



Thursday 03 August 2017

MID-DAY

Time of Issue: 1400 hrs IST

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

- ◆ **Yesterday southwest monsoon** was **vigorous** over Punjab and Tamilnadu & Pondicherry and **active** over Arunachal Pradesh and Sub-Himalayan West Bengal & Sikkim.
- ◆ Thunderstorm occurred at isolated places over Jammu & Kashmir, Punjab, Jharkhand, Odisha, Assam & Meghalaya, West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura and Coastal Andhra Pradesh from 0830 hours IST of yesterday to 0830 hours IST of today.

Main Weather Observations

- ◆ **Rainfall** (From 0830 hours IST of yesterday to 0830 hours IST of today): **Rain occurred:**
At most places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Bihar, Jharkhand, West Bengal & Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka, Kerala, Andaman & Nicobar Islands.
At many places over Uttar Pradesh, Odisha, Gujarat region & Lakshadweep.
At a few places over Haryana, West Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh, Saurashtra & Kutch, Interior Karnataka & Tamilnadu.
At isolated places over East Rajasthan, East Madhya Pradesh, Vidarbha & Rayalaseema.
Amount of rainfall recorded at 0830 hours IST of today (3 cm or more) are: Ambala-6; Kolkata (Dum Dum)-5; Dhubri & Golaghat-4 each and Kupwara, Dharmasala, Karnal, Pantnagar, Bareilly, Bahraich, Purnea, Supaul, Baghdogra, Ranchi, Paradip, Bulsar, Kakinada & Honavar-3 each.
- ◆ **Maximum temperature departures as on 02-08.2017:** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at most places over North Interior Karnataka and Vidarbha; at many places over South Interior Karnataka, Rayalaseema and Kerala; at a few places over Chhattisgarh, Coastal Andhra Pradesh, Odisha, Bihar and Gangetic West Bengal; **above normal (1.6°C to 3.0°C)** at most places over Marathawada & Kerala; at many places over Konkan & Goa, Andaman & Nicobar Islands; at a few places over East Madhya Pradesh, Assam & Meghalaya, Madhya Maharashtra, Telangana, Tamilnadu & Pudducherry; at isolated places over Himachal Pradesh. They were **appreciably below normal (-3.1°C to -5.0°C)** at many places over Punjab, Haryana, Chandigarh & Delhi; **below normal (-1.6°C to -3.0°C)** at most places over Jammu & Kashmir, West Rajasthan; at many places over Himachal Pradesh & East Rajasthan; at a few places over Uttar Pradesh & Gujarat state and at isolated places over West Madhya Pradesh & Coastal Andhra Pradesh and near normal over rest parts of the country.
- ◆ **Minimum temperature departures as on 03-08-2017:** Minimum temperatures are **above normal (1.6°C to 3.0°C)** at most places over Nagaland, Manipur, Mizoram & Tripura; at many places over Uttarakhand & Telangana; at a few places over Himachal Pradesh, Coastal Andhra Pradesh, Kerala, Assam & Meghalaya and at isolated places over Jammu & Kashmir, Odisha, Tamilnadu, Odisha, West Bengal & Sikkim. They are **below normal (-1.6°C to -3.0°C)** at isolated places over Rajasthan & Madhya Pradesh and near normal over rest parts of the country.



Meteorological Analysis (Based on 0830 hours IST)

- ◆ The axis of monsoon trough at mean sea level runs close to the foothills of Himalaya.
- ◆ The north-south trough from Sub-Himalayan West Bengal to north Bay of Bengal now runs from Sub-Himalayan West Bengal to northeast Bay of Bengal and extends upto 2.1 Km above mean sea level.
- ◆ The upper air cyclonic circulation over northern parts of central Uttar Pradesh & neighbourhood now lies over East Uttar Pradesh & adjoining Bihar between 3.6 & 5.8 Km above mean sea level.
- ◆ The Western Disturbance as an upper air cyclonic circulation over central parts of Pakistan & adjoining areas of Punjab now lies over Jammu & Kashmir & neighbourhood at 3.1 km above mean sea level.
- ◆ Another Western Disturbance as an upper air cyclonic circulation over West Afghanistan & neighbourhood now lies over central parts of Afghanistan at 5.8 Km above mean sea level.
- ◆ An upper air cyclonic circulation lies over north Bay of Bengal at 7.6 km above mean sea level.
- ◆ The upper air cyclonic circulation over south Pakistan & neighbourhood between 1.5 & 2.1 km above mean sea level has become less marked.
- ◆ The upper air cyclonic circulation over southwest Bay of Bengal off north Tamilnadu coast at 3.1 Km above mean sea level has become less marked.

Weather Forecast for next 5 days* upto 0830 hours IST of 08th August 2017

- ◆ Meteorological sub-division wise detailed 5 days rainfall forecast is given in Table.
- ◆ No significant change in maximum temperature over most parts of the country during next 2-3 days.

Weather Outlook for subsequent 2 days from 08th August to 10th August 2017

- ◆ Rain very likely at most places over Western Himalayan region, east and northeast India .
- ◆ Rainfall very likely at many places over along west coast and over central India.
- ◆ Isolated to scattered rainfall very likely over rest parts of the country.



Weather Warning during next 5 days *

03 August (Day 1): ♦ **Heavy to very heavy** rainfall very likely at isolated places over Bihar; **Heavy** rainfall very likely at isolated places over Uttarakhand, East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

♦ Thunderstorm accompanied with gusty wind & lightning very likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

04 August (Day 2): ♦ **Heavy** rainfall very likely at isolated places over Uttarakhand, Uttar Pradesh, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Coastal Karnataka.

05 August (Day 3): ♦ **Heavy to very heavy** rainfall very likely at isolated places over Coastal Karnataka; **Heavy** rainfall very likely at isolated places over Uttarakhand, Uttar Pradesh, Jharkhand, Gangetic West Bengal, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamilnadu & Pudducherry, Kerala and Lakshadweep.

06 August (Day 4): ♦ **Heavy to very heavy** rainfall very likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Coastal Karnataka; **heavy rain** very likely at isolated places over Uttarakhand, East Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha, Gangetic West Bengal, Arunachal Pradesh, South Interior Karnataka, Tamilnadu & Pudducherry, Kerala and Lakshadweep.

07 August (Day 5): ♦ **Heavy to very heavy** rainfall very likely at isolated places over Madhya Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **heavy rain** very likely at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, Chhattisgarh, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Coastal Karnataka, South Interior Karnataka, Kerala and Lakshadweep.



Table-1

5 Day Rainfall Forecast (MID-DAY)

03-August-2017

Met-Sub-Division	03-Aug Today	04Aug Fri	05Aug Sat	06Aug Sun	07Aug Mon
1. Andaman & Nicobar Islands	FWS	FWS	WS	WS	FWS
2. Arunachal Pradesh	FWS	FWS	FWS	FWS	WS
3. Assam & Meghalaya	FWS	FWS	FWS	WS	WS
4. N. M. M. & T.	FWS	FWS	WS	WS	WS
5. S.H. West Bengal & Sikkim	WS	WS	WS	WS	WS
6. Gangetic West Bengal	WS	WS	WS	WS	FWS
7. Odisha	WS	FWS	FWS	FWS	FWS
8. Jharkhand	WS	WS	WS	WS	WS
9. Bihar	WS	WS	WS	WS	WS
10. East Uttar Pradesh	WS	FWS	FWS	FWS	WS
11. West Uttar Pradesh	FWS	FWS	FWS	FWS	FWS
12. Uttarakhand	WS	WS	WS	WS	WS
13. Haryana, Chd & Delhi	ISOL	ISOL	SCT	SCT	FWS
14. Punjab	SCT	ISOL	ISOL	ISOL	SCT
15. Himachal Pradesh	FWS	FWS	FWS	FWS	WS
16. Jammu & Kashmir	FWS	SCT	SCT	ISOL	SCT
17. West Rajsthan	DRY	DRY	ISOL	ISOL	ISOL
18. East Rajasthan	ISOL	ISOL	ISOL	ISOL	SCT
19. West Madhya Pradesh	ISOL	ISOL	ISOL	SCT	FWS
20. East Madhya Pradesh	ISOL	ISOL	SCT	FWS	WS
21. Gujarat Region	SCT	ISOL	ISOL	ISOL	ISOL
22. Saurashtra & Kutch	ISOL	ISOL	ISOL	ISOL	ISOL
23. Konkan & Goa	WS	WS	WS	WS	WS
24. Madhya Maharashtra	SCT	SCT	SCT	SCT	SCT
25. Marathawada	ISOL	ISOL	ISOL	ISOL	ISOL
26. Vidharbha	ISOL	ISOL	ISOL	SCT	SCT
27. Chhattisgarh	SCT	SCT	SCT	WS	WS
28. Coastal Andhra Pradesh	ISOL	ISOL	SCT	SCT	FWS
29. Telangana	ISOL	ISOL	SCT	SCT	SCT
30. Rayalaseema	ISOL	ISOL	ISOL	ISOL	ISOL
31. Tamilnadu & Puducherry	ISOL	ISOL	SCT	SCT	SCT
32. Coastal Karnataka	WS	WS	WS	WS	WS
33. North Interior Karnataka	SCT	SCT	SCT	SCT	SCT
34. South Interior Karnataka	SCT	FWS	FWS	FWS	FWS
35. Kerala	FWS	WS	WS	WS	WS
36. Lakshadweep	FWS	FWS	FWS	FWS	FWS

% Station Reporting Rainfall

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)
No Rain	Dry		

* Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

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Fig. 1: Maximum Temperature during past 24 hours

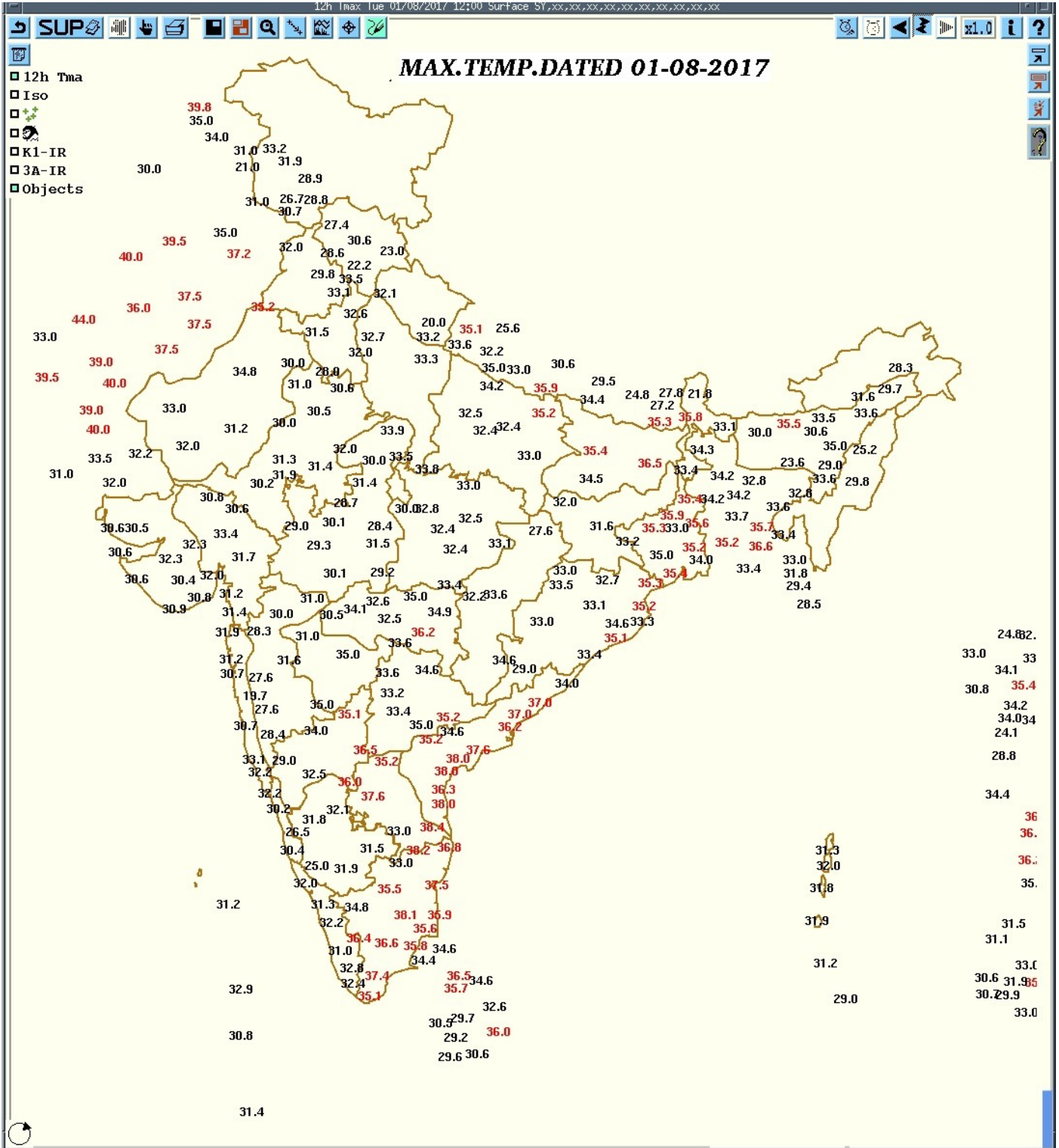




Fig. 2: Minimum Temperature during past 24 hours

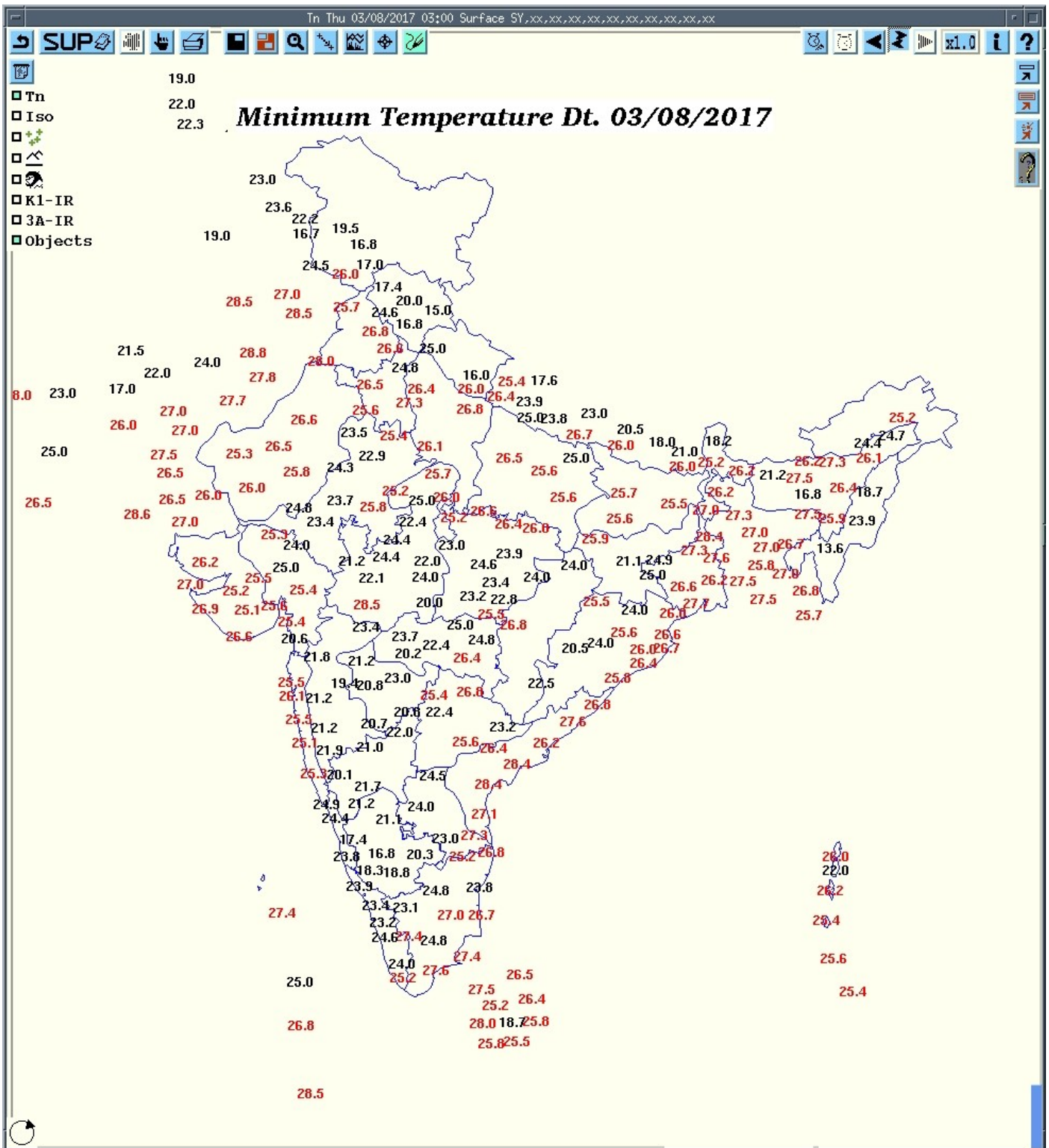




Fig. 3 : Departure from Normal of Maximum Temperatures

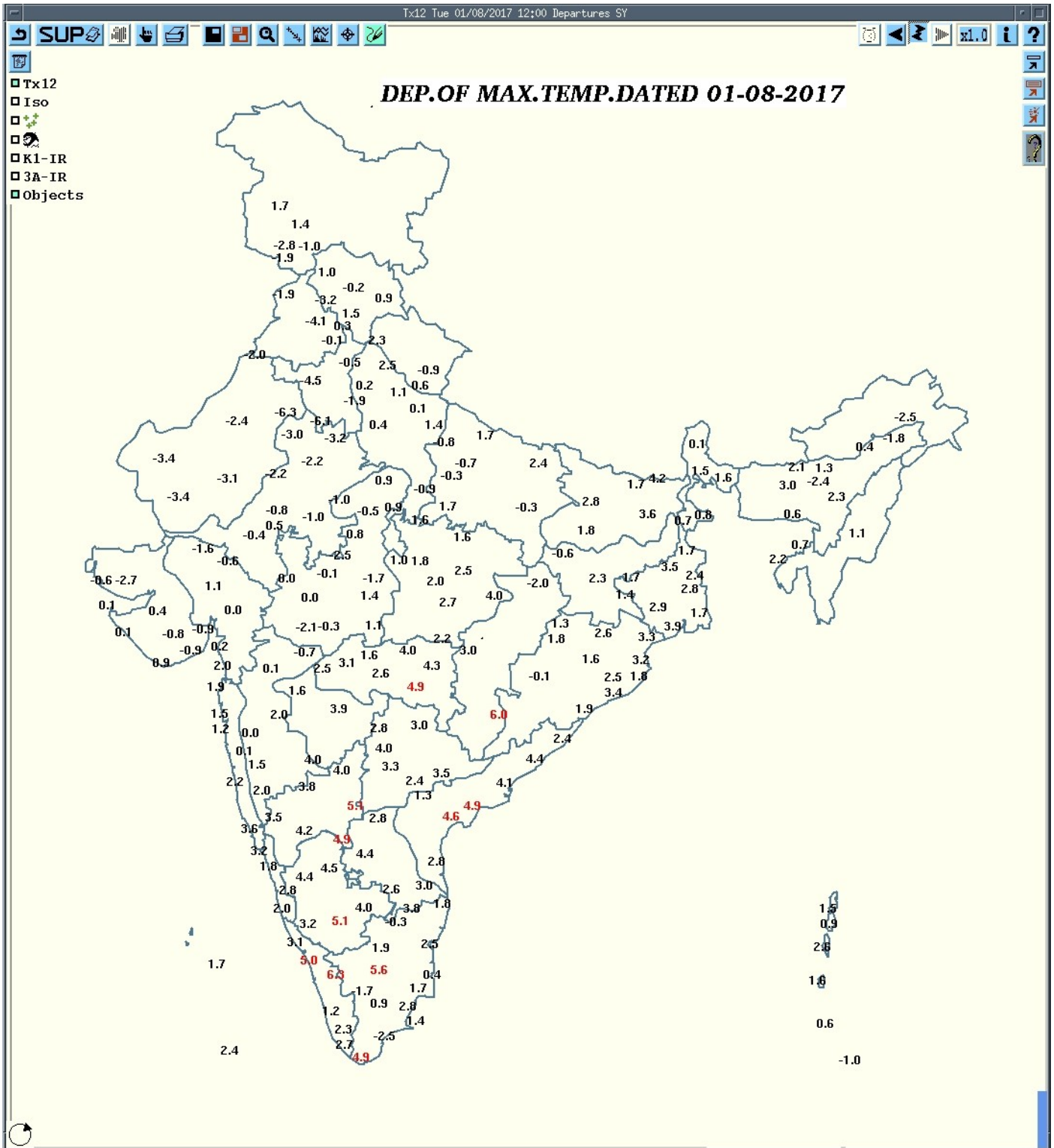
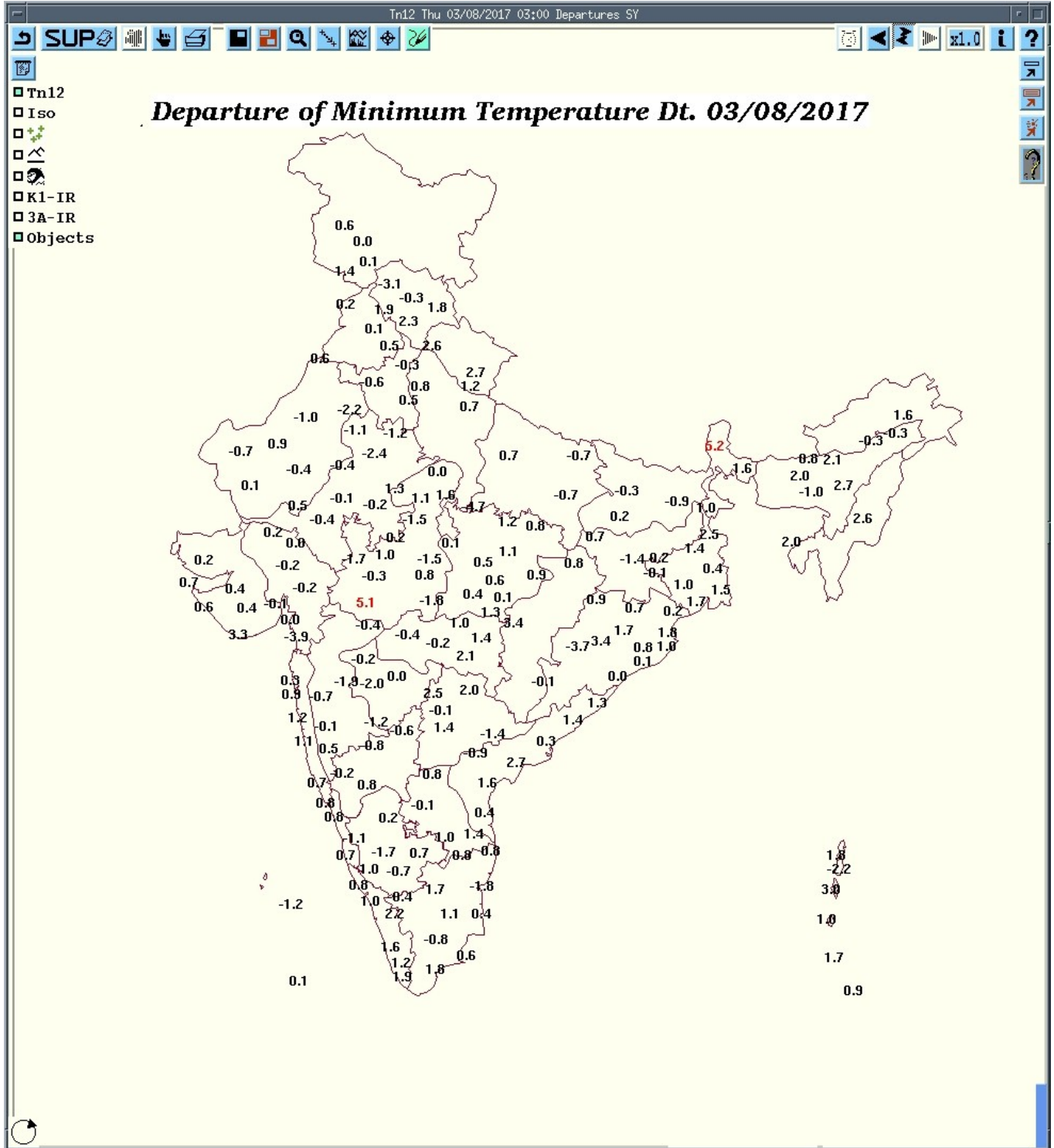




Fig. 4 : Departure from Normal of Minimum Temperatures

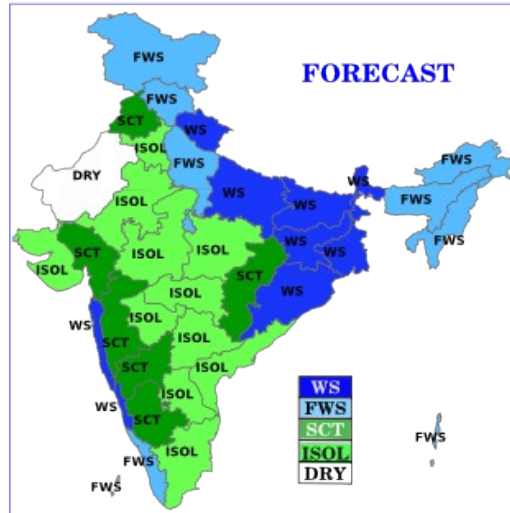


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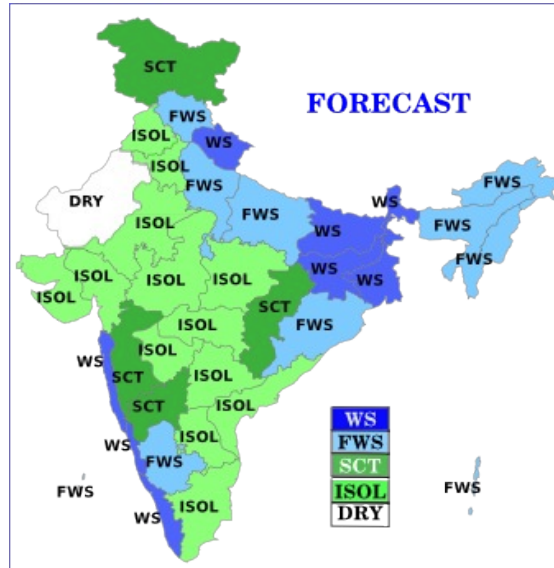
Thursday 03 August 2017



03 August (Day 1): ♦ **Heavy to very heavy** rainfall very likely at isolated places over Bihar; **Heavy** rainfall very likely at isolated places over Uttarakhand, East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

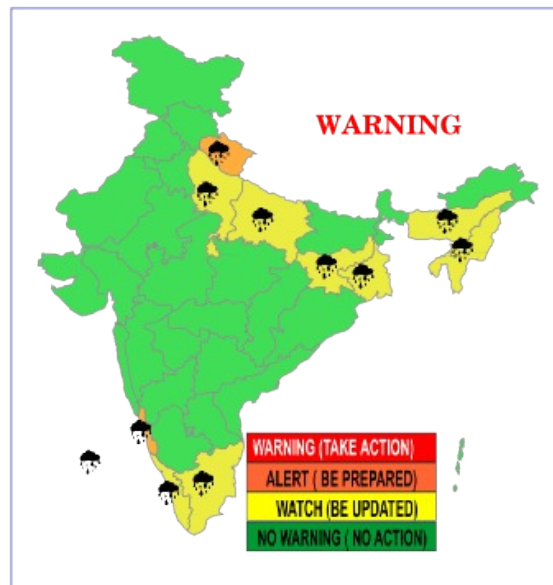
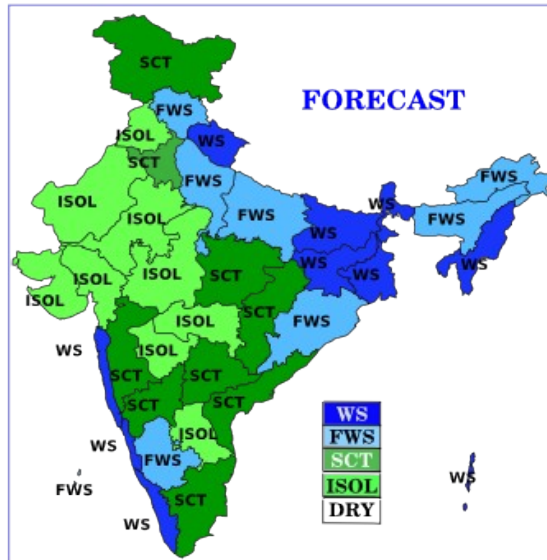
♦ Thunderstorm accompanied with gusty wind & lightning very likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

Friday 04 August 2017



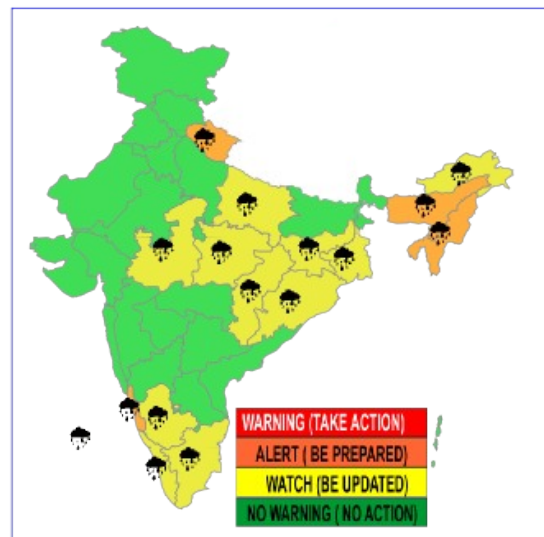
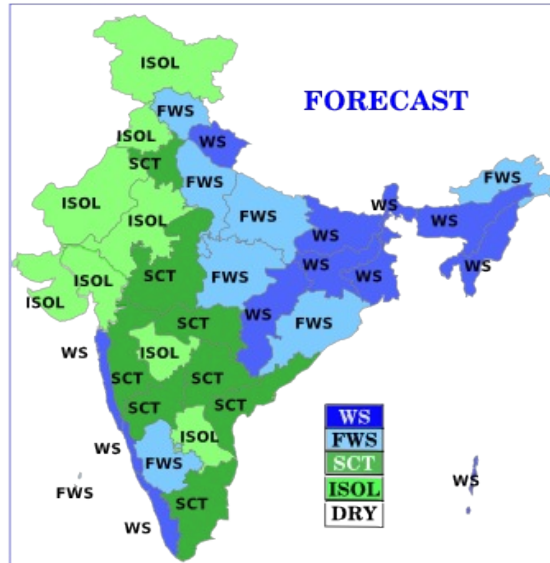
04 August (Day 2):♦ Heavy rainfall very likely at isolated places over Uttarakhand, Uttar Pradesh, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Coastal Karnataka.

Saturday 05 August 2017



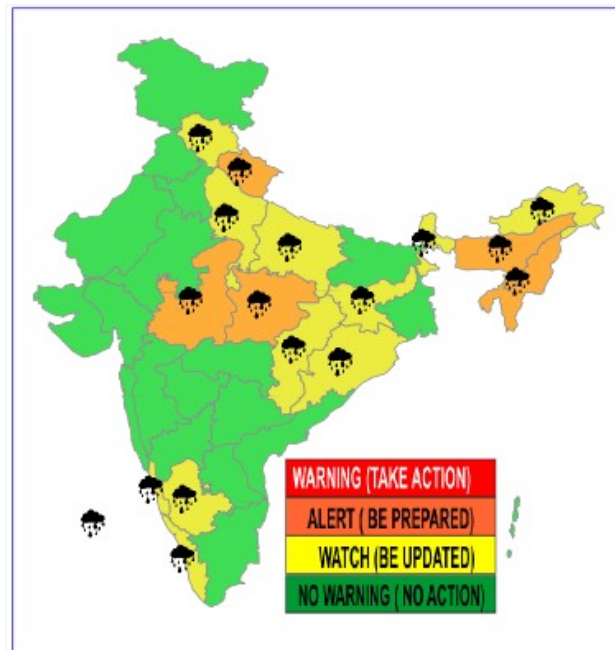
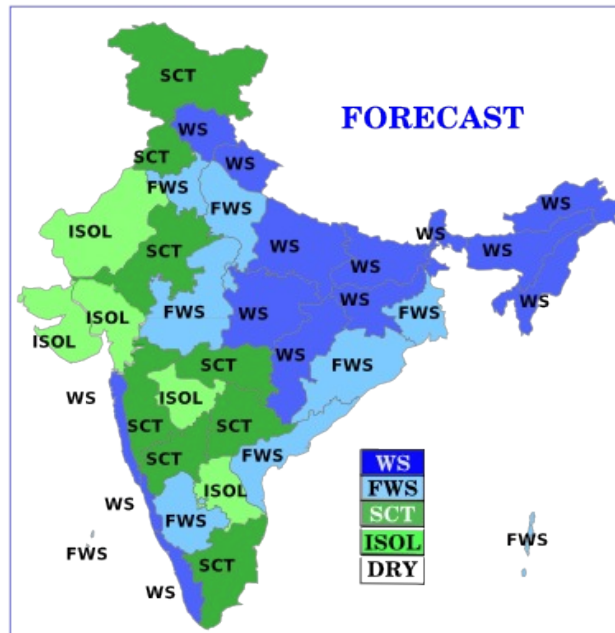
05 August (Day 3): ♦ **Heavy to very heavy** rainfall very likely at isolated places over Coastal Karnataka; **Heavy** rainfall very likely at isolated places over Uttarakhand, Uttar Pradesh, Jharkhand, Gangetic West Bengal, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamilnadu & Pudducherry, Kerala and Lakshadweep.

Sunday 06 August 2017



06 August (Day 4): ♦ **Heavy to very heavy** rainfall very likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Coastal Karnataka; **heavy rain** very likely at isolated places over Uttarakhand, East Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha, Gangetic West Bengal, Arunachal Pradesh, South Interior Karnataka, Tamilnadu & Pudducherry, Kerala and Lakshadweep.

Monday 07 August 2017

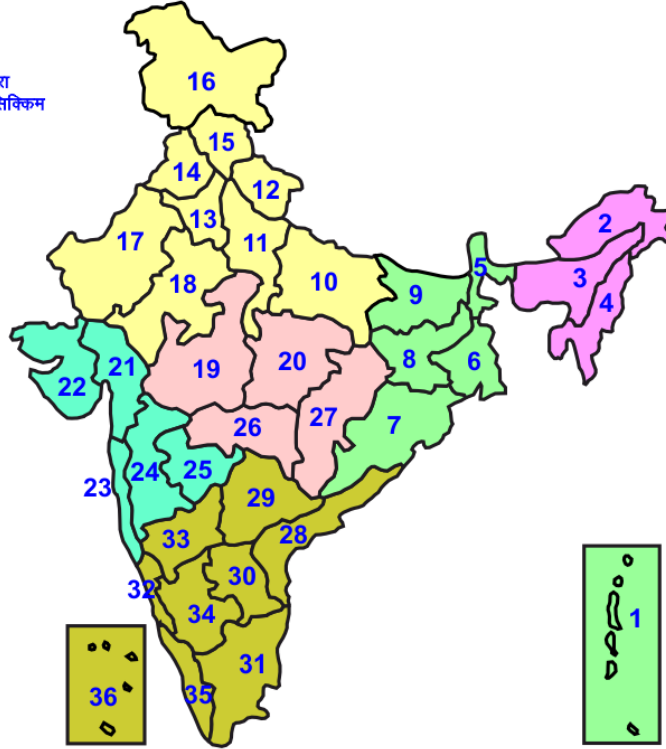


07 August (Day 5): ♦ **Heavy to very heavy** rainfall very likely at isolated places over Madhya Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **heavy rain** very likely at isolated places over Himachal Pradesh, Uttrakhand, Uttar Pradesh, Chhattisgarh, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Coastal Karnataka, South Interior Karnataka, Kerala and Lakshadweep.



LEGENDS

- 1 अंडमान और निकोबार द्वीप समुह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम गंगेय बंगाल
- 7 ओडिसा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडिगढ़ एवं दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सौराष्ट्र एवं कच्छ
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठावाडा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटिय आंध्र प्रदेश
- 29 तेलंगाना
- 30 रायलसीमा
- 31 तमिलनाडु
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक दक्षिणी कर्नाटक
- 35 केरल
- 36 लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Orissa
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathwada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh
29. Telangana
30. Rayalaseema
31. Tamilnadu & Pondi
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala
36. Lakshadweep

SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)
Dry (No station reported Rainfall)			

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)

Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75



Heavy Rain



Heavy Snow



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State

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LEGENDS

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)

Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75



Rain/ Snow *

Heavy: 64.5 to 115.5 mm/cm *
Very Heavy: 115.6 to 204.4 mm/cm*
Extremely Heavy: > 204.4 mm/cm *



Heat Wave

When maximum temperature of a station reaches $\geq 40^{\circ}\text{C}$ for plains and $\geq 30^{\circ}\text{C}$ for hilly regions
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C .

Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^{\circ}\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature $\geq 45^{\circ}\text{C}$.

Severe Heat Wave: When actual maximum temperature $\geq 47^{\circ}\text{C}$

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is $> 4.5^{\circ}\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^{\circ}\text{C}$



Warm Night

When maximum temperature remains 40°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°C .

Severe Warm Night: When minimum temperature departure $> 6.4^{\circ}\text{C}$.



Cold Wave

When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C .

Severe Cold Wave: Minimum Temperature Departure from normal $\geq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave : When Minimum Temperature is $\leq 4.0^{\circ}\text{C}$

Severe Cold Wave: When Minimum Temperature is $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is $\leq -4.5^{\circ}\text{C}$ or actual Minimum Temperature is $\leq 15^{\circ}\text{C}$



Cold Day

When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions
Based on departure

Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C .

Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$



Fog

Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres

Dense Fog: when the visibility between 50- 200 metres

Very Dense Fog: when the visibility < 50 metres



Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)



Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.



Frost

Ice deposits on ground

Air temperature $\leq 4^{\circ}\text{C}$ (over Plains)



Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph

Severe: Wind speed 62-87 kmph

Very Severe: Wind speed > 87 kmph



Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre

High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre

Phenomenal: Wind speed > 117 kmph (> 63 knots) & Wave height > 14 metre



Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)

Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)

Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)

Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)

Super Cyclone Storm: Wind speed > 220 kmph (> 119 knots)

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