



Monday 18 July 2022

MID DAY

Time of Issue: 1400 hours IST

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

- ◆ Yesterday's **Depression** over Northeast Arabian Sea off Saurashtra-Kutch coast has weakened into a Well Marked Low Pressure Area over central parts of north Arabian Sea with the associated cyclonic circulation extending upto middle tropospheric levels.
- ◆ A **Low Pressure Area** lies over northeast Vidarbha & neighbourhood with the associated cyclonic circulation extends upto middle tropospheric levels.
- ◆ The **monsoon trough** has shifted slightly northwards and is very likely to continue to shift further northwards towards its normal position during next 2-3 days.
- ◆ Under the influence of above systems;
 - ▶ Fairly widespread to widespread light/moderate rainfall with isolated heavy falls and thunderstorm/lightning very likely over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Uttar Pradesh during 19th-22nd July, 2022.
 - Isolated to scattered very heavy rainfall very likely over Uttarakhand on 20th July, 2022.
 - Isolated very heavy rainfall also likely over Himachal Pradesh, Punjab, Haryana, Chandigarh & Uttar Pradesh on 20th July, 2022.
 - Isolated heavy rainfall very likely over East Rajasthan on 18th and isolated very heavy rainfall also likely on 19th July, 2022.
 - ▶ Widespread light/moderate rainfall with heavy falls very likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 5 days.
 - Isolated very heavy falls also likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya on 18th & 19th July, 2022.
 - ▶ Fairly widespread/widespread light/moderate rainfall & thunderstorm/lightning very likely over Chhattisgarh, Vidarbha, Madhya Pradesh, Konkan & Goa, Kerala & Mahe, Coastal Karnataka and Lakshadweep during next 5 days.
 - Isolated heavy rainfall very likely over Konkan & Goa on 18th & 19th; Coastal Karnataka during 18th-20th; East Madhya Pradesh on 19th & 20th; West Madhya Pradesh on 21st & 22nd; Vidarbha during 20th-22nd; Chhattisgarh during 19th-22nd and over Kerala & Mahe during 18th-22nd July, 2022.
 - Isolated very heavy rainfall also likely over Vidarbha on 18th & 19th; West Madhya Pradesh during 18th-20th and over East Madhya Pradesh on 18th, 21st & 22nd July, 2022.
 - ▶ Scattered to fairly widespread rainfall very likely over Odisha, Gujarat State, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal, Interior Karnataka, Coastal Andhra Pradesh & Yanam and Telangana during next 5 days.
 - Isolated heavy rainfall very likely over Marathwada & north Coastal Andhra Pradesh & Yanam on 18th; Gujarat region, Madhya Maharashtra & South Interior Karnataka on 18th & 19th; Tamil Nadu during 18th-20th and over Telangana on 18th & 22nd July, 2022.

Main Weather Observations

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(Circle as the National office 1877)

◆ **Rainfall/thundershower observed (from 0830 hours IST of yesterday to 0830 hours IST of today):** at most places over East Rajasthan, West Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana, Karnataka, Kerala & Mahe and Lakshadweep; at many places over West Rajasthan, East Madhya Pradesh, West Bengal & Sikkim, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat State, Madhya Maharashtra; at a few places over Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Rayalaseema and Tamil Nadu, Puducherry & Karaikal and at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Uttarakhand, West Uttar Pradesh, East Uttar Pradesh, Bihar and Jharkhand.

◆ **Heavy rainfall observed (from 0830 hours IST of yesterday to 0830 hours IST of today):** Heavy to very heavy rainfall at isolated places occurred over Madhya Pradesh, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh and Coastal & South Interior Karnataka and heavy rainfall at isolated places over West Rajasthan, Madhya Maharashtra, Assam & Meghalaya, Odisha, Gujarat Region and Telangana and Tamil Nadu.

◆ **Chief amount of Rainfall observed (from 0830 hours IST of yesterday to 0830 hours IST of today):**(7 cm or more): **East Madhya Pradesh:** Barghat (dist Seoni) 19, Kareli (dist Narsinghpur) 15, Katangi (dist Balaghat) 11, Harrai (dist Chhindwara) 11, Kurai (dist Seoni) 11, Pushprajgarh (dist Anuppur) 10, Seoni (dist Seoni) 9, Ghansore (dist Seoni) 8, Waraseoni (dist Balaghat) 8, Tirodi (dist Balaghat) 7; **Vidarbha:** Hinganghat (dist Wardha) 19, Samudrapur (dist Wardha) 19, Gadchiroli (dist Gadchiroli) 16, Ralegaon (dist Yeotmal) 15, Saoli (dist Chandrapur) 14, Wardha (dist Wardha) 14, Etapalli (dist Gadchiroli) 13, Desaiganj (dist Gadchiroli) 13, Bhamragad (dist Gadchiroli) 13, Deoli (dist Wardha) 13, Bhiwapur (dist Nagpur) 13, Kalamb (dist Yeotmal) 13, Selu (dist Wardha) 13, Chimur (dist Chandrapur) 13, Lakhundur (dist Bhandara) 13, Chamorshi (dist Gadchiroli) 12, Dhanora (dist Gadchiroli) 11, Armori (dist Gadchiroli) 11, Pauni (dist Bhandara) 11, Kurkheda (dist Gadchiroli) 10, Babulgaon (dist Yeotmal) 10, Ner (dist Yeotmal) 10, Umrer (dist Nagpur) 10, Mul (dist Chandrapur) 10, Bramhapuri (dist Chandrapur) 9, **West Madhya Pradesh:** Seoni Malwa (dist Narmadapuram) 19, Salwani (dist Raisen) 12, Kalapipal (dist Shajapur) 11, Godadongri (dist Betul) 11, Pachore (dist Rajgarh) 11, Shyampur (dist Sehore) 11, Nalkheda (dist Agar-malwa) 11, Dolariya (dist Narmadapuram) 10, Timarni (dist Harda) 10, Pachmarhi (dist Narmadapuram) 10, Chicholi (dist Betul) 10, Atner (dist Betul) 9; **Coastal Karnataka:** Subramanya (dist Dakshina Kannada) 16, Karkala (dist Udupi) 9, Puttur Hms (dist Dakshina Kannada) 8, Belthangadi (dist Dakshina Kannada) 8, Dharmasthala (dist Dakshina Kannada) 8, Gersoppa (dist Uttara Kannada) 7; **Chhattisgarh:** Pakhanjur (dist Kanker) 15, Dhamtari (dist Dhamtari) 14, Bijapur (dist Bijapur) 12, Manpur (dist Rajnandgaon) 10, Mohla (dist Rajnandgaon) 9, Gurur (dist Balod) 8, Magarlod (dist Dhamtari) 8, Bhairamgarh (dist Bijapur) 8, Kurud (dist Dhamtari) 8, Dondilohara (dist Balod) 8, Narayanpur (dist Narayanpur) 7; **Coastal Andhra Pradesh:** Repalle (dist Guntur) 12, Bheemavaram (dist West Godavari) 7, Tanuku (dist West Godavari) 7; **Telangana:** Gandhari (dist Kamareddy) 9, Varni (dist Nizamabad) 9, Tadwai (dist Kamareddy) 9, Banswada (dist Kamareddy) 8, Bodhan (dist Nizamabad) 8, Kamareddy (dist Kamareddy) 8, Kammar Palle (dist Nizamabad) 7, **Tamil Nadu:** The Nilgiris: Naduvattam-8, Sivagangai: Thiruppuvanam-7; **West Rajasthan:** Bikaner: Kajuwala SR-8; **South Interior Karnataka:** Jayapura (dist Chikkamagaluru) 7, Sringeri Hms (dist Chikkamagaluru) 7, Koppa (dist Chikkamagaluru) 7, Bhagamandala (dist Kodagu) 7; Gujarat Region: Dholka (dist Ahmedabad) 7; **Odisha:** Boudhgarh-12, Sonapur-9, Angul-7; **Madhya Maharashtra:** Mahabaleshwar- Imd Obsy (dist Satara) 7; **Assam & Meghalaya:** Mawsynram-8.

◆ **Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hours IST of today):** at isolated places over Coastal Andhra Pradesh & Yanam, Assam & Meghalaya, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Madhya Maharashtra, Coastal Karnataka and Tamilnadu.

◆ **Minimum Temperature Departures (as on 18-07-2022):** Minimum temperatures are above normal (1.6°C to 3.0°C) at most places over Uttarakhand and East Uttar Pradesh; at many places over East Madhya Pradesh and Sub-Himalayan West Bengal & Sikkim; at a few places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Bihar and at isolated places over Assam & Meghalaya. They are below normal (-1.6°C to -3.0°C) at a few places over West Rajasthan, West Madhya Pradesh, Coastal Andhra Pradesh & Yanam and Telangana; at isolated places over Tamil Nadu, Puducherry & Karaikal and near normal over rest parts of the country. Today, the lowest minimum temperature of 18.2° is reported at Khargone (West Madhya Pradesh) over the plains of the country.

◆ **Maximum Temperature Departures (as on 17-07-2022):** Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at most places over Uttarakhand and East Uttar Pradesh; at many places over Bihar, Sub-Himalayan West Bengal & Sikkim and Nagaland, Manipur, Mizoram & Tripura; at isolated places over West Uttar Pradesh; above normal (1.6°C to 3.0°C) at most places over Assam & Meghalaya; at many places over East Madhya Pradesh, Gangetic West Bengal and Arunachal Pradesh; at isolated places over Konkan & Goa. They were markedly below normal (-5.1°C or less) at isolated places over West Rajasthan; appreciably below normal (-3.1°C to -5.0°C) at a few places over Vidarbha and Telangana; at isolated places over Himachal Pradesh; below normal (-1.6°C to -3.0°C) at many places over Chhattisgarh; at a few places over Coastal Andhra Pradesh & Yanam and at isolated places over Gujarat State and Tamilnadu, Puducherry & Karaikal and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 39.0°C is reported at Sultanpur (East Uttar Pradesh).

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Meteorological Analysis (Based on 0830 hours IST)

- ◆ The **Well Marked Low Pressure Area** over central parts of north Arabian Sea persists and the associated cyclonic circulation extends upto 5.8 km above mean sea level. It is very likely to weaken into a Low Pressure Area and move nearly westwards towards Oman coast across Northwest Arabian Sea during next 24 hours.
- ◆ The **Low Pressure Area** over east Vidarbha & neighbourhood now lies over northeast Vidarbha & neighbourhood and the associated cyclonic circulation extends upto 7.6 km above mean sea level tilting southwestward with height.
- ◆ The **monsoon trough** now passes through Jaisalmer, Kota, Guna, centre of Low Pressure Area over northeast Vidarbha & neighbourhood, Raipur, Paradeep and thence southeastwards to Eastcentral Bay of Bengal and extends upto 1.5 km above mean sea level.
- ◆ The **Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 80°E & to the north of Lat.32°N has moved away east-northeastwards.
- ◆ The **off-shore trough** at mean sea level from Gujarat Coast to Maharashtra Coast has become less marked.

Weather Forecast for next 5 days * upto 0830 hours IST of 23rd July 2022

- ◆ Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table-1.
- ◆ No significant change in maximum temperatures very likely over rest parts of the country during next 5 days.

Weather Outlook for subsequent 2 days During 23rd July-25th July 2022

- ◆ Widespread rainfall activity likely over Gujarat State, Konkan- Goa and over parts of Central & adjoining East India.
- ◆ Fairly widespread/widespread rainfall activity with isolated heavy falls very likely over Himachal Pradesh, Uttarakhand, Uttar Pradesh, Bihar, Sub-Himalayan West Bengal and Northeastern states.
- ◆ Scattered rainfall activity likely over remaining parts of the country except Rayalaseema and Coastal Andhra Pradesh & Yanam where isolated activity is likely.

Weather Warning during next 5 days *

18 July (Day 1): ♦ Heavy to very heavy rainfall at isolated places very likely over Madhya Pradesh, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; **Heavy rainfall** at isolated places over East Rajasthan, Chhattisgarh, Odisha, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana, Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** very likely at isolated places over Himachal Pradesh, Uttarakhand, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Coastal & South Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.

♦ **Strong winds** with speed reaching 45-55 kmph gusting to 65 kmph are very likely over westcentral and adjoining southwest Arabian Sea and 40-50 kmph gusting to 60 kmph are very likely over eastcentral & adjoining southeast Arabian Sea. **Squally weather** with wind speed reaching 40-50 kmph gusting to 60 kmph is likely over Comorin and Maldives areas. Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely along & off South Odisha and adjoining North Andhra Pradesh coasts. Fishermen are advised not to venture into these areas.

19 July (Day 2): ♦ Heavy to very heavy rainfall at isolated places very likely over East Rajasthan, West Madhya Pradesh, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; **Heavy rainfall** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Madhya Maharashtra, Konkan & Goa, Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** likely at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Coastal & South Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.

♦ **Strong winds** with speed reaching 45-55 kmph gusting to 65 kmph are very likely over westcentral and adjoining southwest Arabian Sea and 40-50 kmph gusting to 60 kmph are very likely over eastcentral and adjoining southeast Arabian Sea. Fishermen are advised not to venture into these areas.

20 July (Day 3): ♦ Heavy to very heavy rainfall at a few places very likely over Uttarakhand; **heavy to very heavy rainfall** at isolated places over Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and West Madhya Pradesh; **heavy rainfall** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, East Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar and Tamil Nadu, Puducherry & Karaikal.

♦ **Strong winds** with speed reaching 45-55 kmph gusting to 65 kmph are very likely over westcentral and adjoining southwest Arabian Sea and 40-50 kmph gusting to 60 kmph are very likely over eastcentral and adjoining southeast Arabian Sea. Fishermen are advised not to venture into these areas.

21 July (Day 4): ♦ Heavy to very heavy rainfall at isolated places likely over East Madhya Pradesh; **Heavy rainfall** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, West Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** likely at isolated places over Gangetic West Bengal and Odisha.

♦ **Strong winds** with speed reaching 45-55 kmph gusting to 65 kmph are very likely over westcentral and adjoining southwest Arabian Sea. Fishermen are advised not to venture into these areas.

22 July (Day 5): ♦ Heavy to very heavy rainfall at isolated places likely over East Madhya Pradesh; **heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, West Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** likely at isolated places over Gangetic West Bengal.

♦ **Strong winds** with speed reaching 45-55 kmph gusting to 65 kmph are very likely over westcentral and adjoining southwest Arabian Sea. Fishermen are advised not to venture into these areas.

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 (MID DAY)
18-July-2022

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

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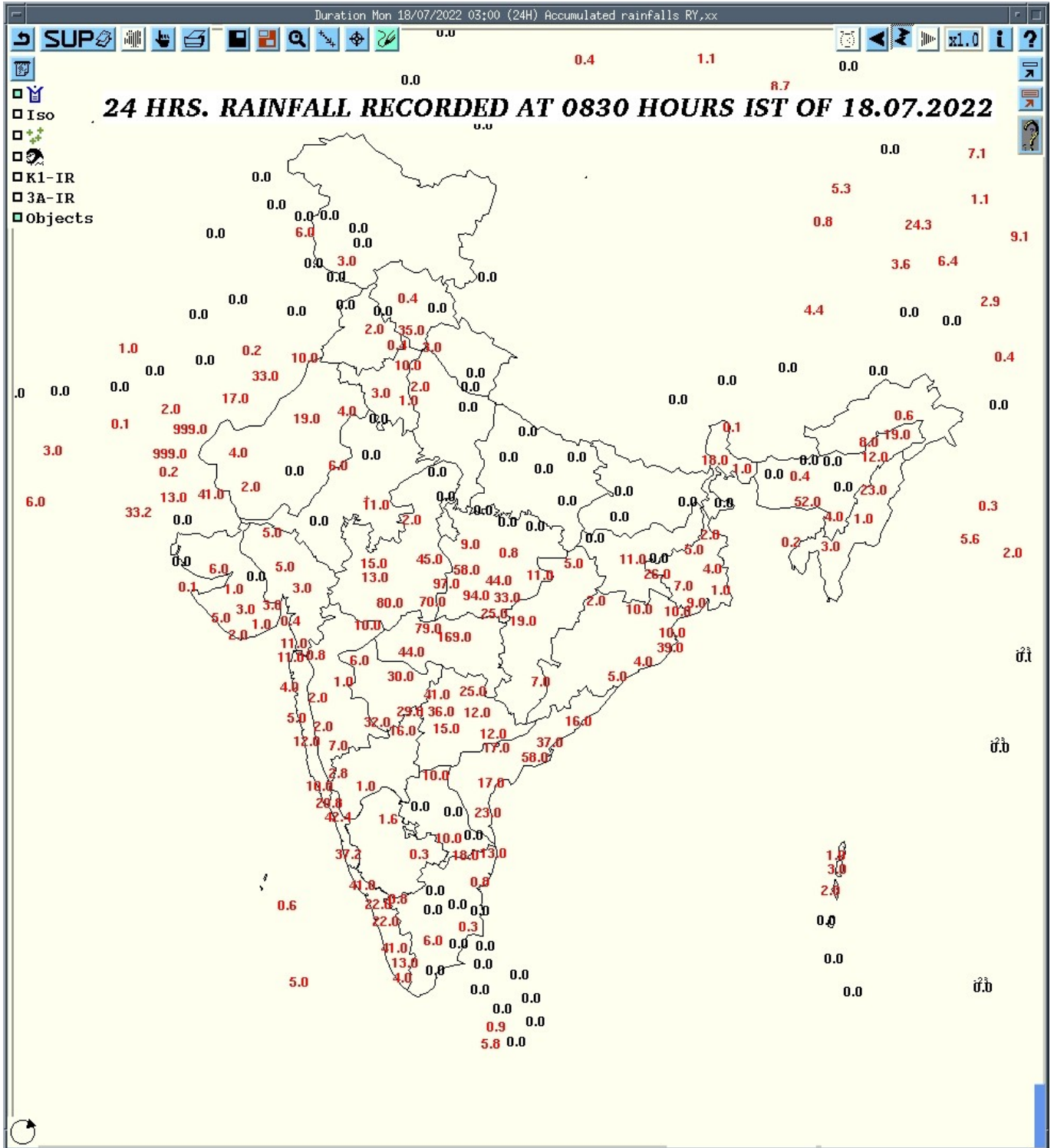
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Fig. 1: Accumulated Rainfall (mm) during past 24 hours



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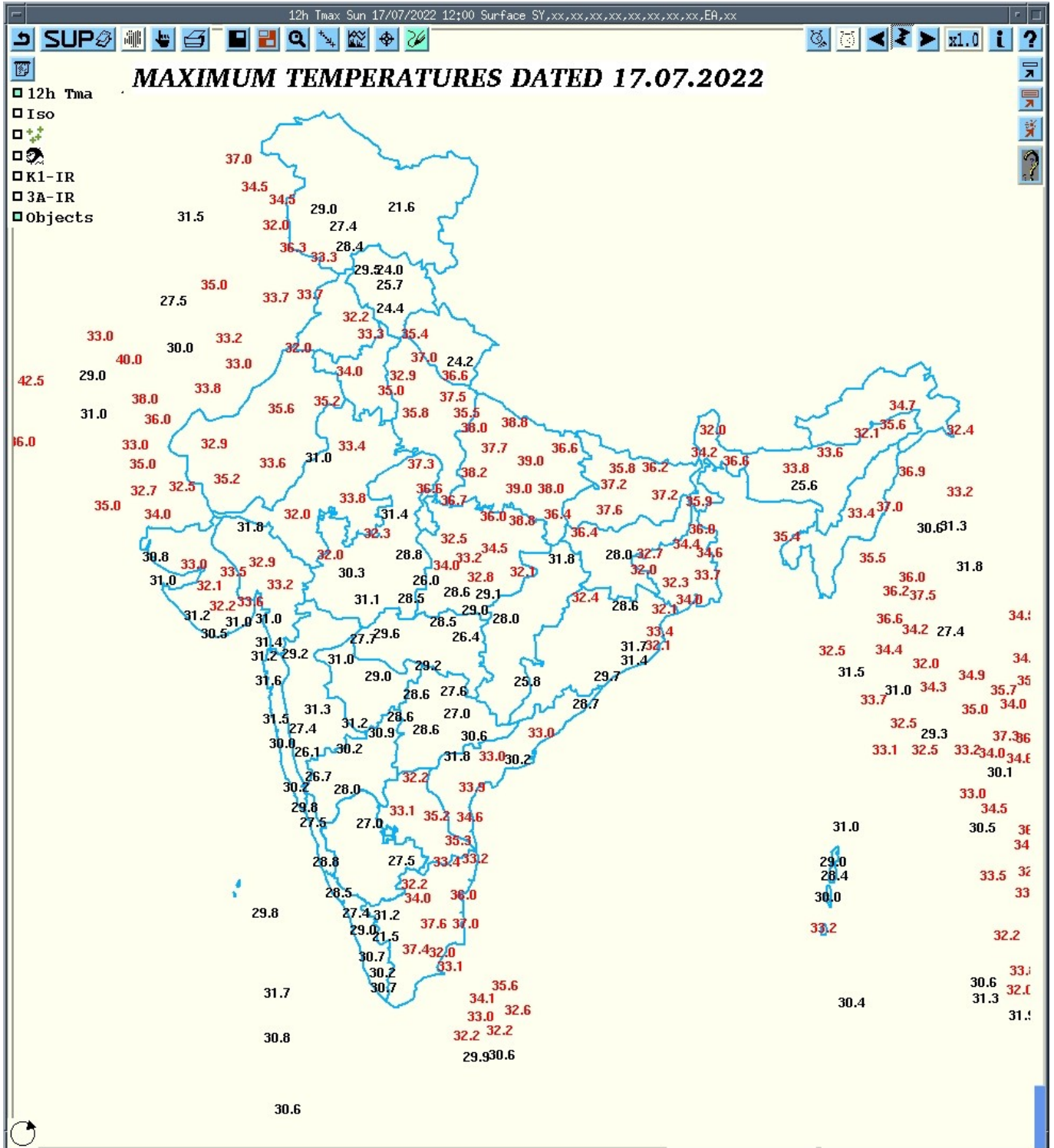
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Fig. 2: Maximum Temperature during past 24 hours



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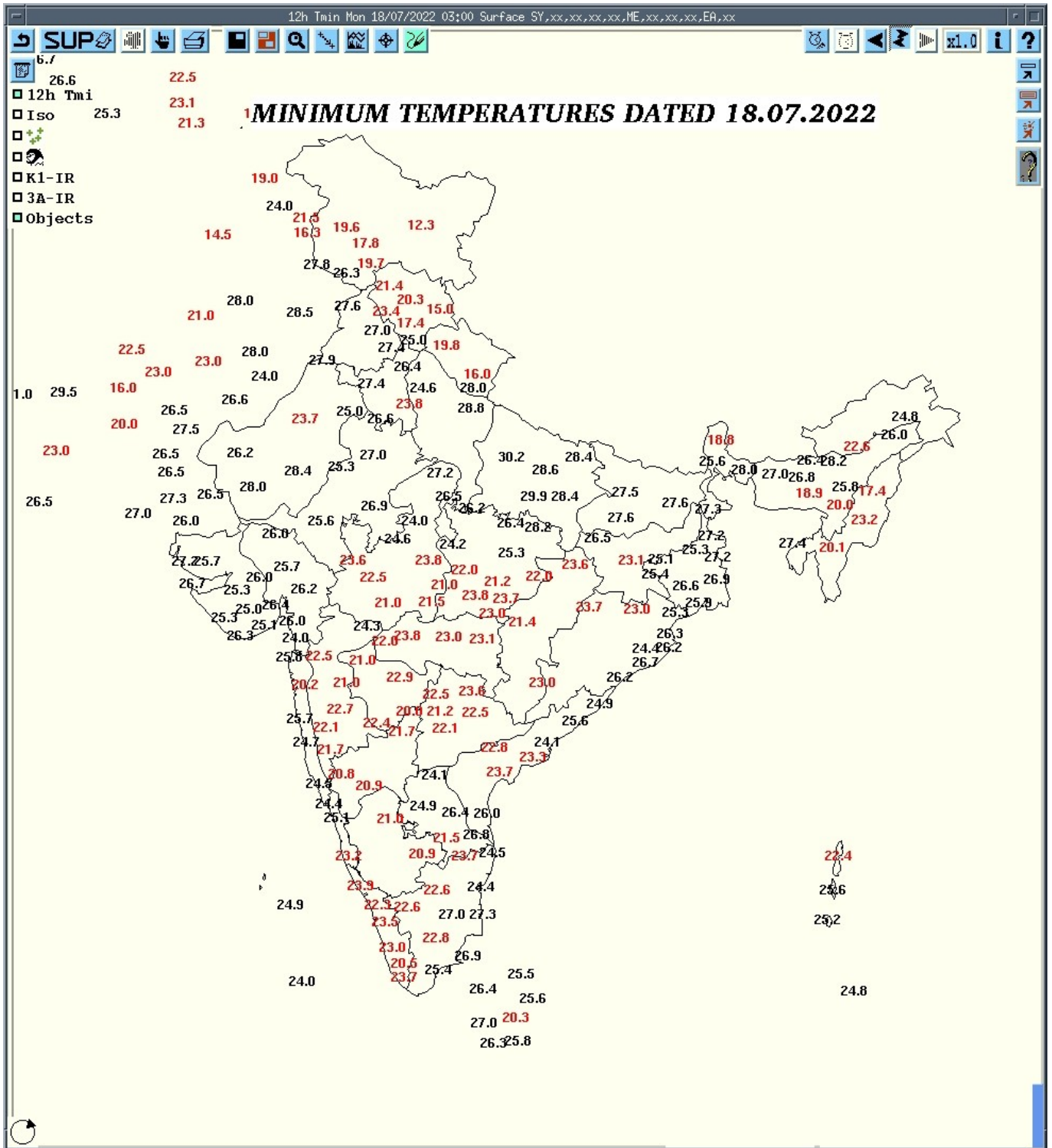
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Fig. 3: Minimum Temperature during past 24 hours



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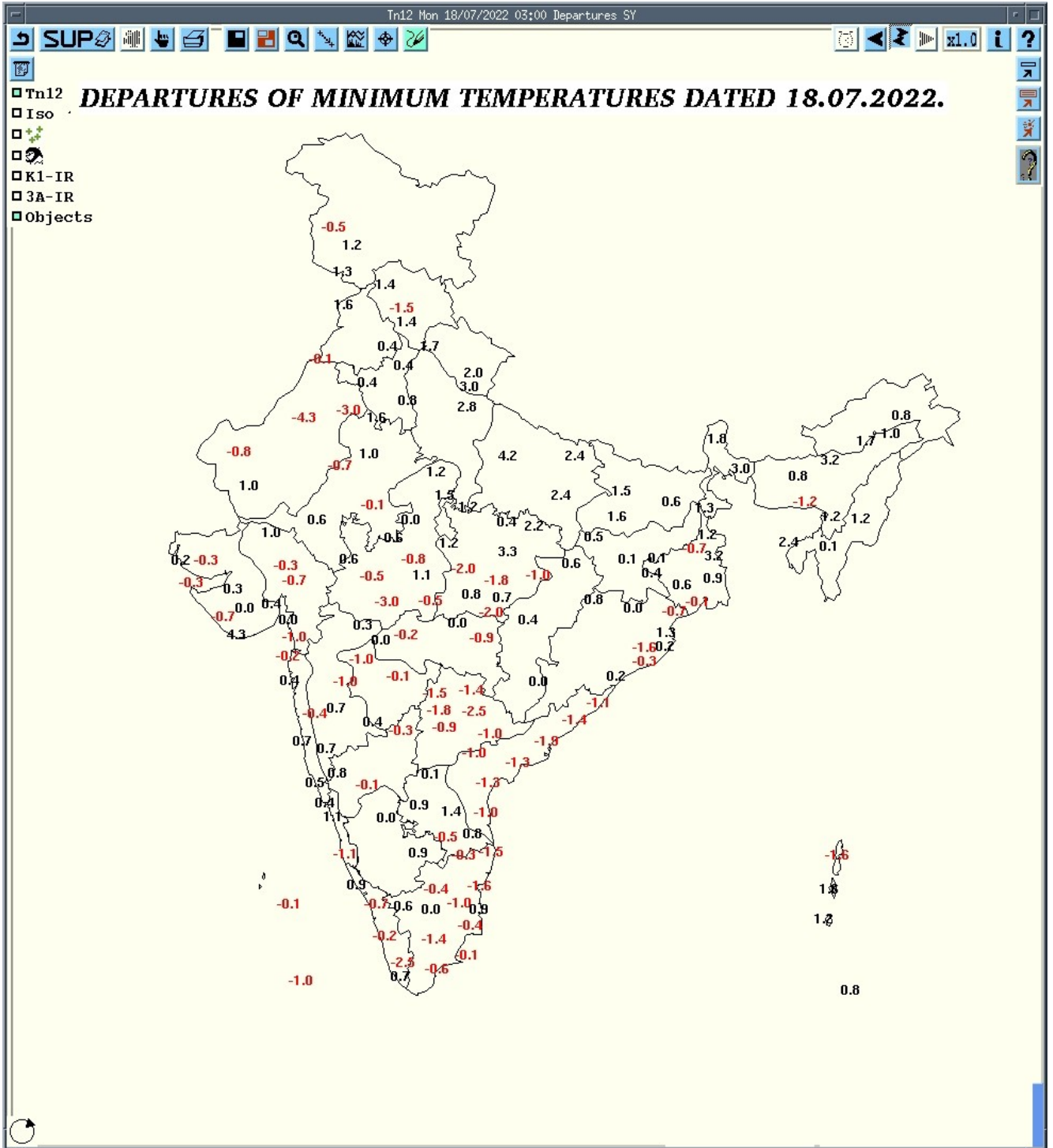
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Fig. 5 : Departure from Normal of Minimum Temperatures



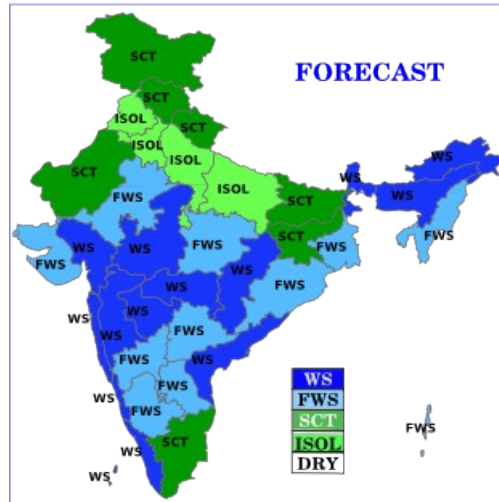
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Monday 18 July 2022



18 July (Day 1): ♦ Heavy to very heavy rainfall at isolated places very likely over Madhya Pradesh, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; **Heavy rainfall** at isolated places over East Rajasthan, Chhattisgarh, Odisha, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana, Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** very likely at isolated places over Himachal Pradesh, Uttarakhand, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Coastal & South Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.

♦ **Strong winds** with speed reaching 45-55 kmph gusting to 65 kmph are very likely over westcentral and adjoining southwest Arabian Sea and 40-50 kmph gusting to 60 kmph are very likely over eastcentral & adjoining southeast Arabian Sea. **Squally weather** with wind speed reaching 40-50 kmph gusting to 60 kmph is likely over Comorin and Maldives areas. Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely along & off South Odisha and adjoining North Andhra Pradesh coasts. Fishermen are advised not to venture into these areas.

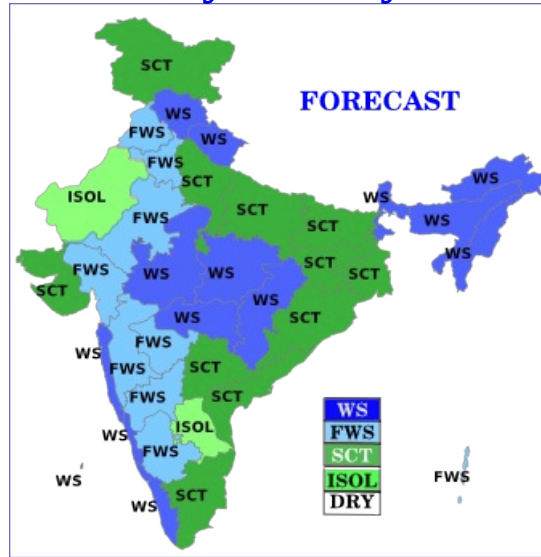
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Tuesday 19 July 2022



19 July (Day 2): ♦ Heavy to very heavy rainfall at isolated places very likely over East Rajasthan, West Madhya Pradesh, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; **Heavy rainfall** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Madhya Maharashtra, Konkan & Goa, Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** likely at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Coastal & South Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.

♦ **Strong winds** with speed reaching 45-55 kmph gusting to 65 kmph are very likely over westcentral and adjoining southwest Arabian Sea and 40-50 kmph gusting to 60 kmph are very likely over eastcentral and adjoining southeast Arabian Sea. Fishermen are advised not to venture into these areas.

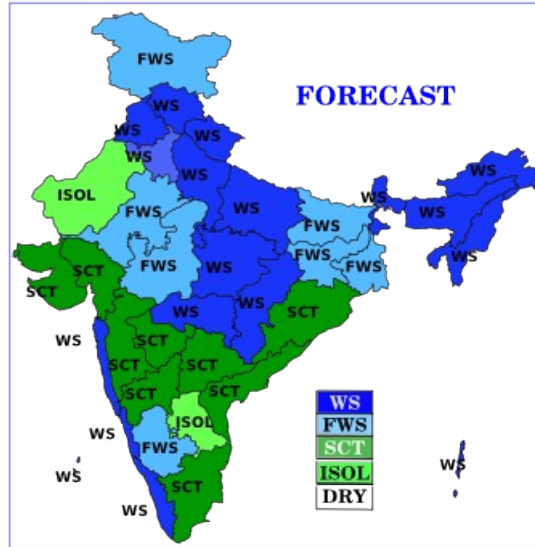
* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

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(Copies to the Media upto 1070)

Wednesday 20 July 2022



20 July (Day 3): ♦ Heavy to very heavy rainfall at a few places very likely over Uttarakhand; **heavy to very heavy rainfall** at isolated places over Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and West Madhya Pradesh; **heavy rainfall** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, East Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar and Tamil Nadu, Puducherry & Karaikal.

♦ **Strong winds** with speed reaching 45-55 kmph gusting to 65 kmph are very likely over westcentral and adjoining southwest Arabian Sea and 40-50 kmph gusting to 60 kmph are very likely over eastcentral and adjoining southeast Arabian Sea. Fishermen are advised not to venture into these areas.

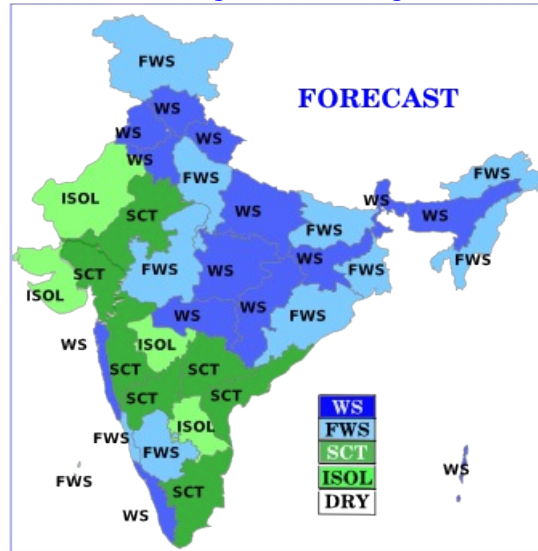
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(Circle as the National flag 497)

Thursday 21 July 2022



21 July (Day 4): ♦ **Heavy to very heavy rainfall** at isolated places likely over East Madhya Pradesh; **Heavy rainfall** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, West Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** likely at isolated places over Gangetic West Bengal and Odisha.

♦ **Strong winds** with speed reaching 45-55 kmph gusting to 65 kmph are very likely over westcentral and adjoining southwest Arabian Sea. Fishermen are advised not to venture into these areas.

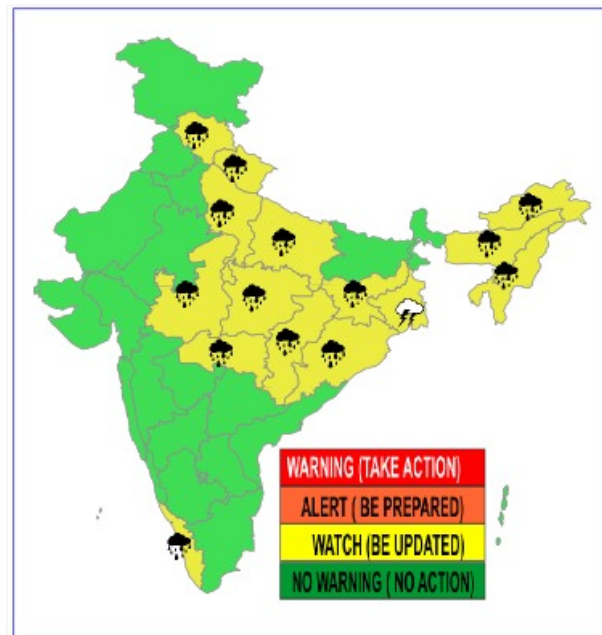
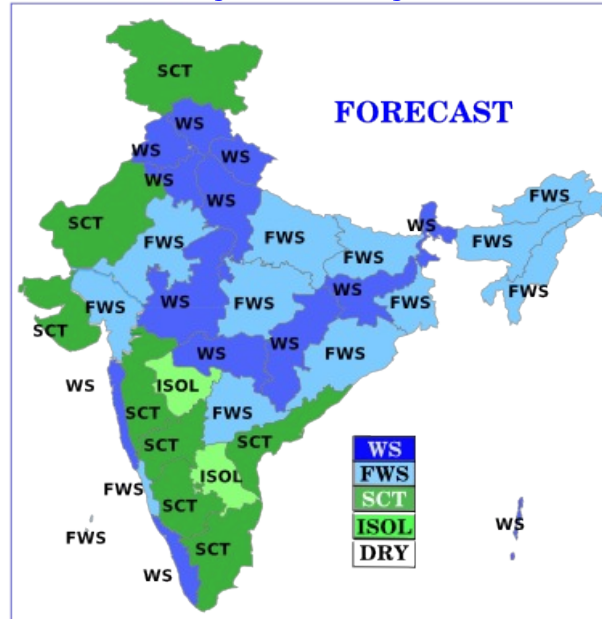
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(Circle as the National flag)

Friday 22 July 2022



22 July (Day 5): ♦ **Heavy to very heavy rainfall** at isolated places likely over East Madhya Pradesh; **heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, West Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** likely at isolated places over Gangetic West Bengal.

♦ **Strong winds** with speed reaching 45-55 kmph gusting to 65 kmph are very likely over westcentral and adjoining southwest Arabian Sea. Fishermen are advised not to venture into these areas.

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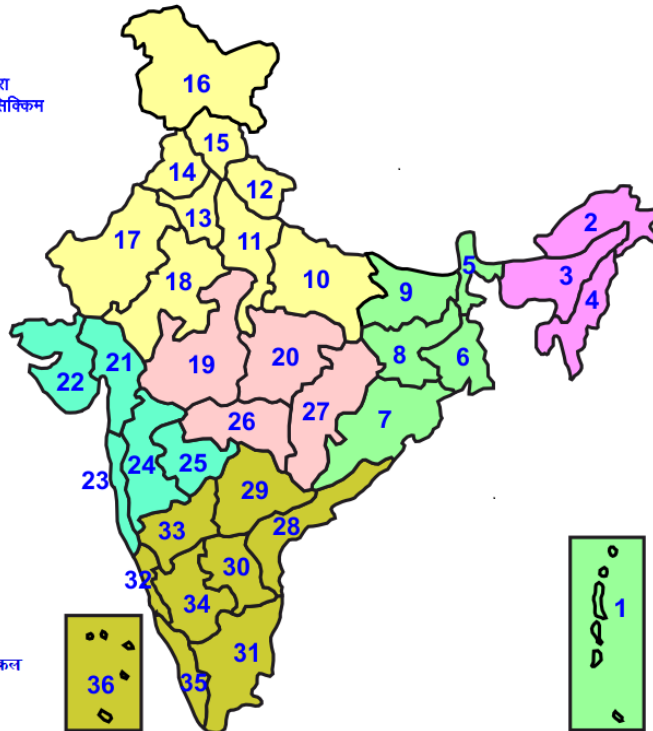
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(Circle as the Nation since 1975)

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

(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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