



Saturday 18 February 2023

MORNING

Time of Issue: 0745 hours IST

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Weather Forecast and Warnings:

⇒ A fresh **Western Disturbance** seen as a trough in lower & middle tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 50°E and north of Lat. 30°N. **Jet Stream Winds** of the order of 130 knots are prevailing between Lat. 30-35°N over the Indian region. Under their influence:

⇒ Light isolated rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 18th & 21st and light to moderate scattered/fairly widespread rainfall/snowfall over the region during 19th-20th February.

⇒ Light isolated to scattered rainfall/snowfall over Himachal Pradesh during 19th-21st and over Uttarakhand on 20th & 21st and light isolated rainfall over north Punjab on 21st February, 2023.

⇒ Light isolated to scattered rainfall very likely over Andaman & Nicobar Islands during next 5 days.

⇒ No significant weather very likely over rest parts of the country during next 5 days.

Temperature Forecast:

⇒ Maximum temperatures are very likely to be in the range of 37-39°C over many parts of Gujarat state and Maharashtra-Goa-Karnataka coasts during next 2 days.

⇒ Minimum Temperatures are very likely to rise gradually by 2-3°C over most parts of Northwest and Central India during next 5 days. Minimum Temperatures very likely to rise by 2-3°C over many parts of East India and no significant change thereafter.

Main Weather Observations

◆ **Rainfall/snowfall observed** (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Andaman & Nicobar Islands and Gangetic West Bengal.

◆ **Significant amount of rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday)(in cm): **Andaman & Nicobar Islands:** Port Blair-2; **Gangetic West Bengal:** Digha-1.

◆ **Fog observed** (at 0530 hours IST of today): **Very dense fog** observed at isolated pockets over Punjab and Haryana; **Dense fog** at isolated pockets over West Rajasthan.

◆ **Visibility observed** (at 0530 hours IST of today): **Punjab:** Patiala-25 and Amritsar-50; **Haryana, Chandigarh & Delhi:** Ambala-25, Palam (New Delhi)-200 & Safdarjung (New Delhi)-500; **West Rajasthan:** Churu-50.

◆ **Minimum Temperature Departures (as on 17-02-2023):** Minimum temperatures were **markedly above normal (5.1°C or more)** at a few places over Himachal Pradesh and West Rajasthan; **appreciably above normal (3.1°C to 5.0°C)** at many places over Uttarakhand and Punjab; at a few places over Haryana, Chandigarh & Delhi and Konkan & Goa; at isolated places over East Rajasthan, Odisha and Saurashtra & Kutch; **above normal (1.6°C to 3.0°C)** at many places over Andaman & Nicobar Islands; at a few places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad and Sub-Himalayan West Bengal & Sikkim and at isolated places over Gangetic West Bengal, West Madhya Pradesh, Madhya Maharashtra and Coastal Andhra Pradesh & Yanam. They were **appreciably below normal (-3.1°C to -5.0°C)** at many places over Rayalaseema; at a few places over Vidarbha and at isolated places over Tamil Nadu, Puducherry & Karaikal; **below normal (-1.6°C to -3.0°C)** at many places over Telangana, Marathwada and Coastal Karnataka; at a few places over Kerala & Mahe and at isolated places over East Madhya Pradesh and **near normal** over rest parts of the country. Yesterday, the **lowest minimum temperature** of 9.2°C was reported at **Malanjhand (East Madhya Pradesh)** over plains of the country.

◆ **Maximum Temperature Departures (as on 17-02-2023):** Maximum temperatures were **markedly above normal (5.1°C or more)** at most places over Himachal Pradesh, West Rajasthan; at many places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Uttarakhand, East Rajasthan; at a few places over Gujarat State, Konkan & Goa; at isolated places over Assam & Meghalaya; **appreciably above normal (3.1°C to 5.0°C)** at most places over Punjab; at many places over Haryana, Chandigarh & Delhi, Sub-Himalayan West Bengal & Sikkim; at a few places over West Madhya Pradesh, Vidharbha; **above normal (1.6°C to 3.0°C)** at most places over Marathwada; at many places over Madhya Maharashtra; at a few places over Bihar, East Madhya Pradesh, Odisha; at isolated places over Coastal Andhra Pradesh & Yanam, Telangana. They were **below normal (-1.6°C to -3.0°C)** at isolated places over Gangetic West Bengal, Andaman & Nicobar Islands and near normal over rest parts of the country. Yesterday, the **highest maximum temperature** of 39.4°C was reported at **Ratnagiri (Konkan & Goa)**.

* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

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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Meteorological Analysis (Based on 0530 hours IST)

- ◆ A fresh **Western Disturbance** seen as a trough in lower & middle tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 50°E and north of Lat. 30°N.
- ◆ The **cyclonic circulation** over Interior Odisha at 1.5 km above mean sea level persists.
- ◆ **Jet Stream Winds** of the order of 130 knots are prevailing between Latitudes 30-35°N over the Indian Region.

Weather Forecast for next 5 days * upto 0830 hours IST of 23rd February, 2023

- ◆ Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table-1.
- ◆ Maximum temperatures are very likely to be in the range of 37-39°C over many parts of Gujarat state and Maharashtra-Goa-Karnataka coasts during next 2 days.
- ◆ Minimum Temperatures are very likely to rise gradually by 2-3°C over most parts of Northwest and Central India during next 5 days.
- ◆ Minimum Temperatures are very likely to rise by 2-3°C over many parts of East India during next 24 hours and no significant change thereafter.
- ◆ No significant change in maximum/minimum temperatures very likely over rest parts of the country during next 5 days.
- ◆ Shallow to moderate fog very likely at isolated pockets over Delhi, East Uttar Pradesh, Bihar, Gangetic West Bengal and Odisha during next 24 hours.

Weather Outlook for subsequent 2 days during 23rd-25th February, 2023

- ◆ Light/moderate isolated to scattered rainfall/snowfall likely over Western Himalayan Region and light isolated to scattered rainfall over Arunachal Pradesh and Andaman & Nicobar Islands.
- ◆ Dry weather likely over rest parts of the country.

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Weather Warning during next 5 days *

18 Feb (Day 1): ♦ Dense fog very likely at isolated pockets over Punjab, Haryana and northwest Rajasthan.

19 Feb (Day 2): ♦ No Weather Warning.

20 Feb (Day 3): ♦ No Weather Warning.

21 Feb (Day 4): ♦ No Weather Warning.

22 Feb (Day 5): ♦ No Weather Warning.

Kindly download MAUSAM APP for location specific forecast & warning, MEGHDOOT APP for Agromet advisory and DAMINI APP for Lightning Warning & visit state MC/RMC websites for district wise warning.

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Table-1
5 Day Rainfall Forecast (MORNING)
18-February-2023

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

% 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		

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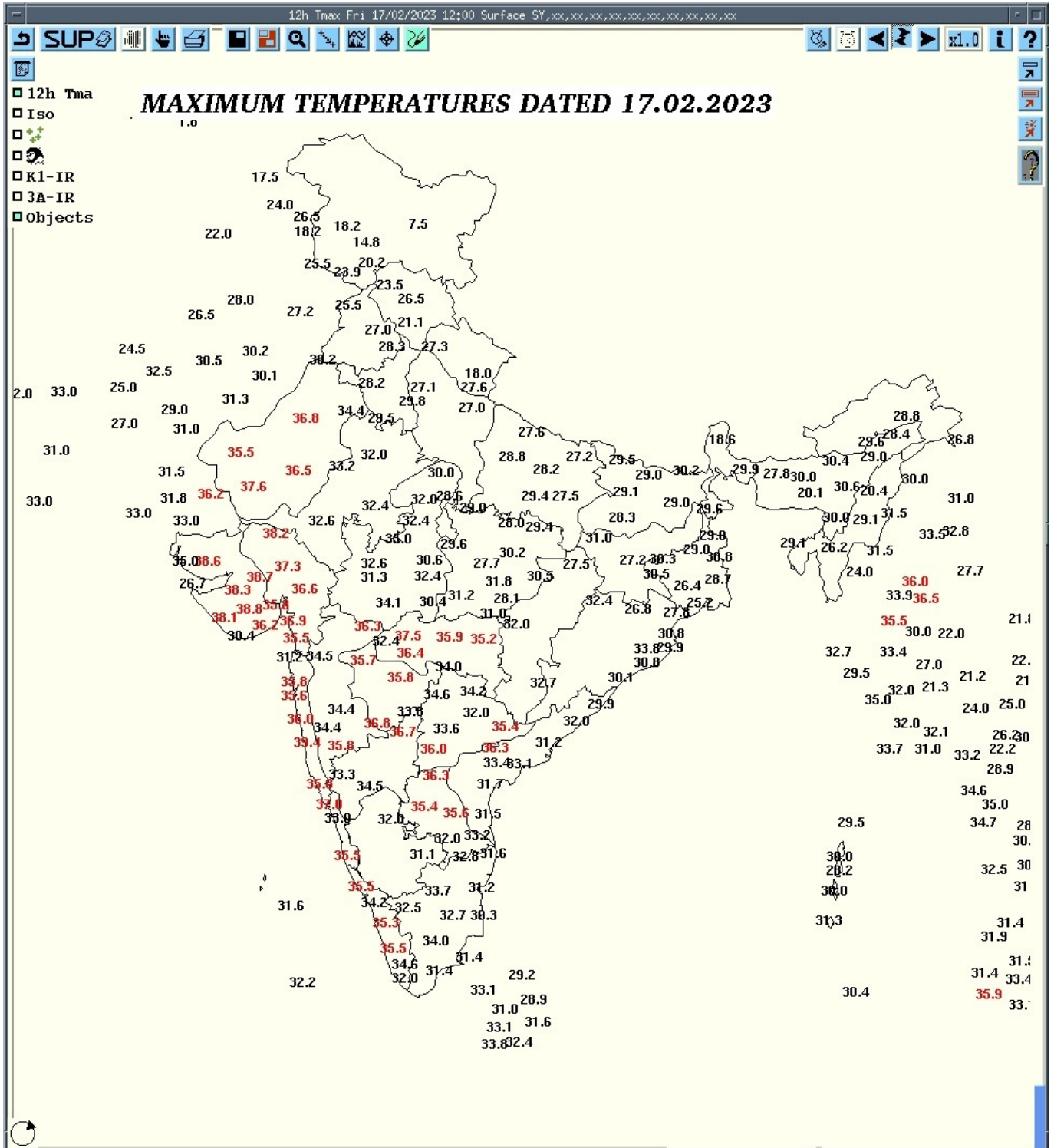
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Fig. 2: Maximum Temperature during past 24 hours



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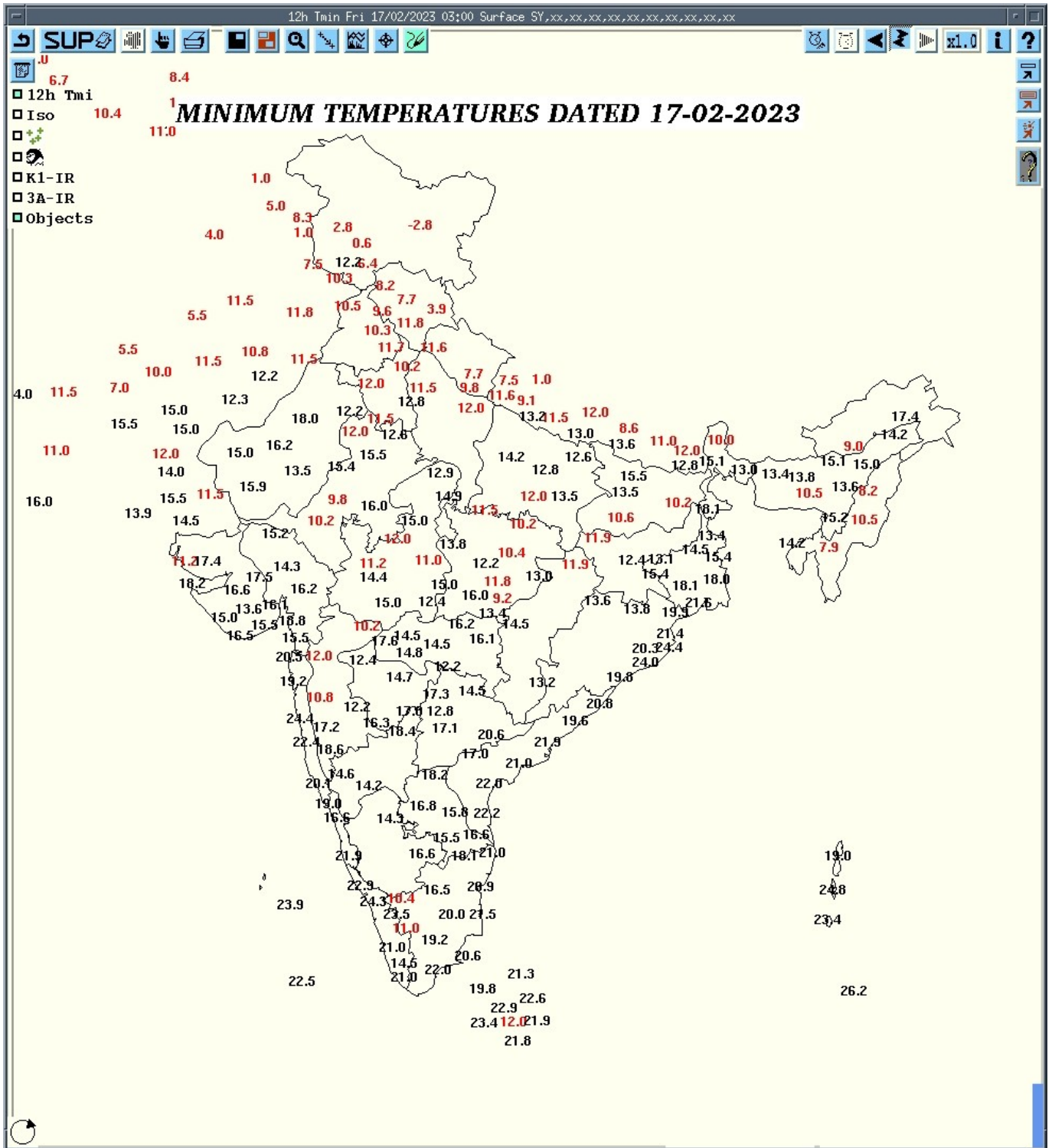
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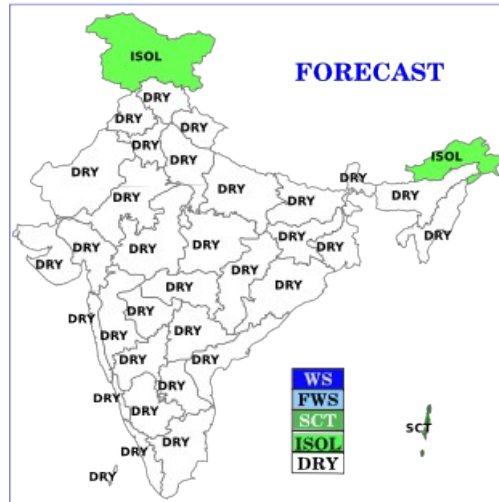


Fig. 3: Minimum Temperature during past 24 hours



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Saturday 18 February 2023



18 Feb (Day 1): ♦ Dense fog very likely at isolated pockets over Punjab, Haryana and northwest Rajasthan.

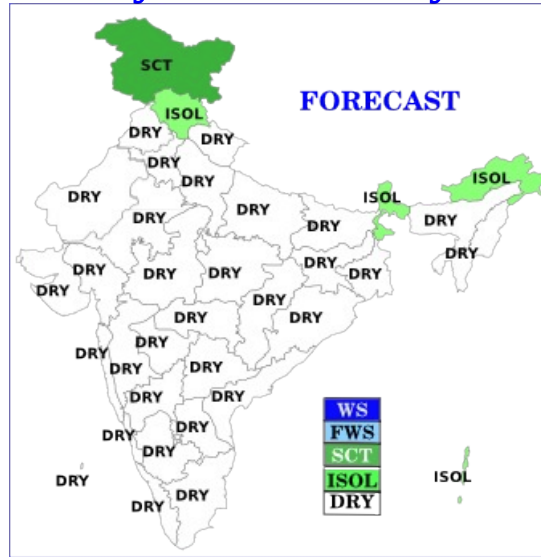
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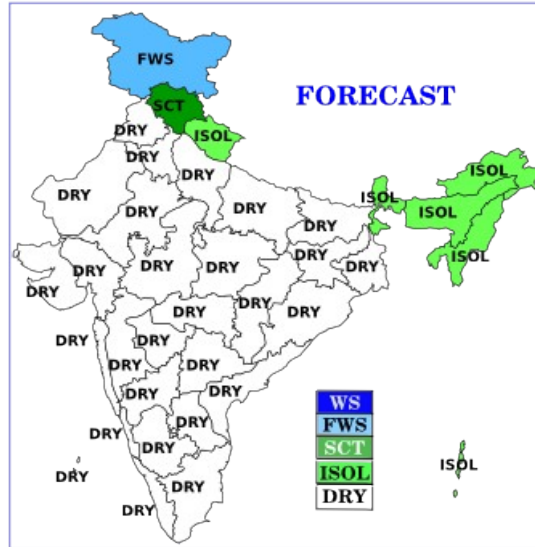
Sunday 19 February 2023



19 Feb (Day 2): ♦ No Weather Warning.



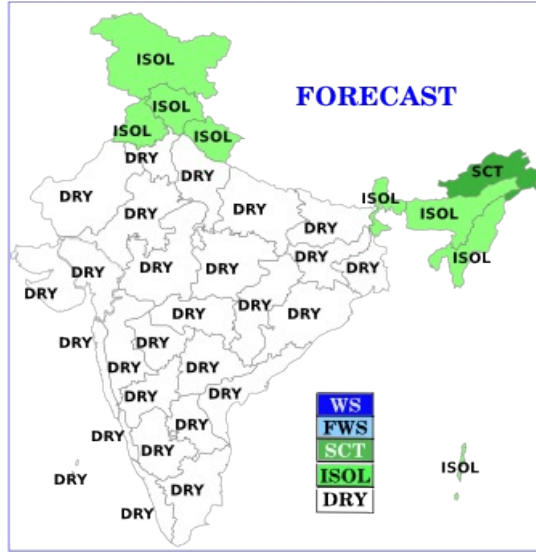
Monday 20 February 2023



20 Feb (Day 3): ♦ No Weather Warning.



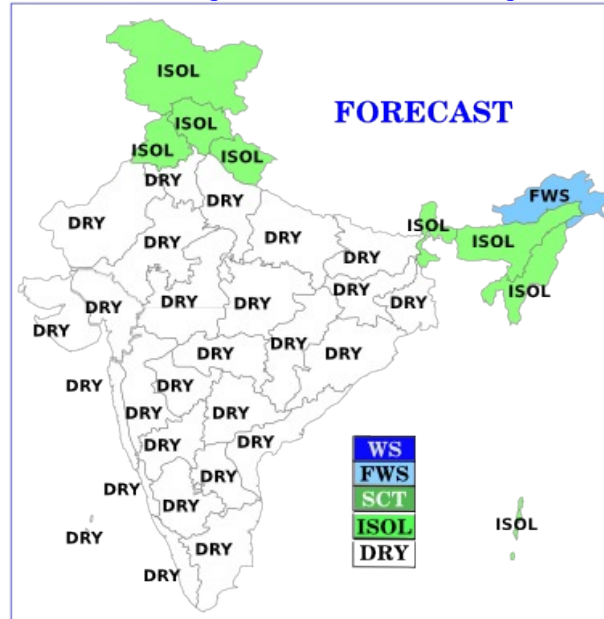
Tuesday 21 February 2023



21 Feb (Day 4): ♦ No Weather Warning.



Wednesday 22 February 2023



22 Feb (Day 5): ♦ No Weather Warning.

LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम गंगोय बंगाल
- 7 ओडिशा
- 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 एवं लद्दाख
- 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 तटीय आंध्र प्रदेश एवं यनम
- 29 तेलंगाना
- 30 रायलसीमा
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक दक्षिणी कर्नाटक
- 35 केरल एवं माहे
- 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 and Ladakh
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. Marathawada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
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)

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 $\leq -6.5^{\circ}\text{C}$

(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 $\leq -4.5^{\circ}\text{C}$ & 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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