WEEKLY WEATHER REPORT

for the week ending on 15th February 2017 (26th Magha 1938 Saka)

CHIEF FEATURES: 1) Dence to very dense fog occurred at isolated places over Odisha and Haryana. 2) Last week's western disturbance caused isolated rainfalls over Jammu & Kashmir.





Fig. (a)

Fig. (b)

Fig. (a) shows the regions of dense fog over Coastal odisha and neighbourhood. Lower tempratures and light winds aided by moisture incursion from Bay of Bengal resulted in dense fog conditions in the region.

Fig. (b) shows the anomalous easterly flow in the peninsula that resulted in the above normal temeratures in the west and northwest India, prior to the approach of western disturbance.

SEMI-PERMANENT FEATURES:

- Intertropical Convergence Zone (ITCZ): The ITCZ or the seasonal trough (at surface and in the lower tropospheric levels) passes from south Arabian Sea to Andaman Sea across the south peninsula during the month of October. It further shifts southwards to the south of Lat. 10°N, during November & December. The climatological normal mean sea level pressure is 1010 hPa. During the week, its western part was located close to Equator and eastern part was located between Equator to 5°N.
- 2. Sub Tropical Westerly Jet (STWJ): The STWJ is a fast flowing narrow air current from west to east around 200 hPa level with core wind speed more than 60 kts. It shifts northwards during the southwest monsoon season. As the Tibetan Anticyclone shifts southeastwards towards the end of the southwest monsoon season, STWJ also shifts southwards and re-establishes over the Indian latitudes. During the week, its core was located between Lat. 19°N & Lat. 34°N with the wind speed varying between 87 112 kts around 200 hPa. The highest wind speed of 112 kts was recorded over Jodhapur at 236 hPa on 12th Feb.
- **3.** Sub Tropical Ridge (STR): The STR is a significant belt of high pressure situated around the latitudes of 30°N in the Northern Hemisphere and 30°S in the Southern Hemisphere. It tilts equatorwards with height. It was osillating between 9°to 12°N.

MINIMUM TEMPERATURE/FOG:

The lowest minimum temperature reported during the week over the plains had been 3.3°C at Ganganagar (west Rajasthan) on 11th.

In the early morning hours, dense to very dense fog (visibility ≤ 200 m) occurred at isolated places over coastal Odisha on 12th and over Haryana on 15th; dense fog (visibility ≤ 200 m) occurred at isolated places over Punjab & coastal Andhra Pradesh on 9th, over Sub-Himalayan West Bengal & Sikkim & Odisha on 10th and over Sub-Himalayan West Bengal & Sikkim on 11th; shallow to moderate fog

(visibility \leq 500m) occurred at isolated places over Assam & Meghalaya and west Uttar Pradesh on 9th, over Punjab, west Uttar Pradesh and Tripura on 10th, over Assam & Meghalaya, Odisha, Haryana, Chandigarh & Delhi, Punjab and Vidarbha on 11th, over Jharkhand and east Uttar Pradesh on 13th, over Odisha, east Uttar Pradesh and Punjab on 14th and over east Uttar Pradesh and Uttarakhand on 15th and shallow fog (visibility \leq 500m) occurred at isolated places over Delhi, east Madhya Pradesh and Tripura on 12th.

WEATHER AND ASSOCIATED SYNOPTIC FEATURES:

- Last week's western disturbance as an upper air cyclonic circulation over north Pakistan & neighbourhood at 3.1 kms a.s.l. with the trough aloft with its axis at 5.8 kms a.s.l. extending along Long. 71°E and north of Lat. 25°N lay as an upper air cyclonic circulation extending upto 5.8 kms a.s.l. over north Pakistan & adjoining Jammu & Kashmir on 9th, over Jammu & Kashmir and neighbourhood at 3.1 kms a.s.l. on 10th and over eastern parts of Jammu & Kashmir and neighbourhood extending upto 3.1 kms a.s.l. on 11th. It moved away east-northeastwards on 12th.
- A fresh feeble western disturbance as an upper air cyclonic circulation extending upto 3.6 kms a.s.l. lay over north Pakistan and adjoining Jammu & Kashmir on 12th, over eastern parts of Jammu & Kashmir and neighbourhood on 13th & 14th and moved away on 15th.
- The cyclonic circulation extending upto 1.5 kms a.s.l. over Sub-Himalayan West Bengal & Sikkim and neighbourhood lay over Meghalaya and neighbourhood on 9th and became less marked on 10th.
- A cyclonic circulation extending upto 0.9 km a.s.l. lay over Comorin area and neighbourhood from 10th to 12th. The cyclonic circulation became less marked on 13th.
- A trough in easterlies extending upto 0.9 kms a.s.l. extended from north interior Karnataka to central parts
 of Madhya Pradesh across Marathwada and Vidarbha on 9th, from the above cyclonic circulation to
 Madhya Maharashtra across interior Karnataka and extending upto 0.9 km a.s.l. on 10th, from the above
 cyclonic circulation to Gujarat region across Tamil Nadu, interior Karnataka & Madhya Maharashtra
 extending upto 0.9 km a.s.l. on 11th, the above cyclonic circulation to Madhya Maharashtra across Tamil
 Nadu & interior Karnataka on 12th and from Maldives area to north Konkan on 13th. It moved away
 westwards and became unimportant on 14th.
- A cyclonic circulation extending upto 0.9 km a.s.l. lay over north interior Odisha and adjoining Chhattisgarh on 10th, over south Chhattisgarh and adjoining Odisha extending between 1.5 & 2.1 kms a.s.l. on 11th. It became less marked on 12th, however, a wind confluence was took place over Madhya Pradesh in lower levels on 12th & 13th. It became less marked on 14th.
- A cyclonic circulation extending upto 1.5 kms a.s.l. lay over east Bihar and adjoining Sub-Himalayan West Bengal & Sikkim on 12th and became less marked 13th.
- A cyclonic circulation extending upto 1.5 kms a.s.l. lay over east Bangla Desh and neighbourhood on 12th & 13th. It became less marked on 14th.
- A fresh western disturbance extending between 3.1 & 5.8 kms a.s.l. lay over Afghanistan and neighbourhood on 14th. It lay as a trough with its axis at 5.8 kms a.s.l. extended roughly along Long. 70°E to the north of Lat. 32°N on 15th.
- A cyclonic circulation extending upto 0.9 km a.s.l. lay over Saurashtra & Kutch on 14th and over Gujarat region and neighbourhood on 15th.
- A wind confluence in lower levels took place over Tamil Nadu on 14th and became less marked on 15th.
- Last week's trough from equatorial Indian ocean to Comorin area has became less marked on 9th.
- Last week's induced cyclonic circulation over west Rajasthan and adjoining central Pakistan has also became less marked on 9th.

Details of the rainfall received under the influence of these synoptic systems are given in the subsequent Figures and Tables.

Media Reports: Nil.

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Rainfall % Departure For the week ending

15th February 2017



01

10

Normal -19% to +19%

No Rain

-100%

01

22

Deficient -20% to -59%

02



Rainfall % Departure For the period

1st January to 15th February 2017



05

13

+60% and above	04	Excess 05 +20% to +59%
		Large Deficient -80% to -89%

Figure in I indicates rainfall anomaly.

Deficient -20% to -59%

04

