

HEAD, CLIMATE RESEARCH AND SERVICES

PUNE 411 005.

PROGRESS REPORT FOR THE MONTH OF APRIL 2017

1. MAIN EVENTS-

- 1.1** Dr. K.J. Ramesh, DGM visited CR&S office Pune on 4.4.2017 and addressed to staff and officers.
- 1.2** Dr. A.K. Sahai, Head, CR&S attended Brain Storming meeting on Weather and Climate on 13.4.2017 at DGM HQ. New Delhi.
- 1.3** Dr. A.K. Sahai, Head, CR&S attended SASCOF-10 meeting at Thimpu, Bhutan from 24.4.2017 to 26.4.2017.
- 1.4** As suggested by DGM, Expression of Interest (EOI) with Reference Document for the project 'Development of Climate Data Service Portal' is being prepared calling for DPR Consultants.
- 1.5** The first stage forecast for 2017 South-West monsoon rainfall for the country as a whole is issued on 18th April 2017.
- 1.6** IMD's Long range forecasts for 2017 South-West monsoon season (June to September) are as follows :
 - 1) Quantitatively, the monsoon seasonal rainfall is likely to be 96% of the Long Period Average (LPA) with an error of $\pm 5\%$.
 - 2) Forecast assessment suggests 38% of probability for near normal Monsoon rainfall.
- 1.7** The verification of Winter forecast (January to March 2017) over North India was prepared and sent to DGM Office.

Summary of the forecast is given below :

IMD had forecasted normal rainfall over North India for 2017 winter season (Jan-Mar). and the observed rainfall for the same period was also normal.

- 1.8** Consensus forecast for 2017 southwest monsoon season (June to September) Rainfall over South Asia is issued in 10th Session of the South Asian Climate Outlook Forum (SASCOF-10) during 24-26 April 2017 at Thimpu, Bhutan.

Summary of forecast is as follows :

Normal rainfall is most likely during 2017 southwest monsoon season (June – September) over much of South Asia. More specifically: Below-normal rainfall is most likely over broad areas of north-western, central and south-eastern parts of South Asia. Above-normal rainfall is most likely over broad areas of eastern and the south-western parts of the region. Normal rainfall is most likely over the remaining areas.

- 1.9 Seasonal Outlook update for the Temperatures during The Hot Weather Season (April to June) , 2017 was issued on 2nd April 2017.

Summary of forecast is as follows :

During 2017 Hot Weather Season (April to June), warmer than normal temperatures are likely in all meteorological sub - divisions (except Sub Himalayan West Bengal and Sikkim) of the country. Seasonal (April -June) average temperatures over many of the subdivisions from northwest and neighbouring central India are likely to be above normal by more than 1.0°C. Normal to above normal heat wave (HW) conditions are likely over core heat wave zone of the country.

- 1.10 Enso bulletin and Seasonal Climate Outlook for South Asia for the month of March 2017 were issued.
(Quick Link : www.imdpune.gov.in/Clim_Pred_LRF_New/Products.html)

AEMR PLAN SCHEME :

- Pre-bid meeting was held on 24.4.2017 for procurement of Atomic Absorption Spectrophotometer with graphite furnace.

2. INTER DEPARTMENTAL MEETINGS -

- 2.1 Dr. N. Chattopadhyay, Sc.-F (Agrimet) attended the meeting on “Irrigation scheduling and mapping for real time implementation for preparation of Agromet Advisories under GKMS project” on 11th April 2017 at IITM, Pashan, Pune.

3. DEPARTMENTAL AND OTHER MEETINGS

- 3.1 Dr. D.S.Pai, Scientist ‘F’ attended “State Level Kharif Season Reviewing Meeting 2017 in Yashwantrao Chavan Pratisthan, Mumbai on 28/4/2017.
- 3.2 Marine Section of CR&S organized a meeting on 4.4.2017 with Cmde, Manoj Kumar Singh, Principal Director, Naval Oceanology and Meteorology, New Delhi, Capt. C. S. Panda from Eastern Naval Command, Visakhapatnam,

Captain, Abhinav D. Barve from Western Naval Command & Senior Vice President Captain S. K. Yadav of Shipping Corporation of India, Mumbai, Captain Som Raj. Dr. G. Srinivasan, RIMES. The meeting was chaired by Dr. K. J. Ramesh, Director General of Meteorology. Inaugural speech was given by Dr. A. K. Sahai, Head C.R.&S. All the Heads of Divisions of IMD Pune offices also participated in the function. DGM, (New Delhi) presented the mementos and certificates for the selected ships of Indian Navy for the meritorious work done by them during 1.4.2015 to 31.3.2016. A brief presentation on Marine services was prepared and shown in the meeting.

- 3.3 Dr. N. Chattopadhyay, Sc.-F (Agrimet) attended a meeting organized by the Watershed Organization Trust (WOTR), Pune on "Climate Adaptation and Services for Water, Food and Health Security" on 24 th April 2017 at Four Points by Sheraton, Pune.
- 3.4 Dr. N. Chattopadhyay, has been nominated to attend the "State Level Kharif Season Reviewing meeting 2017" in Yashwantrao Chavan Pratishthan, near Mantralaya, Mumbai on 28th April 2017.
- 3.5 Shri.R.Balasubramanian, Director / Sci-D attended 9th International Training Workshop on "Climate variability & prediction organized by NOAA / CPC – USA during 13-21 April 2017 in IITM, Pashan, Pune.
- 3.6 The State Level Agromet Advisory Committee meeting with officials of State Department of Agriculture was arranged in Agrimet Division on 3rd, 11th, 18th and 25th April 2017. Realised rainfall, weather forecast and relevant Agromet Advisories have been discussed in the meeting and the same were communicated to AMFUs for the preparation and dissemination of Agromet Advisories.

4. **RESEARCH** –

- 4.1 Research paper entitled "Usability of extended range and seasonal weather forecast in Indian agriculture" by N. Chattopadhyay, K V. Rao, R. Balasubramanian, S. V. Chandras and Dr. S. Khedikar has been sent to Mausam for publication.

5(A) **SPECIAL SERVICES**

- 5.1 Monthly Climat Temp data (CT) for March 2017 sent to NHEC, New Delhi for National Broadcast & Monthly Checked Climat Temp data (CCT) sent to SSP section for further transmission to NCDC, USA and SAARC, Bangladesh.
- 5.2 Monthly Surface Climat Broadcast Data of 37 Indian stations for the month of March 2017 were sent to DGM (NHEC) and DGM (Telecom), New Delhi on 04-04-2017. One addition for station Maitri 89514 was sent on 5/4/2017. Data

for 1 station received late 42587 was sent as retarded bulletin to DGM (NHEC) on 20/4/2017.

- 5.3 Monthly Checked Surface Climat Data of 37 Indian stations for month of February 2017 was sent to the Editor, 'Monthly Climatic data for the World' NCDC, USA and SMRC Dhaka, Bangladesh.
- 5.4 Four Drought outlook maps for the period 2 – 8, 9-15,16-22 and 23-29 April 2017 have been prepared and uploaded on IMD Web-site.
- 5.5 Four weekly Aridity anomaly maps & reports for the period 2-8 April, 9-15, 16-22 and 23-29 April,2017 have been prepared and uploaded on IMD Web-site.
- 5.6 Four weekly and cumulative Standardized Precipitation Index (SPI) maps were prepared for the weeks ending 29.03.17 05.04.17 12.04.17 and 19.04.17 and supplied for use in Agromet Advisory Services Bulletin.
- 5.7 Monthly and cumulative Standardized Precipitation Index (SPI) maps were prepared for the month ending MARCH 2017 for use in Climate Diagnostic Bulletin of India.
- 5.8 Input for framing replies to the following parliamentary questions were communicated to DGM (NWFC), New Delhi :
- 5.9 Lok Sabha Question Dy No. 29325 dated 12/4/2017 regarding "Development an Advanced Regional Climate Services".
- 5.10 Video conference was held among RWFCs, NWFC and this office daily morning, for discussing the weather situation, forecasts and warnings.
- 5.11 Local weather forecast for Pune and neighbourhood was issued four times a day all through the month.
- 5.12 Analysed weather maps of mean sea level pressure (0300 UTC) and upper level winds (0000 UTC) were sent daily to all the forecasting offices.
- 5.13 The un-analysed surface and upper air charts (part I & II), both Mng (00 Z, 0300 UTC) and Evng (1200 UTC) were sent daily morning/evening to all RMCs/ MCs.
- 5.14 Inputs as required by various print and electronic Media in specified format, including the weather summary in local language were prepared and provided on a routine basis.

- 5.15 The weather data related to the Display Unit of SAFAR project was sent to IITM group via FTP.
- 5.16 All public queries including those from media on weather related matters were answered.
- 5.17 Forecast was issued for the VVIP visit of Honourable President to Pune on 14/04/2017 and 15/04/2017.
- 5.18 Inputs regarding Heat waves and notable maximum temperature observed during April to June 2016 were sent to DGM (NWFC), New Delhi.
- 5.19 INOSHAC bulletins containing description of synoptic scale weather systems over the area 50° S- 45° N & 20° E- 155° E have been issued daily. (No. of bulletins: 30).
- 5.20 Weekly ship composite charts based on day to day 00, 06, 12 & 18 UTC ship observations and the low pressure systems in West Pacific and Indian ocean were presented in the weekly map discussions.
- 5.21 The work of forecast verification was continued. As a part of this, Local forecast verification reports for the month of **March** 2017 were received from MCs Jaipur, Srinagar and RMC Guwahati. Also, Verification of precipitation forecast for **32** subdivisions were uploaded on METNET for the month of **March** 2017 for both spatial & intensity distribution.
- 5.22 Daily upper winds of 31 stations have been collected and 32 Weekly mean and Anomaly Charts of Upper Level winds for six different levels have been prepared for the weekly map discussion presentations and uploaded on the IMD website.
- 5.23 Analyzed synoptic charts such as surface charts, Upper air (Part I and II), change charts which depict the current state of the atmosphere and reveal characteristic weather systems such as high and low pressure area, regions of convergence and divergence, jet streams etc. were incorporated in the weekly map discussions.
- 5.24 In order to aid operational weather forecasting and extended range forecasting, INSAT images of Infrared channel and water vapour channel of Indian sector, Dundee cloud imageries, wind circulation patterns, forecasts of temperature and precipitation by IMD-NWP models and models from other institutes such as COLA and ECMWF, Pentad OLR images, SST anomalies over different NINO regions were compiled and presented in weekly map discussion.

- 5.25 Sea Surface Temperature data over the Arabian Sea and Bay of Bengal has been collected from 937 ship observations for the month **April 2017**.
- 5.26 Four Weekly (one for each week) and one monthly mean and anomaly Sea Surface Temperature charts were prepared and uploaded on IMD website.
- 5.27 Indian Climate broadcast for the month **March 2017** was prepared & transmitted to NHEC (Northern Hemispheric Exchange Centre), New Delhi.
- 5.28 Analysis of extended charts covering South Indian Ocean and West Pacific Ocean, surface and upper air is being continued.
- 5.29 A report on weather parameters over Indian Seas based on the analysis of ship and buoy data was prepared and uploaded on daily basis on website imd.gov.in.
- 5.30 The Marine Met work carried out by all the P.M.O.'s during the month **March 2017** is as follows:

PMOs	Chennai	Kochi	Kolkata	Goa	Mumbai	Visakhapatnam	Total
Marine Met Work							
No of Ships visited	Nil	5	Nil	Nil	Nil	4	9
No. of barometers compared	Nil	5	Nil	Nil	14	5	24

- 5.31 Inputs for Lok Sabha priority Starred/Unstarred Question Diary No. 29297 for answer on 12/04/2017 regarding "Agrometeorology services" was sent to HQ.
- 5.32** The following products have been uploaded in Agrimet Website on every Friday.
- Standard Precipitation Index Map.
 - NDVI Map (India).
 - NDVI Map (Statewise).
 - Bulletin for Krishi Darshan (in Hindi and English)
 - Bulletin for DD Kisan (Daily)
 - Contour Maps for different Met. Parameters.
- 5.33 National AAS Bulletin has been issued on 7th, 14, 21st, 28th & (every Friday)

and on 4th and 11th, 18th & 25th (every Tuesday) and uploaded in Agrimet website in the month of April 2017.

- 5.34 Summary of National AAS Bulletin in Hindi and English were sent on every Friday to “Krishi Darshan Programme of Doordarshan”, New Delhi. National AAS Bulletin is being sent to Crop Weather Watch Group (CWWG) every Friday.
- 5.35 Inputs for “Crop Specific Weather Based Agromet Advisories” for the country is prepared on daily basis and sent for telecasting through DD Kisan Channel, New Delhi.
- 5.36 Dissemination of Agromet Advisories to the users community through SMS and IVR technology is being continued in the country through Kisan Portal and under PPP mode. At present Agromet Advisories are reaching to 21.16 million farmers in the country through SMS directly.
- 5.37 The composite AAS bulletins for Maharashtra State were prepared in English On the same dates mentioned above by utilizing weekly crop situation report of the State from the Chief Statistician, Department of Agriculture, Pune & district level Agromet Advisory Service bulletins from 9 AMFUs & sent to Commissioner of Agriculture, Govt. of Maharashtra, Chief Secretary, Govt. of Maharashtra, Director, Action for Agriculture Renewal in Maharashtra (AFARM) Pune, Director, Central Institute for Research on Cotton Technology (CIRCOT), Mumbai, Director, Central Institute for Cotton Research CICR), Nagpur, Chairman, NABARD, Mumbai, DDG, NIC, Pune, Agrimet Division, Pune and National Agromet Advisory Service Centre, Pune. Bilingual composite AAS bulletins were uploaded in website of the Division.
- 5.38 Composite Agromet Advisory Service bulletins for Maharashtra State were Prepared and issued in Marathi on 4th, 07th, 11th, 13th, 18th, 21st, 25th and 28th April 2017. These AAS bulletins were sent for broadcast through All India Radio, Pune and to telecast over Doordarshan Kendra, Mumbai and Pune and also disseminated through local newspapers.
- 5.39 Bytes for regional weather based agro advisory in Marathi for DD Kisan Channel on every Monday, Wednesday and Friday has been given. It is telecast through DD Sahyadri channel. The byte was given by Dr. S.Y.Khedikar, Sc-B, Shri. J. P. Sable, S A. and Mrs. P. S. Kulkarni, S A.

SERVICES -

- a) Wind-Rose Diagrams (Monthly and Annual) for 2 no. of stations were prepared.

- b) Dispatch of CDs and Hard Copies of the above publication is in progress.
- c) Conversion work of VAX Fortran programs to PC based programs is in progress (Approx. 96% work completed).
- d) 690 corrections were carried which were received time to time from different RMC's/MC's containing daily surface data in April 2017.
- e)
 - i) 2,69,985 records surface records were uploaded in CLISYS.
 - ii) 39,00,000 DRF records were uploaded in CLISYS.
- f) The availability of daily/monthly surface data for enquiry has been prepared.
- g) Approx. 6300 values were entered and 284 corrections were carried out of daily surface T-II data of data rescue scheme.
- h) 5113 entry/corrections in respect of the station 43326 were carried out for daily surface T-III data of data rescue scheme.
- i) Letter sent to RMC, New Delhi for details of FMO Agra regarding shifting of Agra observatory.
- j) This Office has requested RMC, Guwahati to communicate all details of new selected site to give approval for shifting and re-installation of PTO, Haflong.
- k) This office has accepted M.C. Bhubaneswar's request to the proposal for installation of new surface observatories at 15 district Headquarters in Odisha state .
- l) This office accorded principle approval for installation of surface observatory at INS Baaz Nicobar Islands with ideal exposure conditions.
- m) Reminder letter issued to RMC Chennai, Kolkata and Guwahati for operational status report from October 2016 to February 2017.
- n) Action Points (Point No11-Data Charging Policy) on the Review Meeting of the Programs and Plan of Activities held during 25-26 Oct.2016 prepared and submitted . This work has been initiated.
- o) Report in bilingual of celebration of National Science Day and World Meteorological Day along with CD of photographs taken were sent to HQ, New Delhi.

- p) Feed back forms received during the Quarter sent to US for ISO certification work.
- ▶ As desired by Head (SI), revised RFP prepared for procurement of Pressure Vacuum Chamber & will be placed before committee for final approval.
 - ▶ Approval of RFP committee for procurement of Digital Pressure Indicator with Controller has been submitted to HQ, New Delhi for RFP committee approval.
 - ▶ Approved RFP committee and approval-in-principle for procurement of Chilled Mirror Hygrometer received from HQ New Delhi. Draft RFP circulated amongst RFP committee members for further n.a.
 - ▶ Procurement of instruments under Gramin Krishi Mausam Seva (GKMS) project is in process. Items viz. Soil Thermometers (5cm/10cm/20cm depth: 150 each). Minimum thermometer (318 nos.), DB, Max, Sea surface thermometers have been received and tested in S Lab.
 - ▶ RFP committee approval and approval-in-principle for procurement of New Environmental Test Chamber to be installed at Pashan is prepared and sent to HQ New Delhi.
 - ▶ Approval of AMC for Dead Weight Tester (Model 2465 A) has been obtained from HQ, New Delhi. Necessary documents have been forwarded to CPU for final approval/sanction for AMC.
 - ▶ RFP document letter regarding approval-in-principle for items to be procured under Rate Contract (24 nos) prepared and submitted to CPU New Delhi.
 - ▶ Correspondence regarding installation of surface observatory at HNB Garhwal University (Uttarakhand).

ROUTINE ACTIVITIES-

- Analysis of rainfall samples for pH and Conductivity was carried out.
- Analysis of rainfall samples for cations and anions 50 nos. of samples were carried out.

Work regarding publication –

- i) The publication ‘Extremes of Temperatures and Rainfall for Indian Stations (upto 2012)’ has been published. The advertisement for sale of this publication is uploaded on IMD website.
- ii) Dispatched e-book (CD) / Hard copy of the publication “Daily Normals of Global and Diffuse Radiation (1971-2000)” to different stations for their office record.
- iii) The work related with preparation of “State Climatological Summary of Goa” is in progress.
- iv) The work of preparation of “Climatology of Health Indices” is in progress.
- v) The work of preparation of “Climate of Smart Cities” is in progress.
- vi) The work regarding verification of extreme rainfall values is in progress.

DETAILS OF DATA ENQUIRY / SUPPLIED:

- Departmental 15
- Commercial 08
- Registered 12
- Research 06
- Foreign -
- Free of cost 02
- No of parties to whom data supplied 43
- No of letters pending 25
- New Registrations 09

- a) Radiation data for following parameters of WRDC stations have been scrutinized and processed.

Type of data (Parameters)	Period	Station Month
Global	Jan-2017	7(13)
Diffuse	Jan - 2017	7(13)
Global	Feb - 2017	8(13)
Diffuse	Feb - 2017	8(13)

b) Scrutiny, keying and Data processing of radiation data (Global and Diffuse parameters) of Non WRDC stations for the year 2012 is in progress.

Electronic Processing :

RS/RW data (SAMEER) in the New CLISYS format for MAY 2009 has been archived in NDC .

- a) Work of the Fully Integrated user friendly software for Processing and Quality Control of Upper Air data phase I (Development of the software completed) phase II (testing of software) is in progress. 50% Payment already made to the concerned party & for remaining 50% amount, fresh expenditure sanction sent to HQ.
- b) Processing of RS and RW data of 00 & 12 UTC for 35 and 34 stations respectively of July 2005 is in progress.
- c) Processing of RS/RW data (SAMEER) in the new CLISYS format for JUNE 2009 is in progress.
- d) Processing of Climat Temp data of 2016 (00 & 12 UTC) for 20 stations is in progress.
- e) Quarterly Progress report for feedback of ISO for the quarter ending January to March 2017 prepared.
- f) Monthly data (Pressure-500 hpa , height and Temperature) of New Delhi station for the period January 2000 to March 2017 supplied to Head, CDMS.

DATA PROCESSED/ MERGED / RETRIEVED / SCRUTINIZED :

- No of records processed - 1,57,406
- No of records merged - 3,14,206
- No of records retrieved - 39,00,399
- No of enquiries received - 172
- No of enquiries replied - 104

Data Archival in NDC

- a) About 1,00,725 records of Global Marine Data for the period 2012-2017 received from GCC for as first quarter of 2017 collective were downloaded and sent to NDC for archival.
- b) Following daily rainfall data received in soft form and converted into archival format and sent to NDC for archival :-

(I) MC Lucknow (Obsy.) data Oct. to Dec. 2016

Revenue collected :

1. 04 publications were sold to 04 extra-departmental offices against payment of Rs. 4,204/-.
2. An amount of Rs. 2,12,332/- was collected towards the supply of data.
3. Hostel Room rent collected during the month of April. 2017 is Rs. 32,075/- (Rupees Thirty two Thousand seventy five Only).

The revenue received during the month of April, 2017 is as follows:

a) Testing / calibration charges	Rs. 1,63,910/-
b) Sale of instruments	Rs. 80,460/-

Total for the month of April, 2017 is

Total	Rs. 2,44,470/-
	Rs. 2,44,470/-

Cumulative total from 01-04-2017

a) Testing / calibration charges	Rs. 1,63,910/-
b) Sale of instruments	Rs. 80,460/-

Total

Total	Rs. 2,44,470/-
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Electronics Lab

1. Maintenance and Calibration

- a) Stations visited and faults rectified. NIL

No	Station	System	Remark about rectification of fault	Date of rectification of fault
1	Ludhiana	DIWE	New Installation.	Shri Rajmane MET A and Shri S S Naik SA From 11.04.2017 to 18.04.2017.
2	Bengalore	CWIS & Telvent	Wi FI Modem replaced S to E converter replaced.	Shri S M Natu MET B and Shri A B Sakhare MET B From 04.04.2017 to 08.04.2017.

3	Gondia	CWIS	Recommissioning of CWIS System	Shri Ravi Kambale MET A, Shri Ravi More S A and Shri Ravi Patil MET A From 20.04.2017 to 28.04.2017
4	Digha, Gopalpur, Paradip, Bhuvaneshwar	HWSR	Recommissioning of HWSR Systems	Smt Sangita Mupid MET B, Smt S S Prabhu MET B And Smt Suma Vijay SA From 17.04.2017 to 28.04.2017
5	Aurangabad	DIWE	Data logger and wind vane replaced.	Shri Rajmane Met A and Shri Sahay Met A 27.04.2017 to 28.04.2017

2. Supply of instruments

No	Station	System	Item supplied	Date of supply
1	Ludhiana	DIWE	Wind vane 1, opt. anemometer, Mini slave display, Data Logger	03.04.2017.
2	Juhu	DIWE	Opt. Anemometer, Wind Vane	04.04.2017
3	Gondia	CWIS	Opt. Anemometer, Wind Vane, Pressure sensor, Wi Fi Modem 2, data logger, digitiser, cable modem, Serial to Ethernet converter 2, mega slave display 2, mini slave display 2, 10 k servo pot	04.04.2017
4	Gopalpur	HWSR	Opt. Anemometer, wind vane, data logger, GPRS module, lightning arrestor,	05.04.2017
4	Digha	HWSR	Antenna, wind vane, SMPS 2, ,	05.04.2017
5	Paradeep	HWSR	logger, GPRS modem 2, 6 core cable	05.04.2017
6	M O Mumbai	CWIS	TT/RH Sensor Rotronics	11.04.2017
7	M O Diu	CWIS	Mega slave display	11.04.2017

No	Station	System	Item supplied	Date of supply
10	INS Hans Goa	CWIS	Opt anemometer, DIWE data logger	11.04.2017
11	Jamshedpur	DIWE	Mini slave display,6 core cable	12.04.2017
12	M O Palam	CWIS	Wi Fi Modem 4 ,Cable modem 4 ,Mega slave display 2 .	13.04.2017
13	MC Bhuvaneshwar	CWIS	Mega slave display	18.04.2017
14	Chikalhana	DIWE	Data logger, Wind vane.	25.04.2017
15	Lengpui	DIWE	Opt. Anemometer	27.04.2017

Maintenance and calibration :

Maintenance carried out in the following Radiation stations:

S.N.	RMCs	Radiation Stations
1	Chennai	Karaikal, Visakhapatnam
2	Nagpur	Nagpur
3	Delhi	Varanasi, Jaisalmer, New Delhi
4	Mumbai	Ahmedabad, Mumbai

Electronic Sunshine recorder installed at MC Ahmedabad and RS/RW Mumbai.

Technical guidance have been given to officials at Field sites during malfunction of Data logger/Sensors and GPRS modem.

S.N.	RMCs	Radiation Stations
1	Chennai	Bengaluru, Visakhapatnam, Karaikal
2	Delhi	Varanasi , Srinagar, Allahabad, Sriganganagar, Jaipur, Jodhpur, New Delhi.

3	Kolkata	Port Blair, Patna.
4	Mumbai	Ahmedabad, Mumbai.
5	Guwahati	Guwahati, Mohanbari.

1. **Calibration :**

Pyranometer: Twenty Five Nos. (Non-Departmental)

Pyranometer: Three Nos (Departmental)

2. Monitoring of GPS based Solar Trackers at Central Radiation Lab.

New Development during the month

- 1) Augmentation of Aviation Meteorological Services: Indents for procurement of AT/RH sensors, Atmospheric Pressure Sensors, RF modems have been sent to DGM (CPU), New Delhi for tendering process and procurement through Rate Contract with IMD.
- 2) New Installation: New HWSR installed at Gopalpur in April 2017 and installation of CWIS at Gondia airport.
- 3) R&D/ research papers: A version of CWIS system with minimal hardware and data logger cum touch screen display system has been developed through M/s. Accel System, Pune.

Miscellaneous

- a. AT/RH sensors – 3 Nos., Atmospheric Pressure Sensors – 3 Nos., Ultrasonic Wind Sensors – 2 Nos. were sent to Aeronautical Development Establishment, DRDO, Bengaluru for UAV project.
- b. Laser Ceilometers have been dispatched to M/s. Eliasson, Sweden for repair and upgrade.

Maintenance, Calibration, Installation & Tours:

Calibration:

- Departmental instruments were calibrated during the month:

Sr. No.	Name of the Instrument	Number
1.	Thermographs	06

2.	Hair Hygrographs	03
3.	NRRG	26
4.	Themometers	13
5.	Cup Counter Anemometer	03
6.	Optoelectronic Anemometer	03

- Non-Departmental instruments were calibrated on payment basis:

Sr. No.	Name of the Instrument	Number
1.	Open Pan Evaporimeter	01
2.	Combined wind speed & direction anemometer	01
3.	Hand held anemometer	01
4.	Thermometers	54
5.	SRRG with CD	01
6.	TBRG	02
7.	Digital Pressure Sensor	01

Ozone Unit :Monitoring of surface ozone recording system Pune.

Purchase Section

01	Enquiry floated on internet	09
02	Supply Order placed	08
03	Bill Passed	14
04	Purchase Requisitions Processed	05

Supply Section

The following instruments were supplied to Departmental Observatories.

Sr. No.	Met.Inst.	Chennai	Kolkata	Mumbai	Nagpur	Delhi	Guwahati	Total
1	RMG					4		4
2	ORG					4		4
3	CCA	1						1
4	Wind vane					1		1

5	SRRG					2		2
6	Hair Hygrograph					1		1
7	CD SRRG/CD H Hygrograph		2	2	1	1		6
8	Min. Thermometer			1		2		3
9	Max. Thermometer			1		1		2
10	D B Thermometer			1		3		4
11	W B thermometer			1		1		2
12	OPE Thermometer			1				1
13	Single Stevenson Screen with stand					1	1	2
14	Grass Minimum Thermometer			1				1
15	Thermograph					1		1

Annual Supply sent to 166 Departmental/ non-departmental met. observatories/ FMOs HMOs.

Following instruments were supplied to Non Departmental parties during the month of April, 2017.

- 1) ORG set- 01 No. to The Collector Dhamtari(Chhattisgarh).
- 2) Max./Min./D.B./W.B. Thermometers to a) Tamil Nadu Agri. University, Madurai, College of Horticulture, Venkataramangundam(A.P.), c) Ujani Dam Management Board, Solapur.
- 3) Single Stevenson Screen to Ujani Dam Management Board, Solapur.

No. of technical queries answered during the month - 51.

Stores

Items inwarded in stores	
From the supplier	008 Nos.
From workshop	054 Nos.

Items accounted and noted the cost	
Consumable Items	005 Nos
Purchase requisitions processed during the month	03 Nos.
Departmental (defective) instruments received from outstation observatories sent to Lab / work shop for repairs	002 Nos.
Items issued to	
Workshop/Lab :	106 Nos.
Supply Section for Observatories and for sale	074 Nos.
Entries computerized during the month	193 Nos.

Workshop

INSTRUMENTS ACCESSORIES/ ASSEMBLY	COMPLETE
CLOCK DRUM (QUARTZ)	20
SRRG	14
O.R.G	26
WIND VANE MK-II	5
SRRG PEN ARMS	20
CARPENTARY	
PACKINGBOX	40
REPAIRS	
SRRG chamber	1
CLOCK MECHANISM	1

6. WORKSHOP/SEMINARS –

- 6.1 Dr. D. S. Pai, Scientist 'F', Dr. O. P. Sreejith, Scientist 'D' and Ms. A. B. Bandgar, Scientist 'B' were on deputation in 10th Session of the South Asian Climate Outlook Forum (SASCOF-10) during 24-26 April 2017 at Thimpu, Bhutan.
- 6.2 Ms. A. B. Bandgar, Sc 'B' Smt. D. E. Surendran, Sc 'B' Smt. S. A. Nair, Met 'A' participated "NOAA USAID Ninth International Training Workshop Climate Variability and Predictions" held at IITM, Pune during 13th - 21st April 2017.
- 6.3 Shri. I. J. Verma, Scientist-E participated in "NOAA-USAID (91TWCAP) " International Training Workshop on Climate Variability and Prediction" held at

Indian Institute of Tropical Meteorology (IITM), Pune, India, during 13th April to 21st April 2017.

7. **TRAINING :**

- 7.1 Training was imparted to instrument branch Met-II trainees of 23rd batch on air pollution instruments.
- 7.2 Shri G.K. Sawaisarje, Sc D and Dr D. M. Rase, Met B are undergoing WMO online Course for Trainers of RAll and RA V from 20th March to 16th June 2017.
- 7.3 Meteorologist Gr.II training course commenced from 3rd April 2017.
- 7.4 Work for Summer Placement course commencing from the month of June is in progress.
- 7.5 Training was conducted for Indian Navy Personnel on operation maintenance, and servicing of AWS/ARG dataloggers in AWS lab on 12th April 2017.
- 7.6 AWS/ARG preventive maintenance and servicing training was conducted for Met II trainees from 17.04.2017 to 28.04.2017.
- 7.7 Training was imparted at MC Bhubaneshwar for fourteen trainees from different MC's by Smt Asha V.R. Nanduru Met B on 17th and 18th April on new version dual mode Astra AWS Data Logger (GPRS & Satellite) and recommissioned one Bhubaneshwar (Agro) Astra Station.
- 7.8 Training was imparted at RMC Delhi for twelve trainees from different MC's by Shri J.D. Indurkar Met A on 24th and 25th April on new version dual mode Astra AWS Data Logger (GPRS & Satellite) and recommissioned one Delhi University Astra Station.
- 7.9 Training was imparted at RMC Guwahati for Eight trainees from different MC's by Shri S.A. Akhare, Met A on 24th and 25th April on new version dual mode Astra AWS Data Logger (GPRS & Satellite) and recommissioned one Guwahati Astra Station.
- 7.10 One preventive maintenance and calibration of TBRG was undertaken at Rajgurunagar by Smt Asha Nanduru Met B, S/Shri S.A. Akhare Met A, J.D. Indurkar, Met A and Vijay Kumar S.A. on 13th April 2017.
- 7.11 Training imparted: Familiarization training in AMI was given to Air Force officers from Air Force Administrative College, Coimbatore.

Academic/Training

- 9 Nos .Met sailors from Indian Navy attended two weeks training programme on 'Operation, Maintenance and Servicing of Surface Meteorological Instruments' from 03-04-2017 to 13-04-2017.
- Two Nos. Met II trainees B.No.23 joined on 3rd April for four weeks training programme on Calibration, Maintenance & Servicing of Met Instruments.

METEOROLOGIST Gr II TRAINING COURSE

- (i) Two trainees from instrumentation & 1 and from Agriculture Met. Stream trainees have been relieved from this office for their IInd semester of the training course at SI Division, ICI, New Delhi & Agrimet Division.
- (ii) IInd semester of Met.Gr.II B No. 23 has commenced w.e.f. 03/04/17 with 3 Met.II trainees.

ADVANCED MET. TRAINING COURSE (AMTC)

AMTC Batch No. 177 continued with 9 no.of trainees (5 from Indian Navy, 1 from Indian Coast Guard, 3 foreigner (1 from Fiji & 2 from Mauritius).

FORECASTERS TRAINING COURSE (FTC)

- i) Tentative schedule of FTC 184 uploaded on METNET.
- ii) Certificate and marksheet of FTC 182 and RFTC B.No. 01 sent to concerned offices.
- iii) Proposed panel for Topic wise faculty members for all subjects of FTC B.No.184 sent to HQ for approval.
- iv) Preparation of results of FTC B.No.183 is under process.
- v) E – learning phase of FTC Batch No. 184 commenced from 17/4/2017.

INTERMEDIATE TRAINING COURSE

- (i) Issued certificates of Int.Batch No.1 Repeater.
- (ii) Issued marksheets of Int.Batch.No.241, Delhi & Chennai center.
- (iii) Prepared result of Batch.No. 242 for three centers, Delhi, Chennai & Kolkata.

8. **MODERNISATION OF SUPPORT FACILITIES- NIL**

9 **TOURS/MAINTENANCE TOURS –**

- 9.1 Dr. D.S.Pai, Scientist 'F' was on tour to DGM, New Delhi for attending discussion on LRF and New Project Proposal on 3rd April 2017.
- 9.2 Dr. D.S.Pai, Scientist 'F' was on tour to DGM, New Delhi for issuing first stage LRF for 2017 from 17th April to 19th April 2017.
- 9.3 Head (SI) was on tour to CIAL, Kochi and KIAL, Kannur Airports for pre installation inspection and discussion on various issues from 1.4.2017 to 6.4.2017.
- 9.4 Shri M.Danish Scientist B was on tour to Portblair from 3rd to 7th April 2017 for commissioning of new version dual mode Astra AWS DataLogger (GPRS & Satellite) and for selection of site for Agro AWS Station.

9.5

Period	Name of Stations	Reason
10-04-2017 to 14-04-2017	CWC Visakhapatnam	Cleaning and calibration of existing barometers.
24-04-2017 to 30-04-2017	M.C.Srinagar	Maintenance and Calibration of existing barometers.

10. **IMPLEMENTATION OF OFFICIAL LANGUAGE POLICIES- NIL**

11. **MATERIAL MANAGEMENT NIL**

12. **MANPOWER MANAGEMENT :**

- 12.1 Shri J.S. Jadhav, Met B, Shri B.D. Sonawane, Met B and Shri R.L. Srivastava, Met.A retired from Govt. service on attaining the age of superannuation w.e.f. 30.4.2017.
- 12.2 The competent authority has been decided to place the services of Ms. C.P. Vijayakumari, A.O.III and Shri P.B. Parkhe, Hindi Translator Gr II to the o/o Director, IITM, Pune on a purely temporary basis as a short term gap management w.e.f. 24.4.2017 and 21.4.2017.
- 12.3 3 S.A. were promoted as Met.A.
- 12.4 Shri Jag Mohan Rao, Steno I was transferred to M.O. Hyderabad.

13. **BUDGET AND PLANNING – NIL**

14. **PRINTING AND PUBLICATION :-**

- 14.1 The following publications were brought out:
- All India Daily Weather Summary. (1st – 30th Apr. 2017)
 - Weekly Weather Reports. (4 Nos.)

15. LIBRARY AND PUBLICATIONS

- No. of outsider persons to whom library facilities were extended : 02
- 18 publications were supplied to 08 departmental offices.
- DGM's sanction is awaited for bills amounting to Rs. 14,13,672/- towards renewal of subscription of journals for 2017.
- Two books worth Rs.6240/- and Sixteen mementos were purchased for Rs. 23495/- amounting approx..Rs.30,000/- were purchased for distribution of Awards to the ship masters of Indian Navy and Shipping Corporation of India who have done Excellent work of recording maximum ship observations for the period 1.4.2015 - 31.3.2016.

16. OTHER POINTS :

- 16.1 Tour programmes / briefing of 105 visitors visiting to IMD, Pune offices from different organizations / institutions were arranged.
- 16.2 Monitoring of signals of various parameters to be used for the preparation of monsoon forecast 2017 was in progress.
- 16.3 A presentation on Marine Services was shown and explained to 120 students of the institute, Naval Education and Training (MANET),Pune from 10th to12th.
- 16.4 Following visitors visited Central Agrometeorological Observatory (CAgMO), Pune during April 2017
- 60 students with 4 staff member from Maharashtra Academy of Naval Education & Training (MANET), Loni Kalbhor, Pune on 10th & 11th April 2017.
 - 13 Students with 1 Staff Member from Bhartiya Sanskriti Darshan Trust Ayurved College, Wagholi, Pune on 25th April 2017.

16.5

S.No.	Name of Institution	Date of visit	No. of Visitors
1.	Maharashtra Academy of Naval Education and Ttraining, Pune.	10,11and12 th April 2017.	120
2.	Air Force Admin College,	17-04-2017.	3

	Coimbatore.		
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- 16.6 Consolidation work of appreciation circular 2015 is in progress.
- 16.7 Work regarding revision of met allowances is in progress.
- 16.8 Briefing of 105 visitors visiting to IMD Pune offices from different organizations / Institutions were arranged.
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(Dr. A. K. SAHAI)
Head,
Climate Research & Services

CRS UOI NO GP-42001/ dt Pune-5; the May 2017

Copy to :-

D.G.M. New Delhi.

(Smt. S.S. JOSHI)
Admin Officer III
for CRS

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