.2	1.4	214	8.8	5.0	7.3	253	25.9	24.7	7.7	256	33.1	32.1	8.2	234	18.0	14.6	10.6
15	—	—	—	—	—	—	—	—	153	3.0	-1.4	2.7	196	9.6	2.7	9.2	246	24.2	22.1	9.9	260	38.3	37.7	6.5	240	17.0	14.7	8.5
16	—	—	—	—	—	—	—	—	151	1.0	-0.5	0.9	211	7.0	3.6	6.0	251	20.0	18.9	6.5	261	26.1	25.8	4.2	—	—	—	—
17	—	—	—	—	—	—	—	—	148	0.9	-0.5	0.8	211	7.8	4.0	6.7	256	19.9	19.3	4.8	260	28.9	28.5	4.9	249	17.7	16.5	6.3
18	—	—	—	—	—	—	—	—	138	2.4	-1.6	1.8	197	7.0	2.1	6.7	244	21.9	19.7	9.5	255	40.0	38.6	10.5	—	—	—	—
19	—	—	—	—	—	—	—	—	151	1.3	-0.6	1.1	229	7.4	5.6	4.9	263	19.7	19.5	2.5	262	31.3	31.0	4.1	290	12.4	11.6	-4.3
20	—	—	—	—	—	—	—	—	133	2.2	-1.6	1.5	258	8.6	8.4	1.8	271	23.0	23.0	-0.6	273	32.3	32.3	-1.5	—	—	—	—
21	—	—	—	—	—	—	—	—	127	1.5	-1.2	0.9	262	7.5	7.4	1.0	271	24.9	24.9	-0.3	274	36.1	36.0	-2.3	—	—	—	—
22	—	—	—	—	—	—	—	—	175	1.1	-0.1	1.1	246	6.2	5.7	2.5	280	27.1	26.7	-4.5	288	30.5	29.0	-9.6	270	26.0	26.0	0.0
23	—	—	—	—	—	—	—	—	138	2.5	-1.7	1.9	239	8.7	7.4	4.5	266	23.3	23.3	1.5	270	36.0	36.0	0.0	—	—	—	—
24	—	—	—	—	148	0.9	-0.5	0.8	144	2.6	-1.5	2.1	226	7.5	5.4	5.2	268	20.7	20.7	0.6	273	34.6	34.5	-2.1	287	28.0	26.8	-8.2
25	—	—	—	—	—	—	—	—	173	1.6	-0.2	1.6	237	7.3	6.1	4.0	269	29.6	29.6	0.7	277	35.6	35.4	-4.2	—	—	—	—
26	—	—	—	—	120	2.0	-1.7	1.0	140	1.7	-1.1	1.3	238	7.5	6.3	4.0	265	24.6	24.5	2.3	261	40.2	39.7	6.0	274	31.1	31.0	-2.0
27	—	—	—	—	320	3.0	1.9	-2.3	128	1.8	-1.4	1.1	233	8.3	6.6	5.0	258	25.0	24.5	5.2	264	39.0	38.8	3.8	—	—	—	—
28	—	—	—	—	—	—	—	—	146	3.0	-1.7	2.5	228	8.5	6.3	5.7	251	26.2	24.7	8.7	260	39.3	38.7	7.0	—	—	—	—
29	—	—	—	—	—	—	—	—	28	1.5	-0.7	-1.3	253	8.4	8.0	2.5	286	30.3	29.2	-8.2	271	38.0	38.0	-0.5	—	—	—	—

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	141	2.8	-1.8	2.2	242	8.0	7.1	3.7	275	25.2	25.1	-2.0	278	31.9	31.6	-4.2	283	40.9	39.9	-9.2
2	—	—	—	—	—	—	—	—	162	1.6	-0.5	1.5	263	7.8	7.7	0.9	270	24.5	24.5	-0.1	269	32.6	32.6	0.3	—	—	—	—
3	—	—	—	—	—	—	—	—	128	1.1	-0.9	0.7	263	9.6	9.5	1.2	276	25.5	25.4	-2.6	277	30.9	30.7	-3.9	270	19.0	19.0	0.0
4	—	—	—	—	—	—	—	—	135	2.5	-1.8	1.8	243	8.0	7.2	3.6	280	27.9	27.4	-5.0	280	33.5	33.0	-5.7	—	—	—	—
5	—	—	—	—	—	—	—	—	153	2.5	-1.1	2.2	231	7.6	5.9	4.8	257	17.3	16.9	3.9	275	28.5	28.4	-2.6	—	—	—	—
6	—	—	—	—	—	—	—	—	172	1.5	-0.2	1.5	228	8.6	6.4	5.7	270	23.5	23.5	0.0	268	28.0	28.0	1.0	277	18.0	17.9	-2.2
7	—	—	—	—	—	—	—	—	149	3.3	-1.7	2.8	230	7.7	5.9	5.0	255	22.2	21.4	5.9	267	42.8	42.7	2.2	291	41.0	38.2	-14.8
8	—	—	—	—	—	—	—	—	137	2.6	-1.8	1.9	237	9.3	7.8	5.1	259	20.6	20.2	4.0	256	29.6	28.8	7.0	—	—	—	—
9	—	—	—	—	—	—	—	—	143	3.9	-2.3	3.1	248	9.6	8.9	3.6	264	25.6	25.4	2.8	269	40.0	40.0	0.8	—	—	—	—
10	—	—	—	—	—	—	—	—	149	3.9	-2.0	3.3	231	9.2	7.2	5.8	253	26.2	25.1	7.5	275	35.6	35.5	-2.8	274	39.0	38.9	-2.7
11	—	—	—	—	—	—	—	—	145	2.1	-1.2	1.7	231	4.4	3.4	2.8	253	19.9	19.1	5.7	271	34.3	34.3	-0.6	224	14.0	9.7	10.1
12	—	—	—	—	—	—	—	—	134	3.2	-2.3	2.2	240	6.9	6.0	3.5	270	23.9	23.9	-0.2	274	27.4	27.3	-2.1	298	14.9	13.2	-7.0
13	—	—	—	—	—	—	—	—	130	0.8	-0.6	0.5	243	6.5	5.8	3.0	274	25.3	25.2	-1.6	274	37.1	37.0	-2.4	—	—	—	—
14	—	—	—	—	—	—	—	—	158	1.1	-0.4	1.0	239	5.2	4.5	2.7	271	24.0	24.0	-0.3	277	38.6	38.3	-5.0	280	35.0	34.5	-6.1
15	—	—	—	—	—	—	—	—	146	1.4	-0.8	1.2	229	8.1	6.1	5.3	262	24.2	24.0	3.4	268	28.7	28.7	0.9	260	38.0	37.4	6.6
16	—	—	—	—	—	—	—	—	139	3.0	-2.0	2.3	234	7.6	6.1	4.5	251	20.8	19.6	6.9	264	39.1	38.9	4.4	—	—	—	—
17	—	—	—	—	—	—	—	—	144	1.4	-0.8	1.1	243	7.2	6.4	3.3	271	27.5	27.5	-0.7	272	37.7	37.7	-1.3	256	35.2	34.1	8.7
18	—	—	—	—	—	—	—	—	159	1.7	-0.6	1.6	243	6.1	5.4	2.8	266	22.3	22.2	1.6	270	34.3	34.3	0.2	275	28.0	27.9	-2.4
19	—	—	—	—	—	—	—	—	125	1.2	-1.0	0.7	224	6.4	4.4	4.6	262	20.6	20.4	3.0	277	39.3	39.0	-5.1	—	—	—	—
20	—	—	—	—	—	—	—	—	143	2.5	-1.5	2.0	240	5.3	4.6	2.7	275	16.6	16.5	-1.4	276	32.2	32.1	-3.1	252	15.2	14.5	4.7
21	—	—	—	—	—	—	—	—	150	3.0	-1.5	2.6	240	6.7	5.8	3.4	262	17.7	17.5	2.5	270	25.6	25.6	-0.1	—	—	—	—
22	—	—	—	—	—	—	—	—	137	2.1	-1.4	1.5	242	5.5	4.8	2.6	272	22.1	22.1	-0.6	276	32.9	32.7	-3.6	287	27.0	25.8	-7.9
23	—	—	—	—	—	—	—	—	135	2.1	-1.5	1.5	214	4.5	2.5	3.7	266	21.5	21.4	1.6	267	35.4	35.4	1.6	254	40.7	39.2	11.0
24	—	—	—	—	—	—	—	—	156	1.0	-0.4	0.9	227	6.4	4.7	4.4	261	18.5	18.3	2.8	265	27.2	27.1	2.4	260	21.0	20.7	3.5
25	—	—	—	—	—	—	—	—	120	2.0	-1.7	1.0	263	4.6	4.6	0.6	277	17.8	17.7	-2.1	277	29.7	29.5	-3.8	270	19.3	19.3	-0.1
26	—	—	—	—	—	—	—	—	117	0.4	-0.4	0.2	247	6.1	5.6	2.4	260	21.2	20.9	3.5	273	26.2	26.2	-1.2	271	20.6	20.6	-0.5
27	—	—	—	—	—	—	—	—	194	0.8	0.2	0.8	246	7.0	6.4	2.9	266	20.8	20.8	1.3	282	26.5	25.9	-5.7	293	29.7	27.3	-11.6
28	—	—	—	—	—	—	—	—	164	1.5	-0.4	1.4	249	7.4	6.9	2.6	261	20.1	19.9	3.1	274	31.2	31.1	-2.3	—	—	—	—
29	—	—	—	—	—	—	—	—	136	3.2	-2.2	2.3	221	9.2	6.0	7.0	261	21.5	21.2	3.5	265	36.1	36.0	3.2	266	12.0	12.0	0.8
30	—	—	—	—	—	—	—	—	129	2.1	-1.6	1.3	233	6.9	5.5	4.1	260	18.5	18.2	3.1	260	35.5	35.0	5.9	275	31.0	30.9	-2.7
31	—	—	—	—	—	—	—	—	149	2.6	-1.3	2.2	261	9.4	9.3	1.4	262	24.7	24.5	3.3	267	29.2	29.2	1.3	262	23.0	22.8	3.2

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	172	1.4	-0.2	1.4	265	7.5	7.5	0.7	278	21.7	21.5	-3.0	284	29.3	28.4	-7.2	240	28.0	24.2	14.0
2	—	—	—	—	—	—	—	—	135	1.4	-1.0	1.0	235	5.2	4.3	3.0	273	24.8	24.8	-1.1	281	35.2	34.6	-6.5	—	—	—	—
3	—	—	—	—	—	—	—	—	144	1.4	-0.8	1.1	231	5.6	4.4	3.5	257	19.1	18.6	4.4	263	29.1	28.9	3.3	281	44.0	43.2	-8.4
4	—	—	—	—	—	—	—	—	145	2.4	-1.4	2.0	233	7.6	6.0	4.6	253	17.2	16.5	4.9	258	25.1	24.5	5.3	280	27.0	26.6	-4.7
5	—	—	—	—	—	—	—	—	143	1.5	-0.9	1.2	228	6.9	5.1	4.6	272	19.5	19.5	-0.7	266	25.1	25.0	1.9	—	—	—	—
6	—	—	—	—	—	—	—	—	162	1.9	-0.6	1.8	258	7.1	6.9	1.5	275	23.7	23.6	-2.0	263	38.5	38.2	4.4	242	32.0	28.3	15.0
7	—	—	—	—	—	—	—	—	135	1.7	-1.2	1.2	236	5.0	4.1	2.8	272	18.2	18.2	-0.7	282	25.5	25.0	-5.1	286	17.3	16.6	-4.7
8	—	—	—	—	—	—	—	—	270	0.2	0.2	0.0	220	5.5	3.5	4.2	269	19.0	19.0	0.3	275	30.4	30.3	-2.5	268	22.0	22.0	0.8
9	—	—	—	—	—	—	—	—	124	0.7	-0.6	0.4	257	3.5	3.4	0.8	276	18.6	18.5	-1.8	268	27.9	27.9	1.2	270	17.4	17.4	-0.1
10	—	—	—	—	—	—	—	—	76	0.8	-0.8	-0.2	258	5.3	5.2	1.1	279	17.9	17.7	-2.8	281	25.5	25.0	-5.0	276	12.5	12.4	-1.4
11	—	—	—	—	—	—	—	—	132	1.3	-1.0	0.9	258	5.5	5.4	1.1	285	18.4	17.8	-4.7	283	27.2	26.5	-6.2	237	15.3	12.8	8.3
12	—	—	—	—	—	—	—	—	90	0.3	-0.3	0.0	269	3.9	3.9	0.1	278	20.0	19.8	-2.8	278	27.9	27.6	-3.8	286	13.0	12.5	-3.6
13	—	—	—	—	—	—	—	—	135	1.1	-0.8	0.8	256	3.2	3.1	0.8	282	19.5	19.1	-4.0	282	30.5	29.9	-6.2	279	18.7	18.5	-3.0
14	—	—	—	—	—	—	—	—	113	1.3	-1.2	0.5	242	4.7	4.2	2.2	271	16.2	16.2	-0.3	271	21.0	21.0	-0.3	317	13.4	9.2	-9.8
15	—	—	—	—	—	—	—	—	194	0.4	0.1	0.4	258	4.0	3.9	0.8	270	14.0	14.0	0.1	280	17.2	16.9	-3.1	315	23.9	17.0	-16.8
16	—	—	—	—	—	—	—	—	225	0.1	0.1	0.1	278	3.0	3.0	-0.4	278	15.2	15.0	-2.2	272	23.0	23.0	-0.9	331	9.4	4.6	-8.2
17	—	—	—	—	—	—	—	—	129	0.6	-0.5	0.4	280	3.6	3.5	-0.6	267	16.2	16.2	0.8	269	21.8	21.8	0.3	293	21.0	19.3	-8.2
18	—	—	—	—	—	—	—	—	333	0.2	0.1	-0.2	263	4.7	4.7	0.6	266	14.0	14.0	0.9	277	26.2	26.0	-3.0	244	23.9	21.4	10.6
19	—	—	—	—	—	—	—	—	146	0.4	-0.2	0.3	252	4.3	4.1	1.3	263	12.1	12.0	1.4	269	21.7	21.7	0.5	269	24.7	24.7	0.5
20	—	—	—	—	—	—	—	—	144	0.9	-0.5	0.7	268	3.5	3.5	0.1	274	16.3	16.3	-1.1	272	22.8	22.8	-0.8	251	8.0	7.6	2.6
21	—	—	—	—	—	—	—	—	104	0.4	-0.4	0.1	263	5.6	5.6	0.7	260	15.1	14.9	2.6	262	28.1	27.9	3.7	220	27.0	17.4	20.7
22	—	—	—	—	—	—	—	—	135	1.1	-0.8	0.8	215	4.0	2.3	3.3	269	13.4	13.4	0.2	276	22.3	22.2	-2.5	256	25.5	24.8	6.0
23	—	—	—	—	—	—	—	—	144	0.9	-0.5	0.7	267	5.3	5.3	0.3	288	14.6	13.9	-4.6	279	19.5	19.3	-3.0	283	17.2	16.8	-3.8
24	—	—	—	—	—	—	—	—	143	1.0	-0.6	0.8	266	6.1	6.1	0.4	275	13.0	12.9	-1.2	282	20.8	20.4	-4.3	278	34.6	34.2	-5.1
25	—	—	—	—	—	—	—	—	360	0.3	0.0	-0.3	286	4.5	4.3	-1.2	296	14.4	12.9	-6.4	303	22.7	19.0	-12.4	—	—	—	—
26	—	—	—	—	—	—	—	—	112	0.5	-0.5	0.2	280	5.1	5.0	-0.9	282	14.4	14.1	-3.1	283	26.6	25.9	-6.2	258	20.7	20.2	4.3
27	—	—	—	—	—	—	—	—	151	1.3	-0.6	1.1	254	3.3	3.2	0.9	278	12.5	12.4	-1.8	273	26.6	26.6	-1.2	246	14.1	12.9	5.7
28	—	—	—	—	—	—	—	—	112	0.5	-0.5	0.2	239	3.9	3.3	2.0	253	11.4	10.9	3.3	273	16.4	16.4	-0.9	250	31.7	29.8	10.7
29	—	—	—	—	—	—	—	—	180	0.8	0.0	0.8	249	5.8	5.4	2.1	269	17.3	17.3	0.2	271	21.7	21.7	-0.3	236	27.0	22.4	15.1
30	—	—	—	—	—	—	—	—	139	0.9	-0.6	0.7	241	4.9	4.3	2.4	272	18.7	18.7	-0.7	264	27.1	26.9	2.9	263	29.5	29.3	3.5

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	176	1.3	-0.1	1.3	220	5.1	3.3	3.9	256	18.8	18.2	4.7	259	26.8	26.3	5.3	266	23.0	22.9	1.6
2	—	—	—	—	—	—	—	—	135	1.4	-1.0	1.0	208	3.0	1.4	2.6	264	10.0	9.9	1.1	262	18.8	18.6	2.5	291	18.1	16.9	-6.6
3	—	—	—	—	—	—	—	—	121	1.2	-1.0	0.6	224	4.5	3.1	3.2	240	15.7	13.6	7.8	252	24.7	23.5	7.6	287	12.9	12.4	-3.7
4	—	—	—	—	—	—	—	—	180	0.4	0.0	0.4	272	3.0	3.0	-0.1	286	13.1	12.6	-3.7	277	24.7	24.5	-2.8	264	18.1	18.0	1.9
5	—	—	—	—	—	—	—	—	149	1.2	-0.6	1.0	283	2.7	2.6	-0.6	280	7.2	7.1	-1.2	280	16.9	16.6	-2.9	260	24.8	24.5	4.1
6	—	—	—	—	—	—	—	—	344	0.7	0.2	-0.7	263	3.4	3.4	0.4	274	13.0	13.0	-0.9	275	20.4	20.3	-1.8	297	20.3	18.1	-9.2
7	—	—	—	—	—	—	—	—	270	0.1	0.1	0.0	220	3.4	2.2	2.6	276	17.1	17.0	-1.8	276	20.0	19.9	-2.1	—	—	—	—
8	—	—	—	—	—	—	—	—	108	0.9	-0.9	0.3	278	5.3	5.3	-0.7	281	15.2	14.9	-2.8	290	25.8	24.2	-8.8	272	16.6	16.6	-0.5
9	—	—	—	—	—	—	—	—	163	1.0	-0.3	1.0	258	4.3	4.2	0.9	259	14.1	13.8	2.8	268	29.0	29.0	0.8	271	24.0	24.0	-0.4
10	—	—	—	—	—	—	—	—	360	0.5	0.0	-0.5	260	4.2	4.1	0.7	258	13.8	13.5	2.9	264	22.8	22.7	2.2	—	—	—	—
11	—	—	—	—	—	—	—	—	180	0.7	0.0	0.7	282	6.7	6.6	-1.4	275	18.4	18.3	-1.5	274	24.0	23.9	-1.8	263	36.2	35.9	4.6
12	—	—	—	—	—	—	—	—	315	0.1	0.1	-0.1	280	5.3	5.2	-0.9	262	19.6	19.4	2.7	271	30.0	30.0	-0.7	287	21.0	20.1	-6.1
13	—	—	—	—	—	—	—	—	82	0.7	-0.7	-0.1	267	4.5	4.5	0.2	256	15.3	14.8	3.7	265	25.6	25.5	2.3	259	22.0	21.6	4.1
14	—	—	—	—	—	—	—	—	63	0.2	-0.2	-0.1	246	3.4	3.1	1.4	266	13.7	13.7	1.0	272	23.4	23.4	-0.7	272	18.5	18.5	-0.6
15	—	—	—	—	—	—	—	—	288	0.9	0.9	-0.3	280	4.8	4.7	-0.8	273	17.9	17.9	-1.0	279	31.7	31.3	-4.7	260	21.1	20.8	3.7
16	—	—	—	—	—	—	—	—	315	0.1	0.1	-0.1	270	3.0	3.0	0.0	277	14.4	14.3	-1.8	276	25.8	25.7	-2.6	271	12.0	12.0	-0.2
17	—	—	—	—	—	—	—	—	56	0.4	-0.3	-0.2	274	4.9	4.9	-0.3	261	14.0	13.8	2.1	269	27.2	27.2	0.4	289	13.7	13.0	-4.4
18	—	—	—	—	—	—	—	—	319	0.9	0.6	-0.7	280	5.3	5.2	-0.9	277	15.8	15.7	-2.0	273	31.9	31.9	-1.5	282	20.9	20.4	-4.5
19	—	—	—	—	—	—	—	—	304	0.4	0.3	-0.2	272	6.1	6.1	-0.2	282	20.2	19.8	-4.1	276	31.1	30.9	-3.2	275	14.0	13.9	-1.2
20	—	—	—	—	—	—	—	—	135	1.0	-0.7	0.7	277	6.6	6.6	-0.8	274	20.6	20.5	-1.5	272	27.7	27.7	-1.1	302	10.5	8.9	-5.5
21	—	—	—	—	—	—	—	—	90	0.5	-0.5	0.0	273	5.0	5.0	-0.3	269	17.7	17.7	0.3	282	25.8	25.3	-5.3	294	12.4	11.4	-5.0
22	—	—	—	—	—	—	—	—	306	1.7	1.4	-1.0	292	4.0	3.7	-1.5	277	17.2	17.1	-2.0	279	23.1	22.8	-3.7	288	12.8	12.2	-4.0
23	—	—	—	—	—	—	—	—	194	0.8	0.2	0.8	270	3.7	3.7	0.0	280	14.5	14.3	-2.5	293	22.4	20.6	-8.7	302	22.2	18.7	-11.9
24	—	—	—	—	—	—	—	—	297	0.2	0.2	-0.1	281	5.3	5.2	-1.0	276	13.9	13.8	-1.4	280	20.6	20.3	-3.7	273	12.0	12.0	-0.6
25	—	—	—	—	—	—	—	—	207	0.4	0.2	0.4	287	4.9	4.7	-1.4	274	18.0	18.0	-1.2	283	23.0	22.4	-5.0	291	21.8	20.4	-7.7
26	—	—	—	—	—	—	—	—	34	0.4	-0.2	-0.3	262	2.9	2.9	0.4	275	16.5	16.4	-1.5	278	23.0	22.8	-3.2	274	13.0	13.0	-0.9
27	—	—	—	—	—	—	—	—	338	0.5	0.2	-0.5	275	6.4	6.4	-0.6	274	19.0	19.0	-1.3	274	26.4	26.3	-1.8	274	20.2	20.2	-1.4
28	—	—	—	—	—	—	—	—	315	0.4	0.3	-0.3	273	3.6	3.6	-0.2	267	15.9	15.9	0.7	269	26.2	26.2	0.5	279	20.8	20.6	-3.2
29	—	—	—	—	—	—	—	—	68	0.5	-0.5	-0.2	277	3.9	3.9	-0.5	278	15.0	14.9	-2.1	270	24.8	24.8	-0.1	277	26.1	25.9	-3.2
30	—	—	—	—	—	—	—	—	18	0.6	-0.2	-0.6	293	4.1	3.8	-1.6	289	14.4	13.6	-4.7	281	19.1	18.7	-3.7	265	24.4	24.3	2.3
31	—	—	—	—	—	—	—	—	278	0.7	0.7	-0.1	281	4.3	4.2	-0.8	276	13.5	13.4	-1.4	268	16.6	16.6	0.5	235	8.0	6.5	4.6

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	188	0.7	0.1	0.7	246	3.9	3.6	1.6	271	19.1	19.1	-0.2	270	25.7	25.7	0.0	290	11.0	10.3	-3.8
2	—	—	—	—	—	—	—	—	308	1.6	1.3	-1.0	294	3.6	3.3	-1.5	282	15.5	15.1	-3.3	280	29.1	28.7	-5.0	280	12.1	11.9	-2.0
3	—	—	—	—	—	—	—	—	326	1.1	0.6	-0.9	279	4.3	4.2	-0.7	282	18.4	18.0	-3.8	273	33.3	33.3	-1.7	295	23.7	21.5	-9.9
4	—	—	—	—	—	—	—	—	293	0.8	0.7	-0.3	296	3.4	3.1	-1.5	279	17.6	17.4	-2.8	282	31.6	30.9	-6.8	272	15.1	15.1	-0.6
5	—	—	—	—	—	—	—	—	72	0.3	-0.3	-0.1	281	4.4	4.3	-0.8	275	18.1	18.0	-1.6	281	25.8	25.4	-4.8	273	14.2	14.2	-0.8
6	—	—	—	—	—	—	—	—	319	0.9	0.6	-0.7	283	3.7	3.6	-0.8	276	16.4	16.3	-1.6	272	22.9	22.9	-0.8	274	24.0	23.9	-1.7
7	—	—	—	—	—	—	—	—	304	1.4	1.2	-0.8	313	5.0	3.6	-3.4	277	18.3	18.2	-2.3	284	33.4	32.5	-7.9	295	24.0	21.7	-10.2
8	—	—	—	—	—	—	—	—	322	1.8	1.1	-1.4	305	3.2	2.6	-1.8	280	16.0	15.8	-2.7	274	27.4	27.3	-1.8	263	20.2	20.0	2.6
9	—	—	—	—	—	—	—	—	162	0.3	-0.1	0.3	283	3.2	3.1	-0.7	283	15.9	15.5	-3.7	280	24.3	23.9	-4.4	—	—	—	—
10	—	—	—	—	—	—	—	—	270	0.1	0.1	0.0	290	4.5	4.2	-1.5	268	19.0	19.0	0.6	270	27.5	27.5	0.2	274	8.0	8.0	-0.6
11	—	—	—	—	—	—	—	—	360	0.6	0.0	-0.6	301	4.5	3.9	-2.3	280	17.7	17.4	-3.2	291	23.1	21.6	-8.3	282	14.4	14.1	-3.0
12	—	—	—	—	—	—	—	—	319	1.1	0.7	-0.8	299	3.3	2.9	-1.6	265	20.8	20.7	1.7	271	23.9	23.9	-0.5	270	13.3	13.3	-0.1
13	—	—	—	—	—	—	—	—	309	0.6	0.5	-0.4	292	4.1	3.8	-1.5	283	24.0	23.4	-5.2	275	27.5	27.4	-2.3	289	12.8	12.1	-4.2
14	—	—	—	—	—	—	—	—	259	0.5	0.5	0.1	287	4.4	4.2	-1.3	261	21.1	20.9	3.2	265	25.6	25.5	2.4	304	10.6	8.8	-5.9
15	—	—	—	—	—	—	—	—	342	0.3	0.1	-0.3	301	2.9	2.5	-1.5	282	16.5	16.2	-3.3	284	31.1	30.2	-7.4	289	18.7	17.6	-6.2
16	—	—	—	—	—	—	—	—	72	0.3	-0.3	-0.1	263	3.2	3.2	0.4	267	17.0	17.0	1.0	277	22.7	22.5	-2.9	297	14.0	12.4	-6.4
17	—	—	—	—	—	—	—	—	309	1.3	1.0	-0.8	281	3.2	3.1	-0.6	272	19.0	19.0	-0.6	264	24.1	24.0	2.4	287	20.9	20.0	-6.2
18	—	—	—	—	—	—	—	—	—	—	—	—	297	3.1	2.8	-1.4	275	22.6	22.5	-2.0	263	24.8	24.6	2.9	280	15.7	15.5	-2.7
19	—	—	—	—	—	—	—	—	301	2.1	1.8	-1.1	307	4.4	3.5	-2.6	285	20.1	19.4	-5.1	282	26.3	25.7	-5.4	297	14.4	12.9	-6.5
20	—	—	—	—	—	—	—	—	320	1.6	1.0	-1.2	308	3.7	2.9	-2.3	282	18.5	18.1	-3.8	274	19.8	19.7	-1.5	323	18.4	11.0	-14.8
21	—	—	—	—	—	—	—	—	270	0.4	0.4	0.0	285	2.8	2.7	-0.7	271	19.4	19.4	-0.5	274	22.8	22.7	-1.6	295	14.3	13.0	-6.0
22	—	—	—	—	—	—	—	—	326	0.7	0.4	-0.6	297	3.4	3.0	-1.5	275	17.9	17.8	-1.7	265	19.4	19.3	1.6	281	13.5	13.2	-2.6
23	—	—	—	—	—	—	—	—	320	1.7	1.1	-1.3	303	3.0	2.5	-1.6	280	12.8	12.6	-2.3	276	17.0	16.9	-1.9	281	8.1	7.9	-1.6
24	—	—	—	—	—	—	—	—	317	2.1	1.4	-1.5	289	2.4	2.3	-0.8	270	14.6	14.6	-0.1	268	19.5	19.5	0.7	300	25.0	21.7	-12.5
25	—	—	—	—	—	—	—	—	312	1.3	1.0	-0.9	336	1.0	0.4	-0.9	280	15.0	14.8	-2.5	278	25.5	25.3	-3.5	357	10.0	0.5	-10.0
26	—	—	—	—	—	—	—	—	326	1.1	0.6	-0.9	329	1.7	0.9	-1.5	286	14.7	14.1	-4.1	273	20.4	20.4	-1.0	344	5.0	1.4	-4.8
27	—	—	—	—	—	—	—	—	292	1.1	1.0	-0.4	328	2.2	1.2	-1.9	282	15.3	15.0	-3.1	280	18.7	18.4	-3.2	352	2.9	0.4	-2.9
28	—	—	—	—	—	—	—	—	317	2.1	1.4	-1.5	305	2.8	2.3	-1.6	287	14.3	13.7	-4.2	267	14.6	14.6	0.7	286	35.6	34.2	-10.0
29	—	—	—	—	—	—	—	—	308	1.8	1.4	-1.1	293	3.8	3.5	-1.5	274	14.7	14.7	-1.1	280	20.4	20.1	-3.4	231	7.7	6.0	4.9
30	—	—	—	—	—	—	—	—	322	1.1	0.7	-0.9	295	3.8	3.5	-1.6	281	15.9	15.6	-3.0	278	19.8	19.6	-2.7	245	1.7	1.5	0.7

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	311	1.1	0.8	-0.7	276	3.7	3.7	-0.4	275	15.2	15.1	-1.3	277	23.2	23.0	-2.8	303	19.8	16.7	-10.7
2	—	—	—	—	—	—	—	—	309	0.6	0.5	-0.4	308	2.9	2.3	-1.8	278	14.5	14.4	-2.0	279	16.2	16.0	-2.4	50	11.0	-8.4	-7.1
3	—	—	—	—	—	—	—	—	309	1.3	1.0	-0.8	291	1.4	1.3	-0.5	271	15.0	15.0	-0.2	280	18.3	18.0	-3.1	305	6.7	5.5	-3.9
4	—	—	—	—	—	—	—	—	315	0.3	0.2	-0.2	259	2.6	2.6	0.5	264	15.3	15.2	1.5	249	17.9	16.8	6.3	254	9.7	9.3	2.6
5	—	—	—	—	—	—	—	—	329	0.6	0.3	-0.5	304	2.5	2.1	-1.4	259	15.3	15.0	2.9	256	20.4	19.8	5.0	302	6.2	5.3	-3.3
6	—	—	—	—	—	—	—	—	326	0.7	0.4	-0.6	265	3.5	3.5	0.3	261	15.4	15.2	2.3	273	21.0	21.0	-1.0	300	18.0	15.6	-9.0
7	—	—	—	—	—	—	—	—	324	1.7	1.0	-1.4	322	4.4	2.7	-3.5	280	15.5	15.3	-2.7	269	17.8	17.8	0.2	278	15.0	14.9	-2.1
8	—	—	—	—	—	—	—	—	318	1.5	1.0	-1.1	316	2.8	1.9	-2.0	287	12.4	11.9	-3.6	259	17.1	16.8	3.2	335	8.6	3.7	-7.8
9	—	—	—	—	—	—	—	—	308	2.3	1.8	-1.4	302	1.3	1.1	-0.7	271	11.7	11.7	-0.3	279	16.0	15.8	-2.4	301	11.0	9.4	-5.7
10	—	—	—	—	—	—	—	—	307	1.5	1.2	-0.9	275	1.1	1.1	-0.1	271	10.3	10.3	-0.2	263	14.0	13.9	1.7	290	4.9	4.6	-1.7
11	—	—	—	—	—	—	—	—	315	1.4	1.0	-1.0	256	0.8	0.8	0.2	270	7.8	7.8	0.0	273	14.1	14.1	-0.7	316	8.6	5.9	-6.2
12	—	—	—	—	—	—	—	—	346	0.4	0.1	-0.4	256	0.8	0.8	0.2	251	12.3	11.6	4.1	264	13.7	13.6	1.5	1	7.1	-0.1	-7.1
13	—	—	—	—	—	—	—	—	299	1.0	0.9	-0.5	215	1.6	0.9	1.3	276	11.0	10.9	-1.1	265	11.2	11.2	0.9	35	4.0	-2.3	-3.3
14	—	—	—	—	—	—	—	—	347	0.9	0.2	-0.9	240	1.4	1.2	0.7	255	9.5	9.2	2.5	272	13.7	13.7	-0.4	59	10.5	-9.0	-5.5
15	—	—	—	—	—	—	—	—	284	1.2	1.2	-0.3	180	0.8	0.0	0.8	274	7.2	7.2	-0.5	260	14.6	14.4	2.6	11	10.3	-1.9	-10.1
16	—	—	—	—	—	—	—	—	45	0.3	-0.2	-0.2	180	1.2	0.0	1.2	256	11.2	10.9	2.7	274	14.2	14.2	-0.9	360	4.4	0.0	-4.4
17	—	—	—	—	—	—	—	—	315	1.0	0.7	-0.7	258	2.4	2.3	0.5	266	10.6	10.6	0.8	268	16.3	16.3	0.6	352	9.5	1.4	-9.4
18	—	—	—	—	—	—	—	—	331	1.3	0.6	-1.1	262	1.4	1.4	0.2	255	10.9	10.5	2.8	263	14.6	14.5	1.7	260	8.8	8.7	1.5
19	—	—	—	—	—	—	—	—	315	1.4	1.0	-1.0	246	2.7	2.5	1.1	246	12.9	11.8	5.2	266	19.2	19.1	1.5	68	9.0	-8.3	-3.4
20	—	—	—	—	—	—	—	—	315	0.4	0.3	-0.3	278	0.7	0.7	-0.1	257	14.7	14.3	3.4	269	19.3	19.3	0.4	351	3.8	0.6	-3.8
21	—	—	—	—	—	—	—	—	248	0.5	0.5	0.2	255	1.1	1.1	0.3	241	11.3	9.9	5.5	252	17.5	16.7	5.3	240	14.0	12.1	7.0
22	—	—	—	—	—	—	—	—	306	1.4	1.1	-0.8	212	1.9	1.0	1.6	251	9.7	9.2	3.2	246	16.2	14.8	6.6	29	2.5	-1.2	-2.2
23	—	—	—	—	—	—	—	—	360	0.8	0.0	-0.8	211	3.1	1.6	2.7	253	10.9	10.4	3.1	259	16.9	16.6	3.2	257	11.5	11.2	2.5
24	—	—	—	—	—	—	—	—	304	0.4	0.3	-0.2	215	3.2	1.8	2.6	261	11.5	11.4	1.8	264	16.3	16.2	1.7	314	11.3	8.2	-7.8
25	—	—	—	—	—	—	—	—	333	0.7	0.3	-0.6	274	2.7	2.7	-0.2	254	10.9	10.5	3.1	260	16.9	16.6	3.0	296	8.3	7.5	-3.6
26	—	—	—	—	—	—	—	—	339	1.4	0.5	-1.3	259	1.0	1.0	0.2	266	12.5	12.5	0.9	273	16.0	16.0	-0.8	342	8.5	2.6	-8.1
27	—	—	—	—	—	—	—	—	322	1.1	0.7	-0.9	257	3.1	3.0	0.7	268	10.5	10.5	0.4	255	12.7	12.3	3.3	359	8.8	0.2	-8.8
28	—	—	—	—	—	—	—	—	309	1.4	1.1	-0.9	342	0.3	0.1	-0.3	273	8.0	8.0	-0.4	274	11.3	11.3	-0.8	12	13.3	-2.7	-13.0
29	—	—	—	—	—	—	—	—	313	1.6	1.2	-1.1	281	1.0	1.0	-0.2	250	8.1	7.6	2.7	263	9.7	9.6	1.1	339	9.0	3.3	-8.4
30	—	—	—	—	—	—	—	—	313	1.9	1.4	-1.3	207	1.1	0.5	1.0	266	7.9	7.9	0.6	266	10.7	10.7	0.7	259	2.6	2.6	0.5
31	—	—	—	—	—	—	—	—	294	1.0	0.9	-0.4	230	1.6	1.2	1.0	250	4.1	3.9	1.4	265	8.2	8.2	0.7	111	3.9	-3.6	1.4

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	321	1.3	0.8	-1.0	161	3.1	-1.0	2.9	260	7.1	7.0	1.2	262	7.8	7.7	1.1	258	5.8	5.7	1.2
2	—	—	—	—	—	—	—	—	312	1.5	1.1	-1.0	256	0.8	0.8	0.2	264	8.9	8.8	1.0	263	10.0	9.9	1.2	83	7.4	-7.3	-0.9
3	—	—	—	—	—	—	—	—	340	1.5	0.5	-1.4	233	1.0	0.8	0.6	269	6.7	6.7	0.1	265	9.4	9.4	0.9	325	1.9	1.1	-1.6
4	—	—	—	—	—	—	—	—	311	1.8	1.4	-1.2	288	0.9	0.9	-0.3	261	9.4	9.3	1.4	269	8.8	8.8	0.1	353	6.7	0.8	-6.7
5	—	—	—	—	—	—	—	—	300	0.8	0.7	-0.4	165	2.0	-0.5	1.9	257	9.6	9.3	2.2	266	14.7	14.7	1.0	290	8.0	7.5	-2.7
6	—	—	—	—	—	—	—	—	302	0.9	0.8	-0.5	200	2.9	1.0	2.7	243	12.6	11.2	5.7	254	17.0	16.3	4.7	201	11.8	4.3	11.0
7	—	—	—	—	—	—	—	—	342	0.6	0.2	-0.6	200	2.9	1.0	2.7	240	12.4	10.7	6.2	244	13.0	11.7	5.7	85	3.7	-3.7	-0.3
8	—	—	—	—	—	—	—	—	322	1.1	0.7	-0.9	171	1.2	-0.2	1.2	263	10.2	10.1	1.3	265	14.6	14.6	1.2	299	3.3	2.9	-1.6
9	—	—	—	—	—	—	—	—	304	0.4	0.3	-0.2	207	2.7	1.2	2.4	246	13.1	12.0	5.3	250	16.9	15.9	5.8	360	2.2	0.0	-2.2
10	—	—	—	—	—	—	—	—	312	1.5	1.1	-1.0	228	3.0	2.2	2.0	259	11.0	10.8	2.1	257	15.9	15.5	3.7	324	6.7	3.9	-5.4
11	—	—	—	—	—	—	—	—	301	1.2	1.0	-0.6	276	1.8	1.8	-0.2	261	10.7	10.6	1.7	253	12.1	11.6	3.6	267	7.4	7.4	0.4
12	—	—	—	—	—	—	—	—	325	1.2	0.7	-1.0	257	2.3	2.2	0.5	262	11.9	11.8	1.6	255	16.1	15.5	4.2	275	21.0	20.9	-1.8
13	—	—	—	—	—	—	—	—	270	0.8	0.8	0.0	180	0.7	0.0	0.7	259	12.6	12.4	2.3	273	14.8	14.8	-0.7	312	5.9	4.4	-3.9
14	—	—	—	—	—	—	—	—	310	0.8	0.6	-0.5	236	1.8	1.5	1.0	265	10.4	10.4	1.0	256	14.6	14.2	3.6	297	10.7	9.5	-4.9
15	—	—	—	—	—	—	—	—	287	1.4	1.3	-0.4	270	1.1	1.1	0.0	266	12.5	12.5	0.9	274	15.1	15.1	-1.1	196	10.0	2.8	9.6
16	—	—	—	—	—	—	—	—	309	1.3	1.0	-0.8	236	1.8	1.5	1.0	263	11.0	10.9	1.3	262	15.2	15.0	2.2	327	4.6	2.5	-3.9
17	—	—	—	—	—	—	—	—	338	0.5	0.2	-0.5	232	1.6	1.3	1.0	263	10.9	10.8	1.3	255	12.5	12.1	3.3	272	5.1	5.1	-0.2
18	—	—	—	—	—	—	—	—	329	0.6	0.3	-0.5	225	1.6	1.1	1.1	258	8.7	8.5	1.8	252	9.7	9.2	3.0	145	26.2	-15.1	21.4
19	—	—	—	—	—	—	—	—	331	1.0	0.5	-0.9	201	1.7	0.6	1.6	253	8.6	8.2	2.5	251	12.0	11.4	3.9	308	10.8	8.5	-6.6
20	—	—	—	—	—	—	—	—	305	1.2	1.0	-0.7	243	2.2	2.0	1.0	254	11.1	10.7	3.0	267	16.2	16.2	0.8	328	5.5	2.9	-4.7
21	—	—	—	—	—	—	—	—	281	0.5	0.5	-0.1	254	4.0	3.8	1.1	261	13.5	13.3	2.1	275	16.9	16.8	-1.5	288	8.2	7.8	-2.6
22	—	—	—	—	—	—	—	—	207	0.7	0.3	0.6	242	1.5	1.3	0.7	274	14.7	14.7	-1.0	267	17.4	17.4	1.0	281	19.3	19.0	-3.6
23	—	—	—	—	—	—	—	—	315	0.7	0.5	-0.5	276	2.0	2.0	-0.2	266	14.6	14.6	0.9	267	20.3	20.3	1.0	302	19.0	16.1	-10.1
24	—	—	—	—	—	—	—	—	331	1.0	0.5	-0.9	273	1.7	1.7	-0.1	273	14.6	14.6	-0.8	271	18.6	18.6	-0.3	245	11.0	10.0	4.6
25	—	—	—	—	—	—	—	—	343	1.0	0.3	-1.0	255	2.7	2.6	0.7	262	14.1	14.0	2.0	273	17.4	17.4	-0.9	254	12.8	12.3	3.5
26	—	—	—	—	—	—	—	—	319	1.1	0.7	-0.8	225	3.0	2.1	2.1	260	14.3	14.1	2.6	251	19.5	18.4	6.5	229	1.8	1.4	1.2
27	—	—	—	—	—	—	—	—	351	0.6	0.1	-0.6	208	3.8	1.8	3.4	256	16.5	16.0	4.0	263	22.0	21.8	2.6	355	3.8	0.3	-3.8
28	—	—	—	—	—	—	—	—	321	1.4	0.9	-1.1	235	2.1	1.7	1.2	254	15.4	14.8	4.3	258	17.8	17.4	3.6	265	6.6	6.6	0.6
29	—	—	—	—	—	—	—	—	14	0.4	-0.1	-0.4	243	2.2	2.0	1.0	262	13.7	13.6	1.8	269	20.9	20.9	0.3	278	7.5	7.4	-1.0
30	—	—	—	—	—	—	—	—	259	1.0	1.0	0.2	212	3.6	1.9	3.1	254	16.3	15.7	4.5	260	26.0	25.6	4.4	287	12.7	12.1	-3.7
31	—	—	—	—	—	—	—	—	352	0.7	0.1	-0.7	249	3.9	3.6	1.4	258	15.3	15.0	3.1	254	15.5	14.9	4.3	354	35.0	3.7	-34.8

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	338	0.5	0.2	-0.5	231	2.1	1.6	1.3	263	15.5	15.4	2.0	264	22.5	22.4	2.5	262	20.5	20.3	2.9
2	—	—	—	—	—	—	—	—	329	0.6	0.3	-0.5	266	3.0	3.0	0.2	261	17.5	17.3	2.8	263	24.9	24.7	3.1	55	7.5	-6.1	-4.3
3	—	—	—	—	—	—	—	—	325	1.2	0.7	-1.0	259	3.1	3.0	0.6	274	19.0	19.0	-1.3	269	21.0	21.0	0.2	256	19.1	18.6	4.5
4	—	—	—	—	—	—	—	—	333	0.2	0.1	-0.2	259	3.7	3.6	0.7	266	17.3	17.3	1.2	267	23.2	23.2	1.4	273	25.0	25.0	-1.2
5	—	—	—	—	—	—	—	—	319	1.1	0.7	-0.8	255	2.8	2.7	0.7	261	16.2	16.0	2.4	270	24.6	24.6	-0.2	225	16.0	11.3	11.3
6	—	—	—	—	—	—	—	—	326	0.7	0.4	-0.6	261	3.0	3.0	0.5	266	18.5	18.5	1.3	275	22.5	22.4	-2.0	270	15.9	15.9	0.0
7	—	—	—	—	—	—	—	—	304	1.8	1.5	-1.0	279	2.0	2.0	-0.3	264	15.8	15.7	1.6	262	23.4	23.2	3.3	302	10.0	8.5	-5.3
8	—	—	—	—	—	—	—	—	326	1.1	0.6	-0.9	242	2.6	2.3	1.2	257	17.5	17.1	3.9	264	23.5	23.4	2.4	257	11.1	10.8	2.4
9	—	—	—	—	—	—	—	—	270	0.4	0.4	0.0	213	3.1	1.7	2.6	259	18.8	18.5	3.6	259	30.2	29.7	5.6	259	20.6	20.2	4.0
10	—	—	—	—	—	—	—	—	243	0.4	0.4	0.2	204	4.4	1.8	4.0	262	18.0	17.8	2.5	258	25.4	24.9	5.1	260	22.8	22.5	3.9
11	—	—	—	—	—	—	—	—	198	0.3	0.1	0.3	261	3.6	3.6	0.6	267	18.3	18.3	0.8	271	26.6	26.6	-0.4	—	—	—	—
12	—	—	—	—	—	—	—	—	297	0.4	0.4	-0.2	287	2.1	2.0	-0.6	266	18.0	18.0	1.2	262	25.1	24.8	3.6	243	11.0	9.8	5.0
13	—	—	—	—	—	—	—	—	261	0.6	0.6	0.1	250	2.9	2.7	1.0	261	17.9	17.7	2.7	273	15.7	15.7	-0.7	—	—	—	—
14	—	—	—	—	—	—	—	—	315	0.3	0.2	-0.2	249	2.6	2.4	0.9	265	18.4	18.3	1.5	281	28.9	28.3	-5.7	—	—	—	—
15	—	—	—	—	—	—	—	—	300	0.8	0.7	-0.4	241	2.1	1.8	1.0	275	13.8	13.8	-1.1	268	20.2	20.2	0.8	284	11.6	11.3	-2.8
16	—	—	—	—	—	—	—	—	326	0.4	0.2	-0.3	255	2.4	2.3	0.6	279	14.1	13.9	-2.3	274	22.1	22.0	-1.7	292	18.0	16.7	-6.7
17	—	—	—	—	—	—	—	—	288	0.3	0.3	-0.1	232	2.8	2.2	1.7	267	15.2	15.2	0.9	270	20.0	20.0	0.1	343	7.0	2.0	-6.7
18	—	—	—	—	—	—	—	—	309	1.3	1.0	-0.8	241	1.3	1.1	0.6	260	15.7	15.5	2.7	269	19.4	19.4	0.3	16	12.0	-3.3	-11.5
19	—	—	—	—	—	—	—	—	329	0.6	0.3	-0.5	237	2.7	2.3	1.5	262	14.8	14.6	2.1	261	21.3	21.0	3.4	—	—	—	—
20	—	—	—	—	—	—	—	—	180	0.8	0.0	0.8	241	3.9	3.4	1.9	266	17.5	17.5	1.3	269	19.5	19.5	0.4	278	13.0	12.9	-1.9
21	—	—	—	—	—	—	—	—	146	0.4	-0.2	0.3	225	1.8	1.3	1.3	252	15.7	15.0	4.8	263	23.5	23.3	3.0	192	8.0	1.7	7.8
22	—	—	—	—	—	—	—	—	225	0.3	0.2	0.2	194	3.0	0.7	2.9	260	18.1	17.9	3.0	267	24.9	24.9	1.5	277	14.0	13.9	-1.7
23	—	—	—	—	—	—	—	—	124	0.4	-0.3	0.2	213	3.8	2.1	3.2	249	17.9	16.7	6.5	252	23.1	22.0	7.2	277	15.0	14.9	-1.8
24	—	—	—	—	—	—	—	—	18	0.6	-0.2	-0.6	214	4.0	2.2	3.3	258	17.2	16.8	3.5	266	22.9	22.8	1.7	260	21.0	20.7	3.6
25	—	—	—	—	—	—	—	—	323	0.5	0.3	-0.4	265	3.4	3.4	0.3	267	18.3	18.3	0.9	268	25.1	25.1	1.0	—	—	—	—
26	—	—	—	—	—	—	—	—	333	0.2	0.1	-0.2	293	3.0	2.8	-1.2	276	15.6	15.5	-1.7	268	26.2	26.2	1.1	232	5.0	3.9	3.1
27	—	—	—	—	—	—	—	—	180	0.4	0.0	0.4	236	2.5	2.1	1.4	262	20.1	19.9	2.7	267	26.3	26.3	1.5	303	11.0	9.2	-6.0
28	—	—	—	—	—	—	—	—	34	0.4	-0.2	-0.3	225	2.7	1.9	1.9	263	18.5	18.4	2.2	276	25.0	24.9	-2.7	286	17.0	16.3	-4.7
29	—	—	—	—	—	—	—	—	315	0.4	0.3	-0.3	264	4.1	4.1	0.4	260	22.3	22.0	3.7	261	36.4	35.9	6.0	288	19.5	18.5	-6.1
30	—	—	—	—	—	—	—	—	194	0.8	0.2	0.8	243	4.8	4.3	2.2	265	20.2	20.1	1.9	272	30.1	30.1	-1.0	274	31.9	31.8	-2.5

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	180	0.7	0.0	0.7	235	4.2	3.4	2.4	268	17.6	17.6	0.6	273	25.9	25.9	-1.2	—	—	—	—
2	—	—	—	—	—	—	—	—	18	0.3	-0.1	-0.3	244	2.8	2.5	1.2	262	19.0	18.8	2.7	269	29.4	29.4	0.3	274	24.4	24.4	-1.5
3	—	—	—	—	—	—	—	—	279	1.3	1.3	-0.2	222	4.3	2.9	3.2	261	20.8	20.5	3.4	266	29.9	29.8	2.2	—	—	—	—
4	—	—	—	—	—	—	—	—	135	0.6	-0.4	0.4	220	2.6	1.7	2.0	267	20.0	20.0	1.0	262	33.4	33.1	4.7	260	32.0	31.5	5.6
5	—	—	—	—	—	—	—	—	315	0.1	0.1	-0.1	250	2.3	2.2	0.8	278	16.8	16.7	-2.2	269	27.8	27.8	0.3	—	—	—	—
6	—	—	—	—	—	—	—	—	135	0.4	-0.3	0.3	264	3.8	3.8	0.4	274	17.2	17.2	-1.2	270	28.8	28.8	0.1	275	28.0	27.9	-2.4
7	—	—	—	—	—	—	—	—	108	0.3	-0.3	0.1	265	5.3	5.3	0.5	271	17.7	17.7	-0.4	275	30.8	30.7	-2.5	290	16.0	15.0	-5.5
8	—	—	—	—	—	—	—	—	315	0.1	0.1	-0.1	240	5.1	4.4	2.5	267	22.1	22.1	1.2	262	34.1	33.8	4.8	—	—	—	—
9	—	—	—	—	—	—	—	—	167	0.9	-0.2	0.9	252	3.8	3.6	1.2	269	22.4	22.4	0.3	270	29.2	29.2	0.1	185	6.0	0.5	6.0
10	—	—	—	—	—	—	—	—	79	0.5	-0.5	-0.1	247	5.9	5.4	2.3	267	22.9	22.9	1.4	268	31.8	31.8	0.9	263	27.0	26.8	3.3
11	—	—	—	—	—	—	—	—	135	0.6	-0.4	0.4	236	2.7	2.2	1.5	261	17.1	16.9	2.7	271	26.9	26.9	-0.4	330	5.0	2.5	-4.3
12	—	—	—	—	—	—	—	—	252	0.3	0.3	0.1	252	4.7	4.5	1.5	267	21.4	21.4	1.3	265	33.5	33.4	3.1	—	—	—	—
13	—	—	—	—	—	—	—	—	180	0.8	0.0	0.8	256	4.9	4.8	1.2	264	20.4	20.3	2.1	256	29.3	28.5	7.0	270	15.0	15.0	0.0
14	—	—	—	—	—	—	—	—	124	0.4	-0.3	0.2	256	4.6	4.5	1.1	267	20.6	20.6	0.9	268	27.7	27.7	1.2	—	—	—	—
15	—	—	—	—	—	—	—	—	146	1.8	-1.0	1.5	225	5.9	4.2	4.2	261	21.9	21.6	3.3	252	29.5	28.1	9.0	—	—	—	—
16	—	—	—	—	—	—	—	—	135	0.6	-0.4	0.4	238	4.7	4.0	2.5	264	21.7	21.6	2.4	269	30.1	30.1	0.7	261	41.0	40.5	6.4
17	—	—	—	—	—	—	—	—	96	0.9	-0.9	0.1	265	6.8	6.8	0.6	275	21.2	21.1	-2.0	275	32.0	31.9	-3.0	280	15.0	14.8	-2.6
18	—	—	—	—	—	—	—	—	166	0.8	-0.2	0.8	227	5.1	3.7	3.5	262	16.2	16.0	2.2	269	27.9	27.9	0.7	257	27.0	26.3	6.1
19	—	—	—	—	—	—	—	—	360	0.1	0.0	-0.1	257	5.0	4.9	1.1	272	19.1	19.1	-0.6	274	30.2	30.1	-2.0	—	—	—	—
20	—	—	—	—	—	—	—	—	99	1.2	-1.2	0.2	286	4.7	4.5	-1.3	284	18.6	18.1	-4.4	277	31.1	30.9	-3.6	—	—	—	—
21	—	—	—	—	—	—	—	—	270	0.5	0.5	0.0	283	5.3	5.2	-1.2	284	17.7	17.2	-4.3	288	30.2	28.7	-9.4	—	—	—	—
22	—	—	—	—	—	—	—	—	349	0.5	0.1	-0.5	260	5.4	5.3	0.9	265	22.4	22.3	2.1	270	31.5	31.5	0.1	—	—	—	—
23	—	—	—	—	—	—	—	—	108	0.3	-0.3	0.1	252	4.7	4.5	1.5	258	20.8	20.3	4.3	276	37.4	37.2	-4.2	—	—	—	—
24	—	—	—	—	—	—	—	—	151	1.3	-0.6	1.1	249	5.9	5.5	2.1	263	20.6	20.5	2.4	270	33.5	33.5	0.0	273	41.0	40.9	-2.1
25	—	—	—	—	—	—	—	—	166	0.4	-0.1	0.4	277	5.1	5.1	-0.6	269	16.0	16.0	0.3	279	25.4	25.1	-4.2	272	34.0	34.0	-1.2
26	—	—	—	—	—	—	—	—	180	0.4	0.0	0.4	236	3.4	2.8	1.9	269	20.9	20.9	0.5	286	24.4	23.4	-6.8	305	13.0	10.6	-7.5
27	—	—	—	—	—	—	—	—	319	0.9	0.6	-0.7	258	4.0	3.9	0.8	273	14.6	14.6	-0.8	283	20.4	19.9	-4.5	290	16.8	15.8	-5.8
28	—	—	—	—	—	—	—	—	304	0.4	0.3	-0.2	267	3.8	3.8	0.2	277	20.4	20.2	-2.6	283	22.1	21.5	-5.0	260	21.0	20.7	3.6
29	—	—	—	—	—	—	—	—	252	0.3	0.3	0.1	276	5.5	5.5	-0.6	272	21.2	21.2	-0.9	284	29.6	28.7	-7.1	255	22.0	21.3	5.7
30	—	—	—	—	—	—	—	—	198	0.3	0.1	0.3	275	5.2	5.2	-0.5	271	21.4	21.4	-0.3	270	34.4	34.4	-0.2	271	18.0	18.0	-0.3
31	—	—	—	—	—	—	—	—	8	0.7	-0.1	-0.7	269	4.3	4.3	0.1	271	20.0	20.0	-0.3	275	29.1	29.0	-2.5	242	28.0	24.7	13.1

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	18	0.3	-0.1	-0.3	260	4.7	4.6	0.8	276	20.9	20.8	-2.1	271	31.7	31.7	-0.7	250	29.0	27.3	9.9
2	—	—	—	—	—	—	—	—	225	0.1	0.1	0.1	262	3.5	3.5	0.5	276	19.7	19.6	-2.1	285	29.4	28.5	-7.4	235	20.0	16.4	11.5
3	—	—	—	—	—	—	—	—	321	0.6	0.4	-0.5	263	3.8	3.8	0.5	271	17.4	17.4	-0.2	271	25.6	25.6	-0.4	290	40.0	37.6	-13.7
4	—	—	—	—	—	—	—	—	207	0.4	0.2	0.4	241	4.9	4.3	2.4	270	15.0	15.0	-0.1	280	23.4	23.1	-4.0	261	15.0	14.8	2.3
5	—	—	—	—	—	—	—	—	143	0.5	-0.3	0.4	271	5.5	5.5	-0.1	281	19.6	19.2	-3.7	281	33.8	33.2	-6.3	—	—	—	—
6	—	—	—	—	—	—	—	—	180	0.1	0.0	0.1	274	4.0	4.0	-0.3	279	15.9	15.7	-2.6	275	26.2	26.1	-2.5	—	—	—	—
7	—	—	—	—	342	0.9	0.3	-0.9	146	0.7	-0.4	0.6	273	5.2	5.2	-0.3	278	24.1	23.9	-3.3	278	33.1	32.8	-4.6	—	—	—	—
8	—	—	—	—	—	—	—	—	173	0.8	-0.1	0.8	250	6.9	6.5	2.4	272	24.1	24.1	-0.8	282	30.7	30.0	-6.4	—	—	—	—
9	—	—	—	—	—	—	—	—	207	0.2	0.1	0.2	247	5.9	5.4	2.3	268	21.9	21.9	0.9	268	34.6	34.6	1.0	258	19.0	18.6	4.0
10	—	—	—	—	—	—	—	—	124	0.4	-0.3	0.2	252	6.0	5.7	1.9	279	19.1	18.9	-3.0	284	28.8	27.9	-7.0	273	21.0	21.0	-1.1
11	—	—	—	—	—	—	—	—	124	0.7	-0.6	0.4	246	5.4	4.9	2.2	273	21.6	21.6	-1.0	281	28.5	28.0	-5.2	264	23.0	22.9	2.4
12	—	—	—	—	—	—	—	—	27	0.2	-0.1	-0.2	273	6.7	6.7	-0.4	280	24.3	23.9	-4.3	282	34.8	34.1	-7.1	288	34.4	32.7	-10.7
13	—	—	—	—	—	—	—	—	127	0.5	-0.4	0.3	261	6.8	6.7	1.1	280	24.7	24.3	-4.4	279	31.4	31.0	-4.7	—	—	—	—
14	—	—	—	—	—	—	—	—	129	0.6	-0.5	0.4	250	6.2	5.8	2.1	280	20.2	19.9	-3.5	278	25.5	25.2	-3.7	256	19.0	18.4	4.6
15	—	—	—	—	—	—	—	—	157	0.8	-0.3	0.7	255	6.7	6.5	1.7	276	22.6	22.5	-2.4	285	29.0	28.0	-7.5	—	—	—	—
16	—	—	—	—	—	—	—	—	132	1.3	-1.0	0.9	248	6.2	5.8	2.3	266	19.2	19.2	1.3	269	34.2	34.2	0.8	267	23.0	23.0	1.2
17	—	—	—	—	—	—	—	—	103	0.9	-0.9	0.2	228	6.2	4.6	4.2	252	20.2	19.3	6.1	272	29.6	29.6	-1.0	252	24.0	22.8	7.4
18	—	—	—	—	—	—	—	—	128	1.6	-1.3	1.0	230	4.0	3.1	2.6	260	18.8	18.5	3.2	260	26.8	26.4	4.7	—	—	—	—
19	—	—	—	—	—	—	—	—	185	1.1	0.1	1.1	246	4.8	4.4	2.0	274	19.9	19.9	-1.4	274	26.2	26.1	-2.0	278	31.9	31.6	-4.6
20	—	—	—	—	—	—	—	—	158	0.5	-0.2	0.5	254	6.6	6.4	1.8	275	20.0	19.9	-1.9	273	34.1	34.1	-1.6	320	45.0	28.9	-34.5
21	—	—	—	—	—	—	—	—	117	0.4	-0.4	0.2	226	5.7	4.1	3.9	265	27.5	27.4	2.6	274	31.7	31.6	-2.1	—	—	—	—
22	—	—	—	—	—	—	—	—	144	1.4	-0.8	1.1	230	7.7	5.9	4.9	265	17.4	17.3	1.4	272	35.5	35.5	-1.5	268	34.5	34.5	1.1
23	—	—	—	—	—	—	—	—	135	0.7	-0.5	0.5	252	5.4	5.1	1.7	266	14.0	14.0	1.0	252	19.4	18.4	6.1	247	16.9	15.6	6.6
24	—	—	—	—	—	—	—	—	135	0.6	-0.4	0.4	234	6.2	5.0	3.6	262	21.0	20.8	2.8	275	30.5	30.4	-2.9	—	—	—	—
25	—	—	—	—	163	2.1	-0.6	2.0	149	1.2	-0.6	1.0	248	7.1	6.6	2.7	271	20.7	20.7	-0.3	271	40.9	40.9	-0.8	266	34.4	34.3	2.4
26	—	—	—	—	135	2.0	-1.4	1.4	141	1.4	-0.9	1.1	247	6.0	5.5	2.3	267	17.6	17.6	0.9	260	32.4	31.9	5.4	268	51.0	51.0	1.8
27	—	—	—	—	114	1.0	-0.9	0.4	117	0.4	-0.4	0.2	215	6.3	3.6	5.2	259	18.7	18.3	3.7	266	21.2	21.1	1.6	277	30.2	30.0	-3.5
28	—	—	—	—	—	—	—	—	252	0.3	0.3	0.1	247	4.1	3.8	1.6	270	21.4	21.4	0.0	284	33.9	32.8	-8.4	—	—	—	—
29	—	—	—	—	—	—	—	—	96	1.0	-1.0	0.1	250	4.9	4.6	1.7	263	16.4	16.3	2.0	268	29.9	29.9	1.0	—	—	—	—
30	—	—	—	—	315	0.6	0.4	-0.4	133	1.8	-1.3	1.2	249	5.1	4.8	1.8	260	22.0	21.7	3.8	271	31.5	31.5	-0.5	249	9.0	8.4	3.2

Daily Normals of Upper Air Winds (1971-2000)

SRINAGAR **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	—	—	—	—	—	—	—	—	148	0.9	-0.5	0.8	254	5.4	5.2	1.5	263	23.9	23.7	2.8	274	30.1	30.0	-2.2	242	29.0	25.6	13.6
2	—	—	—	—	148	1.3	-0.7	1.1	153	2.2	-1.0	2.0	240	9.1	7.9	4.5	261	29.1	28.7	4.8	264	40.0	39.8	4.3	257	17.8	17.4	3.9
3	—	—	—	—	135	0.3	-0.2	0.2	174	1.0	-0.1	1.0	235	9.2	7.5	5.3	264	23.8	23.7	2.5	265	37.3	37.1	3.5	—	—	—	—
4	—	—	—	—	108	0.3	-0.3	0.1	150	2.0	-1.0	1.7	240	8.6	7.5	4.3	265	25.8	25.7	2.2	266	39.0	38.9	2.5	253	9.8	9.4	2.9
5	—	—	—	—	157	1.5	-0.6	1.4	151	1.0	-0.5	0.9	229	7.7	5.8	5.0	260	23.0	22.6	4.0	253	37.2	35.6	10.9	273	18.0	18.0	-0.9
6	—	—	—	—	315	0.3	0.2	-0.2	135	1.3	-0.9	0.9	239	6.9	5.9	3.5	267	21.5	21.5	1.1	274	29.1	29.0	-1.8	281	36.0	35.3	-6.9
7	—	—	—	—	90	0.3	-0.3	0.0	133	1.8	-1.3	1.2	251	7.5	7.1	2.5	271	23.7	23.7	-0.5	284	36.4	35.3	-8.9	—	—	—	—
8	—	—	—	—	154	3.0	-1.3	2.7	148	1.3	-0.7	1.1	233	7.2	5.8	4.3	265	26.9	26.8	2.4	273	33.9	33.8	-2.0	268	33.6	33.6	1.4
9	—	—	—	—	—	—	—	—	180	0.1	0.0	0.1	253	7.3	7.0	2.1	262	22.5	22.3	3.2	269	32.8	32.8	0.8	280	16.0	15.8	-2.8
10	—	—	—	—	119	1.0	-0.9	0.5	145	1.2	-0.7	1.0	236	6.6	5.5	3.7	268	23.1	23.1	1.0	275	39.8	39.6	-3.7	—	—	—	—
11	—	—	—	—	—	—	—	—	157	1.3	-0.5	1.2	234	7.8	6.3	4.6	259	21.9	21.5	4.1	269	33.3	33.3	0.8	—	—	—	—
12	—	—	—	—	—	—	—	—	135	0.8	-0.6	0.6	237	6.3	5.3	3.4	265	26.3	26.2	2.2	273	40.3	40.3	-1.8	242	41.0	36.2	19.2
13	—	—	—	—	—	—	—	—	63	0.2	-0.2	-0.1	257	6.2	6.0	1.4	275	28.4	28.3	-2.6	277	26.9	26.7	-3.1	327	11.0	6.0	-9.2
14	—	—	—	—	—	—	—	—	132	1.3	-1.0	0.9	257	8.8	8.6	2.0	276	25.9	25.8	-2.5	272	38.3	38.3	-1.6	—	—	—	—
15	—	—	—	—	—	—	—	—	110	1.2	-1.1	0.4	248	8.2	7.6	3.1	267	25.1	25.1	1.3	267	31.5	31.5	1.6	277	27.7	27.5	-3.2
16	—	—	—	—	—	—	—	—	141	1.4	-0.9	1.1	260	8.9	8.8	1.6	257	25.2	24.5	5.7	269	28.7	28.7	0.3	289	32.0	30.3	-10.4
17	—	—	—	—	—	—	—	—	139	2.3	-1.5	1.7	240	7.0	6.1	3.5	267	24.9	24.9	1.2	264	31.7	31.5	3.4	279	25.5	25.2	-3.9
18	—	—	—	—	—	—	—	—	145	1.9	-1.1	1.6	230	8.9	6.9	5.7	264	21.5	21.4	2.4	271	34.9	34.9	-0.9	277	22.5	22.3	-2.8
19	—	—	—	—	141	0.6	-0.4	0.5	129	1.4	-1.1	0.9	235	7.7	6.3	4.4	266	19.7	19.7	1.4	271	32.9	32.9	-0.8	277	44.9	44.6	-5.2
20	—	—	—	—	—	—	—	—	146	0.7	-0.4	0.6	244	7.0	6.3	3.1	261	20.2	19.9	3.2	266	34.7	34.6	2.6	—	—	—	—
21	—	—	—	—	—	—	—	—	150	2.0	-1.0	1.7	241	7.7	6.8	3.7	264	22.7	22.6	2.4	257	35.5	34.6	7.8	287	37.0	35.4	-10.8
22	—	—	—	—	—	—	—	—	141	2.2	-1.4	1.7	231	10.2	7.9	6.5	256	22.4	21.8	5.3	256	37.0	35.9	9.1	—	—	—	—
23	—	—	—	—	307	1.0	0.8	-0.6	157	1.3	-0.5	1.2	252	6.6	6.3	2.1	263	24.7	24.5	2.8	272	36.3	36.3	-1.1	—	—	—	—
24	—	—	—	—	—	—	—	—	140	2.6	-1.7	2.0	233	5.9	4.7	3.6	260	20.9	20.6	3.8	267	31.8	31.8	1.7	264	15.9	15.8	1.8
25	—	—	—	—	143	0.5	-0.3	0.4	137	1.8	-1.2	1.3	224	7.8	5.5	5.6	252	24.9	23.7	7.6	266	38.6	38.5	2.4	—	—	—	—
26	—	—	—	—	131	2.0	-1.5	1.3	139	2.9	-1.9	2.2	228	7.6	5.6	5.1	244	20.8	18.6	9.2	252	31.7	30.1	9.9	—	—	—	—
27	—	—	—	—	324	1.7	1.0	-1.4	148	1.5	-0.8	1.3	202	6.2	2.3	5.8	255	22.5	21.7	6.0	263	31.1	30.8	4.0	275	27.0	26.9	-2.4
28	—	—	—	—	135	1.0	-0.7	0.7	126	2.6	-2.1	1.5	224	6.1	4.2	4.4	258	23.5	23.0	5.0	264	30.0	29.8	3.2	270	35.0	35.0	0.0
29	—	—	—	—	143	0.5	-0.3	0.4	127	1.0	-0.8	0.6	238	7.7	6.5	4.1	266	23.5	23.4	1.8	275	31.9	31.8	-2.6	276	23.0	22.9	-2.4
30	—	—	—	—	—	—	—	—	127	1.5	-1.2	0.9	215	7.1	4.1	5.8	267	23.8	23.8	1.3	263	37.2	36.9	4.5	—	—	—	—
31	—	—	—	—	—	—	—	—	171	1.2	-0.2	1.2	226	5.8	4.2	4.0	268	24.1	24.1	0.8	266	42.4	42.3	3.2	292	31.0	28.7	-11.6

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	93	1.7	-1.7	0.1	73	2.4	-2.3	-0.7	88	3.1	-3.1	-0.1	87	5.5	-5.5	-0.3	107	1.4	-1.3	0.4	189	6.5	1.0	6.4	85	4.7	-4.7	-0.4
2	71	2.1	-2.0	-0.7	55	1.6	-1.3	-0.9	82	3.4	-3.4	-0.5	82	6.0	-5.9	-0.8	122	3.9	-3.3	2.1	152	5.2	-2.4	4.6	92	5.4	-5.4	0.2
3	72	2.0	-1.9	-0.6	45	1.4	-1.0	-1.0	92	2.7	-2.7	0.1	73	5.9	-5.6	-1.7	125	4.5	-3.7	2.6	164	5.1	-1.4	4.9	80	3.5	-3.4	-0.6
4	120	0.8	-0.7	0.4	90	1.0	-1.0	0.0	74	1.9	-1.8	-0.5	71	5.8	-5.5	-1.9	118	3.8	-3.4	1.8	157	5.2	-2.0	4.8	95	4.9	-4.9	0.4
5	60	1.6	-1.4	-0.8	21	2.2	-0.8	-2.1	58	1.9	-1.6	-1.0	78	5.5	-5.4	-1.1	139	4.3	-2.8	3.2	176	4.5	-0.3	4.5	70	2.7	-2.5	-0.9
6	40	2.5	-1.6	-1.9	39	2.1	-1.3	-1.6	81	2.4	-2.4	-0.4	81	3.0	-3.0	-0.5	166	2.9	-0.7	2.8	171	4.0	-0.6	4.0	152	1.7	-0.8	1.5
7	70	1.2	-1.1	-0.4	60	1.4	-1.2	-0.7	59	1.7	-1.5	-0.9	97	3.4	-3.4	0.4	182	2.3	0.1	2.3	189	5.3	0.8	5.2	262	1.4	1.4	0.2
8	67	2.1	-1.9	-0.8	101	1.6	-1.6	0.3	82	2.9	-2.9	-0.4	95	3.2	-3.2	0.3	169	2.0	-0.4	2.0	201	6.6	2.4	6.1	223	1.8	1.2	1.3
9	51	1.4	-1.1	-0.9	95	1.2	-1.2	0.1	90	2.6	-2.6	0.0	66	4.4	-4.0	-1.8	182	2.9	0.1	2.9	196	5.9	1.6	5.7	107	1.7	-1.6	0.5
10	65	2.3	-2.1	-1.0	27	1.6	-0.7	-1.4	93	2.0	-2.0	0.1	77	4.5	-4.4	-1.0	187	0.8	0.1	0.8	196	4.8	1.3	4.6	92	2.6	-2.6	0.1
11	56	0.7	-0.6	-0.4	84	1.0	-1.0	-0.1	80	1.7	-1.7	-0.3	86	4.1	-4.1	-0.3	219	1.3	0.8	1.0	192	5.3	1.1	5.2	130	4.2	-3.2	2.7
12	108	1.3	-1.2	0.4	36	1.4	-0.8	-1.1	75	1.6	-1.5	-0.4	70	4.0	-3.8	-1.4	176	1.3	-0.1	1.3	178	6.3	-0.2	6.3	99	1.3	-1.3	0.2
13	45	1.0	-0.7	-0.7	48	1.5	-1.1	-1.0	68	2.4	-2.2	-0.9	70	4.9	-4.6	-1.7	222	1.2	0.8	0.9	203	4.4	1.7	4.1	95	4.6	-4.6	0.4
14	61	1.0	-0.9	-0.5	31	1.7	-0.9	-1.5	85	1.2	-1.2	-0.1	75	5.0	-4.8	-1.3	206	3.2	1.4	2.9	161	5.5	-1.8	5.2	130	4.5	-3.4	2.9
15	37	1.0	-0.6	-0.8	66	2.0	-1.8	-0.8	63	0.9	-0.8	-0.4	91	5.2	-5.2	0.1	259	2.1	2.1	0.4	173	8.7	-1.0	8.6	66	3.2	-2.9	-1.3
16	67	1.3	-1.2	-0.5	66	2.0	-1.8	-0.8	88	2.9	-2.9	-0.1	95	3.7	-3.7	0.3	124	1.1	-0.9	0.6	147	6.8	-3.7	5.7	66	2.2	-2.0	-0.9
17	81	0.6	-0.6	-0.1	86	1.5	-1.5	-0.1	110	2.7	-2.5	0.9	91	5.5	-5.5	0.1	127	3.6	-2.9	2.2	158	7.4	-2.8	6.8	93	3.6	-3.6	0.2
18	81	1.9	-1.9	-0.3	83	2.3	-2.3	-0.3	109	2.8	-2.6	0.9	84	4.5	-4.5	-0.5	121	2.7	-2.3	1.4	160	5.2	-1.8	4.9	115	4.7	-4.3	2.0
19	63	2.2	-2.0	-1.0	61	2.5	-2.2	-1.2	88	2.6	-2.6	-0.1	77	5.0	-4.9	-1.1	122	2.2	-1.9	1.2	155	8.0	-3.4	7.2	90	5.6	-5.6	0.0
20	59	0.6	-0.5	-0.3	43	1.6	-1.1	-1.2	60	1.4	-1.2	-0.7	70	3.8	-3.6	-1.3	118	3.0	-2.6	1.4	156	7.4	-3.0	6.8	112	2.9	-2.7	1.1
21	3	2.0	-0.1	-2.0	43	2.6	-1.8	-1.9	56	0.7	-0.6	-0.4	78	5.2	-5.1	-1.1	138	2.8	-1.9	2.1	165	5.5	-1.4	5.3	103	3.5	-3.4	0.8
22	57	1.7	-1.4	-0.9	31	2.7	-1.4	-2.3	79	2.5	-2.5	-0.5	70	5.0	-4.7	-1.7	148	2.2	-1.2	1.9	162	5.9	-1.8	5.6	39	1.4	-0.9	-1.1
23	47	1.6	-1.2	-1.1	52	2.8	-2.2	-1.7	78	3.0	-2.9	-0.6	68	4.6	-4.3	-1.7	164	1.5	-0.4	1.4	166	5.5	-1.3	5.3	88	2.6	-2.6	-0.1
24	63	3.7	-3.3	-1.7	61	3.1	-2.7	-1.5	80	2.7	-2.7	-0.5	79	6.0	-5.9	-1.1	194	0.8	0.2	0.8	166	4.6	-1.1	4.5	23	0.8	-0.3	-0.7
25	61	1.8	-1.6	-0.9	61	2.9	-2.5	-1.4	83	3.2	-3.2	-0.4	84	4.9	-4.9	-0.5	79	1.6	-1.6	-0.3	147	6.4	-3.5	5.3	100	4.5	-4.4	0.8
26	90	1.4	-1.4	0.0	70	2.0	-1.9	-0.7	86	3.0	-3.0	-0.2	87	3.6	-3.6	-0.2	90	0.8	-0.8	0.0	162	4.1	-1.3	3.9	67	0.8	-0.7	-0.3
27	77	1.3	-1.3	-0.3	47	2.2	-1.6	-1.5	70	3.5	-3.3	-1.2	77	3.5	-3.4	-0.8	132	2.7	-2.0	1.8	150	3.8	-1.9	3.3	107	3.8	-3.6	1.1
28	52	1.6	-1.3	-1.0	60	2.4	-2.1	-1.2	92	2.9	-2.9	0.1	70	4.1	-3.9	-1.4	156	1.2	-0.5	1.1	148	5.8	-3.1	4.9	90	3.1	-3.1	0.0
29	59	1.2	-1.0	-0.6	66	2.2	-2.0	-0.9	81	2.5	-2.5	-0.4	69	4.5	-4.2	-1.6	122	1.5	-1.3	0.8	174	5.8	-0.6	5.8	90	0.4	-0.4	0.0
30	57	2.0	-1.7	-1.1	58	2.2	-1.9	-1.2	83	3.4	-3.4	-0.4	79	4.8	-4.7	-0.9	107	2.1	-2.0	0.6	166	5.7	-1.4	5.5	330	1.6	0.8	-1.4
31	48	1.2	-0.9	-0.8	54	2.2	-1.8	-1.3	88	2.9	-2.9	-0.1	73	4.8	-4.6	-1.4	121	0.6	-0.5	0.3	183	3.5	0.2	3.5	130	0.8	-0.6	0.5

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	84	1.0	-1.0	-0.1	48	3.0	-2.2	-2.0	79	1.6	-1.6	-0.3	59	3.9	-3.3	-2.0	112	1.1	-1.0	0.4	220	2.6	1.7	2.0	37	0.5	-0.3	-0.4
2	81	1.8	-1.8	-0.3	72	1.6	-1.5	-0.5	75	3.4	-3.3	-0.9	81	3.3	-3.3	-0.5	288	0.9	0.9	-0.3	185	1.1	0.1	1.1	45	0.3	-0.2	-0.2
3	51	2.2	-1.7	-1.4	61	2.5	-2.2	-1.2	90	2.5	-2.5	0.0	86	3.0	-3.0	-0.2	290	1.2	1.1	-0.4	175	3.2	-0.3	3.2	63	2.2	-2.0	-1.0
4	86	1.4	-1.4	-0.1	68	2.2	-2.0	-0.8	92	3.0	-3.0	0.1	69	1.4	-1.3	-0.5	234	1.4	1.1	0.8	225	3.0	2.1	2.1	80	1.1	-1.1	-0.2
5	58	1.3	-1.1	-0.7	66	2.4	-2.2	-1.0	71	1.8	-1.7	-0.6	57	1.7	-1.4	-0.9	207	0.4	0.2	0.4	177	3.5	-0.2	3.5	294	1.0	0.9	-0.4
6	39	2.1	-1.3	-1.6	49	3.0	-2.3	-2.0	65	2.3	-2.1	-1.0	48	1.3	-1.0	-0.9	162	1.6	-0.5	1.5	171	1.8	-0.3	1.8	88	2.7	-2.7	-0.1
7	72	0.9	-0.9	-0.3	58	2.6	-2.2	-1.4	81	2.0	-2.0	-0.3	51	2.1	-1.6	-1.3	198	3.5	1.1	3.3	225	3.1	2.2	2.2	54	5.2	-4.2	-3.0
8	8	1.5	-0.2	-1.5	58	2.5	-2.1	-1.3	50	1.6	-1.2	-1.0	63	3.7	-3.3	-1.7	230	2.5	1.9	1.6	208	3.4	1.6	3.0	87	3.7	-3.7	-0.2
9	5	1.1	-0.1	-1.1	59	2.3	-2.0	-1.2	62	1.9	-1.7	-0.9	54	2.9	-2.3	-1.7	238	2.5	2.1	1.3	195	3.0	0.8	2.9	79	4.6	-4.5	-0.9
10	14	0.8	-0.2	-0.8	56	2.5	-2.1	-1.4	51	2.1	-1.6	-1.3	63	3.8	-3.4	-1.7	287	1.7	1.6	-0.5	190	3.5	0.6	3.4	55	2.8	-2.3	-1.6
11	24	1.2	-0.5	-1.1	44	3.5	-2.4	-2.5	55	2.8	-2.3	-1.6	55	3.8	-3.1	-2.2	336	1.0	0.4	-0.9	176	5.9	-0.4	5.9	85	3.2	-3.2	-0.3
12	49	2.0	-1.5	-1.3	59	2.9	-2.5	-1.5	66	2.7	-2.5	-1.1	63	3.7	-3.3	-1.7	98	1.5	-1.5	0.2	153	5.6	-2.5	5.0	83	2.3	-2.3	-0.3
13	100	1.1	-1.1	0.2	61	2.6	-2.3	-1.3	80	2.3	-2.3	-0.4	77	3.7	-3.6	-0.8	168	3.0	-0.6	2.9	160	5.4	-1.9	5.1	81	4.4	-4.3	-0.7
14	27	0.4	-0.2	-0.4	37	2.5	-1.5	-2.0	56	1.4	-1.2	-0.8	99	3.2	-3.2	0.5	131	1.8	-1.4	1.2	159	7.3	-2.6	6.8	25	1.4	-0.6	-1.3
15	10	1.1	-0.2	-1.1	48	2.5	-1.9	-1.7	77	2.3	-2.2	-0.5	109	4.6	-4.4	1.5	148	0.9	-0.5	0.8	150	7.0	-3.5	6.1	93	3.6	-3.6	0.2
16	347	1.3	0.3	-1.3	56	3.2	-2.7	-1.8	104	0.8	-0.8	0.2	98	4.3	-4.3	0.6	90	1.9	-1.9	0.0	132	5.9	-4.4	4.0	82	4.3	-4.3	-0.6
17	357	1.8	0.1	-1.8	61	3.1	-2.7	-1.5	90	2.1	-2.1	0.0	90	3.3	-3.3	0.0	93	3.5	-3.5	0.2	133	7.6	-5.6	5.2	87	1.8	-1.8	-0.1
18	358	2.5	0.1	-2.5	59	2.3	-2.0	-1.2	76	3.4	-3.3	-0.8	74	3.3	-3.2	-0.9	110	4.0	-3.8	1.4	119	6.0	-5.2	2.9	58	2.2	-1.9	-1.2
19	24	2.2	-0.9	-2.0	85	2.2	-2.2	-0.2	76	3.0	-2.9	-0.7	92	3.8	-3.8	0.1	105	3.5	-3.4	0.9	123	4.6	-3.9	2.5	29	1.0	-0.5	-0.9
20	347	2.8	0.6	-2.7	79	2.6	-2.6	-0.5	76	2.5	-2.4	-0.6	66	4.4	-4.0	-1.8	86	2.8	-2.8	-0.2	126	5.2	-4.2	3.0	114	1.0	-0.9	0.4
21	29	1.3	-0.6	-1.1	81	3.1	-3.1	-0.5	86	2.6	-2.6	-0.2	74	4.8	-4.6	-1.3	97	3.3	-3.3	0.4	146	6.0	-3.4	5.0	77	3.2	-3.1	-0.7
22	357	1.9	0.1	-1.9	70	2.9	-2.7	-1.0	77	3.5	-3.4	-0.8	70	4.4	-4.1	-1.5	101	2.5	-2.5	0.5	148	4.9	-2.6	4.1	129	2.8	-2.2	1.8
23	54	0.9	-0.7	-0.5	73	3.8	-3.6	-1.1	76	3.4	-3.3	-0.8	74	4.8	-4.6	-1.3	135	1.1	-0.8	0.8	160	3.8	-1.3	3.6	45	2.0	-1.4	-1.4
24	104	1.2	-1.2	0.3	59	3.9	-3.3	-2.0	83	3.8	-3.8	-0.5	83	4.3	-4.3	-0.5	106	1.8	-1.7	0.5	149	3.3	-1.7	2.8	76	3.3	-3.2	-0.8
25	11	1.0	-0.2	-1.0	64	4.1	-3.7	-1.8	78	3.3	-3.2	-0.7	79	4.1	-4.0	-0.8	156	1.7	-0.7	1.6	158	2.4	-0.9	2.2	58	3.2	-2.7	-1.7
26	42	1.2	-0.8	-0.9	56	3.4	-2.8	-1.9	80	3.6	-3.5	-0.6	66	3.9	-3.6	-1.6	140	2.3	-1.5	1.8	192	3.4	0.7	3.3	52	3.4	-2.7	-2.1
27	360	1.9	0.0	-1.9	68	3.1	-2.9	-1.2	64	3.4	-3.1	-1.5	79	4.1	-4.0	-0.8	192	2.4	0.5	2.3	174	3.7	-0.4	3.7	43	2.3	-1.6	-1.7
28	13	1.8	-0.4	-1.8	60	3.0	-2.6	-1.5	67	3.9	-3.6	-1.5	86	2.9	-2.9	-0.2	191	1.6	0.3	1.6	160	3.8	-1.3	3.6	8	2.1	-0.3	-2.1
29	326	0.7	0.4	-0.6	50	5.1	-3.9	-3.3	86	8.1	-8.1	-0.5	84	4.6	-4.6	-0.5	151	3.9	-1.9	3.4	145	6.2	-3.6	5.1	324	1.4	0.8	-1.1

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	55	1.6	-1.3	-0.9	67	4.3	-4.0	-1.7	84	3.7	-3.7	-0.4	74	3.7	-3.6	-1.0	130	1.7	-1.3	1.1	190	1.7	0.3	1.7	81	3.1	-3.1	-0.5
2	31	2.1	-1.1	-1.8	64	3.7	-3.3	-1.6	85	3.2	-3.2	-0.3	72	2.9	-2.8	-0.9	120	1.4	-1.2	0.7	164	4.5	-1.2	4.3	106	1.9	-1.8	0.5
3	51	2.1	-1.6	-1.3	62	4.0	-3.5	-1.9	72	4.7	-4.5	-1.5	79	3.8	-3.7	-0.7	103	0.9	-0.9	0.2	194	4.1	1.0	4.0	79	2.1	-2.1	-0.4
4	54	1.7	-1.4	-1.0	65	3.3	-3.0	-1.4	75	3.9	-3.8	-1.0	63	4.7	-4.2	-2.1	141	1.3	-0.8	1.0	199	4.6	1.5	4.4	97	2.4	-2.4	0.3
5	42	1.2	-0.8	-0.9	71	3.9	-3.7	-1.3	73	4.2	-4.0	-1.2	82	5.1	-5.1	-0.7	191	2.1	0.4	2.1	196	4.7	1.3	4.5	121	0.6	-0.5	0.3
6	62	1.7	-1.5	-0.8	63	3.1	-2.8	-1.4	87	3.8	-3.8	-0.2	81	4.5	-4.4	-0.7	212	1.3	0.7	1.1	184	2.9	0.2	2.9	56	2.7	-2.2	-1.5
7	21	1.4	-0.5	-1.3	65	2.9	-2.6	-1.2	74	4.4	-4.2	-1.2	76	4.2	-4.1	-1.0	239	1.7	1.5	0.9	216	3.6	2.1	2.9	76	1.2	-1.2	-0.3
8	32	1.3	-0.7	-1.1	73	3.1	-3.0	-0.9	77	3.7	-3.6	-0.8	88	3.5	-3.5	-0.1	204	1.2	0.5	1.1	222	2.7	1.8	2.0	85	3.6	-3.6	-0.3
9	360	4.0	0.0	-4.0	57	2.7	-2.3	-1.5	63	4.6	-4.1	-2.1	81	3.2	-3.2	-0.5	218	1.1	0.7	0.9	229	2.3	1.7	1.5	108	0.6	-0.6	0.2
10	2	2.5	-0.1	-2.5	65	3.5	-3.2	-1.5	69	6.5	-6.1	-2.3	84	3.6	-3.6	-0.4	233	1.0	0.8	0.6	223	3.5	2.4	2.6	39	3.3	-2.1	-2.6
11	360	1.8	0.0	-1.8	63	3.9	-3.5	-1.8	78	6.1	-6.0	-1.3	72	3.8	-3.6	-1.2	246	1.2	1.1	0.5	208	4.3	2.0	3.8	81	1.9	-1.9	-0.3
12	9	1.8	-0.3	-1.8	64	3.4	-3.1	-1.5	74	5.4	-5.2	-1.5	77	3.1	-3.0	-0.7	261	1.3	1.3	0.2	195	3.0	0.8	2.9	68	1.6	-1.5	-0.6
13	353	2.3	0.3	-2.3	62	4.1	-3.6	-1.9	74	5.5	-5.3	-1.5	77	2.3	-2.2	-0.5	311	1.1	0.8	-0.7	209	3.8	1.8	3.3	148	1.5	-0.8	1.3
14	357	4.5	0.2	-4.5	54	3.4	-2.8	-2.0	63	4.9	-4.4	-2.2	68	4.0	-3.7	-1.5	251	2.1	2.0	0.7	222	4.7	3.1	3.5	79	3.1	-3.0	-0.6
15	336	2.0	0.8	-1.8	71	3.1	-2.9	-1.0	65	5.5	-5.0	-2.3	68	5.8	-5.4	-2.2	225	1.3	0.9	0.9	218	5.1	3.1	4.0	85	2.5	-2.5	-0.2
16	354	2.8	0.3	-2.8	77	3.2	-3.1	-0.7	72	6.2	-5.9	-1.9	78	7.4	-7.2	-1.5	216	1.4	0.8	1.1	219	5.5	3.5	4.3	90	4.8	-4.8	0.0
17	29	1.8	-0.9	-1.6	60	3.4	-2.9	-1.7	77	5.7	-5.5	-1.3	80	5.2	-5.1	-0.9	217	2.6	1.6	2.1	194	4.5	1.1	4.4	110	2.3	-2.2	0.8
18	345	2.4	0.6	-2.3	63	2.8	-2.5	-1.3	77	6.8	-6.6	-1.5	87	4.1	-4.1	-0.2	198	3.3	1.0	3.1	198	4.8	1.5	4.6	91	3.9	-3.9	0.1
19	18	2.2	-0.7	-2.1	62	3.4	-3.0	-1.6	66	8.1	-7.4	-3.3	71	4.0	-3.8	-1.3	198	2.5	0.8	2.4	195	4.8	1.2	4.6	149	2.1	-1.1	1.8
20	3	1.9	-0.1	-1.9	60	3.2	-2.8	-1.6	68	8.7	-8.0	-3.3	61	4.3	-3.8	-2.1	207	2.2	1.0	2.0	210	4.0	2.0	3.5	109	2.1	-2.0	0.7
21	357	1.7	0.1	-1.7	57	3.0	-2.5	-1.6	71	9.4	-8.9	-3.1	63	4.5	-4.0	-2.0	223	2.5	1.7	1.8	216	4.6	2.7	3.7	60	5.1	-4.4	-2.5
22	354	2.9	0.3	-2.9	63	3.4	-3.0	-1.5	65	8.8	-8.0	-3.7	85	3.7	-3.7	-0.3	229	1.8	1.4	1.2	170	3.5	-0.6	3.4	83	3.3	-3.3	-0.4
23	344	1.5	0.4	-1.4	63	3.8	-3.4	-1.7	73	7.7	-7.4	-2.3	66	3.7	-3.4	-1.5	241	4.9	4.3	2.4	217	6.1	3.7	4.9	80	1.7	-1.7	-0.3
24	321	2.6	1.6	-2.0	55	2.9	-2.4	-1.7	77	6.7	-6.5	-1.5	77	3.5	-3.4	-0.8	235	4.0	3.3	2.3	215	6.7	3.8	5.5	45	0.4	-0.3	-0.3
25	333	2.8	1.3	-2.5	68	2.7	-2.5	-1.0	67	6.6	-6.1	-2.6	76	2.5	-2.4	-0.6	234	3.9	3.2	2.3	226	7.6	5.5	5.3	100	1.1	-1.1	0.2
26	340	4.0	1.4	-3.8	38	2.3	-1.4	-1.8	66	7.3	-6.7	-3.0	90	1.7	-1.7	0.0	214	4.6	2.6	3.8	227	6.9	5.1	4.7	280	1.7	1.7	-0.3
27	329	3.7	1.9	-3.2	56	2.9	-2.4	-1.6	65	6.6	-6.0	-2.8	83	3.1	-3.1	-0.4	215	3.7	2.1	3.0	244	6.6	5.9	2.9	82	2.1	-2.1	-0.3
28	339	4.5	1.6	-4.2	51	3.3	-2.6	-2.1	58	6.1	-5.2	-3.2	89	3.9	-3.9	-0.1	229	1.1	0.8	0.7	224	3.7	2.6	2.7	87	2.1	-2.1	-0.1
29	348	3.0	0.6	-2.9	69	3.1	-2.9	-1.1	66	6.7	-6.1	-2.7	74	3.7	-3.6	-1.0	360	0.1	0.0	-0.1	219	4.5	2.8	3.5	30	1.6	-0.8	-1.4
30	347	2.6	0.6	-2.5	65	3.1	-2.8	-1.3	63	7.2	-6.4	-3.2	83	4.8	-4.8	-0.6	180	1.0	0.0	1.0	200	3.5	1.2	3.3	292	0.5	0.5	-0.2
31	346	3.6	0.9	-3.5	37	3.0	-1.8	-2.4	61	6.5	-5.7	-3.1	88	3.8	-3.8	-0.1	177	4.3	-0.2	4.3	204	3.6	1.5	3.3	68	0.5	-0.5	-0.2

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	337	4.6	1.8	-4.2	54	2.2	-1.8	-1.3	60	7.3	-6.3	-3.7	73	4.1	-3.9	-1.2	222	3.1	2.1	2.3	185	5.5	0.5	5.5	77	3.5	-3.4	-0.8
2	335	3.8	1.6	-3.4	42	2.5	-1.7	-1.9	65	6.6	-6.0	-2.8	77	4.1	-4.0	-0.9	219	2.8	1.8	2.2	201	5.9	2.1	5.5	48	1.3	-1.0	-0.9
3	358	2.4	0.1	-2.4	50	2.5	-1.9	-1.6	71	6.8	-6.4	-2.2	92	3.3	-3.3	0.1	213	2.4	1.3	2.0	193	5.5	1.2	5.4	61	4.1	-3.6	-2.0
4	30	0.8	-0.4	-0.7	51	2.7	-2.1	-1.7	70	6.8	-6.4	-2.3	84	3.1	-3.1	-0.3	199	2.8	0.9	2.6	196	6.4	1.8	6.1	81	4.5	-4.4	-0.7
5	342	2.0	0.6	-1.9	55	1.9	-1.6	-1.1	73	6.4	-6.1	-1.9	95	3.5	-3.5	0.3	200	3.0	1.0	2.8	179	4.6	-0.1	4.6	100	5.2	-5.1	0.9
6	331	2.3	1.1	-2.0	63	2.8	-2.5	-1.3	68	6.4	-5.9	-2.4	76	3.8	-3.7	-0.9	175	1.1	-0.1	1.1	171	3.8	-0.6	3.8	87	3.6	-3.6	-0.2
7	345	2.8	0.7	-2.7	63	2.2	-2.0	-1.0	70	7.2	-6.7	-2.5	82	4.4	-4.4	-0.6	132	1.5	-1.1	1.0	173	3.5	-0.4	3.5	87	4.3	-4.3	-0.2
8	328	1.9	1.0	-1.6	27	2.2	-1.0	-2.0	73	7.4	-7.1	-2.2	83	3.3	-3.3	-0.4	96	2.0	-2.0	0.2	158	2.9	-1.1	2.7	78	4.5	-4.4	-0.9
9	330	3.6	1.8	-3.1	25	1.9	-0.8	-1.7	63	7.5	-6.7	-3.4	78	3.9	-3.8	-0.8	117	2.0	-1.8	0.9	163	2.8	-0.8	2.7	87	3.3	-3.3	-0.2
10	311	3.5	2.6	-2.3	38	1.6	-1.0	-1.3	66	7.7	-7.0	-3.1	79	5.3	-5.2	-1.0	120	1.6	-1.4	0.8	160	3.2	-1.1	3.0	81	4.9	-4.8	-0.8
11	321	3.5	2.2	-2.7	18	1.6	-0.5	-1.5	59	7.9	-6.8	-4.1	76	5.3	-5.1	-1.3	97	3.3	-3.3	0.4	143	4.1	-2.5	3.3	91	6.1	-6.1	0.1
12	315	4.2	3.0	-3.0	5	2.2	-0.2	-2.2	65	7.8	-7.1	-3.3	91	4.8	-4.8	0.1	94	3.2	-3.2	0.2	127	3.0	-2.4	1.8	97	5.7	-5.7	0.7
13	331	3.9	1.9	-3.4	25	2.1	-0.9	-1.9	63	7.0	-6.2	-3.2	92	3.5	-3.5	0.1	137	2.6	-1.8	1.9	129	4.9	-3.8	3.1	87	4.2	-4.2	-0.2
14	314	3.7	2.7	-2.6	360	1.3	0.0	-1.3	72	7.2	-6.9	-2.2	77	3.5	-3.4	-0.8	137	1.9	-1.3	1.4	177	4.3	-0.2	4.3	76	3.3	-3.2	-0.8
15	329	3.5	1.8	-3.0	360	1.8	0.0	-1.8	62	7.7	-6.8	-3.6	77	4.1	-4.0	-0.9	174	1.0	-0.1	1.0	166	3.2	-0.8	3.1	88	3.8	-3.8	-0.1
16	328	4.5	2.4	-3.8	13	2.2	-0.5	-2.1	70	6.4	-6.0	-2.2	74	4.4	-4.2	-1.2	215	1.2	0.7	1.0	207	2.8	1.3	2.5	98	4.4	-4.4	0.6
17	329	5.2	2.7	-4.5	10	2.7	-0.5	-2.7	64	7.2	-6.5	-3.2	86	4.1	-4.1	-0.3	180	2.0	0.0	2.0	194	3.4	0.8	3.3	90	3.8	-3.8	0.0
18	318	4.0	2.7	-3.0	357	1.9	0.1	-1.9	67	7.5	-6.9	-2.9	77	3.5	-3.4	-0.8	238	1.3	1.1	0.7	183	5.4	0.3	5.4	60	1.4	-1.2	-0.7
19	310	3.3	2.5	-2.1	360	2.4	0.0	-2.4	70	8.3	-7.8	-2.9	83	3.5	-3.5	-0.4	216	3.6	2.1	2.9	193	6.4	1.4	6.2	61	2.6	-2.3	-1.3
20	319	3.8	2.5	-2.9	3	2.1	-0.1	-2.1	56	7.5	-6.2	-4.2	90	4.1	-4.1	0.0	232	3.6	2.8	2.2	205	6.5	2.7	5.9	105	3.4	-3.3	0.9
21	319	4.5	3.0	-3.4	350	1.7	0.3	-1.7	66	7.0	-6.4	-2.9	78	4.5	-4.4	-0.9	248	2.2	2.0	0.8	200	6.3	2.1	5.9	100	4.1	-4.0	0.7
22	324	4.9	2.9	-4.0	344	3.2	0.9	-3.1	58	7.2	-6.1	-3.8	85	3.2	-3.2	-0.3	245	2.1	1.9	0.9	218	5.3	3.3	4.2	78	3.0	-2.9	-0.6
23	320	4.5	2.9	-3.4	345	2.8	0.7	-2.7	57	7.0	-5.9	-3.8	74	2.2	-2.1	-0.6	263	4.7	4.7	0.6	219	5.0	3.2	3.9	86	5.7	-5.7	-0.4
24	325	4.5	2.6	-3.7	355	2.1	0.2	-2.1	54	6.8	-5.5	-4.0	84	1.8	-1.8	-0.2	246	3.9	3.6	1.6	218	5.5	3.4	4.3	87	5.8	-5.8	-0.3
25	322	3.6	2.2	-2.8	333	1.1	0.5	-1.0	66	6.4	-5.8	-2.6	76	0.8	-0.8	-0.2	258	4.5	4.4	0.9	205	4.7	2.0	4.2	92	2.8	-2.8	0.1
26	339	2.6	0.9	-2.4	346	2.1	0.5	-2.0	56	7.0	-5.8	-3.9	58	1.9	-1.6	-1.0	209	2.3	1.1	2.0	168	4.0	-0.8	3.9	78	4.2	-4.1	-0.9
27	354	2.0	0.2	-2.0	337	2.1	0.8	-1.9	58	5.8	-4.9	-3.1	27	2.8	-1.3	-2.5	246	1.2	1.1	0.5	191	4.8	0.9	4.7	93	6.4	-6.4	0.3
28	331	4.7	2.3	-4.1	347	2.3	0.5	-2.2	80	6.3	-6.2	-1.1	63	2.8	-2.5	-1.3	254	1.8	1.7	0.5	178	3.0	-0.1	3.0	94	6.4	-6.4	0.5
29	321	5.4	3.4	-4.2	329	2.6	1.3	-2.2	65	5.4	-4.9	-2.3	61	2.6	-2.3	-1.3	272	2.3	2.3	-0.1	189	2.6	0.4	2.6	91	7.3	-7.3	0.1
30	315	4.9	3.5	-3.5	313	2.5	1.8	-1.7	63	5.1	-4.6	-2.3	55	2.9	-2.4	-1.7	288	1.3	1.2	-0.4	161	3.4	-1.1	3.2	95	8.7	-8.7	0.8

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	316	4.3	3.0	-3.1	325	3.3	1.9	-2.7	59	5.5	-4.7	-2.8	45	2.5	-1.8	-1.8	256	1.2	1.2	0.3	148	1.5	-0.8	1.3	99	5.6	-5.5	0.9
2	325	5.7	3.3	-4.7	334	3.4	1.5	-3.1	56	5.0	-4.2	-2.8	32	2.2	-1.2	-1.9	194	0.4	0.1	0.4	122	4.6	-3.9	2.4	99	7.8	-7.7	1.2
3	321	4.1	2.6	-3.2	323	3.6	2.2	-2.9	69	6.9	-6.4	-2.5	70	2.3	-2.2	-0.8	90	1.0	-1.0	0.0	118	3.2	-2.8	1.5	97	7.7	-7.6	0.9
4	324	4.6	2.7	-3.7	321	3.8	2.4	-3.0	58	6.6	-5.6	-3.5	76	1.6	-1.6	-0.4	129	1.4	-1.1	0.9	130	5.2	-4.0	3.3	87	8.8	-8.8	-0.4
5	316	3.7	2.6	-2.7	317	3.8	2.6	-2.8	50	5.1	-3.9	-3.3	103	1.7	-1.7	0.4	121	1.7	-1.5	0.9	116	6.2	-5.6	2.7	96	6.3	-6.3	0.7
6	300	3.2	2.8	-1.6	309	3.6	2.8	-2.3	53	5.9	-4.7	-3.6	57	1.7	-1.4	-0.9	70	1.5	-1.4	-0.5	136	3.0	-2.1	2.2	83	9.4	-9.3	-1.1
7	300	3.0	2.6	-1.5	323	3.5	2.1	-2.8	58	4.6	-3.9	-2.4	65	2.1	-1.9	-0.9	85	1.2	-1.2	-0.1	125	4.5	-3.7	2.6	89	8.8	-8.8	-0.1
8	294	4.6	4.2	-1.9	314	3.7	2.7	-2.6	65	6.3	-5.7	-2.7	67	2.6	-2.4	-1.0	122	2.2	-1.9	1.2	126	3.2	-2.6	1.9	93	9.1	-9.1	0.5
9	319	6.0	3.9	-4.5	323	4.5	2.7	-3.6	58	6.0	-5.1	-3.2	87	2.2	-2.2	-0.1	96	2.9	-2.9	0.3	105	6.1	-5.9	1.6	96	9.0	-9.0	0.9
10	308	6.7	5.3	-4.1	310	6.2	4.8	-4.0	50	5.2	-4.0	-3.4	41	2.0	-1.3	-1.5	146	2.2	-1.2	1.8	108	5.8	-5.5	1.8	92	11.2	-11.2	0.4
11	314	7.1	5.1	-4.9	310	5.2	4.0	-3.3	51	4.0	-3.1	-2.5	14	1.2	-0.3	-1.2	130	0.8	-0.6	0.5	120	4.6	-4.0	2.3	95	9.8	-9.8	0.9
12	311	6.4	4.8	-4.2	302	4.7	4.0	-2.5	54	4.9	-4.0	-2.9	20	1.5	-0.5	-1.4	159	1.7	-0.6	1.6	124	6.2	-5.1	3.5	92	10.1	-10.1	0.4
13	313	7.1	5.2	-4.8	311	4.4	3.3	-2.9	50	4.8	-3.7	-3.1	75	1.1	-1.1	-0.3	137	2.5	-1.7	1.8	115	6.7	-6.1	2.8	93	11.7	-11.7	0.6
14	309	5.4	4.2	-3.4	301	5.4	4.6	-2.8	50	3.9	-3.0	-2.5	45	0.7	-0.5	-0.5	129	1.4	-1.1	0.9	107	6.8	-6.5	2.0	95	12.8	-12.8	1.1
15	311	6.2	4.7	-4.1	304	5.0	4.1	-2.8	52	2.8	-2.2	-1.7	220	0.8	0.5	0.6	79	1.6	-1.6	-0.3	92	6.5	-6.5	0.2	97	12.2	-12.1	1.4
16	297	6.1	5.4	-2.8	292	5.0	4.6	-1.9	53	1.5	-1.2	-0.9	260	1.7	1.7	0.3	107	1.7	-1.6	0.5	97	6.2	-6.1	0.8	91	10.4	-10.4	0.2
17	317	7.6	5.2	-5.5	302	5.3	4.5	-2.8	47	2.1	-1.5	-1.4	180	1.1	0.0	1.1	96	0.9	-0.9	0.1	114	7.0	-6.4	2.8	102	9.3	-9.1	2.0
18	305	7.8	6.4	-4.4	303	6.1	5.1	-3.3	41	1.8	-1.2	-1.4	72	0.6	-0.6	-0.2	119	2.6	-2.3	1.3	98	8.5	-8.4	1.2	86	8.8	-8.8	-0.6
19	313	9.3	6.8	-6.4	297	7.1	6.3	-3.2	20	2.7	-0.9	-2.5	349	2.0	0.4	-2.0	105	2.4	-2.3	0.6	99	7.9	-7.8	1.3	88	12.2	-12.2	-0.4
20	313	8.6	6.3	-5.8	304	7.6	6.3	-4.2	6	3.0	-0.3	-3.0	357	2.0	0.1	-2.0	108	1.6	-1.5	0.5	104	6.5	-6.3	1.6	97	11.8	-11.7	1.5
21	321	8.3	5.2	-6.5	307	7.4	5.9	-4.4	34	2.9	-1.6	-2.4	315	1.1	0.8	-0.8	117	1.8	-1.6	0.8	99	7.6	-7.5	1.2	100	12.2	-12.0	2.1
22	321	7.6	4.8	-5.9	304	6.9	5.7	-3.9	47	2.1	-1.5	-1.4	297	1.1	1.0	-0.5	106	2.2	-2.1	0.6	98	6.3	-6.2	0.9	84	10.3	-10.2	-1.1
23	310	6.8	5.2	-4.4	303	5.9	5.0	-3.2	45	2.0	-1.4	-1.4	310	2.5	1.9	-1.6	85	1.2	-1.2	-0.1	102	7.9	-7.7	1.6	95	10.3	-10.3	0.9
24	314	7.6	5.4	-5.3	296	6.9	6.2	-3.0	34	1.1	-0.6	-0.9	315	2.0	1.4	-1.4	29	1.8	-0.9	-1.6	100	7.3	-7.2	1.3	92	15.0	-15.0	0.4
25	309	8.2	6.4	-5.2	301	7.1	6.1	-3.6	13	1.8	-0.4	-1.8	288	1.6	1.5	-0.5	85	1.2	-1.2	-0.1	95	9.0	-9.0	0.8	100	15.4	-15.2	2.6
26	309	6.2	4.8	-3.9	292	7.4	6.8	-2.8	338	1.6	0.6	-1.5	307	2.0	1.6	-1.2	63	2.2	-2.0	-1.0	100	9.6	-9.4	1.7	89	14.5	-14.5	-0.2
27	310	8.5	6.5	-5.4	296	7.6	6.9	-3.3	327	2.0	1.1	-1.7	293	1.3	1.2	-0.5	76	3.0	-2.9	-0.7	95	11.0	-11.0	1.0	87	17.9	-17.9	-0.9
28	298	7.6	6.7	-3.5	292	7.1	6.6	-2.6	333	2.0	0.9	-1.8	360	0.8	0.0	-0.8	96	1.9	-1.9	0.2	95	8.5	-8.5	0.7	95	17.4	-17.3	1.6
29	305	7.6	6.2	-4.4	296	7.9	7.1	-3.4	291	2.8	2.6	-1.0	287	1.7	1.6	-0.5	126	1.7	-1.4	1.0	104	9.0	-8.7	2.2	89	14.5	-14.5	-0.3
30	313	8.1	6.0	-5.5	294	8.0	7.3	-3.3	298	1.5	1.3	-0.7	265	1.2	1.2	0.1	87	2.2	-2.2	-0.1	91	8.4	-8.4	0.2	93	17.7	-17.7	1.0
31	311	8.0	6.0	-5.3	292	8.1	7.5	-3.0	274	2.9	2.9	-0.2	266	1.4	1.4	0.1	61	1.0	-0.9	-0.5	88	9.7	-9.7	-0.4	88	18.7	-18.7	-0.6

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	309	9.2	7.2	-5.8	289	8.2	7.7	-2.7	292	5.1	4.7	-1.9	258	1.9	1.9	0.4	96	2.8	-2.8	0.3	90	11.7	-11.7	0.1	93	22.4	-22.4	1.1
2	303	8.7	7.3	-4.8	291	8.5	7.9	-3.1	283	5.4	5.3	-1.2	300	2.2	1.9	-1.1	85	4.7	-4.7	-0.4	84	12.6	-12.5	-1.4	86	21.0	-20.9	-1.6
3	304	8.7	7.2	-4.9	288	10.4	9.9	-3.2	281	5.6	5.5	-1.1	268	2.6	2.6	0.1	63	4.4	-3.9	-2.0	77	12.2	-11.9	-2.8	92	22.0	-22.0	0.6
4	295	8.2	7.4	-3.5	288	10.2	9.7	-3.1	277	5.6	5.6	-0.7	265	2.2	2.2	0.2	65	4.1	-3.7	-1.7	93	12.7	-12.7	0.6	92	21.0	-21.0	0.6
5	297	7.4	6.6	-3.3	288	10.8	10.3	-3.3	278	7.2	7.1	-1.0	261	3.7	3.7	0.6	88	3.0	-3.0	-0.1	77	11.1	-10.8	-2.4	89	21.3	-21.3	-0.2
6	282	8.8	8.6	-1.9	283	12.3	12.0	-2.7	272	9.2	9.2	-0.4	272	3.0	3.0	-0.1	71	5.4	-5.1	-1.8	82	13.7	-13.6	-2.0	92	20.0	-20.0	0.8
7	287	9.6	9.2	-2.9	287	12.6	12.0	-3.7	273	8.5	8.5	-0.4	286	4.7	4.5	-1.3	58	5.1	-4.3	-2.7	76	14.9	-14.4	-3.7	84	17.7	-17.6	-1.8
8	299	10.4	9.1	-5.0	291	12.6	11.7	-4.6	282	9.4	9.2	-2.0	275	3.8	3.8	-0.3	60	5.4	-4.7	-2.7	78	16.0	-15.7	-3.2	89	23.7	-23.7	-0.3
9	305	11.6	9.6	-6.6	294	12.0	11.0	-4.9	283	9.6	9.3	-2.2	286	4.1	3.9	-1.1	70	7.2	-6.8	-2.5	82	18.1	-17.9	-2.6	90	21.2	-21.2	-0.1
10	302	10.8	9.2	-5.7	297	12.9	11.5	-5.8	288	9.9	9.4	-3.1	301	3.5	3.0	-1.8	74	5.5	-5.3	-1.5	91	16.8	-16.8	0.2	92	22.2	-22.2	0.6
11	302	10.3	8.8	-5.4	296	13.1	11.8	-5.7	285	9.1	8.8	-2.3	297	5.1	4.5	-2.3	78	4.7	-4.6	-1.0	80	19.3	-19.0	-3.2	88	23.4	-23.4	-0.9
12	300	11.7	10.1	-5.9	296	12.8	11.5	-5.6	288	10.5	10.0	-3.2	280	5.3	5.2	-0.9	80	4.2	-4.1	-0.7	83	19.3	-19.1	-2.4	89	21.2	-21.2	-0.3
13	304	12.7	10.5	-7.1	295	13.5	12.2	-5.8	285	10.7	10.4	-2.7	279	3.8	3.8	-0.6	65	6.5	-5.9	-2.8	80	19.4	-19.1	-3.4	90	23.0	-23.0	0.1
14	297	12.1	10.8	-5.4	293	13.6	12.5	-5.4	284	12.1	11.7	-3.0	289	4.3	4.1	-1.4	76	6.7	-6.5	-1.6	79	19.5	-19.2	-3.6	88	23.5	-23.5	-1.0
15	300	10.5	9.1	-5.3	289	14.2	13.4	-4.6	274	11.7	11.7	-0.8	271	4.0	4.0	-0.1	79	7.6	-7.5	-1.4	79	18.7	-18.3	-3.6	88	24.0	-24.0	-0.8
16	291	9.4	8.8	-3.3	283	13.0	12.7	-3.0	278	12.8	12.7	-1.8	267	4.2	4.2	0.2	65	6.3	-5.7	-2.7	78	18.7	-18.3	-3.9	88	24.1	-24.1	-0.7
17	288	10.9	10.4	-3.4	286	14.2	13.6	-4.0	278	12.4	12.3	-1.8	277	5.2	5.2	-0.6	64	6.9	-6.2	-3.0	81	18.9	-18.7	-2.9	87	25.7	-25.7	-1.4
18	294	9.4	8.6	-3.8	285	14.3	13.8	-3.7	280	12.7	12.5	-2.1	270	5.2	5.2	0.0	68	8.0	-7.4	-3.0	77	20.7	-20.1	-4.8	85	26.3	-26.2	-2.4
19	292	9.4	8.7	-3.6	289	15.0	14.2	-4.9	278	13.6	13.5	-2.0	276	4.4	4.4	-0.5	74	7.8	-7.5	-2.1	83	21.9	-21.7	-2.6	87	22.5	-22.5	-1.0
20	300	9.3	8.0	-4.7	293	14.2	13.0	-5.6	284	12.8	12.4	-3.2	272	5.3	5.3	-0.2	65	6.3	-5.7	-2.6	83	22.7	-22.5	-2.8	84	24.1	-24.0	-2.5
21	297	8.9	7.9	-4.0	294	13.3	12.2	-5.4	284	10.9	10.6	-2.7	274	4.1	4.1	-0.3	72	7.6	-7.2	-2.3	82	22.5	-22.3	-3.1	85	23.6	-23.5	-2.0
22	303	9.9	8.3	-5.4	298	14.0	12.3	-6.6	287	11.4	10.9	-3.4	277	4.3	4.3	-0.5	90	7.1	-7.1	0.0	82	23.0	-22.8	-3.2	83	24.7	-24.5	-3.1
23	306	9.9	8.0	-5.9	295	14.6	13.3	-6.1	278	11.0	10.9	-1.6	282	4.2	4.1	-0.9	89	7.5	-7.5	-0.1	81	24.1	-23.8	-3.9	84	25.6	-25.4	-2.8
24	305	9.5	7.8	-5.5	289	13.3	12.6	-4.3	282	10.3	10.1	-2.1	263	3.1	3.1	0.4	83	8.3	-8.2	-1.0	82	24.0	-23.7	-3.5	86	27.1	-27.0	-1.9
25	310	9.9	7.6	-6.4	292	13.9	12.8	-5.3	283	10.6	10.3	-2.3	257	4.1	4.0	0.9	73	6.4	-6.1	-1.9	85	23.6	-23.5	-2.0	88	27.4	-27.4	-0.8
26	314	11.0	7.9	-7.6	294	12.9	11.8	-5.2	279	10.7	10.6	-1.7	269	4.8	4.8	0.1	54	5.9	-4.8	-3.5	84	22.5	-22.4	-2.3	90	26.9	-26.9	-0.1
27	307	11.2	9.0	-6.7	288	13.2	12.5	-4.1	277	12.5	12.4	-1.5	276	4.5	4.5	-0.5	73	5.1	-4.9	-1.5	82	23.0	-22.8	-3.3	89	27.7	-27.7	-0.3
28	303	11.5	9.6	-6.3	291	13.0	12.1	-4.7	277	11.7	11.6	-1.4	271	4.9	4.9	-0.1	84	6.6	-6.6	-0.7	82	24.7	-24.5	-3.4	88	23.5	-23.5	-0.7
29	300	10.7	9.3	-5.3	291	13.0	12.1	-4.7	278	11.0	10.9	-1.6	273	3.7	3.7	-0.2	73	6.6	-6.3	-1.9	86	22.8	-22.7	-1.7	82	24.0	-23.8	-3.4
30	298	11.8	10.4	-5.6	290	14.0	13.2	-4.8	281	11.2	11.0	-2.2	268	2.9	2.9	0.1	80	7.4	-7.3	-1.3	82	24.0	-23.7	-3.5	81	25.0	-24.7	-3.8

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	299	13.7	12.0	-6.6	295	13.9	12.6	-5.8	285	11.2	10.8	-2.9	270	2.8	2.8	0.0	80	7.7	-7.6	-1.4	82	23.9	-23.6	-3.5	88	26.6	-26.6	-0.7
2	303	12.9	10.8	-7.1	296	14.4	12.9	-6.3	283	11.4	11.1	-2.6	264	3.1	3.1	0.3	81	7.1	-7.0	-1.1	82	22.1	-21.9	-3.1	88	27.7	-27.7	-1.0
3	309	12.1	9.4	-7.6	299	12.1	10.6	-5.9	282	10.2	10.0	-2.1	263	2.4	2.4	0.3	88	10.5	-10.5	-0.3	83	25.1	-24.9	-3.1	88	28.6	-28.6	-0.8
4	311	10.8	8.2	-7.1	298	12.0	10.6	-5.7	286	9.1	8.8	-2.5	288	2.2	2.1	-0.7	88	7.3	-7.3	-0.3	86	24.4	-24.3	-1.7	89	22.9	-22.9	-0.5
5	311	10.6	8.0	-7.0	299	12.4	10.8	-6.1	285	9.1	8.8	-2.4	281	2.0	2.0	-0.4	85	8.7	-8.7	-0.7	85	24.2	-24.1	-2.3	87	23.9	-23.9	-1.1
6	315	10.8	7.6	-7.7	300	12.0	10.4	-5.9	285	8.8	8.5	-2.3	289	1.8	1.7	-0.6	93	10.6	-10.6	0.6	81	25.2	-24.9	-4.1	89	25.1	-25.1	-0.4
7	308	12.0	9.4	-7.4	296	12.7	11.4	-5.5	276	11.0	10.9	-1.2	297	1.8	1.6	-0.8	78	9.3	-9.1	-2.0	84	24.6	-24.5	-2.7	86	23.4	-23.4	-1.5
8	301	12.4	10.6	-6.4	296	13.1	11.8	-5.8	283	11.1	10.8	-2.5	293	2.6	2.4	-1.0	74	8.5	-8.2	-2.4	82	24.5	-24.3	-3.3	87	24.6	-24.6	-1.1
9	308	11.8	9.3	-7.3	298	14.2	12.5	-6.7	283	11.3	11.0	-2.5	268	2.8	2.8	0.1	85	11.4	-11.4	-1.0	83	23.3	-23.1	-2.8	89	26.6	-26.6	-0.5
10	303	12.0	10.0	-6.6	297	12.8	11.4	-5.8	284	9.6	9.3	-2.4	258	2.9	2.8	0.6	83	9.4	-9.3	-1.2	83	23.9	-23.7	-3.0	92	21.2	-21.2	0.7
11	298	11.1	9.8	-5.2	296	13.1	11.7	-5.8	286	11.7	11.2	-3.3	283	3.6	3.5	-0.8	86	10.6	-10.6	-0.7	81	25.0	-24.7	-4.1	88	23.1	-23.1	-0.9
12	307	12.5	10.0	-7.5	297	14.1	12.5	-6.5	286	10.9	10.5	-3.0	312	1.3	1.0	-0.9	81	8.5	-8.4	-1.4	80	24.3	-23.9	-4.4	89	22.9	-22.9	-0.3
13	303	13.4	11.2	-7.4	299	14.9	13.1	-7.2	286	12.3	11.8	-3.3	281	2.6	2.6	-0.5	83	8.9	-8.8	-1.1	79	20.8	-20.4	-4.0	87	24.3	-24.3	-1.3
14	306	12.9	10.4	-7.6	299	14.3	12.5	-6.9	290	11.5	10.8	-4.0	273	3.7	3.7	-0.2	89	8.6	-8.6	-0.1	84	23.0	-22.9	-2.3	85	24.8	-24.7	-2.2
15	306	14.3	11.6	-8.3	301	15.9	13.6	-8.3	287	11.7	11.2	-3.5	270	3.6	3.6	0.0	75	9.0	-8.7	-2.4	82	24.1	-23.9	-3.2	84	26.6	-26.5	-2.6
16	300	11.8	10.2	-6.0	298	14.7	13.0	-6.8	289	11.2	10.6	-3.6	280	4.8	4.7	-0.8	77	6.6	-6.4	-1.5	82	22.9	-22.7	-3.3	84	27.1	-27.0	-2.6
17	308	13.8	10.9	-8.4	299	15.5	13.5	-7.6	287	12.1	11.5	-3.6	288	3.6	3.4	-1.1	89	7.1	-7.1	-0.1	81	20.7	-20.5	-3.1	87	29.3	-29.3	-1.6
18	308	12.8	10.1	-7.8	299	16.2	14.1	-7.9	289	11.3	10.7	-3.6	286	2.2	2.1	-0.6	93	9.6	-9.6	0.5	82	22.7	-22.5	-3.1	86	27.5	-27.4	-1.9
19	298	9.7	8.5	-4.6	301	13.4	11.5	-6.9	288	9.2	8.7	-2.9	312	2.5	1.9	-1.7	92	9.7	-9.7	0.4	87	24.5	-24.5	-1.1	88	21.7	-21.7	-0.9
20	309	13.2	10.2	-8.4	302	14.7	12.5	-7.7	296	8.8	7.9	-3.8	308	1.1	0.9	-0.7	96	9.5	-9.4	1.0	87	25.3	-25.3	-1.5	84	24.6	-24.5	-2.4
21	303	12.1	10.1	-6.6	300	13.5	11.7	-6.8	292	9.5	8.8	-3.5	286	1.8	1.7	-0.5	79	8.6	-8.5	-1.6	78	24.9	-24.3	-5.3	85	24.5	-24.4	-2.0
22	315	11.8	8.3	-8.4	304	14.2	11.7	-8.0	294	8.7	8.0	-3.5	268	2.3	2.3	0.1	81	8.1	-8.0	-1.2	84	24.8	-24.6	-2.8	87	23.2	-23.2	-1.1
23	312	12.2	9.1	-8.2	303	14.2	11.9	-7.7	289	9.0	8.5	-2.9	272	2.9	2.9	-0.1	89	8.0	-8.0	-0.1	80	22.3	-22.0	-3.9	89	24.8	-24.8	-0.3
24	311	10.8	8.1	-7.1	304	13.9	11.6	-7.7	288	8.5	8.1	-2.6	273	2.2	2.2	-0.1	80	8.2	-8.1	-1.4	83	23.2	-23.0	-2.8	87	22.4	-22.4	-1.1
25	302	12.7	10.7	-6.8	299	14.1	12.3	-6.8	287	9.6	9.2	-2.8	277	3.9	3.9	-0.5	82	8.4	-8.3	-1.1	83	24.8	-24.6	-2.9	89	26.8	-26.8	-0.4
26	304	12.5	10.4	-7.0	300	14.5	12.5	-7.3	286	11.1	10.7	-3.0	279	3.3	3.3	-0.5	88	9.6	-9.6	-0.3	82	24.3	-24.1	-3.4	88	25.0	-25.0	-1.0
27	296	11.7	10.5	-5.1	299	14.0	12.2	-6.8	285	10.2	9.8	-2.7	289	3.6	3.4	-1.2	83	8.7	-8.6	-1.1	86	24.7	-24.6	-1.8	88	26.9	-26.9	-0.8
28	305	12.6	10.4	-7.2	302	13.7	11.6	-7.2	291	11.0	10.3	-3.9	283	1.8	1.8	-0.4	82	9.0	-8.9	-1.3	85	26.8	-26.7	-2.5	87	26.9	-26.9	-1.5
29	301	12.3	10.5	-6.4	301	13.0	11.2	-6.6	289	10.9	10.3	-3.5	284	2.1	2.0	-0.5	96	10.0	-9.9	1.1	82	26.7	-26.5	-3.5	86	23.3	-23.3	-1.5
30	307	13.6	10.8	-8.2	299	13.5	11.8	-6.5	285	9.9	9.6	-2.5	277	3.2	3.2	-0.4	89	8.8	-8.8	-0.2	85	23.5	-23.4	-2.1	86	24.6	-24.5	-1.6
31	308	13.9	10.9	-8.6	300	14.4	12.4	-7.3	282	10.9	10.7	-2.2	268	3.4	3.4	0.1	96	8.3	-8.3	0.9	82	24.6	-24.4	-3.5	87	23.4	-23.4	-1.3

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	314	13.7	9.8	-9.6	298	14.5	12.8	-6.8	284	11.9	11.5	-2.9	278	4.5	4.5	-0.6	84	8.7	-8.7	-0.9	79	23.0	-22.6	-4.3	87	26.5	-26.5	-1.3
2	308	11.3	8.9	-7.0	296	13.0	11.7	-5.6	282	11.2	10.9	-2.4	268	2.9	2.9	0.1	89	9.8	-9.8	-0.2	81	26.0	-25.7	-3.9	91	23.8	-23.8	0.5
3	313	12.2	8.9	-8.4	303	13.0	10.9	-7.0	291	10.2	9.5	-3.7	283	2.7	2.6	-0.6	87	9.4	-9.4	-0.5	79	24.9	-24.5	-4.6	90	25.8	-25.8	-0.1
4	314	11.5	8.3	-7.9	305	13.9	11.4	-8.0	292	8.7	8.1	-3.2	256	0.8	0.8	0.2	93	10.1	-10.1	0.6	84	25.9	-25.8	-2.6	90	22.3	-22.3	0.1
5	315	11.6	8.2	-8.2	304	13.0	10.7	-7.3	287	9.1	8.7	-2.7	277	1.6	1.6	-0.2	97	9.5	-9.4	1.1	86	26.1	-26.1	-1.6	86	24.8	-24.7	-1.9
6	310	9.4	7.2	-6.1	302	13.3	11.3	-7.0	282	8.9	8.7	-1.9	273	2.0	2.0	-0.1	93	9.4	-9.4	0.5	86	24.6	-24.5	-1.8	88	23.5	-23.5	-1.0
7	306	8.6	7.0	-5.0	297	12.7	11.4	-5.7	282	10.0	9.8	-2.0	240	2.0	1.7	1.0	87	8.6	-8.6	-0.5	82	26.5	-26.3	-3.5	91	23.0	-23.0	0.6
8	299	10.7	9.3	-5.2	293	13.1	12.0	-5.2	278	12.0	11.9	-1.6	270	4.0	4.0	0.0	91	9.8	-9.8	0.1	79	26.4	-25.9	-4.9	88	20.2	-20.2	-0.7
9	308	11.2	8.8	-6.9	299	13.3	11.7	-6.4	288	10.8	10.2	-3.4	278	4.5	4.5	-0.6	94	9.6	-9.6	0.7	84	24.9	-24.8	-2.5	87	22.6	-22.6	-1.1
10	305	10.3	8.4	-5.9	297	13.2	11.8	-6.0	282	10.4	10.2	-2.2	297	4.2	3.7	-1.9	98	9.6	-9.5	1.4	83	25.9	-25.7	-3.0	81	22.2	-21.9	-3.4
11	309	10.1	7.8	-6.4	298	13.2	11.7	-6.2	288	9.8	9.3	-3.0	295	2.1	1.9	-0.9	90	9.3	-9.3	0.0	81	25.6	-25.3	-4.2	83	23.2	-23.0	-2.8
12	313	10.1	7.4	-6.9	300	13.4	11.6	-6.8	283	9.8	9.5	-2.2	277	3.2	3.2	-0.4	85	9.0	-9.0	-0.8	84	23.0	-22.9	-2.5	88	23.3	-23.3	-0.8
13	319	9.7	6.4	-7.3	300	13.9	12.0	-7.0	284	10.4	10.1	-2.6	286	4.0	3.8	-1.1	86	8.5	-8.5	-0.6	85	24.5	-24.4	-2.1	88	24.3	-24.3	-1.0
14	319	9.7	6.4	-7.3	300	13.0	11.3	-6.5	287	10.9	10.4	-3.1	283	1.8	1.8	-0.4	99	8.3	-8.2	1.3	84	25.1	-25.0	-2.7	89	23.3	-23.3	-0.3
15	314	10.6	7.6	-7.4	302	14.4	12.2	-7.7	291	11.1	10.4	-3.9	270	1.2	1.2	0.0	101	10.9	-10.7	2.1	84	25.4	-25.3	-2.7	91	24.0	-24.0	0.5
16	315	10.1	7.1	-7.2	300	13.5	11.7	-6.7	290	9.4	8.8	-3.2	276	1.9	1.9	-0.2	93	10.6	-10.6	0.5	84	26.1	-26.0	-2.7	85	24.9	-24.8	-2.1
17	317	10.0	6.8	-7.3	302	13.0	11.0	-6.9	293	9.5	8.8	-3.7	265	2.5	2.5	0.2	88	9.2	-9.2	-0.3	85	24.1	-24.0	-2.0	85	26.5	-26.4	-2.1
18	312	10.3	7.7	-6.9	301	12.3	10.5	-6.4	288	8.6	8.2	-2.6	278	2.2	2.2	-0.3	84	7.7	-7.7	-0.8	85	23.6	-23.5	-2.0	83	26.8	-26.6	-3.2
19	313	9.9	7.3	-6.7	301	11.6	10.0	-5.9	286	9.1	8.7	-2.5	275	2.1	2.1	-0.2	92	7.6	-7.6	0.2	89	24.3	-24.3	-0.6	90	24.3	-24.3	-0.1
20	309	10.4	8.1	-6.5	302	13.4	11.4	-7.0	287	9.6	9.2	-2.9	294	2.4	2.2	-1.0	91	7.8	-7.8	0.1	89	23.8	-23.8	-0.4	90	26.9	-26.9	-0.2
21	320	12.7	8.2	-9.7	308	13.1	10.4	-8.0	292	9.8	9.1	-3.6	281	2.6	2.6	-0.5	102	8.7	-8.5	1.8	86	24.5	-24.4	-1.8	87	22.8	-22.8	-1.3
22	318	12.3	8.2	-9.2	307	13.5	10.7	-8.2	292	9.6	8.9	-3.6	309	2.6	2.0	-1.6	95	10.1	-10.1	0.9	85	22.5	-22.4	-1.9	90	26.8	-26.8	-0.2
23	301	9.6	8.3	-4.9	300	11.2	9.7	-5.6	288	8.6	8.2	-2.7	304	1.8	1.5	-1.0	94	7.9	-7.9	0.6	88	22.5	-22.5	-0.9	92	21.7	-21.7	0.7
24	306	12.1	9.8	-7.1	307	12.5	10.0	-7.5	286	8.4	8.1	-2.3	277	1.6	1.6	-0.2	95	9.9	-9.9	0.8	87	24.4	-24.4	-1.3	87	20.7	-20.7	-1.0
25	308	11.5	9.1	-7.0	303	11.8	9.9	-6.4	292	8.6	8.0	-3.2	306	2.2	1.8	-1.3	101	10.1	-9.9	2.0	87	24.8	-24.8	-1.1	86	22.4	-22.3	-1.6
26	307	11.6	9.2	-7.0	305	12.1	10.0	-6.9	286	8.1	7.8	-2.2	320	1.7	1.1	-1.3	88	9.1	-9.1	-0.3	84	23.7	-23.6	-2.4	90	21.3	-21.3	0.1
27	307	11.0	8.8	-6.6	302	11.2	9.5	-6.0	282	8.3	8.1	-1.7	286	2.2	2.1	-0.6	88	10.3	-10.3	-0.3	84	26.3	-26.2	-2.8	89	20.4	-20.4	-0.2
28	305	10.8	8.9	-6.2	296	11.4	10.2	-5.0	284	8.5	8.3	-2.0	279	3.2	3.2	-0.5	95	10.0	-10.0	0.9	85	25.4	-25.3	-2.0	94	21.1	-21.0	1.6
29	306	11.3	9.1	-6.7	301	11.3	9.7	-5.8	290	8.1	7.6	-2.7	287	2.7	2.6	-0.8	105	8.4	-8.1	2.2	82	26.0	-25.7	-3.7	87	20.1	-20.1	-0.9
30	308	13.0	10.3	-8.0	301	12.1	10.4	-6.2	285	8.3	8.0	-2.1	281	2.0	2.0	-0.4	97	8.5	-8.4	1.1	86	25.0	-24.9	-1.8	87	20.6	-20.6	-0.9
31	311	11.1	8.4	-7.2	301	10.2	8.7	-5.3	287	6.2	5.9	-1.8	286	1.9	1.8	-0.5	89	9.6	-9.6	-0.1	90	23.6	-23.6	0.0	88	21.8	-21.8	-0.7

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	306	11.5	9.3	-6.7	305	9.7	8.0	-5.5	284	5.5	5.3	-1.3	329	1.2	0.6	-1.0	85	9.1	-9.1	-0.8	85	25.4	-25.3	-2.2	87	19.2	-19.2	-0.9
2	311	11.6	8.8	-7.6	305	10.3	8.4	-5.9	280	4.6	4.5	-0.8	266	1.4	1.4	0.1	96	10.7	-10.6	1.1	85	25.8	-25.7	-2.4	87	19.1	-19.1	-0.9
3	315	12.2	8.6	-8.6	303	10.3	8.7	-5.6	283	6.5	6.3	-1.5	259	1.5	1.5	0.3	101	11.7	-11.5	2.3	85	25.6	-25.5	-2.1	87	18.1	-18.1	-1.1
4	313	10.2	7.5	-6.9	306	10.2	8.2	-6.0	286	6.3	6.1	-1.7	243	0.9	0.8	0.4	101	9.8	-9.6	1.8	86	23.9	-23.8	-1.6	93	16.8	-16.8	0.9
5	313	10.2	7.4	-7.0	298	8.4	7.4	-3.9	291	4.8	4.5	-1.7	275	1.2	1.2	-0.1	89	10.0	-10.0	-0.2	88	25.9	-25.9	-0.8	90	15.7	-15.7	0.0
6	315	9.3	6.5	-6.6	302	8.9	7.5	-4.7	287	5.8	5.5	-1.7	214	0.4	0.2	0.3	99	9.7	-9.6	1.6	90	25.3	-25.3	-0.2	86	15.6	-15.6	-1.0
7	314	9.4	6.8	-6.5	305	9.8	8.1	-5.6	286	6.0	5.8	-1.7	294	1.2	1.1	-0.5	94	8.5	-8.5	0.6	90	22.9	-22.9	0.0	86	19.1	-19.1	-1.3
8	311	8.2	6.2	-5.4	302	9.5	8.1	-5.0	286	7.1	6.8	-1.9	285	2.0	1.9	-0.5	88	8.6	-8.6	-0.3	88	22.9	-22.9	-0.8	92	18.9	-18.9	0.6
9	309	8.8	6.8	-5.6	301	10.8	9.2	-5.6	287	7.1	6.8	-2.1	315	2.1	1.5	-1.5	98	8.4	-8.3	1.2	87	21.4	-21.4	-1.1	94	17.4	-17.4	1.1
10	321	9.7	6.1	-7.5	300	10.8	9.3	-5.4	292	7.0	6.5	-2.6	315	1.8	1.3	-1.3	102	8.0	-7.8	1.7	88	22.4	-22.4	-0.8	90	15.1	-15.1	-0.1
11	320	8.0	5.2	-6.1	304	9.9	8.2	-5.5	291	6.0	5.6	-2.1	330	1.4	0.7	-1.2	109	8.8	-8.3	2.8	88	22.4	-22.4	-0.6	91	16.5	-16.5	0.2
12	315	8.8	6.2	-6.3	298	9.7	8.5	-4.6	286	5.3	5.1	-1.5	180	0.5	0.0	0.5	97	8.4	-8.3	1.0	89	18.9	-18.9	-0.4	89	16.9	-16.9	-0.2
13	312	7.6	5.7	-5.1	303	8.3	7.0	-4.5	294	3.9	3.6	-1.6	17	1.0	-0.3	-1.0	98	9.3	-9.2	1.3	94	19.0	-18.9	1.4	91	16.5	-16.5	0.4
14	311	8.2	6.2	-5.4	301	8.2	7.0	-4.2	289	3.7	3.5	-1.2	126	0.9	-0.7	0.5	96	9.7	-9.6	1.0	85	18.6	-18.5	-1.5	93	16.7	-16.7	0.9
15	307	8.9	7.1	-5.3	305	8.1	6.6	-4.7	289	3.9	3.7	-1.3	132	1.5	-1.1	1.0	100	8.7	-8.6	1.5	89	18.6	-18.6	-0.4	94	14.3	-14.3	1.0
16	307	9.2	7.3	-5.6	303	7.7	6.4	-4.2	294	3.6	3.3	-1.5	62	1.5	-1.3	-0.7	98	7.4	-7.3	1.0	90	17.7	-17.7	-0.1	90	14.1	-14.1	0.1
17	308	8.6	6.8	-5.3	296	7.9	7.1	-3.5	284	4.1	4.0	-1.0	117	0.7	-0.6	0.3	95	7.7	-7.7	0.7	89	17.4	-17.4	-0.4	88	17.2	-17.2	-0.5
18	307	6.8	5.4	-4.1	293	7.9	7.3	-3.1	289	6.2	5.9	-2.0	90	0.7	-0.7	0.0	96	7.9	-7.9	0.8	94	15.8	-15.8	1.0	86	17.2	-17.2	-1.2
19	321	8.5	5.4	-6.6	297	8.5	7.6	-3.8	285	5.8	5.6	-1.5	287	1.4	1.3	-0.4	94	6.2	-6.2	0.4	91	17.0	-17.0	0.3	93	16.8	-16.8	0.9
20	314	9.0	6.5	-6.2	295	9.1	8.2	-3.9	290	5.9	5.6	-2.0	300	0.8	0.7	-0.4	102	6.9	-6.8	1.4	86	18.1	-18.0	-1.4	100	17.8	-17.5	3.0
21	316	9.3	6.5	-6.7	294	9.0	8.2	-3.6	292	5.1	4.7	-1.9	294	1.2	1.1	-0.5	102	6.6	-6.4	1.4	89	17.1	-17.1	-0.2	97	18.3	-18.2	2.1
22	308	7.9	6.2	-4.9	291	8.6	8.0	-3.1	287	5.8	5.5	-1.7	72	0.3	-0.3	-0.1	93	8.1	-8.1	0.4	83	16.7	-16.6	-2.0	88	18.1	-18.1	-0.5
23	319	7.7	5.0	-5.8	290	8.6	8.1	-3.0	284	7.2	7.0	-1.8	236	0.7	0.6	0.4	98	7.6	-7.5	1.0	92	16.5	-16.5	0.6	95	17.4	-17.3	1.4
24	312	7.5	5.6	-5.0	289	8.9	8.4	-2.9	285	6.5	6.3	-1.7	275	1.2	1.2	-0.1	99	7.3	-7.2	1.2	91	17.9	-17.9	0.4	94	14.4	-14.4	1.1
25	319	7.0	4.6	-5.3	295	8.0	7.2	-3.4	290	5.6	5.3	-1.9	270	0.2	0.2	0.0	106	8.3	-8.0	2.3	93	17.0	-17.0	1.0	89	18.7	-18.7	-0.4
26	309	6.6	5.1	-4.2	287	8.2	7.8	-2.4	277	5.5	5.5	-0.7	203	1.3	0.5	1.2	100	7.4	-7.3	1.3	90	15.4	-15.4	0.0	95	13.5	-13.4	1.2
27	301	6.8	5.8	-3.5	284	8.1	7.9	-1.9	271	5.0	5.0	-0.1	239	0.6	0.5	0.3	96	8.3	-8.3	0.9	91	18.7	-18.7	0.3	87	14.3	-14.3	-0.7
28	296	7.2	6.5	-3.2	290	8.3	7.8	-2.8	284	6.4	6.2	-1.5	277	0.8	0.8	-0.1	90	8.3	-8.3	0.0	85	17.5	-17.4	-1.4	88	14.7	-14.7	-0.4
29	310	8.1	6.2	-5.2	290	7.8	7.3	-2.7	283	5.8	5.7	-1.3	284	0.8	0.8	-0.2	97	7.9	-7.8	1.0	87	17.4	-17.4	-0.9	91	14.7	-14.7	0.3
30	300	6.0	5.2	-3.0	293	6.5	6.0	-2.5	288	5.6	5.3	-1.7	276	0.9	0.9	-0.1	86	6.3	-6.3	-0.4	84	15.1	-15.0	-1.6	88	14.1	-14.1	-0.5

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	310	5.7	4.4	-3.7	287	6.8	6.5	-2.0	276	6.0	6.0	-0.6	274	1.6	1.6	-0.1	91	6.3	-6.3	0.1	85	16.8	-16.7	-1.6	95	12.4	-12.4	1.0
2	300	5.4	4.7	-2.7	284	7.5	7.3	-1.8	270	5.9	5.9	0.0	270	2.5	2.5	0.0	93	6.4	-6.4	0.3	82	17.0	-16.8	-2.5	92	13.0	-13.0	0.4
3	285	5.6	5.4	-1.4	287	8.1	7.7	-2.4	280	6.5	6.4	-1.1	266	1.6	1.6	0.1	98	6.4	-6.3	0.9	93	17.1	-17.1	0.9	92	11.5	-11.5	0.5
4	291	6.6	6.2	-2.4	292	7.6	7.1	-2.8	281	6.4	6.3	-1.2	298	1.7	1.5	-0.8	101	7.2	-7.1	1.4	87	16.0	-16.0	-0.8	96	8.3	-8.3	0.8
5	287	6.7	6.4	-2.0	287	7.0	6.7	-2.1	282	5.0	4.9	-1.0	245	1.9	1.7	0.8	99	6.5	-6.4	1.0	91	16.2	-16.2	0.3	94	11.0	-11.0	0.7
6	312	8.1	6.0	-5.4	292	6.4	5.9	-2.4	288	3.5	3.3	-1.1	222	1.2	0.8	0.9	98	6.8	-6.7	0.9	91	16.4	-16.4	0.2	88	10.2	-10.2	-0.3
7	314	7.4	5.3	-5.2	297	6.2	5.5	-2.8	285	5.3	5.1	-1.4	270	1.8	1.8	0.0	97	6.7	-6.7	0.8	86	16.1	-16.1	-1.0	86	12.1	-12.1	-0.8
8	303	7.2	6.1	-3.9	293	4.8	4.4	-1.9	281	4.1	4.0	-0.8	21	1.4	-0.5	-1.3	89	6.1	-6.1	-0.1	92	15.0	-15.0	0.5	91	11.1	-11.1	0.2
9	289	5.8	5.5	-1.9	289	5.0	4.7	-1.6	285	3.1	3.0	-0.8	63	0.4	-0.4	-0.2	95	6.2	-6.2	0.5	88	14.6	-14.6	-0.4	95	11.7	-11.7	1.0
10	274	4.8	4.8	-0.3	293	4.0	3.7	-1.6	291	2.6	2.4	-0.9	141	0.6	-0.4	0.5	96	5.8	-5.8	0.6	88	14.7	-14.7	-0.5	87	13.5	-13.5	-0.6
11	284	3.7	3.6	-0.9	282	3.9	3.8	-0.8	275	2.1	2.1	-0.2	135	0.6	-0.4	0.4	104	7.5	-7.3	1.8	90	12.8	-12.8	-0.1	87	10.6	-10.6	-0.6
12	290	4.6	4.3	-1.6	293	3.0	2.8	-1.2	315	0.1	0.1	-0.1	90	1.6	-1.6	0.0	96	6.8	-6.8	0.7	87	12.1	-12.1	-0.7	90	10.8	-10.8	0.0
13	303	3.8	3.2	-2.1	298	3.0	2.6	-1.4	309	1.4	1.1	-0.9	78	1.4	-1.4	-0.3	109	6.0	-5.7	2.0	90	12.0	-12.0	0.1	99	9.4	-9.3	1.4
14	312	4.7	3.5	-3.2	304	3.7	3.1	-2.1	313	2.2	1.6	-1.5	293	1.3	1.2	-0.5	84	4.7	-4.7	-0.5	90	12.9	-12.9	-0.1	101	9.3	-9.1	1.7
15	308	6.1	4.8	-3.7	304	4.1	3.4	-2.3	310	2.5	1.9	-1.6	351	1.2	0.2	-1.2	90	5.3	-5.3	0.0	95	14.6	-14.6	1.2	93	9.8	-9.8	0.5
16	301	6.5	5.6	-3.3	304	4.1	3.4	-2.3	298	2.7	2.4	-1.3	22	0.5	-0.2	-0.5	104	4.1	-4.0	1.0	103	12.3	-12.0	2.8	85	9.1	-9.1	-0.8
17	304	4.6	3.8	-2.6	305	4.5	3.7	-2.6	297	4.5	4.0	-2.0	360	0.7	0.0	-0.7	96	4.4	-4.4	0.5	104	12.0	-11.6	2.9	101	12.5	-12.3	2.3
18	299	4.8	4.2	-2.3	303	4.5	3.8	-2.5	293	3.3	3.0	-1.3	277	0.8	0.8	-0.1	98	6.8	-6.7	0.9	97	12.2	-12.1	1.4	96	10.2	-10.1	1.1
19	301	4.4	3.8	-2.3	321	2.8	1.8	-2.2	293	2.6	2.4	-1.0	85	1.1	-1.1	-0.1	100	6.2	-6.1	1.1	92	11.5	-11.5	0.4	90	9.8	-9.8	0.0
20	314	5.0	3.6	-3.5	312	3.8	2.8	-2.5	304	2.2	1.8	-1.2	118	1.7	-1.5	0.8	104	5.9	-5.7	1.4	93	12.7	-12.7	0.7	94	10.6	-10.6	0.8
21	319	3.5	2.3	-2.6	326	1.4	0.8	-1.2	287	1.0	1.0	-0.3	120	3.0	-2.6	1.5	106	5.8	-5.6	1.6	97	8.9	-8.8	1.1	90	7.5	-7.5	0.0
22	278	0.7	0.7	-0.1	40	0.8	-0.5	-0.6	153	0.4	-0.2	0.4	114	1.0	-0.9	0.4	97	5.0	-5.0	0.6	94	9.5	-9.5	0.7	78	9.3	-9.1	-1.9
23	308	3.6	2.8	-2.2	318	1.3	0.9	-1.0	14	0.4	-0.1	-0.4	75	2.0	-1.9	-0.5	92	5.5	-5.5	0.2	101	11.5	-11.3	2.1	97	8.7	-8.6	1.0
24	338	2.2	0.8	-2.0	330	0.8	0.4	-0.7	76	0.4	-0.4	-0.1	68	1.1	-1.0	-0.4	89	5.4	-5.4	-0.1	99	12.3	-12.2	1.9	97	6.7	-6.7	0.8
25	332	3.2	1.5	-2.8	360	1.2	0.0	-1.2	39	1.3	-0.8	-1.0	86	2.9	-2.9	-0.2	84	6.2	-6.2	-0.7	94	10.1	-10.1	0.7	80	5.9	-5.8	-1.0
26	333	3.9	1.8	-3.5	345	2.0	0.5	-1.9	329	0.6	0.3	-0.5	99	1.8	-1.8	0.3	96	4.8	-4.8	0.5	98	9.6	-9.5	1.4	98	6.2	-6.1	0.9
27	330	4.8	2.4	-4.1	360	2.1	0.0	-2.1	23	2.3	-0.9	-2.1	77	2.7	-2.6	-0.6	103	4.3	-4.2	1.0	98	9.6	-9.5	1.4	96	5.8	-5.8	0.6
28	317	2.5	1.7	-1.8	356	1.3	0.1	-1.3	9	1.2	-0.2	-1.2	67	1.3	-1.2	-0.5	94	5.4	-5.4	0.4	94	10.0	-10.0	0.7	96	7.6	-7.6	0.8
29	342	2.5	0.8	-2.4	335	1.7	0.7	-1.5	360	1.0	0.0	-1.0	45	0.8	-0.6	-0.6	95	4.8	-4.8	0.4	103	9.5	-9.3	2.1	90	5.9	-5.9	0.0
30	311	3.0	2.3	-2.0	339	1.7	0.6	-1.6	9	0.6	-0.1	-0.6	46	3.0	-2.2	-2.1	103	5.0	-4.9	1.1	112	8.4	-7.8	3.1	104	6.5	-6.3	1.6
31	318	2.8	1.9	-2.1	346	1.6	0.4	-1.6	306	0.9	0.7	-0.5	104	1.2	-1.2	0.3	101	3.3	-3.2	0.6	105	8.9	-8.6	2.3	95	6.7	-6.7	0.6

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	317	3.4	2.3	-2.5	337	1.3	0.5	-1.2	301	0.6	0.5	-0.3	93	1.7	-1.7	0.1	101	6.0	-5.9	1.2	103	10.7	-10.4	2.4	87	8.4	-8.4	-0.5
2	315	1.7	1.2	-1.2	24	1.0	-0.4	-0.9	342	0.9	0.3	-0.9	72	2.8	-2.7	-0.9	101	5.2	-5.1	1.0	99	8.5	-8.4	1.4	93	8.6	-8.6	0.4
3	317	2.3	1.6	-1.7	302	1.5	1.3	-0.8	285	1.1	1.1	-0.3	41	0.9	-0.6	-0.7	91	6.0	-6.0	0.1	109	10.5	-9.9	3.4	102	7.0	-6.8	1.5
4	324	2.9	1.7	-2.3	333	1.8	0.8	-1.6	333	1.1	0.5	-1.0	59	1.2	-1.0	-0.6	99	5.9	-5.8	0.9	112	10.3	-9.5	3.9	96	7.1	-7.1	0.8
5	340	2.0	0.7	-1.9	340	1.5	0.5	-1.4	360	1.3	0.0	-1.3	90	1.6	-1.6	0.0	107	4.4	-4.2	1.3	103	9.9	-9.6	2.3	98	8.5	-8.4	1.2
6	350	2.9	0.5	-2.9	4	1.4	-0.1	-1.4	63	0.9	-0.8	-0.4	141	1.3	-0.8	1.0	101	4.4	-4.3	0.8	102	11.1	-10.9	2.3	102	7.9	-7.7	1.7
7	35	1.2	-0.7	-1.0	337	0.8	0.3	-0.7	27	0.4	-0.2	-0.4	54	0.9	-0.7	-0.5	99	6.0	-5.9	0.9	107	11.9	-11.4	3.4	91	5.2	-5.2	0.1
8	101	0.5	-0.5	0.1	7	0.8	-0.1	-0.8	270	1.8	1.8	0.0	51	1.4	-1.1	-0.9	106	6.0	-5.8	1.7	101	10.6	-10.4	2.1	87	4.3	-4.3	-0.2
9	288	0.3	0.3	-0.1	31	0.6	-0.3	-0.5	333	0.4	0.2	-0.4	81	1.2	-1.2	-0.2	92	4.6	-4.6	0.2	106	10.3	-9.9	2.8	86	5.8	-5.8	-0.4
10	135	1.1	-0.8	0.8	5	1.1	-0.1	-1.1	288	0.3	0.3	-0.1	92	2.4	-2.4	0.1	103	4.9	-4.8	1.1	107	9.6	-9.2	2.8	102	5.4	-5.3	1.1
11	307	1.0	0.8	-0.6	356	1.4	0.1	-1.4	225	0.1	0.1	0.1	96	1.8	-1.8	0.2	90	5.9	-5.9	0.0	101	8.8	-8.6	1.7	69	5.7	-5.3	-2.0
12	357	1.9	0.1	-1.9	356	1.3	0.1	-1.3	45	0.8	-0.6	-0.6	67	3.0	-2.8	-1.2	99	5.8	-5.7	0.9	107	9.3	-8.9	2.7	87	6.7	-6.7	-0.3
13	350	3.5	0.6	-3.4	7	0.8	-0.1	-0.8	333	1.1	0.5	-1.0	84	3.1	-3.1	-0.3	90	4.8	-4.8	0.0	109	10.1	-9.5	3.3	109	5.6	-5.3	1.8
14	291	1.9	1.8	-0.7	33	1.7	-0.9	-1.4	315	0.4	0.3	-0.3	90	1.6	-1.6	0.0	107	5.4	-5.2	1.6	117	8.4	-7.5	3.8	86	7.4	-7.4	-0.5
15	72	0.3	-0.3	-0.1	45	1.6	-1.1	-1.1	35	1.2	-0.7	-1.0	76	2.5	-2.4	-0.6	96	5.4	-5.4	0.6	112	9.5	-8.8	3.6	87	7.1	-7.1	-0.4
16	333	0.9	0.4	-0.8	36	1.4	-0.8	-1.1	248	0.5	0.5	0.2	100	2.9	-2.9	0.5	103	4.7	-4.6	1.1	112	10.0	-9.2	3.8	79	5.9	-5.8	-1.1
17	141	0.6	-0.4	0.5	20	1.2	-0.4	-1.1	90	1.5	-1.5	0.0	104	3.4	-3.3	0.8	107	6.3	-6.0	1.8	111	9.4	-8.8	3.3	91	6.3	-6.3	0.1
18	354	1.0	0.1	-1.0	43	2.1	-1.4	-1.5	39	1.4	-0.9	-1.1	85	3.6	-3.6	-0.3	119	5.2	-4.6	2.5	118	7.2	-6.4	3.4	100	6.3	-6.2	1.1
19	40	1.7	-1.1	-1.3	29	1.8	-0.9	-1.6	67	1.5	-1.4	-0.6	76	2.9	-2.8	-0.7	108	3.9	-3.7	1.2	127	8.5	-6.8	5.1	97	4.1	-4.1	0.5
20	343	2.1	0.6	-2.0	30	1.6	-0.8	-1.4	63	0.2	-0.2	-0.1	60	2.0	-1.7	-1.0	109	3.6	-3.4	1.2	122	8.2	-7.0	4.3	91	4.9	-4.9	0.1
21	357	1.9	0.1	-1.9	80	1.1	-1.1	-0.2	252	0.3	0.3	0.1	62	2.7	-2.4	-1.3	126	3.7	-3.0	2.2	128	7.3	-5.7	4.5	105	5.4	-5.2	1.4
22	35	1.2	-0.7	-1.0	43	1.9	-1.3	-1.4	333	1.1	0.5	-1.0	68	3.1	-2.9	-1.2	113	3.0	-2.8	1.2	134	7.4	-5.3	5.2	90	5.2	-5.2	0.0
23	66	2.0	-1.8	-0.8	62	2.1	-1.9	-1.0	52	1.1	-0.9	-0.7	58	3.6	-3.0	-1.9	92	2.5	-2.5	0.1	129	5.5	-4.3	3.5	93	3.3	-3.3	0.2
24	56	0.7	-0.6	-0.4	52	1.6	-1.3	-1.0	66	1.0	-0.9	-0.4	60	3.6	-3.1	-1.8	104	3.4	-3.3	0.8	130	4.8	-3.7	3.1	91	5.3	-5.3	0.1
25	5	1.1	-0.1	-1.1	30	1.4	-0.7	-1.2	39	0.6	-0.4	-0.5	79	3.3	-3.2	-0.6	128	2.3	-1.8	1.4	126	4.6	-3.7	2.7	97	6.1	-6.1	0.7
26	23	1.5	-0.6	-1.4	333	0.4	0.2	-0.4	27	0.4	-0.2	-0.4	73	3.7	-3.5	-1.1	94	3.9	-3.9	0.3	126	8.1	-6.5	4.8	89	5.3	-5.3	-0.1
27	28	1.7	-0.8	-1.5	59	2.1	-1.8	-1.1	114	1.2	-1.1	0.5	73	3.8	-3.6	-1.1	93	3.3	-3.3	0.2	129	7.8	-6.1	4.9	100	3.9	-3.8	0.7
28	4	1.4	-0.1	-1.4	24	1.7	-0.7	-1.6	50	2.5	-1.9	-1.6	64	5.3	-4.8	-2.3	88	3.4	-3.4	-0.1	122	9.4	-8.0	5.0	88	3.8	-3.8	-0.1
29	346	0.8	0.2	-0.8	49	2.1	-1.6	-1.4	54	2.4	-1.9	-1.4	65	5.0	-4.5	-2.1	88	3.6	-3.6	-0.1	141	6.7	-4.2	5.2	81	3.6	-3.6	-0.6
30	34	1.8	-1.0	-1.5	62	3.2	-2.8	-1.5	76	3.2	-3.1	-0.8	73	6.7	-6.4	-2.0	88	3.4	-3.4	-0.1	136	7.1	-4.9	5.1	65	5.4	-4.9	-2.3

Daily Normals of Upper Air Winds (1971-2000)

THIRUVANANTHAPURAM **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	48	1.5	-1.1	-1.0	53	3.4	-2.7	-2.0	75	3.1	-3.0	-0.8	80	5.6	-5.5	-1.0	106	4.3	-4.1	1.2	127	6.9	-5.5	4.1	89	4.3	-4.3	-0.1
2	68	1.8	-1.7	-0.7	56	2.7	-2.2	-1.5	92	3.3	-3.3	0.1	95	6.0	-6.0	0.5	108	6.0	-5.7	1.8	141	8.0	-5.0	6.2	105	3.1	-3.0	0.8
3	90	1.5	-1.5	0.0	77	3.1	-3.0	-0.7	115	2.9	-2.6	1.2	82	7.1	-7.0	-1.0	116	5.3	-4.8	2.3	139	7.0	-4.6	5.3	81	3.2	-3.2	-0.5
4	43	2.1	-1.4	-1.5	60	2.8	-2.4	-1.4	80	3.5	-3.4	-0.6	84	6.1	-6.1	-0.6	123	5.7	-4.8	3.1	139	7.9	-5.2	6.0	92	2.4	-2.4	0.1
5	31	1.2	-0.6	-1.0	56	2.3	-1.9	-1.3	88	2.7	-2.7	-0.1	71	5.4	-5.1	-1.8	130	2.6	-2.0	1.7	135	6.8	-4.8	4.8	90	4.1	-4.1	0.0
6	6	0.9	-0.1	-0.9	42	1.5	-1.0	-1.1	77	2.3	-2.2	-0.5	54	3.6	-2.9	-2.1	127	4.1	-3.3	2.5	137	7.9	-5.4	5.8	93	4.1	-4.1	0.2
7	68	1.6	-1.5	-0.6	56	1.1	-0.9	-0.6	82	1.5	-1.5	-0.2	78	4.5	-4.4	-0.9	128	2.8	-2.2	1.7	142	7.6	-4.7	6.0	107	2.8	-2.7	0.8
8	56	2.3	-1.9	-1.3	55	1.6	-1.3	-0.9	110	1.5	-1.4	0.5	80	4.5	-4.4	-0.8	128	2.8	-2.2	1.7	161	5.2	-1.7	4.9	102	3.8	-3.7	0.8
9	42	1.3	-0.9	-1.0	35	1.9	-1.1	-1.6	83	1.7	-1.7	-0.2	86	3.9	-3.9	-0.3	126	3.4	-2.8	2.0	155	6.5	-2.8	5.9	95	5.7	-5.7	0.5
10	11	1.0	-0.2	-1.0	59	2.1	-1.8	-1.1	84	2.9	-2.9	-0.3	80	3.9	-3.8	-0.7	132	3.1	-2.3	2.1	150	6.2	-3.1	5.4	87	2.2	-2.2	-0.1
11	86	1.4	-1.4	-0.1	73	3.1	-3.0	-0.9	82	2.7	-2.7	-0.4	80	4.7	-4.6	-0.8	122	4.5	-3.8	2.4	147	5.5	-3.0	4.6	93	4.4	-4.4	0.2
12	75	2.0	-1.9	-0.5	73	2.1	-2.0	-0.6	77	3.6	-3.5	-0.8	86	5.7	-5.7	-0.4	119	4.8	-4.2	2.3	161	6.8	-2.2	6.4	85	3.6	-3.6	-0.3
13	67	1.3	-1.2	-0.5	81	1.9	-1.9	-0.3	92	3.7	-3.7	0.1	80	6.2	-6.1	-1.1	149	3.5	-1.8	3.0	158	5.3	-2.0	4.9	118	4.0	-3.5	1.9
14	63	1.1	-1.0	-0.5	58	2.5	-2.1	-1.3	95	3.3	-3.3	0.3	86	5.8	-5.8	-0.4	152	2.1	-1.0	1.9	179	4.8	-0.1	4.8	54	2.2	-1.8	-1.3
15	72	0.6	-0.6	-0.2	75	2.7	-2.6	-0.7	84	3.8	-3.8	-0.4	82	6.0	-5.9	-0.8	142	1.1	-0.7	0.9	215	5.6	3.2	4.6	41	0.9	-0.6	-0.7
16	315	0.1	0.1	-0.1	69	1.7	-1.6	-0.6	82	3.5	-3.5	-0.5	81	5.9	-5.8	-0.9	120	1.4	-1.2	0.7	206	4.8	2.1	4.3	88	3.1	-3.1	-0.1
17	96	1.8	-1.8	0.2	59	2.6	-2.2	-1.3	84	3.6	-3.6	-0.4	82	6.9	-6.8	-0.9	131	2.8	-2.1	1.8	184	5.9	0.4	5.9	189	1.2	0.2	1.2
18	75	2.3	-2.2	-0.6	75	2.3	-2.2	-0.6	84	4.5	-4.5	-0.5	72	6.9	-6.6	-2.1	118	3.4	-3.0	1.6	163	6.3	-1.8	6.0	338	2.2	0.8	-2.0
19	40	0.8	-0.5	-0.6	63	2.9	-2.6	-1.3	86	4.5	-4.5	-0.3	82	5.6	-5.5	-0.8	148	3.1	-1.6	2.6	178	7.1	-0.2	7.1	97	0.8	-0.8	0.1
20	35	2.1	-1.2	-1.7	49	2.0	-1.5	-1.3	85	2.3	-2.3	-0.2	83	5.0	-5.0	-0.6	154	3.0	-1.3	2.7	182	7.7	0.3	7.7	322	1.1	0.7	-0.9
21	51	2.1	-1.6	-1.3	45	1.4	-1.0	-1.0	84	3.0	-3.0	-0.3	73	6.7	-6.4	-2.0	168	2.9	-0.6	2.8	177	6.3	-0.3	6.3	121	0.6	-0.5	0.3
22	66	2.2	-2.0	-0.9	55	2.1	-1.7	-1.2	78	3.3	-3.2	-0.7	81	6.1	-6.0	-1.0	166	3.3	-0.8	3.2	187	5.7	0.7	5.7	103	1.7	-1.7	0.4
23	57	1.7	-1.4	-0.9	67	1.3	-1.2	-0.5	92	2.9	-2.9	0.1	86	4.4	-4.4	-0.3	167	2.3	-0.5	2.2	184	4.3	0.3	4.3	169	1.6	-0.3	1.6
24	82	0.7	-0.7	-0.1	45	0.7	-0.5	-0.5	90	2.2	-2.2	0.0	88	3.6	-3.6	-0.1	146	2.5	-1.4	2.1	190	4.8	0.8	4.7	360	0.4	0.0	-0.4
25	36	0.9	-0.5	-0.7	66	1.7	-1.6	-0.7	80	2.2	-2.2	-0.4	81	3.2	-3.2	-0.5	148	3.1	-1.6	2.6	194	6.0	1.4	5.8	31	1.7	-0.9	-1.5
26	24	1.7	-0.7	-1.6	38	1.8	-1.1	-1.4	98	2.7	-2.7	0.4	77	3.5	-3.4	-0.8	186	1.8	0.2	1.8	181	6.1	0.1	6.1	156	1.0	-0.4	0.9
27	23	2.1	-0.8	-1.9	60	1.4	-1.2	-0.7	77	1.7	-1.7	-0.4	75	4.8	-4.6	-1.2	123	3.0	-2.5	1.6	184	6.1	0.4	6.1	56	2.5	-2.1	-1.4
28	349	1.6	0.3	-1.6	30	0.8	-0.4	-0.7	101	2.0	-2.0	0.4	83	4.7	-4.7	-0.6	141	3.8	-2.4	3.0	184	6.4	0.4	6.4	70	1.2	-1.1	-0.4
29	93	2.0	-2.0	0.1	72	1.6	-1.5	-0.5	88	2.7	-2.7	-0.1	93	5.4	-5.4	0.3	167	2.3	-0.5	2.2	170	5.5	-1.0	5.4	120	1.6	-1.4	0.8
30	94	1.6	-1.6	0.1	101	1.0	-1.0	0.2	109	3.1	-2.9	1.0	81	5.6	-5.5	-0.9	142	1.1	-0.7	0.9	163	7.2	-2.1	6.9	68	2.4	-2.2	-0.9
31	79	2.5	-2.5	-0.5	81	2.0	-2.0	-0.3	99	2.5	-2.5	0.4	84	5.1	-5.1	-0.5	127	2.1	-1.7	1.3	167	6.5	-1.4	6.3	111	1.9	-1.8	0.7

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **JANUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	58	4.0	-3.4	-2.1	38	1.8	-1.1	-1.4	313	4.5	3.3	-3.1	276	9.9	9.8	-1.1	271	21.2	21.2	-0.4	269	24.2	24.2	0.5	268	12.1	12.1	0.4
2	57	4.3	-3.6	-2.3	4	2.6	-0.2	-2.6	313	4.2	3.1	-2.9	280	9.6	9.4	-1.7	269	20.3	20.3	0.5	255	22.5	21.7	5.8	253	4.9	4.7	1.4
3	64	3.2	-2.9	-1.4	15	2.8	-0.7	-2.7	300	4.2	3.6	-2.1	280	10.2	10.0	-1.8	270	19.6	19.6	0.0	257	22.6	22.0	5.0	259	5.2	5.1	1.0
4	42	3.8	-2.5	-2.8	29	3.5	-1.7	-3.1	332	3.4	1.6	-3.0	278	8.2	8.1	-1.1	266	17.8	17.8	1.1	254	21.6	20.8	6.0	270	9.5	9.5	0.0
5	54	3.4	-2.8	-2.0	41	3.2	-2.1	-2.4	309	2.1	1.6	-1.3	281	8.8	8.6	-1.7	265	18.5	18.4	1.7	256	20.1	19.5	4.7	265	5.8	5.8	0.5
6	61	3.1	-2.7	-1.5	31	3.5	-1.8	-3.0	315	3.0	2.1	-2.1	276	9.5	9.4	-1.0	262	19.0	18.8	2.8	260	20.1	19.8	3.5	216	7.7	4.5	6.2
7	62	3.6	-3.2	-1.7	40	2.6	-1.7	-2.0	295	3.1	2.8	-1.3	269	9.7	9.7	0.2	260	20.9	20.6	3.8	256	22.5	21.9	5.3	257	12.1	11.8	2.7
8	87	2.1	-2.1	-0.1	52	2.4	-1.9	-1.5	296	3.4	3.1	-1.5	273	8.8	8.8	-0.5	264	21.8	21.7	2.2	252	23.2	22.1	7.1	261	11.9	11.7	1.9
9	67	3.4	-3.1	-1.3	73	1.7	-1.6	-0.5	275	3.4	3.4	-0.3	272	11.1	11.1	-0.3	263	20.3	20.1	2.6	255	23.1	22.3	6.1	254	14.1	13.6	3.8
10	76	3.2	-3.1	-0.8	50	2.3	-1.8	-1.5	272	2.9	2.9	-0.1	266	11.7	11.7	0.8	265	18.2	18.1	1.7	258	18.7	18.3	3.8	253	12.7	12.2	3.7
11	75	3.5	-3.4	-0.9	68	2.7	-2.5	-1.0	297	2.5	2.2	-1.1	262	10.9	10.8	1.6	263	19.5	19.3	2.5	251	20.5	19.4	6.6	258	14.5	14.2	3.1
12	76	1.6	-1.6	-0.4	63	1.8	-1.6	-0.8	264	2.7	2.7	0.3	268	10.1	10.1	0.4	264	21.3	21.2	2.4	254	22.1	21.3	6.0	255	8.8	8.5	2.2
13	59	1.2	-1.0	-0.6	43	2.2	-1.5	-1.6	265	5.0	5.0	0.4	273	10.9	10.9	-0.6	261	23.4	23.1	3.6	253	25.6	24.5	7.5	277	11.6	11.5	-1.5
14	33	1.7	-0.9	-1.4	21	1.9	-0.7	-1.8	291	3.9	3.6	-1.4	268	10.7	10.7	0.3	264	24.1	24.0	2.5	259	23.1	22.7	4.3	267	9.1	9.1	0.4
15	95	1.2	-1.2	0.1	39	1.4	-0.9	-1.1	296	3.4	3.1	-1.5	271	13.3	13.3	-0.2	263	23.8	23.6	2.9	252	24.4	23.2	7.7	255	8.8	8.5	2.2
16	211	0.6	0.3	0.5	35	1.6	-0.9	-1.3	288	4.8	4.6	-1.5	268	12.1	12.1	0.4	272	21.9	21.9	-0.7	259	23.2	22.7	4.6	238	9.8	8.3	5.2
17	16	1.5	-0.4	-1.4	28	2.4	-1.1	-2.1	289	3.4	3.2	-1.1	272	12.0	12.0	-0.5	267	22.4	22.4	1.3	257	21.5	20.9	5.0	255	9.0	8.7	2.4
18	56	1.8	-1.5	-1.0	6	1.8	-0.2	-1.8	301	5.2	4.5	-2.7	276	10.7	10.6	-1.1	266	22.1	22.1	1.4	261	22.5	22.2	3.4	267	13.6	13.6	0.6
19	29	1.0	-0.5	-0.9	10	2.2	-0.4	-2.2	291	4.9	4.6	-1.8	283	11.5	11.2	-2.6	274	21.2	21.2	-1.4	262	22.7	22.5	3.0	282	11.4	11.2	-2.3
20	286	0.7	0.7	-0.2	13	2.2	-0.5	-2.1	312	5.1	3.8	-3.4	284	11.9	11.6	-2.8	265	23.0	22.9	2.2	255	21.1	20.3	5.6	264	11.0	10.9	1.2
21	288	0.9	0.9	-0.3	340	2.0	0.7	-1.9	304	4.3	3.6	-2.4	277	12.5	12.4	-1.5	267	19.7	19.7	1.0	252	21.5	20.5	6.5	259	9.1	8.9	1.8
22	21	1.4	-0.5	-1.3	9	1.8	-0.3	-1.8	306	4.7	3.8	-2.8	283	11.4	11.1	-2.6	263	18.2	18.1	2.2	249	20.6	19.3	7.3	255	8.4	8.1	2.1
23	52	1.6	-1.3	-1.0	353	1.7	0.2	-1.7	304	4.6	3.8	-2.6	284	10.6	10.3	-2.5	259	18.4	18.0	3.6	250	21.6	20.3	7.5	207	4.7	2.1	4.2
24	29	2.1	-1.0	-1.8	27	3.3	-1.5	-2.9	335	3.5	1.5	-3.2	283	9.9	9.7	-2.2	274	18.4	18.4	-1.2	248	16.7	15.5	6.2	258	10.4	10.2	2.2
25	40	1.7	-1.1	-1.3	23	3.0	-1.2	-2.8	310	5.0	3.8	-3.2	281	10.4	10.2	-2.0	273	19.1	19.1	-1.0	257	19.8	19.3	4.6	258	8.8	8.6	1.8
26	45	1.7	-1.2	-1.2	37	3.0	-1.8	-2.4	336	4.4	1.8	-4.0	287	9.0	8.6	-2.6	270	18.1	18.1	0.1	257	22.1	21.5	5.1	261	6.9	6.8	1.1
27	49	2.3	-1.7	-1.5	28	3.2	-1.5	-2.8	334	4.1	1.8	-3.7	281	8.8	8.6	-1.7	272	18.0	18.0	-0.7	256	18.1	17.5	4.5	251	4.0	3.8	1.3
28	62	1.9	-1.7	-0.9	29	2.3	-1.1	-2.0	302	3.6	3.1	-1.9	276	10.6	10.5	-1.1	263	20.2	20.0	2.5	255	19.8	19.2	5.0	263	8.8	8.7	1.0
29	69	1.9	-1.8	-0.7	32	2.6	-1.4	-2.2	318	4.2	2.8	-3.1	281	9.6	9.4	-1.9	266	20.0	20.0	1.3	253	20.7	19.8	6.0	262	11.7	11.6	1.6
30	96	0.9	-0.9	0.1	33	2.4	-1.3	-2.0	299	5.2	4.6	-2.5	284	10.6	10.3	-2.6	268	22.2	22.2	0.8	258	23.7	23.2	5.0	258	14.4	14.1	3.0
31	225	0.1	0.1	0.1	21	1.4	-0.5	-1.3	302	4.9	4.2	-2.6	283	10.4	10.1	-2.3	268	19.6	19.6	0.7	253	21.4	20.4	6.3	269	11.7	11.7	0.2

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **FEBRUARY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	53	1.0	-0.8	-0.6	4	1.6	-0.1	-1.6	299	6.0	5.3	-2.9	281	13.2	13.0	-2.5	270	20.4	20.4	0.0	258	22.7	22.2	4.6	270	11.5	11.5	0.1
2	34	0.7	-0.4	-0.6	341	1.8	0.6	-1.7	299	5.0	4.4	-2.4	276	12.0	11.9	-1.2	265	22.0	21.9	1.8	262	24.6	24.4	3.5	259	10.2	10.0	1.9
3	75	1.1	-1.1	-0.3	36	0.9	-0.5	-0.7	290	4.5	4.2	-1.5	275	11.8	11.8	-1.0	267	21.5	21.5	1.3	260	23.6	23.2	4.2	247	12.8	11.8	4.9
4	63	1.8	-1.6	-0.8	315	0.1	0.1	-0.1	305	4.9	4.0	-2.8	280	12.0	11.8	-2.1	271	21.0	21.0	-0.2	262	24.1	23.9	3.4	260	17.9	17.6	3.0
5	56	2.2	-1.8	-1.2	315	0.6	0.4	-0.4	300	5.4	4.7	-2.7	274	12.8	12.8	-0.9	267	22.1	22.1	1.1	262	24.7	24.5	3.5	274	15.4	15.4	-1.0
6	41	1.1	-0.7	-0.8	318	1.3	0.9	-1.0	316	5.7	4.0	-4.1	277	13.2	13.1	-1.5	265	23.3	23.2	2.1	259	23.9	23.5	4.5	262	13.6	13.5	1.9
7	90	0.5	-0.5	0.0	59	0.6	-0.5	-0.3	295	4.5	4.1	-1.9	283	10.9	10.6	-2.5	260	23.1	22.8	3.9	256	22.6	21.9	5.6	270	12.1	12.1	-0.1
8	240	0.8	0.7	0.4	322	1.6	1.0	-1.3	299	4.5	3.9	-2.2	287	11.1	10.6	-3.2	263	21.6	21.4	2.6	260	23.1	22.8	3.9	273	9.5	9.5	-0.5
9	211	2.3	1.2	2.0	309	0.6	0.5	-0.4	304	5.4	4.5	-3.0	283	11.0	10.7	-2.5	264	21.5	21.4	2.2	260	24.2	23.9	4.0	267	11.3	11.3	0.5
10	240	0.8	0.7	0.4	302	1.5	1.3	-0.8	309	4.8	3.7	-3.0	282	10.9	10.7	-2.3	276	20.0	19.9	-2.1	261	21.0	20.8	3.2	280	11.2	11.0	-2.0
11	90	0.5	-0.5	0.0	6	1.9	-0.2	-1.9	303	4.6	3.9	-2.5	290	11.2	10.5	-3.9	269	20.1	20.1	0.5	259	23.4	22.9	4.6	273	6.7	6.7	-0.3
12	98	0.7	-0.7	0.1	355	1.1	0.1	-1.1	306	4.8	3.9	-2.8	284	10.2	9.9	-2.4	267	19.9	19.9	0.9	254	22.9	22.0	6.4	255	11.4	11.0	3.0
13	248	0.5	0.5	0.2	356	1.4	0.1	-1.4	315	4.4	3.1	-3.1	284	10.2	9.9	-2.4	267	20.2	20.2	1.1	259	23.5	23.1	4.4	253	10.9	10.4	3.2
14	146	0.4	-0.2	0.3	11	1.0	-0.2	-1.0	309	3.3	2.6	-2.1	273	9.5	9.5	-0.5	262	19.7	19.5	2.9	255	22.6	21.8	5.9	263	10.3	10.2	1.3
15	207	0.4	0.2	0.4	270	0.4	0.4	0.0	288	4.0	3.8	-1.2	266	11.3	11.3	0.8	265	21.7	21.6	1.8	256	23.9	23.2	5.7	273	14.3	14.3	-0.8
16	257	1.3	1.3	0.3	323	1.0	0.6	-0.8	290	4.0	3.8	-1.4	275	12.9	12.9	-1.1	268	21.0	21.0	0.7	262	20.0	19.8	2.7	257	6.2	6.0	1.4
17	251	2.1	2.0	0.7	299	1.0	0.9	-0.5	286	5.2	5.0	-1.4	269	11.7	11.7	0.2	265	20.4	20.3	1.9	262	21.8	21.6	3.0	269	8.4	8.4	0.1
18	238	3.8	3.2	2.0	288	0.6	0.6	-0.2	281	4.3	4.2	-0.8	267	13.7	13.7	0.7	263	18.8	18.7	2.2	243	20.5	18.3	9.2	277	5.2	5.2	-0.6
19	235	2.9	2.4	1.7	283	1.8	1.8	-0.4	297	5.1	4.5	-2.3	275	11.7	11.7	-1.0	263	19.6	19.5	2.4	255	20.3	19.6	5.4	257	6.7	6.5	1.5
20	232	3.9	3.1	2.4	313	1.8	1.3	-1.2	290	4.4	4.1	-1.5	276	12.0	11.9	-1.3	268	19.7	19.7	0.8	254	19.3	18.6	5.2	243	10.7	9.6	4.8
21	246	4.5	4.1	1.8	309	1.4	1.1	-0.9	298	5.5	4.8	-2.6	271	11.8	11.8	-0.3	263	17.7	17.6	2.2	253	20.1	19.2	5.8	278	9.6	9.5	-1.3
22	232	3.9	3.1	2.4	305	1.2	1.0	-0.7	314	5.7	4.1	-4.0	277	12.1	12.0	-1.4	263	20.5	20.4	2.4	257	20.7	20.2	4.7	261	9.3	9.2	1.5
23	259	1.5	1.5	0.3	342	0.9	0.3	-0.9	298	4.1	3.6	-1.9	283	10.6	10.3	-2.4	267	18.9	18.9	1.0	253	19.3	18.4	5.8	264	7.3	7.3	0.8
24	195	1.1	0.3	1.1	249	0.9	0.8	0.3	315	4.5	3.2	-3.2	275	10.4	10.4	-0.9	269	18.1	18.1	0.2	265	19.7	19.6	1.7	266	11.1	11.1	0.7
25	210	0.8	0.4	0.7	360	0.7	0.0	-0.7	331	4.8	2.3	-4.2	273	9.5	9.5	-0.5	265	18.2	18.1	1.6	250	18.9	17.8	6.4	271	8.3	8.3	-0.2
26	225	2.0	1.4	1.4	307	1.0	0.8	-0.6	327	3.1	1.7	-2.6	277	10.4	10.3	-1.2	264	21.7	21.6	2.4	260	20.6	20.3	3.4	259	7.8	7.7	1.5
27	230	2.6	2.0	1.7	287	1.0	1.0	-0.3	310	4.5	3.4	-2.9	272	10.3	10.3	-0.4	263	20.7	20.5	2.5	256	23.2	22.5	5.7	258	9.7	9.5	2.0
28	225	1.8	1.3	1.3	290	1.2	1.1	-0.4	316	4.0	2.8	-2.9	269	9.7	9.7	0.1	267	23.6	23.6	1.3	253	23.9	22.8	7.1	257	9.3	9.1	2.1
29	281	0.5	0.5	-0.1	360	0.7	0.0	-0.7	332	5.4	2.5	-4.8	327	12.5	6.8	-10.5	311	11.0	8.3	-7.2	298	8.9	7.9	-4.2	353	5.0	0.6	-5.0

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **MARCH** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	247	2.5	2.3	1.0	245	1.4	1.3	0.6	324	4.2	2.5	-3.4	279	10.1	10.0	-1.6	269	21.8	21.8	0.3	262	23.7	23.5	3.3	241	4.8	4.2	2.3
2	270	1.7	1.7	0.0	315	2.0	1.4	-1.4	318	3.1	2.1	-2.3	286	10.6	10.2	-2.9	270	21.6	21.6	0.0	263	20.6	20.4	2.5	248	7.8	7.2	2.9
3	304	1.1	0.9	-0.6	16	0.7	-0.2	-0.7	322	3.9	2.4	-3.1	281	9.3	9.1	-1.7	271	17.9	17.9	-0.4	256	20.0	19.4	4.7	256	8.5	8.2	2.1
4	288	0.3	0.3	-0.1	323	1.0	0.6	-0.8	336	4.2	1.7	-3.8	288	8.0	7.6	-2.4	271	16.7	16.7	-0.4	260	19.1	18.8	3.2	249	5.3	5.0	1.9
5	239	2.1	1.8	1.1	351	0.6	0.1	-0.6	320	3.8	2.4	-2.9	277	8.2	8.1	-1.0	264	17.9	17.8	1.8	251	21.4	20.2	7.1	253	10.1	9.6	3.0
6	233	2.6	2.1	1.6	270	0.7	0.7	0.0	323	3.6	2.2	-2.9	280	10.6	10.4	-1.8	264	19.4	19.3	2.0	252	21.2	20.2	6.4	256	9.5	9.2	2.3
7	248	3.1	2.9	1.2	286	0.7	0.7	-0.2	321	4.3	2.7	-3.3	282	9.4	9.2	-2.0	272	19.7	19.7	-0.7	258	20.4	20.0	4.2	250	9.4	8.8	3.2
8	246	3.0	2.7	1.2	265	1.1	1.1	0.1	329	4.2	2.2	-3.6	277	7.9	7.8	-1.0	271	16.6	16.6	-0.2	258	17.8	17.4	3.6	266	9.6	9.6	0.6
9	259	2.6	2.6	0.5	275	1.2	1.2	-0.1	343	3.8	1.1	-3.6	281	8.7	8.5	-1.7	264	19.5	19.4	2.2	261	19.3	19.0	3.1	255	9.4	9.1	2.5
10	243	3.3	2.9	1.5	294	1.0	0.9	-0.4	331	3.5	1.7	-3.1	280	8.8	8.7	-1.6	260	19.4	19.1	3.2	251	21.6	20.5	6.9	249	10.2	9.5	3.6
11	241	4.8	4.2	2.3	234	1.4	1.1	0.8	317	3.5	2.4	-2.6	271	8.5	8.5	-0.1	263	19.4	19.2	2.5	256	22.5	21.8	5.4	252	8.8	8.4	2.7
12	244	4.9	4.4	2.1	279	1.9	1.9	-0.3	325	5.0	2.9	-4.1	276	9.9	9.8	-1.0	263	19.7	19.6	2.4	256	22.1	21.4	5.5	260	9.4	9.3	1.6
13	240	5.9	5.1	3.0	289	2.1	2.0	-0.7	324	4.1	2.4	-3.3	283	10.1	9.8	-2.3	259	20.0	19.6	3.9	260	24.0	23.6	4.1	257	9.7	9.4	2.2
14	247	4.4	4.1	1.7	300	1.6	1.4	-0.8	324	4.4	2.6	-3.6	290	9.5	8.9	-3.3	268	17.4	17.4	0.5	258	19.3	18.9	4.0	271	8.8	8.8	-0.1
15	231	4.5	3.5	2.8	256	1.6	1.6	0.4	337	4.3	1.7	-4.0	304	8.4	7.0	-4.7	272	15.0	15.0	-0.4	259	17.1	16.8	3.3	283	9.2	9.0	-2.0
16	249	2.8	2.6	1.0	290	2.3	2.2	-0.8	344	5.3	1.5	-5.1	294	8.0	7.3	-3.3	266	14.9	14.9	1.1	262	18.0	17.8	2.6	253	9.8	9.4	2.8
17	252	3.2	3.0	1.0	287	1.7	1.6	-0.5	340	3.5	1.2	-3.3	288	6.6	6.3	-2.1	264	15.9	15.8	1.6	262	21.1	20.9	3.0	257	8.3	8.1	1.9
18	252	3.5	3.3	1.1	257	1.7	1.7	0.4	335	4.0	1.7	-3.6	284	7.3	7.1	-1.8	263	18.2	18.1	2.2	251	20.9	19.7	6.9	259	11.6	11.4	2.2
19	255	3.4	3.3	0.9	260	2.8	2.8	0.5	326	4.0	2.2	-3.3	287	7.7	7.4	-2.3	267	16.8	16.8	1.0	256	19.2	18.6	4.7	255	7.6	7.3	2.0
20	264	4.4	4.4	0.5	283	2.3	2.2	-0.5	331	3.9	1.9	-3.4	293	8.6	7.9	-3.3	272	17.8	17.8	-0.7	252	20.7	19.7	6.5	284	8.6	8.3	-2.1
21	244	5.2	4.7	2.3	255	2.7	2.6	0.7	331	3.7	1.8	-3.2	294	7.6	6.9	-3.1	272	19.3	19.3	-0.6	260	20.6	20.3	3.7	268	8.0	8.0	0.3
22	241	5.2	4.6	2.5	246	2.0	1.8	0.8	330	4.0	2.0	-3.5	280	7.2	7.1	-1.3	275	17.1	17.0	-1.6	264	20.2	20.1	2.2	279	10.7	10.6	-1.6
23	233	5.1	4.1	3.1	245	3.1	2.8	1.3	340	3.7	1.3	-3.5	289	6.7	6.3	-2.2	264	16.9	16.8	1.9	262	21.8	21.6	3.1	274	7.4	7.4	-0.5
24	249	4.3	4.0	1.5	267	2.0	2.0	0.1	309	2.8	2.2	-1.8	277	6.4	6.3	-0.8	265	18.5	18.4	1.7	254	20.8	20.0	5.6	261	9.4	9.3	1.5
25	233	6.2	5.0	3.7	230	2.3	1.8	1.5	320	3.8	2.4	-2.9	275	8.1	8.1	-0.7	256	20.0	19.4	4.9	253	24.8	23.8	7.1	283	5.9	5.8	-1.3
26	233	4.1	3.3	2.5	252	2.2	2.1	0.7	327	3.7	2.0	-3.1	280	7.0	6.9	-1.2	260	20.3	20.0	3.4	255	22.8	22.0	5.8	270	9.5	9.5	0.0
27	268	2.9	2.9	0.1	260	2.3	2.3	0.4	334	3.9	1.7	-3.5	279	6.3	6.2	-1.0	268	18.7	18.7	0.5	256	22.4	21.8	5.3	270	6.1	6.1	0.0
28	241	2.6	2.3	1.3	264	1.0	1.0	0.1	340	4.1	1.4	-3.9	288	6.4	6.1	-2.0	270	17.5	17.5	0.1	261	22.2	21.9	3.5	243	5.6	5.0	2.5
29	235	2.9	2.4	1.7	254	1.8	1.7	0.5	332	4.2	2.0	-3.7	296	6.1	5.5	-2.7	268	17.3	17.3	0.5	261	21.3	21.0	3.5	258	10.5	10.3	2.2
30	219	3.5	2.2	2.7	262	2.8	2.8	0.4	342	4.6	1.4	-4.4	304	6.3	5.2	-3.5	275	16.3	16.2	-1.3	265	20.2	20.1	1.9	258	6.0	5.9	1.3
31	244	4.3	3.9	1.9	268	2.3	2.3	0.1	336	3.7	1.5	-3.4	295	5.1	4.6	-2.1	262	15.5	15.4	2.1	252	19.4	18.4	6.1	261	9.2	9.1	1.4

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **APRIL** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	223	2.5	1.7	1.8	235	1.9	1.6	1.1	350	2.8	0.5	-2.8	288	5.5	5.2	-1.7	270	16.7	16.7	0.0	258	19.2	18.8	3.9	276	7.1	7.1	-0.8
2	231	3.8	3.0	2.4	249	3.3	3.1	1.2	338	4.2	1.6	-3.9	285	4.6	4.4	-1.2	261	16.4	16.2	2.7	267	20.8	20.8	1.1	279	6.7	6.6	-1.1
3	219	4.1	2.6	3.2	255	2.3	2.2	0.6	341	2.8	0.9	-2.6	287	4.5	4.3	-1.3	258	14.1	13.8	3.0	252	18.5	17.6	5.8	280	6.0	5.9	-1.0
4	218	4.4	2.7	3.5	245	2.3	2.1	1.0	345	3.0	0.8	-2.9	268	6.9	6.9	0.3	261	17.1	16.9	2.7	265	19.5	19.4	1.6	250	4.4	4.1	1.5
5	239	2.6	2.2	1.3	255	2.0	1.9	0.5	345	2.8	0.7	-2.7	272	6.0	6.0	-0.2	266	18.3	18.2	1.4	253	19.5	18.6	5.7	231	1.4	1.1	0.9
6	244	4.1	3.7	1.8	261	1.8	1.8	0.3	350	2.3	0.4	-2.3	285	6.6	6.4	-1.7	267	17.2	17.2	0.8	259	20.7	20.3	4.1	260	7.6	7.5	1.3
7	245	6.5	5.9	2.7	279	1.9	1.9	-0.3	345	3.5	0.9	-3.4	305	6.7	5.5	-3.9	277	17.9	17.8	-2.3	270	18.8	18.8	0.0	240	4.2	3.6	2.1
8	233	5.9	4.7	3.5	270	2.7	2.7	0.0	348	4.0	0.8	-3.9	292	5.7	5.3	-2.1	277	16.5	16.4	-1.9	265	18.2	18.1	1.7	246	5.1	4.7	2.1
9	235	5.9	4.8	3.4	255	2.7	2.6	0.7	357	4.0	0.2	-4.0	307	6.4	5.1	-3.8	271	17.5	17.5	-0.4	265	18.9	18.8	1.6	268	10.7	10.7	0.4
10	231	5.8	4.5	3.6	251	3.1	2.9	1.0	343	3.4	1.0	-3.2	302	5.5	4.7	-2.9	265	17.7	17.6	1.4	261	20.9	20.7	3.2	271	6.6	6.6	-0.1
11	245	6.7	6.1	2.8	257	3.2	3.1	0.7	346	3.6	0.9	-3.5	303	4.6	3.9	-2.5	281	14.1	13.9	-2.6	265	21.6	21.5	1.9	275	4.8	4.8	-0.4
12	243	6.8	6.1	3.1	259	4.1	4.0	0.8	353	3.8	0.5	-3.8	300	5.1	4.4	-2.5	281	13.2	12.9	-2.6	276	15.9	15.8	-1.6	275	5.3	5.3	-0.5
13	232	5.2	4.1	3.2	259	3.6	3.5	0.7	344	4.1	1.1	-3.9	313	5.4	3.9	-3.7	278	13.3	13.2	-1.9	262	13.6	13.5	2.0	276	5.5	5.5	-0.6
14	225	5.1	3.6	3.6	253	3.4	3.2	1.0	354	3.9	0.4	-3.9	309	4.9	3.8	-3.1	269	12.0	12.0	0.3	259	16.6	16.3	3.3	253	7.2	6.9	2.1
15	223	5.2	3.5	3.8	238	3.4	2.9	1.8	15	2.3	-0.6	-2.2	301	4.5	3.9	-2.3	261	13.4	13.2	2.1	249	18.7	17.5	6.6	260	5.3	5.2	0.9
16	238	5.1	4.3	2.7	247	3.8	3.5	1.5	353	2.6	0.3	-2.6	274	4.4	4.4	-0.3	260	12.3	12.1	2.2	251	17.0	16.1	5.4	263	2.6	2.6	0.3
17	236	5.5	4.6	3.1	244	3.7	3.3	1.6	336	3.5	1.4	-3.2	295	5.5	5.0	-2.3	252	16.2	15.4	4.9	244	19.8	17.8	8.6	264	5.4	5.4	0.6
18	239	5.8	5.0	3.0	247	3.3	3.0	1.3	344	3.3	0.9	-3.2	284	4.9	4.8	-1.2	253	14.7	14.1	4.2	248	19.6	18.1	7.4	275	5.5	5.5	-0.5
19	236	6.4	5.3	3.6	245	4.2	3.8	1.8	353	2.5	0.3	-2.5	295	4.4	4.0	-1.9	262	13.5	13.4	1.8	246	20.1	18.4	8.2	253	9.1	8.7	2.6
20	235	6.1	5.0	3.5	257	2.6	2.5	0.6	12	4.8	-1.0	-4.7	304	5.2	4.3	-2.9	260	14.9	14.7	2.5	249	19.9	18.6	7.0	258	2.9	2.8	0.6
21	233	6.7	5.4	4.0	246	3.4	3.1	1.4	356	4.1	0.3	-4.1	298	4.4	3.9	-2.1	264	13.5	13.4	1.3	249	21.5	20.1	7.7	218	3.4	2.1	2.7
22	233	8.2	6.6	4.9	251	3.6	3.4	1.2	360	3.5	0.0	-3.5	295	4.7	4.3	-2.0	251	14.7	13.9	4.7	252	18.2	17.4	5.5	265	5.5	5.5	0.5
23	233	7.5	6.0	4.5	264	2.8	2.8	0.3	357	3.6	0.2	-3.6	298	4.2	3.7	-2.0	262	14.0	13.9	1.9	251	20.3	19.2	6.6	262	5.3	5.3	0.7
24	234	6.9	5.6	4.1	247	3.4	3.1	1.3	357	3.5	0.2	-3.5	294	4.6	4.2	-1.9	261	15.0	14.8	2.3	255	20.3	19.6	5.3	264	5.0	5.0	0.5
25	231	6.4	5.0	4.0	257	3.1	3.0	0.7	357	3.8	0.2	-3.8	295	5.1	4.6	-2.1	267	13.9	13.9	0.8	256	16.6	16.1	4.0	186	0.9	0.1	0.9
26	236	7.3	6.1	4.1	246	2.7	2.5	1.1	10	3.6	-0.6	-3.5	297	4.2	3.7	-1.9	264	13.0	12.9	1.3	248	14.5	13.5	5.4	256	2.9	2.8	0.7
27	235	5.7	4.7	3.3	261	2.5	2.5	0.4	360	4.6	0.0	-4.6	313	4.2	3.1	-2.9	267	11.2	11.2	0.6	252	17.1	16.2	5.4	273	4.1	4.1	-0.2
28	231	6.0	4.7	3.8	257	2.8	2.7	0.6	355	4.9	0.4	-4.9	323	4.3	2.6	-3.4	271	9.5	9.5	-0.2	250	14.9	14.0	5.1	295	2.1	1.9	-0.9
29	237	6.4	5.4	3.5	254	3.3	3.2	0.9	2	4.9	-0.2	-4.9	327	5.1	2.8	-4.3	270	12.1	12.1	0.1	253	14.0	13.4	4.2	139	3.5	-2.3	2.6
30	247	5.3	4.9	2.1	263	3.3	3.3	0.4	358	4.6	0.2	-4.6	339	5.3	1.9	-5.0	273	10.4	10.4	-0.6	249	15.1	14.1	5.4	153	3.0	-1.4	2.7

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **MAY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	240	4.8	4.2	2.4	245	2.6	2.4	1.1	353	4.0	0.5	-4.0	349	3.1	0.6	-3.0	270	9.9	9.9	0.0	253	11.0	10.5	3.2	66	1.7	-1.6	-0.7
2	240	7.5	6.5	3.7	260	2.2	2.2	0.4	358	3.4	0.1	-3.4	328	4.4	2.3	-3.7	266	9.7	9.7	0.6	251	11.5	10.9	3.7	131	4.8	-3.6	3.1
3	237	8.2	6.8	4.5	266	2.7	2.7	0.2	354	3.6	0.4	-3.6	317	4.1	2.8	-3.0	270	10.2	10.2	0.0	248	11.7	10.9	4.3	111	5.6	-5.2	2.0
4	240	7.6	6.6	3.8	254	3.3	3.2	0.9	351	3.6	0.6	-3.6	336	4.7	1.9	-4.3	261	8.9	8.8	1.4	259	10.7	10.5	2.0	100	1.1	-1.1	0.2
5	228	6.4	4.7	4.3	261	3.9	3.9	0.6	355	4.6	0.4	-4.6	315	4.2	3.0	-3.0	269	8.9	8.9	0.2	255	10.8	10.4	2.8	45	0.1	-0.1	-0.1
6	225	6.2	4.4	4.4	255	3.5	3.4	0.9	359	5.4	0.1	-5.4	340	2.9	1.0	-2.7	269	8.2	8.2	0.1	251	10.7	10.1	3.5	105	4.9	-4.7	1.3
7	237	5.9	5.0	3.2	255	2.7	2.6	0.7	1	4.9	-0.1	-4.9	346	4.0	1.0	-3.9	273	8.2	8.2	-0.4	252	10.6	10.1	3.2	146	3.4	-1.9	2.8
8	229	5.5	4.1	3.6	247	3.0	2.8	1.2	349	4.4	0.8	-4.3	354	4.1	0.4	-4.1	267	7.3	7.3	0.4	249	9.4	8.8	3.4	126	2.9	-2.3	1.7
9	230	3.3	2.5	2.1	244	3.2	2.9	1.4	351	3.6	0.6	-3.6	356	3.9	0.3	-3.9	265	6.7	6.7	0.6	245	10.8	9.8	4.5	108	2.0	-1.9	0.6
10	226	6.4	4.6	4.5	225	2.4	1.7	1.7	9	3.3	-0.5	-3.3	342	2.9	0.9	-2.8	262	6.8	6.7	0.9	243	12.9	11.5	5.8	116	5.8	-5.2	2.5
11	240	8.3	7.2	4.1	236	2.7	2.2	1.5	358	3.5	0.1	-3.5	333	2.2	1.0	-2.0	249	6.6	6.1	2.4	232	9.2	7.2	5.7	139	2.3	-1.5	1.7
12	247	7.5	6.9	2.9	229	2.9	2.2	1.9	352	3.4	0.5	-3.4	333	3.5	1.6	-3.1	268	7.4	7.4	0.3	235	8.5	6.9	4.9	115	3.3	-3.0	1.4
13	238	5.2	4.4	2.8	227	3.4	2.5	2.3	359	4.1	0.1	-4.1	345	2.7	0.7	-2.6	258	7.5	7.3	1.5	241	7.3	6.4	3.6	110	5.4	-5.1	1.9
14	250	5.0	4.7	1.7	237	3.7	3.1	2.0	3	4.0	-0.2	-4.0	11	2.0	-0.4	-2.0	260	5.4	5.3	0.9	253	4.5	4.3	1.3	112	7.6	-7.1	2.8
15	242	7.1	6.3	3.3	258	4.4	4.3	0.9	13	3.7	-0.8	-3.6	350	4.1	0.7	-4.0	255	3.5	3.4	0.9	224	4.3	3.0	3.1	104	7.2	-7.0	1.7
16	238	8.6	7.3	4.5	256	3.6	3.5	0.9	2	4.7	-0.2	-4.7	351	3.2	0.5	-3.2	266	2.9	2.9	0.2	215	4.7	2.7	3.8	110	10.9	-10.3	3.7
17	237	5.1	4.3	2.8	272	2.5	2.5	-0.1	359	4.9	0.1	-4.9	346	4.2	1.0	-4.1	264	4.1	4.1	0.4	202	5.3	2.0	4.9	106	9.7	-9.3	2.7
18	247	6.5	6.0	2.5	286	3.3	3.2	-0.9	344	5.5	1.5	-5.3	336	6.4	2.6	-5.9	268	3.4	3.4	0.1	206	3.9	1.7	3.5	108	9.8	-9.3	3.1
19	249	7.7	7.2	2.8	286	4.3	4.1	-1.2	345	5.9	1.5	-5.7	342	5.6	1.7	-5.3	272	3.8	3.8	-0.1	213	4.9	2.7	4.1	93	1.7	-1.7	0.1
20	237	8.3	7.0	4.5	266	4.5	4.5	0.3	348	5.7	1.2	-5.6	3	4.5	-0.2	-4.5	258	3.0	2.9	0.6	217	3.8	2.3	3.0	111	9.0	-8.4	3.2
21	245	6.5	5.9	2.7	261	3.7	3.7	0.6	344	3.6	1.0	-3.5	357	3.5	0.2	-3.5	240	3.0	2.6	1.5	198	4.6	1.4	4.4	96	8.3	-8.3	0.9
22	241	6.0	5.2	2.9	267	3.4	3.4	0.2	341	4.6	1.5	-4.4	358	4.9	0.2	-4.9	213	2.0	1.1	1.7	167	3.5	-0.8	3.4	101	11.4	-11.2	2.1
23	243	8.5	7.5	3.9	273	5.0	5.0	-0.3	350	5.1	0.9	-5.0	357	4.3	0.2	-4.3	218	2.4	1.5	1.9	168	5.1	-1.1	5.0	106	9.7	-9.3	2.7
24	243	6.9	6.2	3.1	269	4.6	4.6	0.1	358	5.0	0.2	-5.0	351	5.3	0.8	-5.2	249	2.8	2.6	1.0	179	6.4	-0.1	6.4	115	11.3	-10.3	4.7
25	242	8.2	7.2	3.9	262	4.2	4.2	0.6	3	4.3	-0.2	-4.3	357	4.5	0.2	-4.5	226	3.9	2.8	2.7	197	5.9	1.7	5.6	107	10.5	-10.0	3.1
26	239	7.2	6.2	3.7	253	4.8	4.6	1.4	354	3.9	0.4	-3.9	15	4.6	-1.2	-4.4	183	1.9	0.1	1.9	152	4.2	-2.0	3.7	116	6.8	-6.1	3.0
27	241	8.4	7.3	4.1	255	4.9	4.7	1.3	331	3.7	1.8	-3.2	11	3.2	-0.6	-3.1	241	2.3	2.0	1.1	160	4.1	-1.4	3.9	110	8.5	-8.0	2.9
28	243	9.1	8.1	4.1	263	5.8	5.8	0.7	336	4.4	1.8	-4.0	14	4.9	-1.2	-4.8	164	1.8	-0.5	1.7	172	4.5	-0.6	4.5	112	11.8	-11.0	4.4
29	255	9.4	9.1	2.4	274	5.3	5.3	-0.4	351	4.4	0.7	-4.3	11	3.1	-0.6	-3.0	195	1.6	0.4	1.5	156	4.5	-1.8	4.1	111	14.8	-13.9	5.2
30	248	7.1	6.6	2.6	273	3.7	3.7	-0.2	351	3.6	0.6	-3.6	18	3.5	-1.1	-3.3	170	1.7	-0.3	1.7	138	5.8	-3.9	4.3	100	11.7	-11.5	2.0
31	244	6.6	5.9	2.9	266	3.9	3.9	0.3	354	2.7	0.3	-2.7	18	3.2	-1.0	-3.0	156	1.7	-0.7	1.6	145	5.5	-3.2	4.5	104	14.0	-13.6	3.4

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **JUNE** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	248	6.1	5.7	2.3	285	4.6	4.4	-1.2	350	3.4	0.6	-3.3	17	3.0	-0.9	-2.9	97	1.7	-1.7	0.2	121	5.5	-4.7	2.8	92	14.7	-14.7	0.4
2	241	7.3	6.4	3.6	280	3.6	3.5	-0.6	353	3.1	0.4	-3.1	17	2.7	-0.8	-2.6	103	2.6	-2.5	0.6	115	7.4	-6.7	3.1	103	11.3	-11.0	2.6
3	240	7.6	6.6	3.8	270	4.9	4.9	0.0	359	4.8	0.1	-4.8	345	2.4	0.6	-2.3	109	3.1	-2.9	1.0	112	6.8	-6.3	2.5	94	14.3	-14.3	1.0
4	244	6.4	5.8	2.8	266	6.7	6.7	0.5	347	4.1	0.9	-4.0	349	3.3	0.6	-3.2	111	2.2	-2.1	0.8	116	6.8	-6.1	3.0	106	17.6	-16.9	4.8
5	243	5.9	5.2	2.7	267	5.8	5.8	0.3	339	2.8	1.0	-2.6	2	2.6	-0.1	-2.6	100	4.0	-3.9	0.7	109	8.9	-8.4	2.9	98	19.1	-18.9	2.6
6	233	7.3	5.8	4.4	259	6.5	6.4	1.2	315	4.0	2.8	-2.8	335	1.9	0.8	-1.7	106	2.6	-2.5	0.7	112	8.5	-7.9	3.2	100	19.5	-19.2	3.4
7	242	8.6	7.6	4.0	265	7.5	7.5	0.6	308	2.4	1.9	-1.5	15	2.3	-0.6	-2.2	84	4.1	-4.1	-0.4	93	10.0	-10.0	0.6	94	19.3	-19.2	1.5
8	241	9.1	8.0	4.4	263	7.1	7.0	0.9	311	2.9	2.2	-1.9	20	3.0	-1.0	-2.8	88	4.6	-4.6	-0.2	99	9.4	-9.3	1.5	93	19.5	-19.5	1.1
9	245	7.5	6.8	3.1	267	6.7	6.7	0.3	304	2.7	2.2	-1.5	25	1.4	-0.6	-1.3	82	4.3	-4.3	-0.6	84	9.9	-9.8	-1.0	91	20.9	-20.9	0.4
10	251	7.8	7.4	2.5	278	6.6	6.5	-0.9	328	3.9	2.1	-3.3	10	3.4	-0.6	-3.3	83	4.9	-4.9	-0.6	101	10.2	-10.0	2.0	88	21.0	-21.0	-0.6
11	253	9.3	8.9	2.8	275	6.4	6.4	-0.6	347	3.7	0.8	-3.6	20	2.7	-0.9	-2.5	76	4.6	-4.5	-1.1	93	11.0	-11.0	0.5	88	20.7	-20.7	-0.8
12	242	8.3	7.3	3.9	267	5.7	5.7	0.3	340	3.5	1.2	-3.3	32	3.2	-1.7	-2.7	96	4.5	-4.5	0.5	94	10.3	-10.3	0.8	88	20.0	-20.0	-0.7
13	268	3.6	3.6	0.1	282	5.3	5.2	-1.1	346	3.6	0.9	-3.5	45	2.4	-1.7	-1.7	77	6.5	-6.3	-1.5	87	10.6	-10.6	-0.6	89	22.0	-22.0	-0.2
14	256	9.1	8.8	2.2	312	5.2	3.9	-3.5	313	3.7	2.7	-2.5	342	2.0	0.6	-1.9	97	5.5	-5.5	0.7	92	12.7	-12.7	0.4	89	20.0	-20.0	-0.2
15	257	8.7	8.5	1.9	277	7.6	7.5	-0.9	318	4.3	2.9	-3.2	36	1.9	-1.1	-1.5	98	6.5	-6.4	0.9	100	13.7	-13.5	2.5	85	25.3	-25.2	-2.1
16	251	9.2	8.7	3.0	267	7.9	7.9	0.4	308	3.6	2.8	-2.2	335	2.9	1.2	-2.6	87	5.8	-5.8	-0.3	80	12.7	-12.5	-2.1	88	24.4	-24.4	-0.8
17	254	12.9	12.4	3.6	271	9.8	9.8	-0.2	283	4.6	4.5	-1.0	293	1.5	1.4	-0.6	103	5.7	-5.5	1.3	86	12.1	-12.1	-0.9	84	24.7	-24.6	-2.4
18	253	11.3	10.8	3.3	273	10.9	10.9	-0.5	278	7.6	7.5	-1.1	270	3.8	3.8	0.0	107	5.1	-4.9	1.5	87	15.4	-15.4	-0.7	90	23.1	-23.1	0.1
19	246	13.5	12.4	5.4	264	10.2	10.1	1.1	280	7.1	7.0	-1.2	275	2.5	2.5	-0.2	92	5.7	-5.7	0.2	83	14.7	-14.6	-1.8	86	24.7	-24.6	-1.7
20	244	12.0	10.8	5.2	269	9.2	9.2	0.2	287	5.2	5.0	-1.5	288	2.8	2.7	-0.9	86	7.8	-7.8	-0.6	86	14.3	-14.3	-0.9	84	22.5	-22.4	-2.5
21	250	10.2	9.6	3.5	274	9.0	9.0	-0.6	289	6.8	6.4	-2.2	342	2.2	0.7	-2.1	79	7.6	-7.4	-1.5	86	16.0	-16.0	-1.0	88	26.8	-26.8	-0.8
22	253	11.1	10.6	3.2	265	9.4	9.4	0.8	291	7.4	6.9	-2.6	322	2.4	1.5	-1.9	92	6.7	-6.7	0.2	82	16.7	-16.5	-2.3	86	28.1	-28.0	-2.2
23	257	9.8	9.5	2.2	272	9.1	9.1	-0.3	294	6.1	5.6	-2.5	306	1.4	1.1	-0.8	98	8.4	-8.3	1.1	87	17.7	-17.7	-0.9	91	30.7	-30.7	0.6
24	258	11.4	11.2	2.3	274	10.6	10.6	-0.7	293	7.3	6.7	-2.9	291	3.4	3.2	-1.2	81	7.2	-7.1	-1.1	83	16.5	-16.4	-1.9	86	26.1	-26.1	-1.6
25	260	9.1	9.0	1.6	275	10.0	10.0	-0.8	291	6.6	6.2	-2.4	292	4.1	3.8	-1.5	85	6.3	-6.3	-0.6	79	15.3	-15.0	-2.9	90	25.1	-25.1	-0.2
26	254	11.6	11.1	3.2	266	11.4	11.4	0.7	276	8.1	8.0	-0.9	280	1.7	1.7	-0.3	87	7.0	-7.0	-0.4	84	16.8	-16.7	-1.9	89	26.9	-26.9	-0.4
27	251	10.3	9.7	3.4	262	10.4	10.3	1.4	282	7.6	7.4	-1.6	261	3.0	3.0	0.5	91	6.3	-6.3	0.1	75	16.7	-16.2	-4.2	87	31.2	-31.2	-1.4
28	254	9.2	8.8	2.6	264	10.2	10.1	1.1	277	6.8	6.8	-0.8	261	3.8	3.8	0.6	99	7.4	-7.3	1.2	87	18.4	-18.4	-1.0	81	29.1	-28.8	-4.4
29	251	9.6	9.1	3.1	269	10.3	10.3	0.1	288	5.5	5.2	-1.7	321	1.3	0.8	-1.0	91	10.5	-10.5	0.1	87	20.7	-20.7	-1.0	83	31.1	-30.9	-3.9
30	247	9.1	8.4	3.6	265	9.8	9.8	0.9	288	5.8	5.5	-1.8	290	1.2	1.1	-0.4	93	8.5	-8.5	0.5	86	20.6	-20.6	-1.3	81	28.3	-27.9	-4.5

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **JULY** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	255	9.6	9.3	2.5	270	9.8	9.8	0.0	291	5.6	5.2	-2.0	262	0.7	0.7	0.1	91	9.6	-9.6	0.1	88	18.2	-18.2	-0.7	87	32.3	-32.3	-1.5
2	249	8.5	7.9	3.0	266	11.0	11.0	0.7	287	6.3	6.0	-1.8	306	0.9	0.7	-0.5	92	7.1	-7.1	0.3	84	18.8	-18.7	-2.0	83	27.6	-27.4	-3.3
3	252	6.4	6.1	2.0	272	8.7	8.7	-0.3	289	6.5	6.1	-2.1	278	2.7	2.7	-0.4	89	8.8	-8.8	-0.1	84	18.4	-18.3	-1.8	81	31.7	-31.3	-5.0
4	256	6.1	5.9	1.5	273	9.0	9.0	-0.4	283	6.4	6.2	-1.4	295	2.3	2.1	-1.0	99	9.1	-9.0	1.5	87	19.1	-19.1	-0.9	87	32.7	-32.7	-1.8
5	260	5.7	5.6	1.0	268	9.4	9.4	0.4	281	6.0	5.9	-1.1	307	1.5	1.2	-0.9	96	7.1	-7.1	0.7	89	18.0	-18.0	-0.4	88	33.7	-33.7	-1.4
6	257	6.9	6.7	1.6	265	8.5	8.5	0.7	288	6.8	6.5	-2.1	286	1.5	1.4	-0.4	89	8.9	-8.9	-0.2	84	20.5	-20.4	-2.1	85	29.9	-29.8	-2.8
7	247	8.4	7.7	3.3	264	9.6	9.5	1.0	284	6.9	6.7	-1.7	338	2.2	0.8	-2.0	89	8.1	-8.1	-0.2	82	19.4	-19.2	-2.8	84	29.2	-29.0	-3.2
8	253	8.6	8.2	2.5	266	10.9	10.9	0.8	279	7.0	6.9	-1.1	272	2.6	2.6	-0.1	95	8.7	-8.7	0.8	89	18.2	-18.2	-0.3	83	30.2	-30.0	-3.7
9	254	9.4	9.0	2.6	269	10.6	10.6	0.1	274	7.4	7.4	-0.5	286	1.8	1.7	-0.5	94	9.4	-9.4	0.7	90	20.5	-20.5	-0.1	87	32.8	-32.8	-1.6
10	252	10.6	10.1	3.3	268	9.3	9.3	0.3	279	6.7	6.6	-1.1	305	2.1	1.7	-1.2	91	9.3	-9.3	0.2	84	20.4	-20.3	-2.2	82	35.0	-34.7	-4.6
11	255	11.3	10.9	3.0	276	9.8	9.7	-1.1	289	6.5	6.1	-2.1	265	2.5	2.5	0.2	87	8.7	-8.7	-0.5	86	18.5	-18.5	-1.2	86	33.1	-33.0	-2.2
12	259	12.0	11.8	2.2	268	10.3	10.3	0.4	285	6.6	6.4	-1.7	281	1.5	1.5	-0.3	92	9.4	-9.4	0.4	83	20.2	-20.0	-2.6	84	30.3	-30.1	-3.3
13	255	9.8	9.5	2.5	268	11.5	11.5	0.4	277	7.8	7.7	-0.9	259	1.0	1.0	0.2	97	8.8	-8.7	1.0	85	20.1	-20.0	-1.9	80	30.5	-30.0	-5.5
14	260	8.4	8.3	1.5	265	10.0	10.0	0.8	272	7.2	7.2	-0.3	348	1.4	0.3	-1.4	98	11.0	-10.9	1.5	86	20.9	-20.8	-1.5	80	29.5	-29.1	-5.0
15	255	8.5	8.2	2.2	271	8.5	8.5	-0.1	283	6.9	6.7	-1.5	292	0.5	0.5	-0.2	96	9.2	-9.1	1.0	86	21.0	-21.0	-1.4	85	32.7	-32.6	-3.0
16	255	8.6	8.3	2.3	275	8.4	8.4	-0.8	293	6.5	6.0	-2.6	239	0.6	0.5	0.3	87	10.1	-10.1	-0.5	84	19.8	-19.7	-1.9	86	33.8	-33.7	-2.5
17	250	10.3	9.7	3.5	268	7.7	7.7	0.3	282	6.0	5.9	-1.3	27	0.2	-0.1	-0.2	102	10.4	-10.2	2.1	88	18.9	-18.9	-0.6	82	29.5	-29.2	-4.2
18	251	8.3	7.8	2.7	266	9.7	9.7	0.6	275	7.3	7.3	-0.6	270	1.3	1.3	0.0	103	8.3	-8.1	1.8	83	18.2	-18.1	-2.2	79	29.0	-28.5	-5.3
19	252	9.5	9.0	2.9	271	9.8	9.8	-0.1	275	7.3	7.3	-0.7	267	1.8	1.8	0.1	95	9.5	-9.5	0.9	84	21.8	-21.7	-2.3	87	30.8	-30.8	-1.5
20	248	9.7	9.0	3.6	275	9.6	9.6	-0.8	279	7.0	6.9	-1.1	303	3.3	2.8	-1.8	88	7.6	-7.6	-0.3	77	19.2	-18.7	-4.3	86	31.0	-30.9	-2.2
21	257	9.0	8.8	2.0	271	8.4	8.4	-0.1	277	8.5	8.4	-1.1	245	2.1	1.9	0.9	93	9.5	-9.5	0.5	83	16.7	-16.6	-2.0	83	30.8	-30.6	-3.5
22	254	8.7	8.4	2.4	269	8.7	8.7	0.1	278	6.5	6.4	-0.9	186	1.8	0.2	1.8	89	10.6	-10.6	-0.1	84	21.3	-21.2	-2.3	89	28.0	-28.0	-0.7
23	263	9.5	9.4	1.2	271	8.2	8.2	-0.1	276	7.5	7.5	-0.8	257	1.8	1.8	0.4	91	9.7	-9.7	0.1	87	21.9	-21.9	-1.2	88	32.5	-32.5	-1.2
24	256	9.4	9.1	2.3	265	9.7	9.7	0.8	270	7.4	7.4	0.0	203	0.8	0.3	0.7	87	9.1	-9.1	-0.5	86	19.5	-19.4	-1.4	84	31.3	-31.1	-3.4
25	259	8.8	8.6	1.7	270	8.2	8.2	0.0	276	8.1	8.0	-0.9	281	2.5	2.5	-0.5	91	8.5	-8.5	0.1	87	21.7	-21.7	-1.0	86	30.1	-30.0	-2.1
26	261	8.7	8.6	1.3	274	9.3	9.3	-0.6	281	7.7	7.6	-1.5	303	2.0	1.7	-1.1	82	8.9	-8.8	-1.2	84	22.9	-22.8	-2.4	83	33.4	-33.2	-3.9
27	263	9.0	8.9	1.1	275	9.4	9.4	-0.9	282	8.7	8.5	-1.8	291	3.9	3.6	-1.4	84	8.3	-8.3	-0.9	83	19.1	-19.0	-2.2	79	30.6	-30.1	-5.7
28	263	6.4	6.4	0.8	280	7.8	7.7	-1.3	287	6.4	6.1	-1.9	266	2.8	2.8	0.2	88	7.1	-7.1	-0.2	77	21.6	-21.0	-4.9	89	35.0	-35.0	-0.8
29	263	7.8	7.7	1.0	278	8.0	7.9	-1.1	286	7.3	7.0	-2.0	270	3.0	3.0	0.0	86	8.0	-8.0	-0.6	83	19.8	-19.7	-2.3	87	31.7	-31.6	-1.8
30	259	9.3	9.1	1.7	277	8.2	8.1	-1.0	292	6.2	5.8	-2.3	288	1.6	1.5	-0.5	85	8.5	-8.5	-0.7	89	18.7	-18.7	-0.4	87	30.9	-30.8	-1.8
31	253	7.7	7.3	2.3	274	7.2	7.2	-0.5	281	6.5	6.4	-1.3	250	1.2	1.1	0.4	91	9.9	-9.9	0.1	86	18.2	-18.2	-1.3	87	31.6	-31.6	-1.4

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **AUGUST** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	263	8.1	8.0	1.0	277	8.1	8.0	-1.0	286	6.6	6.4	-1.8	337	2.8	1.1	-2.6	87	8.6	-8.6	-0.4	85	18.0	-17.9	-1.7	86	33.0	-32.9	-2.2
2	254	7.7	7.4	2.1	272	8.3	8.3	-0.3	282	6.0	5.9	-1.3	319	1.8	1.2	-1.4	86	7.3	-7.3	-0.5	84	18.3	-18.2	-2.0	90	34.9	-34.9	-0.2
3	268	7.6	7.6	0.3	271	8.5	8.5	-0.2	281	6.4	6.3	-1.2	266	1.3	1.3	0.1	96	8.6	-8.6	0.9	81	20.4	-20.1	-3.3	82	29.7	-29.4	-4.3
4	256	10.0	9.7	2.5	272	9.4	9.4	-0.3	277	7.2	7.1	-0.9	260	5.3	5.2	0.9	89	7.3	-7.3	-0.1	80	20.2	-19.9	-3.4	86	29.4	-29.3	-2.0
5	256	8.8	8.5	2.1	274	9.2	9.2	-0.7	280	7.7	7.6	-1.4	281	1.6	1.6	-0.3	88	7.0	-7.0	-0.2	84	16.8	-16.7	-1.7	83	29.0	-28.8	-3.6
6	254	9.4	9.0	2.6	276	9.3	9.3	-0.9	281	7.7	7.6	-1.5	279	3.8	3.8	-0.6	89	9.3	-9.3	-0.1	80	16.8	-16.5	-3.0	86	29.1	-29.0	-1.8
7	251	10.4	9.8	3.4	275	10.0	10.0	-0.8	291	8.8	8.2	-3.2	287	3.4	3.2	-1.0	101	8.1	-7.9	1.6	78	17.5	-17.1	-3.6	80	27.0	-26.6	-4.6
8	265	9.8	9.8	0.8	280	8.8	8.7	-1.6	283	8.1	7.9	-1.8	297	2.2	2.0	-1.0	93	8.4	-8.4	0.5	82	15.6	-15.5	-2.1	85	24.5	-24.4	-2.3
9	263	6.8	6.8	0.8	275	8.4	8.4	-0.8	281	6.9	6.8	-1.3	262	1.4	1.4	0.2	96	9.1	-9.0	1.0	87	17.9	-17.9	-0.8	86	31.5	-31.4	-2.2
10	266	4.8	4.8	0.3	271	7.4	7.4	-0.1	279	5.6	5.5	-0.9	248	1.1	1.0	0.4	99	8.7	-8.6	1.3	85	20.2	-20.1	-1.9	86	29.8	-29.7	-1.9
11	257	7.2	7.0	1.6	278	8.8	8.7	-1.2	286	6.9	6.6	-1.9	207	0.2	0.1	0.2	94	9.5	-9.5	0.7	89	21.5	-21.5	-0.3	92	34.0	-34.0	0.9
12	250	8.1	7.6	2.7	273	8.9	8.9	-0.4	283	7.0	6.8	-1.6	300	2.2	1.9	-1.1	88	7.8	-7.8	-0.3	84	18.0	-17.9	-2.0	78	29.8	-29.1	-6.3
13	252	8.5	8.1	2.7	281	7.9	7.8	-1.5	295	6.8	6.2	-2.9	324	2.4	1.4	-1.9	89	8.0	-8.0	-0.2	85	17.9	-17.8	-1.5	84	26.1	-26.0	-2.7
14	258	7.3	7.1	1.5	280	8.8	8.7	-1.5	292	7.7	7.1	-2.9	276	2.0	2.0	-0.2	99	9.0	-8.9	1.4	80	18.7	-18.4	-3.2	89	29.0	-29.0	-0.5
15	268	7.1	7.1	0.2	279	8.5	8.4	-1.3	288	7.7	7.3	-2.4	266	2.6	2.6	0.2	95	8.4	-8.4	0.7	82	19.3	-19.1	-2.7	84	26.4	-26.3	-2.6
16	262	6.6	6.5	0.9	276	7.7	7.7	-0.8	282	7.2	7.0	-1.5	276	3.0	3.0	-0.3	87	9.0	-9.0	-0.5	78	16.1	-15.7	-3.4	83	29.1	-28.9	-3.5
17	256	7.4	7.2	1.8	277	8.0	7.9	-1.0	279	7.2	7.1	-1.1	296	3.0	2.7	-1.3	96	7.4	-7.4	0.8	89	17.8	-17.8	-0.4	95	26.7	-26.6	2.2
18	253	9.1	8.7	2.7	274	8.9	8.9	-0.6	279	7.8	7.7	-1.2	270	2.7	2.7	0.0	92	7.0	-7.0	0.3	86	17.8	-17.8	-1.1	86	29.6	-29.5	-2.3
19	255	8.6	8.3	2.3	273	8.0	8.0	-0.4	280	6.3	6.2	-1.1	281	2.0	2.0	-0.4	92	9.5	-9.5	0.4	84	17.5	-17.4	-1.9	88	29.2	-29.2	-0.8
20	248	9.1	8.4	3.4	279	8.0	7.9	-1.2	290	5.9	5.5	-2.0	233	0.5	0.4	0.3	103	8.3	-8.1	1.8	87	18.3	-18.3	-0.8	84	30.3	-30.1	-3.3
21	258	6.4	6.3	1.3	287	7.3	7.0	-2.1	299	6.2	5.4	-3.0	27	0.4	-0.2	-0.4	100	9.1	-9.0	1.6	91	19.3	-19.3	0.3	86	26.9	-26.8	-1.8
22	276	2.8	2.8	-0.3	281	5.6	5.5	-1.1	284	5.0	4.9	-1.2	165	1.1	-0.3	1.1	97	7.8	-7.7	0.9	88	15.5	-15.5	-0.6	87	29.0	-29.0	-1.6
23	270	1.0	1.0	0.0	272	4.9	4.9	-0.2	273	4.0	4.0	-0.2	186	2.0	0.2	2.0	107	9.6	-9.2	2.8	85	17.5	-17.4	-1.5	90	29.3	-29.3	-0.2
24	256	4.0	3.9	1.0	270	6.8	6.8	0.0	276	5.4	5.4	-0.6	229	2.0	1.5	1.3	100	10.2	-10.0	1.8	88	18.4	-18.4	-0.6	87	27.7	-27.7	-1.5
25	266	4.6	4.6	0.3	274	5.9	5.9	-0.4	276	4.6	4.6	-0.5	323	0.5	0.3	-0.4	90	9.0	-9.0	0.0	91	20.0	-20.0	0.2	85	25.0	-24.9	-2.3
26	267	3.4	3.4	0.2	286	6.1	5.9	-1.7	299	5.7	5.0	-2.8	315	2.1	1.5	-1.5	95	8.8	-8.8	0.8	84	19.6	-19.5	-2.2	95	26.4	-26.3	2.5
27	286	3.7	3.6	-1.0	284	6.5	6.3	-1.6	294	6.7	6.1	-2.7	281	2.6	2.6	-0.5	91	4.6	-4.6	0.1	87	14.3	-14.3	-0.7	94	25.0	-24.9	1.8
28	257	5.2	5.1	1.2	276	6.8	6.8	-0.7	291	6.2	5.8	-2.2	270	3.0	3.0	0.0	107	6.5	-6.2	1.9	82	17.6	-17.4	-2.4	86	26.3	-26.2	-1.8
29	265	7.4	7.4	0.6	278	7.7	7.6	-1.1	285	6.5	6.3	-1.7	268	2.6	2.6	0.1	104	6.8	-6.6	1.6	88	17.7	-17.7	-0.7	89	25.4	-25.4	-0.3
30	262	6.8	6.7	0.9	275	8.1	8.1	-0.7	281	8.4	8.2	-1.6	220	1.6	1.0	1.2	110	9.2	-8.7	3.1	89	18.1	-18.1	-0.3	90	26.7	-26.7	-0.2
31	256	8.3	8.1	2.0	277	8.1	8.0	-1.0	282	6.7	6.6	-1.4	270	2.2	2.2	0.0	94	8.3	-8.3	0.6	91	17.3	-17.3	0.2	92	25.7	-25.7	0.8

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **SEPTEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	255	8.1	7.8	2.1	273	7.2	7.2	-0.4	280	6.4	6.3	-1.1	243	0.2	0.2	0.1	95	9.0	-9.0	0.8	87	18.1	-18.1	-0.9	90	26.4	-26.4	0.2
2	251	8.4	8.0	2.7	274	8.0	8.0	-0.5	280	6.4	6.3	-1.1	330	0.8	0.4	-0.7	88	8.3	-8.3	-0.3	92	18.6	-18.6	0.7	84	23.6	-23.5	-2.6
3	259	6.8	6.7	1.3	278	6.7	6.6	-0.9	279	6.6	6.5	-1.0	306	0.9	0.7	-0.5	104	8.1	-7.9	2.0	89	17.6	-17.6	-0.3	86	25.3	-25.2	-1.8
4	269	6.8	6.8	0.1	275	7.5	7.5	-0.6	283	6.5	6.3	-1.4	283	0.9	0.9	-0.2	91	8.4	-8.4	0.2	80	14.7	-14.5	-2.5	91	23.7	-23.7	0.4
5	253	7.5	7.2	2.2	274	8.3	8.3	-0.6	282	7.2	7.0	-1.5	290	3.0	2.8	-1.0	100	8.2	-8.1	1.4	86	18.0	-18.0	-1.3	85	24.0	-23.9	-2.1
6	260	7.3	7.2	1.3	283	7.4	7.2	-1.7	283	7.1	6.9	-1.6	290	2.9	2.7	-1.0	111	5.3	-5.0	1.9	84	15.8	-15.7	-1.6	91	24.2	-24.2	0.4
7	250	7.3	6.9	2.5	282	6.0	5.9	-1.3	296	5.3	4.8	-2.3	320	1.7	1.1	-1.3	88	6.3	-6.3	-0.2	82	14.4	-14.3	-1.9	88	23.2	-23.2	-0.8
8	264	5.3	5.3	0.6	297	5.5	4.9	-2.5	289	5.4	5.1	-1.8	11	1.5	-0.3	-1.5	93	6.7	-6.7	0.3	89	14.0	-14.0	-0.3	93	24.6	-24.6	1.1
9	256	5.4	5.2	1.3	301	4.4	3.8	-2.3	309	4.3	3.3	-2.7	16	0.7	-0.2	-0.7	94	8.9	-8.9	0.6	85	15.9	-15.8	-1.4	88	25.3	-25.3	-1.1
10	246	5.2	4.8	2.1	299	4.1	3.6	-2.0	297	3.8	3.4	-1.7	83	0.8	-0.8	-0.1	109	6.9	-6.5	2.2	88	14.1	-14.1	-0.5	94	24.3	-24.2	1.6
11	252	4.9	4.7	1.5	281	4.1	4.0	-0.8	284	3.8	3.7	-0.9	225	1.4	1.0	1.0	117	6.8	-6.0	3.1	88	16.9	-16.9	-0.6	90	22.5	-22.5	-0.1
12	247	5.8	5.3	2.3	264	4.9	4.9	0.5	265	4.3	4.3	0.4	215	1.2	0.7	1.0	98	6.4	-6.3	0.9	85	15.1	-15.1	-1.2	93	21.2	-21.2	1.1
13	257	6.5	6.3	1.5	266	4.5	4.5	0.3	284	3.8	3.7	-0.9	252	1.3	1.2	0.4	99	6.7	-6.6	1.0	87	14.2	-14.2	-0.8	88	21.5	-21.5	-0.6
14	254	5.9	5.7	1.6	273	4.4	4.4	-0.2	297	2.9	2.6	-1.3	16	0.7	-0.2	-0.7	98	6.4	-6.3	0.9	85	12.3	-12.3	-1.1	93	20.2	-20.2	1.1
15	253	6.7	6.4	2.0	285	3.1	3.0	-0.8	311	3.7	2.8	-2.4	18	0.9	-0.3	-0.9	101	5.7	-5.6	1.1	98	12.9	-12.8	1.8	101	21.2	-20.8	4.2
16	262	5.8	5.7	0.8	291	3.0	2.8	-1.1	318	2.4	1.6	-1.8	66	2.0	-1.8	-0.8	89	5.7	-5.7	-0.1	90	11.9	-11.9	0.1	92	19.9	-19.9	0.6
17	256	4.6	4.5	1.1	289	2.1	2.0	-0.7	322	2.4	1.5	-1.9	81	1.2	-1.2	-0.2	107	5.1	-4.9	1.5	94	11.1	-11.1	0.7	99	18.2	-18.0	2.8
18	255	4.7	4.5	1.2	288	2.5	2.4	-0.8	311	2.0	1.5	-1.3	63	0.2	-0.2	-0.1	102	5.2	-5.1	1.1	94	10.5	-10.5	0.8	87	18.4	-18.4	-0.9
19	273	3.5	3.5	-0.2	333	0.9	0.4	-0.8	356	1.6	0.1	-1.6	97	3.1	-3.1	0.4	103	7.1	-6.9	1.6	95	11.7	-11.7	1.0	94	18.0	-18.0	1.3
20	330	1.4	0.7	-1.2	309	0.6	0.5	-0.4	337	0.8	0.3	-0.7	80	3.6	-3.5	-0.6	101	5.9	-5.8	1.1	99	10.1	-10.0	1.5	97	17.4	-17.3	2.1
21	337	1.3	0.5	-1.2	339	0.9	0.3	-0.8	21	1.7	-0.6	-1.6	94	2.9	-2.9	0.2	108	7.6	-7.2	2.3	99	13.3	-13.1	2.0	99	18.4	-18.2	3.0
22	243	0.7	0.6	0.3	294	1.0	0.9	-0.4	350	1.1	0.2	-1.1	92	3.2	-3.2	0.1	109	6.1	-5.8	2.0	99	11.3	-11.2	1.8	100	15.2	-15.0	2.6
23	201	0.9	0.3	0.8	210	0.8	0.4	0.7	112	0.5	-0.5	0.2	95	2.1	-2.1	0.2	105	5.3	-5.1	1.4	92	9.2	-9.2	0.3	96	17.6	-17.5	1.8
24	203	1.3	0.5	1.2	196	1.5	0.4	1.4	130	0.8	-0.6	0.5	119	2.9	-2.5	1.4	105	4.9	-4.7	1.3	91	10.1	-10.1	0.2	92	16.6	-16.6	0.5
25	276	2.0	2.0	-0.2	157	0.8	-0.3	0.7	115	1.7	-1.5	0.7	108	2.2	-2.1	0.7	114	4.8	-4.4	2.0	90	11.0	-11.0	0.0	100	15.7	-15.5	2.7
26	257	3.9	3.8	0.9	278	1.5	1.5	-0.2	311	1.1	0.8	-0.7	95	1.2	-1.2	0.1	103	4.5	-4.4	1.0	100	10.2	-10.1	1.7	93	15.7	-15.7	0.9
27	223	2.1	1.4	1.5	238	0.9	0.8	0.5	360	0.3	0.0	-0.3	86	1.5	-1.5	-0.1	112	3.8	-3.5	1.4	98	9.8	-9.7	1.4	91	12.9	-12.9	0.3
28	117	1.1	-1.0	0.5	342	0.6	0.2	-0.6	18	1.6	-0.5	-1.5	88	2.6	-2.6	-0.1	94	5.5	-5.5	0.4	94	9.5	-9.5	0.6	91	15.4	-15.4	0.2
29	78	2.5	-2.4	-0.5	23	1.3	-0.5	-1.2	30	2.2	-1.1	-1.9	80	2.3	-2.3	-0.4	110	4.4	-4.1	1.5	110	8.0	-7.5	2.7	96	14.3	-14.2	1.5
30	107	1.7	-1.6	0.5	45	1.3	-0.9	-0.9	36	1.9	-1.1	-1.5	86	3.0	-3.0	-0.2	121	4.9	-4.2	2.5	111	7.9	-7.4	2.8	100	13.0	-12.8	2.3

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **OCTOBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	132	1.5	-1.1	1.0	80	2.2	-2.2	-0.4	70	3.2	-3.0	-1.1	103	4.1	-4.0	0.9	121	4.7	-4.0	2.4	112	7.9	-7.3	3.0	100	16.7	-16.4	3.0
2	73	1.0	-1.0	-0.3	45	1.0	-0.7	-0.7	27	0.9	-0.4	-0.8	96	2.9	-2.9	0.3	117	5.6	-5.0	2.6	114	5.9	-5.4	2.4	101	13.8	-13.5	2.7
3	90	0.1	-0.1	0.0	42	1.3	-0.9	-1.0	29	1.3	-0.6	-1.1	96	1.9	-1.9	0.2	117	5.4	-4.8	2.4	109	8.2	-7.7	2.7	96	14.3	-14.2	1.6
4	76	0.8	-0.8	-0.2	79	1.0	-1.0	-0.2	98	0.7	-0.7	0.1	153	3.1	-1.4	2.8	131	5.5	-4.2	3.6	108	6.0	-5.7	1.9	106	13.0	-12.5	3.6
5	23	0.8	-0.3	-0.7	45	0.6	-0.4	-0.4	90	0.4	-0.4	0.0	120	2.4	-2.1	1.2	133	4.7	-3.4	3.2	117	6.8	-6.1	3.1	94	14.3	-14.3	1.0
6	44	2.9	-2.0	-2.1	63	1.3	-1.2	-0.6	63	1.1	-1.0	-0.5	135	3.0	-2.1	2.1	119	5.5	-4.8	2.7	112	5.6	-5.2	2.1	104	13.1	-12.7	3.2
7	80	4.2	-4.1	-0.7	90	2.0	-2.0	0.0	82	0.7	-0.7	-0.1	120	3.4	-3.0	1.7	118	3.6	-3.2	1.7	108	5.9	-5.6	1.8	99	11.0	-10.9	1.8
8	60	5.0	-4.3	-2.5	59	2.3	-2.0	-1.2	43	1.6	-1.1	-1.2	115	1.9	-1.7	0.8	136	3.2	-2.2	2.3	108	6.5	-6.2	2.0	99	10.8	-10.7	1.7
9	131	4.6	-3.5	3.0	123	1.7	-1.4	0.9	122	1.5	-1.3	0.8	168	3.3	-0.7	3.2	143	4.8	-2.9	3.8	108	4.1	-3.9	1.3	99	9.3	-9.2	1.5
10	145	2.4	-1.4	2.0	84	1.8	-1.8	-0.2	13	1.3	-0.3	-1.3	72	2.2	-2.1	-0.7	116	2.8	-2.5	1.2	122	5.7	-4.8	3.0	107	10.2	-9.8	3.0
11	133	1.9	-1.4	1.3	68	1.8	-1.7	-0.7	18	2.0	-0.6	-1.9	108	2.8	-2.7	0.9	136	2.8	-1.9	2.0	115	6.3	-5.7	2.6	94	7.7	-7.7	0.5
12	90	1.9	-1.9	0.0	49	1.8	-1.4	-1.2	21	1.7	-0.6	-1.6	92	3.2	-3.2	0.1	118	1.9	-1.7	0.9	115	5.7	-5.2	2.4	101	8.9	-8.7	1.7
13	45	2.7	-1.9	-1.9	46	4.2	-3.0	-2.9	39	2.8	-1.8	-2.2	82	3.0	-3.0	-0.4	131	2.1	-1.6	1.4	120	6.1	-5.3	3.1	107	9.0	-8.6	2.6
14	39	4.3	-2.7	-3.3	45	4.1	-2.9	-2.9	53	2.1	-1.7	-1.3	78	2.4	-2.3	-0.5	150	2.0	-1.0	1.7	158	6.8	-2.5	6.3	103	7.0	-6.8	1.6
15	59	4.4	-3.8	-2.3	50	4.8	-3.7	-3.1	62	3.0	-2.6	-1.4	59	1.2	-1.0	-0.6	196	1.5	0.4	1.4	172	5.7	-0.8	5.6	109	6.9	-6.5	2.3
16	58	4.5	-3.8	-2.4	64	4.3	-3.9	-1.9	67	3.3	-3.0	-1.3	85	3.5	-3.5	-0.3	146	2.9	-1.6	2.4	149	6.0	-3.1	5.1	107	8.4	-8.0	2.4
17	34	5.0	-2.8	-4.1	59	4.3	-3.7	-2.2	51	2.6	-2.0	-1.6	98	2.1	-2.1	0.3	147	1.7	-0.9	1.4	151	4.9	-2.4	4.3	112	6.1	-5.7	2.3
18	47	5.0	-3.6	-3.4	66	4.4	-4.0	-1.8	76	1.6	-1.6	-0.4	160	1.2	-0.4	1.1	204	2.2	0.9	2.0	186	3.8	0.4	3.8	141	6.8	-4.3	5.3
19	42	3.0	-2.0	-2.2	70	3.3	-3.1	-1.1	111	1.4	-1.3	0.5	187	1.6	0.2	1.6	184	1.5	0.1	1.5	176	4.5	-0.3	4.5	120	6.4	-5.6	3.2
20	37	3.1	-1.9	-2.5	67	3.6	-3.3	-1.4	62	1.9	-1.7	-0.9	122	0.9	-0.8	0.5	90	0.5	-0.5	0.0	171	3.3	-0.5	3.3	88	5.7	-5.7	-0.2
21	33	2.0	-1.1	-1.7	71	3.4	-3.2	-1.1	180	0.2	0.0	0.2	189	1.2	0.2	1.2	231	1.4	1.1	0.9	214	3.2	1.8	2.7	137	5.7	-3.9	4.2
22	30	2.8	-1.4	-2.4	52	4.2	-3.3	-2.6	27	0.9	-0.4	-0.8	309	0.6	0.5	-0.4	236	3.6	3.0	2.0	208	4.7	2.2	4.1	107	4.7	-4.5	1.4
23	27	2.5	-1.1	-2.2	54	3.1	-2.5	-1.8	18	1.3	-0.4	-1.2	360	0.5	0.0	-0.5	231	2.2	1.7	1.4	187	2.5	0.3	2.5	157	2.8	-1.1	2.6
24	49	4.3	-3.2	-2.8	69	3.9	-3.6	-1.4	63	2.7	-2.4	-1.2	63	0.9	-0.8	-0.4	281	2.5	2.5	-0.5	217	3.0	1.8	2.4	100	6.3	-6.2	1.1
25	60	4.8	-4.2	-2.4	77	3.7	-3.6	-0.8	39	1.9	-1.2	-1.5	90	0.7	-0.7	0.0	232	3.6	2.8	2.2	223	5.4	3.7	4.0	147	4.9	-2.7	4.1
26	47	4.9	-3.6	-3.3	66	4.6	-4.2	-1.9	32	2.2	-1.2	-1.9	277	0.8	0.8	-0.1	259	4.6	4.5	0.9	217	6.9	4.2	5.5	212	2.8	1.5	2.4
27	52	4.3	-3.4	-2.7	67	5.3	-4.9	-2.1	39	2.8	-1.8	-2.2	297	0.2	0.2	-0.1	241	5.2	4.6	2.5	220	8.5	5.5	6.5	166	4.2	-1.0	4.1
28	48	5.2	-3.9	-3.5	65	5.4	-4.9	-2.3	63	3.0	-2.7	-1.4	129	0.6	-0.5	0.4	217	4.0	2.4	3.2	206	7.6	3.3	6.9	102	3.5	-3.4	0.7
29	51	5.5	-4.3	-3.5	64	5.5	-4.9	-2.4	53	2.1	-1.7	-1.3	208	1.7	0.8	1.5	225	4.8	3.4	3.4	220	9.1	5.8	7.0	176	2.8	-0.2	2.8
30	54	5.7	-4.6	-3.3	61	5.3	-4.6	-2.6	63	2.2	-2.0	-1.0	194	0.4	0.1	0.4	240	5.6	4.9	2.8	212	8.7	4.6	7.4	124	2.3	-1.9	1.3
31	54	5.2	-4.2	-3.0	72	6.1	-5.8	-1.9	83	2.6	-2.6	-0.3	95	2.2	-2.2	0.2	231	5.0	3.9	3.2	230	7.0	5.3	4.5	125	4.2	-3.4	2.4

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **NOVEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	59	6.3	-5.4	-3.2	68	6.8	-6.3	-2.6	92	2.4	-2.4	0.1	67	2.3	-2.1	-0.9	235	4.7	3.9	2.7	212	7.0	3.7	5.9	136	2.9	-2.0	2.1
2	56	7.1	-5.9	-4.0	74	6.6	-6.4	-1.8	94	3.2	-3.2	0.2	67	1.3	-1.2	-0.5	271	4.5	4.5	-0.1	233	7.6	6.0	4.6	133	2.1	-1.5	1.4
3	58	7.0	-6.0	-3.7	78	5.8	-5.7	-1.2	90	2.1	-2.1	0.0	29	1.8	-0.9	-1.6	245	6.8	6.2	2.9	220	8.9	5.8	6.8	70	3.0	-2.8	-1.0
4	49	7.2	-5.5	-4.7	70	4.0	-3.8	-1.4	60	1.4	-1.2	-0.7	40	1.6	-1.0	-1.2	258	6.6	6.4	1.4	225	8.8	6.3	6.2	175	2.3	-0.2	2.3
5	53	6.5	-5.2	-3.9	63	5.4	-4.8	-2.4	47	2.3	-1.7	-1.6	330	1.6	0.8	-1.4	256	7.2	7.0	1.8	244	10.0	9.0	4.4	241	4.7	4.1	2.3
6	56	9.0	-7.5	-5.0	65	6.5	-5.9	-2.8	71	2.4	-2.3	-0.8	360	1.1	0.0	-1.1	251	7.5	7.1	2.5	243	11.0	9.8	4.9	102	1.9	-1.9	0.4
7	63	7.2	-6.4	-3.3	63	6.4	-5.7	-2.9	83	3.2	-3.2	-0.4	16	2.6	-0.7	-2.5	256	5.7	5.5	1.4	233	9.0	7.2	5.4	163	3.4	-1.0	3.3
8	56	7.3	-6.1	-4.1	63	5.6	-5.0	-2.6	52	2.8	-2.2	-1.7	29	1.0	-0.5	-0.9	267	5.4	5.4	0.3	239	6.3	5.4	3.3	107	1.0	-1.0	0.3
9	63	4.7	-4.2	-2.1	64	4.6	-4.1	-2.0	34	2.5	-1.4	-2.1	335	1.9	0.8	-1.7	267	7.8	7.8	0.4	237	7.7	6.4	4.2	352	1.5	0.2	-1.5
10	55	3.8	-3.1	-2.2	59	3.9	-3.3	-2.0	20	2.0	-0.7	-1.9	302	1.9	1.6	-1.0	267	6.2	6.2	0.3	240	7.9	6.8	4.0	92	2.5	-2.5	0.1
11	55	4.2	-3.4	-2.4	60	5.0	-4.3	-2.5	65	1.9	-1.7	-0.8	313	1.9	1.4	-1.3	261	7.1	7.0	1.1	233	8.1	6.5	4.9	315	3.0	2.1	-2.1
12	51	4.8	-3.7	-3.0	63	6.0	-5.4	-2.7	51	1.3	-1.0	-0.8	351	2.0	0.3	-2.0	268	6.5	6.5	0.2	231	11.2	8.8	7.0	238	3.1	2.6	1.6
13	50	5.2	-4.0	-3.4	63	4.6	-4.1	-2.1	62	2.4	-2.1	-1.1	315	0.3	0.2	-0.2	250	6.9	6.5	2.4	230	10.5	8.0	6.8	138	1.3	-0.9	1.0
14	50	5.7	-4.4	-3.7	61	5.1	-4.5	-2.5	62	3.0	-2.6	-1.4	61	1.0	-0.9	-0.5	254	5.2	5.0	1.4	230	10.1	7.7	6.5	232	1.6	1.3	1.0
15	56	6.9	-5.7	-3.9	64	5.1	-4.6	-2.2	57	1.7	-1.4	-0.9	351	1.3	0.2	-1.3	260	7.4	7.3	1.3	237	10.0	8.4	5.5	283	4.4	4.3	-1.0
16	59	5.7	-4.9	-2.9	58	5.5	-4.7	-2.9	60	2.0	-1.7	-1.0	27	0.7	-0.3	-0.6	253	7.3	7.0	2.2	219	8.7	5.5	6.7	254	2.9	2.8	0.8
17	61	5.3	-4.6	-2.6	68	4.0	-3.7	-1.5	85	1.1	-1.1	-0.1	240	0.8	0.7	0.4	248	6.8	6.3	2.5	227	11.0	8.1	7.5	150	2.2	-1.1	1.9
18	62	5.5	-4.9	-2.6	66	5.8	-5.3	-2.4	35	2.1	-1.2	-1.7	270	0.9	0.9	0.0	247	9.5	8.8	3.7	227	14.3	10.5	9.7	236	4.6	3.8	2.6
19	55	4.9	-4.0	-2.8	54	4.8	-3.9	-2.8	38	1.8	-1.1	-1.4	249	1.7	1.6	0.6	249	8.3	7.7	3.0	231	12.5	9.7	7.9	218	4.9	3.0	3.9
20	52	6.6	-5.2	-4.0	54	4.9	-4.0	-2.9	16	1.8	-0.5	-1.7	273	1.8	1.8	-0.1	239	9.6	8.3	4.9	223	13.7	9.4	10.0	218	6.0	3.7	4.7
21	54	6.5	-5.3	-3.8	59	4.3	-3.7	-2.2	35	1.2	-0.7	-1.0	300	1.6	1.4	-0.8	245	10.8	9.8	4.5	227	12.6	9.2	8.6	257	6.2	6.0	1.4
22	58	6.2	-5.2	-3.3	65	4.3	-3.9	-1.8	63	1.1	-1.0	-0.5	240	2.2	1.9	1.1	239	11.7	10.0	6.0	222	15.3	10.2	11.4	217	6.8	4.1	5.4
23	53	6.4	-5.1	-3.9	60	4.8	-4.2	-2.4	69	0.9	-0.8	-0.3	238	2.8	2.4	1.5	243	10.4	9.3	4.7	221	15.9	10.4	12.0	181	6.1	0.1	6.1
24	53	6.5	-5.2	-3.9	52	5.4	-4.3	-3.3	55	1.6	-1.3	-0.9	213	1.7	0.9	1.4	257	8.8	8.6	2.0	228	14.4	10.6	9.7	232	4.4	3.5	2.7
25	49	5.0	-3.8	-3.3	57	5.1	-4.3	-2.8	41	2.3	-1.5	-1.7	288	3.2	3.0	-1.0	258	10.4	10.2	2.2	226	14.8	10.7	10.2	223	5.3	3.6	3.9
26	45	4.4	-3.1	-3.1	63	4.5	-4.0	-2.0	41	0.9	-0.6	-0.7	303	3.0	2.5	-1.6	259	10.4	10.2	2.0	244	14.4	12.9	6.4	249	8.6	8.0	3.1
27	56	5.0	-4.2	-2.8	59	4.7	-4.0	-2.4	27	2.0	-0.9	-1.8	320	3.0	1.9	-2.3	261	9.3	9.2	1.5	243	12.8	11.4	5.9	248	3.1	2.9	1.2
28	60	5.9	-5.1	-2.9	60	4.8	-4.1	-2.4	8	3.0	-0.4	-3.0	305	2.9	2.4	-1.7	262	12.0	11.9	1.7	241	17.0	14.8	8.3	249	5.0	4.7	1.8
29	60	5.9	-5.1	-2.9	45	3.5	-2.5	-2.5	9	2.4	-0.4	-2.4	296	4.6	4.1	-2.0	256	11.4	11.0	2.8	228	15.8	11.8	10.5	257	4.3	4.2	1.0
30	47	4.7	-3.4	-3.2	63	3.9	-3.5	-1.8	5	2.1	-0.2	-2.1	288	4.3	4.1	-1.3	269	12.9	12.9	0.3	231	15.7	12.3	9.8	259	10.1	9.9	1.9

Daily Normals of Upper Air Winds (1971-2000)

VISAKHAPATANAM **DECEMBER** **0530 IST**

	925 hPa				850 hPa				700 hPa				500 hPa				300 hPa				200 hPa				100 hPa			
Date	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N	DIR	Vo	E	N
1	56	4.8	-4.0	-2.7	65	3.8	-3.4	-1.6	23	1.3	-0.5	-1.2	293	4.3	4.0	-1.7	263	13.9	13.8	1.7	242	17.7	15.7	8.2	275	10.3	10.3	-0.9
2	50	4.2	-3.2	-2.7	63	4.0	-3.6	-1.8	28	1.5	-0.7	-1.3	306	4.1	3.3	-2.4	276	10.3	10.2	-1.1	238	14.8	12.6	7.8	248	6.3	5.8	2.4
3	59	6.2	-5.3	-3.2	65	5.1	-4.6	-2.1	49	1.8	-1.4	-1.2	297	2.9	2.6	-1.3	257	11.0	10.7	2.5	241	17.1	14.9	8.3	262	6.9	6.8	0.9
4	67	7.1	-6.5	-2.8	58	4.0	-3.4	-2.1	31	2.1	-1.1	-1.8	281	2.1	2.1	-0.4	257	11.3	11.0	2.6	236	18.2	15.1	10.1	254	7.4	7.1	2.1
5	66	6.1	-5.6	-2.5	53	4.9	-3.9	-2.9	39	1.4	-0.9	-1.1	266	1.6	1.6	0.1	252	11.3	10.7	3.5	235	16.8	13.8	9.5	225	8.3	5.9	5.9
6	61	6.4	-5.6	-3.1	53	4.5	-3.6	-2.7	35	1.9	-1.1	-1.6	288	3.6	3.4	-1.1	259	12.5	12.3	2.3	226	17.0	12.2	11.8	258	5.9	5.8	1.2
7	57	6.7	-5.6	-3.7	57	4.4	-3.7	-2.4	34	2.3	-1.3	-1.9	307	3.6	2.9	-2.2	268	12.3	12.3	0.5	231	15.5	12.0	9.8	257	4.3	4.2	1.0
8	54	4.3	-3.5	-2.5	57	4.9	-4.1	-2.7	18	2.5	-0.8	-2.4	317	3.7	2.5	-2.7	265	12.0	12.0	1.0	239	17.9	15.3	9.3	262	4.4	4.4	0.6
9	58	5.1	-4.3	-2.7	56	4.5	-3.7	-2.5	35	1.6	-0.9	-1.3	271	3.9	3.9	-0.1	263	13.5	13.4	1.6	248	15.5	14.4	5.8	274	6.1	6.1	-0.4
10	59	4.4	-3.8	-2.3	48	4.6	-3.4	-3.1	7	1.6	-0.2	-1.6	270	4.6	4.6	0.0	262	11.8	11.7	1.6	242	14.0	12.4	6.5	240	3.2	2.8	1.6
11	51	4.9	-3.8	-3.1	48	2.4	-1.8	-1.6	346	2.1	0.5	-2.0	280	4.6	4.5	-0.8	263	12.2	12.1	1.5	242	16.5	14.6	7.7	191	3.2	0.6	3.1
12	43	5.1	-3.5	-3.7	70	3.0	-2.8	-1.0	336	1.7	0.7	-1.6	284	4.5	4.4	-1.1	262	12.2	12.1	1.8	247	18.7	17.3	7.2	223	4.5	3.1	3.3
13	58	4.9	-4.2	-2.6	57	3.1	-2.6	-1.7	339	2.2	0.8	-2.1	284	5.7	5.5	-1.4	259	15.7	15.4	3.0	243	23.2	20.7	10.5	239	8.2	7.1	4.2
14	55	3.3	-2.7	-1.9	49	2.9	-2.2	-1.9	321	1.3	0.8	-1.0	277	5.9	5.9	-0.7	261	15.2	15.0	2.3	250	20.2	19.0	6.8	264	6.5	6.5	0.7
15	45	4.5	-3.2	-3.2	62	3.8	-3.4	-1.8	315	1.6	1.1	-1.1	280	6.6	6.5	-1.2	265	17.4	17.3	1.4	257	19.4	18.9	4.5	273	7.8	7.8	-0.4
16	49	5.2	-3.9	-3.4	53	4.0	-3.2	-2.4	4	1.6	-0.1	-1.6	283	5.8	5.7	-1.3	268	16.3	16.3	0.7	253	19.6	18.8	5.7	276	7.9	7.9	-0.8
17	52	5.4	-4.3	-3.3	51	4.6	-3.6	-2.9	354	3.0	0.3	-3.0	277	6.4	6.3	-0.8	267	15.8	15.8	0.7	249	19.6	18.3	7.0	261	6.7	6.6	1.0
18	60	4.4	-3.8	-2.2	46	3.5	-2.5	-2.4	353	2.6	0.3	-2.6	274	7.0	7.0	-0.5	268	18.2	18.2	0.6	256	21.8	21.1	5.4	269	9.7	9.7	0.2
19	48	4.8	-3.6	-3.2	40	4.5	-2.9	-3.5	334	2.8	1.2	-2.5	287	5.8	5.5	-1.7	268	16.9	16.9	0.7	250	22.0	20.7	7.4	265	10.1	10.1	0.8
20	58	4.7	-4.0	-2.5	54	4.2	-3.4	-2.5	339	2.2	0.8	-2.1	275	7.1	7.1	-0.6	264	15.6	15.5	1.5	245	22.0	19.9	9.4	287	12.7	12.2	-3.7
21	46	3.7	-2.7	-2.6	47	3.8	-2.8	-2.6	352	2.2	0.3	-2.2	278	6.5	6.4	-0.9	261	16.3	16.1	2.6	240	19.4	16.8	9.8	261	9.8	9.7	1.6
22	55	3.5	-2.9	-2.0	49	3.5	-2.6	-2.3	333	3.0	1.4	-2.7	278	5.2	5.2	-0.7	258	17.0	16.7	3.4	248	20.3	18.9	7.5	239	9.6	8.3	4.9
23	49	3.2	-2.4	-2.1	39	3.3	-2.1	-2.6	332	1.7	0.8	-1.5	284	6.4	6.2	-1.6	261	16.0	15.8	2.5	248	22.2	20.5	8.4	269	13.1	13.1	0.3
24	46	3.2	-2.3	-2.2	46	3.7	-2.7	-2.6	327	2.4	1.3	-2.0	279	7.2	7.1	-1.1	265	19.1	19.0	1.7	253	20.1	19.2	6.0	239	10.1	8.7	5.2
25	58	3.8	-3.2	-2.0	49	3.7	-2.8	-2.4	301	1.7	1.5	-0.9	291	8.7	8.1	-3.1	269	18.1	18.1	0.2	252	21.9	20.8	6.9	255	13.3	12.8	3.5
26	62	3.4	-3.0	-1.6	49	3.2	-2.4	-2.1	292	2.2	2.0	-0.8	277	7.4	7.3	-0.9	264	18.0	17.9	2.0	255	20.9	20.2	5.3	252	12.2	11.6	3.8
27	61	5.0	-4.4	-2.4	53	3.6	-2.9	-2.2	317	1.6	1.1	-1.2	272	8.2	8.2	-0.3	271	19.2	19.2	-0.3	260	19.1	18.8	3.2	273	12.3	12.3	-0.6
28	66	4.9	-4.5	-2.0	63	3.5	-3.1	-1.6	274	1.6	1.6	-0.1	272	6.5	6.5	-0.2	269	18.2	18.2	0.2	261	20.8	20.6	3.2	253	8.7	8.3	2.5
29	63	4.5	-4.0	-2.0	48	2.8	-2.1	-1.9	279	2.6	2.6	-0.4	266	8.0	8.0	0.5	261	18.8	18.6	2.8	249	22.9	21.4	8.1	256	10.4	10.1	2.5
30	63	3.0	-2.7	-1.4	23	2.1	-0.8	-1.9	302	3.8	3.2	-2.0	284	9.7	9.4	-2.3	276	18.5	18.4	-2.0	254	24.4	23.5	6.7	278	8.3	8.2	-1.1
31	76	2.5	-2.4	-0.6	36	2.9	-1.7	-2.3	300	3.8	3.3	-1.9	275	8.7	8.7	-0.7	272	17.9	17.9	-0.7	253	22.1	21.2	6.3	196	4.1	1.1	3.9

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