



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Date: 10<sup>th</sup> April, 2024  
Time of Issue: 1315 hours IST

Special Message (No.- 2)

FROM: INDIA METEOROLOGICAL DEPARTMENT  
TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS  
CONTROL ROOM NDMA  
SECRETARY, MOES  
DIRECTOR GENERAL, DOORDARSHAN  
DIRECTOR GENERAL, AIR  
PIB MOES  
CHIEF SECRETARY, GOVT. OF JAMMU & KASHMIR  
CHIEF SECRETARY, GOVT. OF LADAKH  
CHIEF SECRETARY, GOVT. OF HIMACHAL PRADESH  
CHIEF SECRETARY, GOVT. OF UTTARAKHAND  
CHIEF SECRETARY, GOVT. OF PUNJAB  
CHIEF SECRETARY, GOVT. OF HARYANA  
CHIEF SECRETARY, GOVT. OF CHANDIGARH  
CHIEF SECRETARY, GOVT. OF DELHI  
CHIEF SECRETARY, GOVT. OF UTTAR PRADESH  
CHIEF SECRETARY, GOVT. OF RAJASTHAN

**Subject: Light to moderate rainfall spell accompanied with thunderstorms, gusty winds & hail likely over Northwest India during 13<sup>th</sup>-15<sup>th</sup> with peak intensity on 13<sup>th</sup> & 14<sup>th</sup> April, 2024.**

**Weather Systems and Forecast & Warnings: (Annexure I)**

- ❖ A **Western Disturbance** as a cyclonic circulation lies over Afghanistan with trough aloft in middle tropospheric westerlies runs along Long. 66°E to the north of Lat. 30°N. **An Active Western Disturbance is likely to affect Northwest India from 12<sup>th</sup> April, 2024.** Under the influence of these systems:
  - ✓ Isolated light rainfall/snowfall very likely over Jammu-Kashmir, Himachal Pradesh, Uttarakhand during 10<sup>th</sup>-12<sup>th</sup> and fairly widespread to widespread light to moderate rainfall/snowfall with **thunderstorm, lightning** over the region during 13<sup>th</sup>-15<sup>th</sup> April, 2024.
  - ✓ Scattered to fairly widespread rainfall with **thunderstorm, lightning & gusty winds (occasionally reaching 30-50 kmph)** very likely over Uttar Pradesh, Punjab and Haryana during 13<sup>th</sup>-15<sup>th</sup> April and isolated to scattered light to moderate rainfall with **thunderstorm, lightning** very likely over Rajasthan during 10<sup>th</sup>-15<sup>th</sup> April, 2024.
  - ✓ **Isolated heavy rainfall/snowfall very likely over Jammu & Kashmir on 13<sup>th</sup> & 14<sup>th</sup> and Himachal Pradesh on 14<sup>th</sup> April, 2024.**
  - ✓ **Isolated hailstorm very likely over Jammu, Punjab, Haryana, West Rajasthan on 13<sup>th</sup>; Himachal Pradesh, Uttarakhand on 13<sup>th</sup> & 14<sup>th</sup> and over East Rajasthan on 14<sup>th</sup> April.**
  - ✓ **Dust storm/thundersquall (occasionally reaching 50-60 kmph)** very likely over Rajasthan on 13<sup>th</sup> & 14<sup>th</sup> April, 2024.

The state-wise forecast is given below: (Warning graphics are given at ANNEXURE-I)

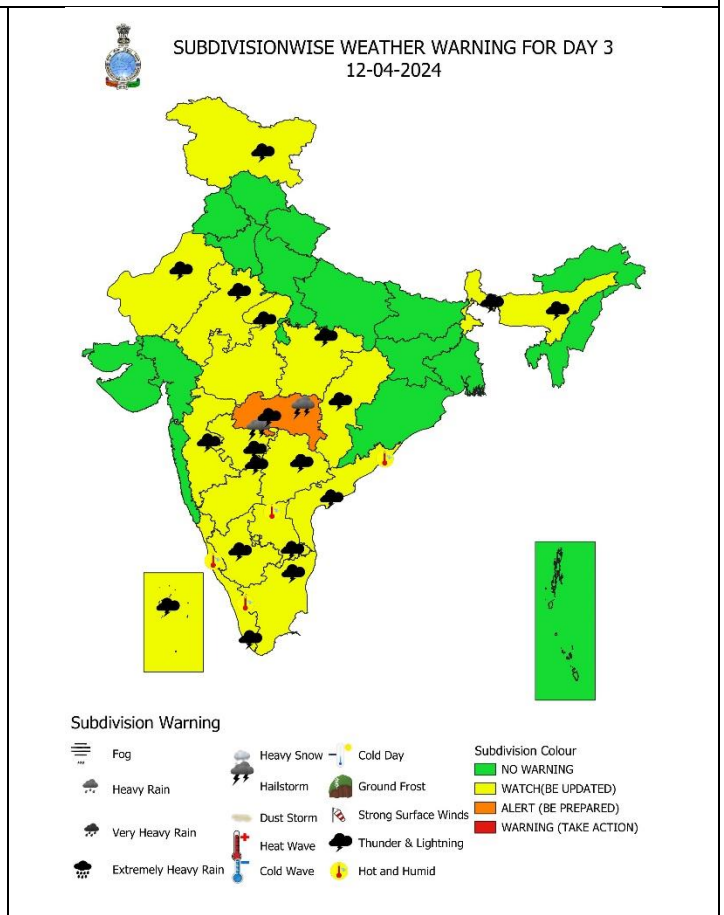
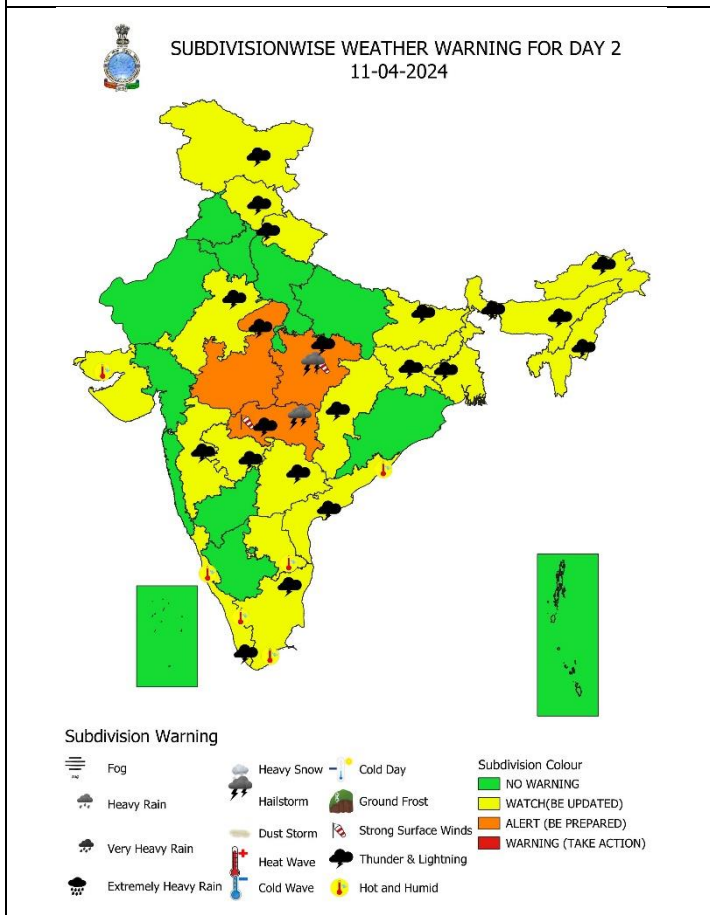
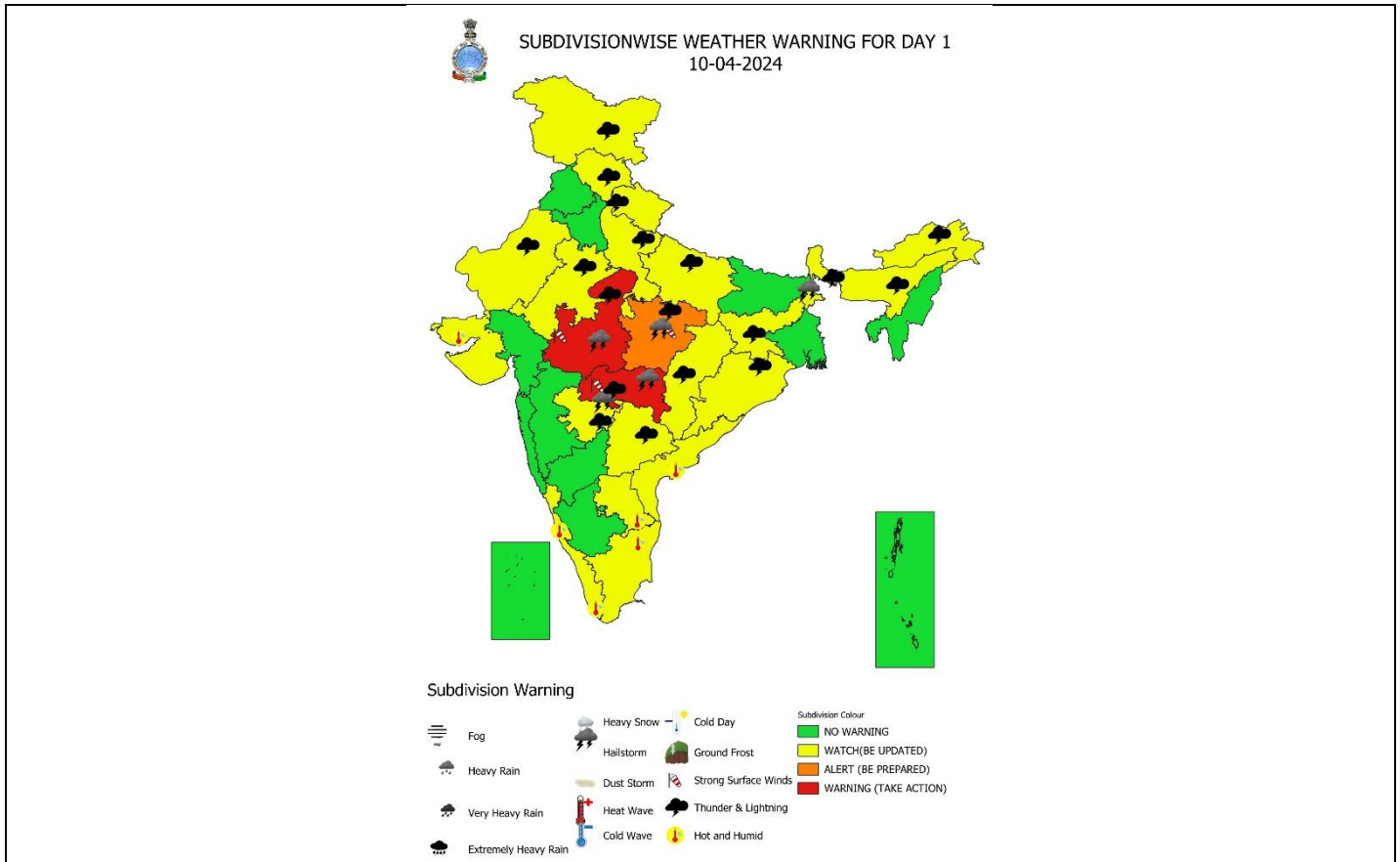
S. No.	State/sub-division	Forecast
1.	Jammu, Kashmir and Ladakh	<ul style="list-style-type: none"> <li>• Light to moderate rain/snowfall accompanied with thunderstorm, lightning &amp; gusty winds (speed occasionally reaching 30-40 kmph) at isolated places on 13<sup>th</sup> &amp; 14<sup>th</sup> April.</li> <li>• Light to moderate rain at many places on 15<sup>th</sup>; at some places on 16<sup>th</sup> April.</li> <li>• <b>Heavy rainfall/snowfall at isolated places also likely on 13<sup>th</sup> &amp; 14<sup>th</sup> April.</b></li> <li>• <b>Hailstorm also likely at isolated places on 13<sup>th</sup> April.</b></li> </ul>
2.	Himachal Pradesh	<ul style="list-style-type: none"> <li>• Light to moderate rain/snowfall accompanied with thunderstorm, lightning &amp; gusty winds (speed occasionally reaching 40-50 kmph) at isolated places on 13<sup>th</sup> &amp; 14<sup>th</sup> April.</li> <li>• Light to moderate rain at most places on 15<sup>th</sup>; at some places on 16<sup>th</sup> April.</li> <li>• <b>Heavy rainfall/snowfall at isolated places also likely on 14<sup>th</sup> April.</b></li> <li>• <b>Hailstorm also likely at isolated places on 13<sup>th</sup> &amp; 14<sup>th</sup> April.</b></li> </ul>
3.	Uttarakhand	<ul style="list-style-type: none"> <li>• Light to moderate rain/snowfall accompanied with thunderstorm, lightning &amp; gusty winds (speed occasionally reaching 40-50 kmph) at isolated places during 13<sup>th</sup> &amp; 14<sup>th</sup> April.</li> <li>• Light to moderate rain at some places on 15<sup>th</sup> and at isolated places on 16<sup>th</sup> April.</li> <li>• <b>Hailstorm also likely at isolated places on 13<sup>th</sup> &amp; 14<sup>th</sup> April.</b></li> </ul>
4.	Punjab	<ul style="list-style-type: none"> <li>• Light to moderate rain/snowfall accompanied with thunderstorm, lightning &amp; gusty winds (speed occasionally reaching 40-50 kmph) at isolated places on 13<sup>th</sup> &amp; 14<sup>th</sup> April.</li> <li>• Light to moderate rain at some places on 15<sup>th</sup> and at isolated places on 16<sup>th</sup> April.</li> <li>• <b>Hailstorm also likely at isolated places on 13<sup>th</sup> April.</b></li> </ul>
5.	Haryana, Chandigarh & Delhi	<ul style="list-style-type: none"> <li>• Light to moderate rain/snowfall accompanied with thunderstorm, lightning &amp; gusty winds (speed occasionally reaching 40-50 kmph) at isolated places on 13<sup>th</sup> &amp; 14<sup>th</sup> April.</li> <li>• Light to moderate rain at some places on 15<sup>th</sup> April.</li> <li>• <b>Hailstorm also likely at isolated places on 13<sup>th</sup> April.</b></li> </ul>
6.	West Uttar Pradesh	<ul style="list-style-type: none"> <li>• Light rain accompanied with thunderstorm, lightning &amp; gusty winds (speed occasionally reaching 30-40 kmph) at some places on 13<sup>th</sup> &amp; 14<sup>th</sup> April.</li> <li>• Light to moderate rain at isolated places on 15<sup>th</sup> April.</li> <li>• <b>Hailstorm also likely at isolated places on 14<sup>th</sup> April.</b></li> </ul>
7.	East Uttar Pradesh	<ul style="list-style-type: none"> <li>• Light rain accompanied with thunderstorm, lightning at isolated places on 13<sup>th</sup> &amp; 14<sup>th</sup> April.</li> <li>• Light to moderate rain at isolated places on 15<sup>th</sup> April.</li> </ul>

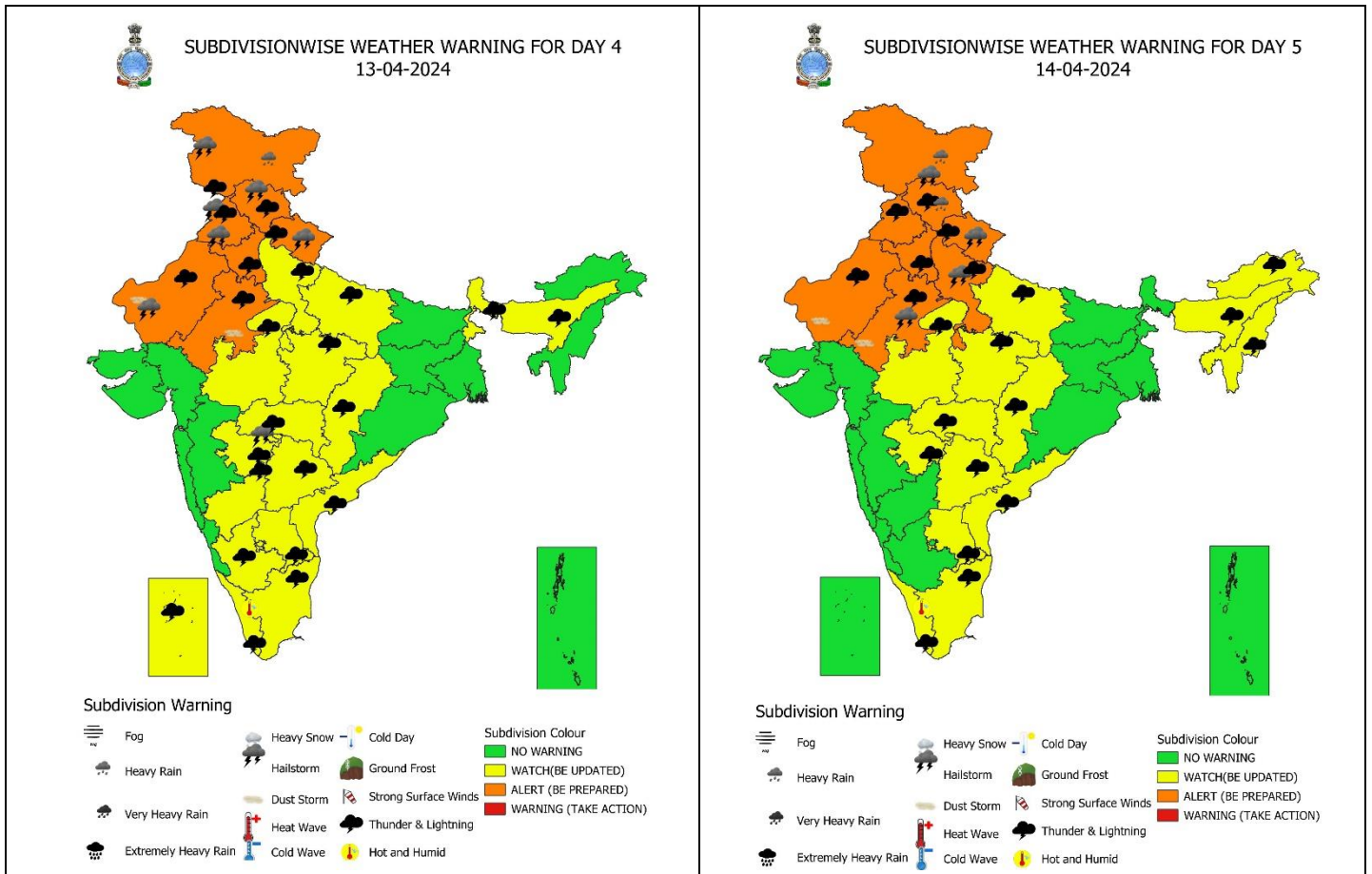
8.	West Rajasthan	<ul style="list-style-type: none"> <li>• Light rain accompanied with thunderstorm, lightning &amp; <b>squally winds</b> (speed occasionally reaching 50-60 kmph) at isolated places on 13<sup>th</sup> with gusty winds (speed occasionally reaching 40-50) at isolated places on 14<sup>th</sup> April.</li> <li>• Light to moderate rain at isolated places on 15<sup>th</sup> April.</li> <li>• <b>Hailstorm also likely at isolated places on 13<sup>th</sup> April.</b></li> </ul>
9.	East Rajasthan	<ul style="list-style-type: none"> <li>• Light rain accompanied with thunderstorm, lightning &amp; <b>squally winds</b> (speed occasionally reaching 50-60 kmph) at isolated places on 13<sup>th</sup> with gusty winds (speed occasionally reaching 40-50) at isolated places on 14<sup>th</sup> April.</li> <li>• Light to moderate rain at isolated places on 15<sup>th</sup> April.</li> <li>• <b>Hailstorm also likely at isolated places on 14<sup>th</sup> April.</b></li> </ul>

For more details, kindly refer: [https://mausam.imd.gov.in/responsive/all india forcast bulletin.php](https://mausam.imd.gov.in/responsive/all%20india%20forcast%20bulletin.php)

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# ANNEXURE I





**Impact & Action Suggested due to heavy rainfall/snowfall Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 13<sup>th</sup> & 14<sup>th</sup> and Himachal Pradesh on 14<sup>th</sup> April, 2024.**

**Impacts Expected:**

- Disruption of Electricity.
- Landslide, rock fall and mudslides, Blocking/washout of roads/highways/bridges Nallahs.
- Disruption of traffic flow.
- Damage to Kuccha and unsecured structures.

**Action Suggested:**

- Avoid roadway underpasses, drainage ditches, low lying areas and areas where water collects – they can unexpectedly flood or overflow.
- Stay away from power lines or electrical wires.
- Don't stay in kuchcha houses during heavy rainfall as it may collapse anytime soon
- Drive carefully.

**Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds & Hailstorm over Jammu on 13<sup>th</sup>; Himachal Pradesh, Uttarakhand, Rajasthan, Punjab, Haryana on 13<sup>th</sup> & 14<sup>th</sup> April.**

**Impact expected:**

- Strong wind/hail may damage plantation, horticulture and standing crops.
- Hail may injure people and cattle at open places.
- Partial damage to vulnerable structures due to strong winds.
- Minor damage to kutcha houses/walls and huts.
- Loose objects may fly.

**Action suggested:**

- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the objects that conduct electricity.

**Agromet advisories for Heavy Rainfall, Gusty Winds and Hailstorm likely over various parts of the country**

- Harvest the matured crops, fruits and vegetables at the earliest and keep the harvested produce at safer places or cover the heaps of harvested produce in the fields with tarpaulin sheets in North-West India.

**Legends & abbreviations:**

- ❖ **Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office.
- ❖ **Region wise classification of meteorological Sub-Divisions:**
  - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
  - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
  - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
  - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
  - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathwada.
  - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and 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)

Subdivision Warning	Dust Storm	Subdivision color
Heavy Rain	Strong Surface Winds	NO WARNING
Heavy Snow	Heat Wave	WATCH (BE UPDATED)
Thunderstorms & Lightning	Cold wave	ALERT (BE PREPARED)
Hailstorm	Fog	WARNING (TAKE ACTION)

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

Flash Flood Risk	
	High Risk (Take Action)
	Moderate Risk (Be Prepared)
	Low Risk (Be Updated)