



**Government of India
Ministry of Earth Sciences
India Meteorological Department**

**Press Release
Date: 12th May, 2023
Time of Issue: 1315 hours IST**

**Subject:(i) Very Severe Cyclonic storm “Mocha” (pronounced as “Mokha”) over Central & adjoining Southeast Bay of Bengal.
(ii) Heat wave conditions over West Rajasthan, Gujarat and Maharashtra on 12th & 13th May; and over East India from 15th May.**

Weather observed during past 24 hours ending at 0830 hrs IST of today: (Refer Annexure I)

Significant Meteorological features:

- ❖ Yesterday’s **cyclonic storm “Mocha” pronounced as “Mokha” over Southeast Bay of Bengal** has intensified into a **Severe Cyclonic Storm** at 1730 hrs IST of 11th May over the same region and it further intensified into a **Very Severe Cyclonic Storm** at 0530 hrs IST of today, the 12th May over Central and adjoining Southeast Bay of Bengal. It moved nearly northwards with a speed of 13 kmph during past 06 hours and lay centered at 0830 hours IST of today, the 12th May 2023 over the same region near latitude 13.6°N and longitude 88.2°E, about 530 km west-northwest of Port Blair, 950 km south-southwest of Cox’s Bazar (Bangladesh) and 870 km south-southwest of Sittwe (Myanmar).
- ❖ It is very likely to move north-northeastwards and intensify further over Eastcentral Bay of Bengal. It is very likely to cross southeast Bangladesh and north Myanmar coasts between Cox’s Bazar (Bangladesh) and Kyaukpyu (Myanmar), close to Sittwe (Myanmar) around noon of 14th May, 2023 as a **Very Severe Cyclonic Storm with maximum sustained wind speed of 150-160 kmph gusting to 175 kmph.**

Forecast and warning in association with Very Severe Cyclonic Storm “Mocha” (pronounced as “Mokha”) over Central and adjoining Southeast Bay of Bengal:

Warnings:

(i) Rainfall (warning graphics enclosed)

- ❖ **Andaman & Nicobar Islands:** Rainfall at most places with heavy rainfall at isolated places is very likely on 12th May.
- ❖ **Tripura & Mizoram:** Rainfall at most places with heavy rainfall at isolated places is very likely on 13th May and heavy to very heavy rainfall at isolated places on 14th May.
- ❖ **Nagaland, Manipur & south Assam:** Rainfall at many places with heavy rainfall at isolated places is on 14th May.

(ii) Wind warning:

- ❖ **Andaman Islands:**
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail on 12th May.
- ❖ **Tripura, Mizoram & south Manipur:**
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is very likely to prevail on 14th May.
- ❖ **North Andaman Sea:**
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail over North Andaman Sea on 12th May and 45-55 kmph gusting 55 kmph on 13th May.
- ❖ **Southeast Bay of Bengal:**
Gale wind speed reaching 115-125 kmph gusting to 145 kmph is prevailing and likely to continue till evening and decrease thereafter becoming squally wind speed reaching 55-65 kmph gusting to 75 kmph on 13th May.
- ❖ **Adjoining areas of southwest Bay of Bengal:**
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail till 13th May morning.
- ❖ **Eastcentral Bay of Bengal:**
Gale wind speed reaching 120-130 kmph gusting to 145 kmph is prevailing over the region. It is very likely to increase becoming Gale wind speed reaching 140-150 kmph gusting to 165 kmph from 12th May evening and increase further becoming 150-160 kmph gusting to 175 kmph till 13th May evening and gradually decrease thereafter.
- ❖ **Westcentral Bay of Bengal:**
Gale wind speed reaching 120-130 kmph gusting to 145 kmph is likely to prevail over southeastern sector of the region till 13th May morning. It will decrease gradually becoming 90-100 kmph gusting to 110 kmph by 13th May evening and significantly decrease thereafter.
- ❖ **Northeast Bay of Bengal:**
Squally wind speed reaching 55-65 kmph gusting to 75 kmph is likely from evening of 12th May becoming 70-80 gusting to 90 kmph from 13th May morning and would gradually increase becoming 150-160 kmph gusting 175 kmph from 13th night till 14th May noon. It is likely to decrease rapidly after the land fall.
- ❖ **Adjoining areas of Northwest Bay of Bengal:**
Gale wind speed reaching 60-70 kmph gusting to 80 kmph is likely to prevail over southeast sector of the region and 45-55 kmph gusting to 65 kmph over the remaining areas of northwest Bay of Bengal from 13th May to 14th May forenoon and decrease gradually thereafter.

(iii) Sea condition

- ❖ **Andaman Sea:**
Very rough to rough over north Andaman Sea during 12th-13th May.
- ❖ **Southeast Bay of Bengal:**
Very high to phenomenal sea condition is likely to prevail on 12th May.
Very rough to rough on 13th May.
- ❖ **Eastcentral Bay of Bengal:**

Very High to phenomenal sea condition is prevailing and would continue to be phenomenal till 14th May morning. It will improve gradually thereafter.

❖ **Adjoining areas of Westcentral Bay of Bengal:**

Very high to phenomenal sea condition is prevailing and would continue to be phenomenal till 13th May morning. It will gradually improve thereafter.

❖ **Northeast Bay of Bengal:**

Rough to very rough on 12th May. It would become very rough to high till 13th May evening and very high to phenomenal till 14th May afternoon.

❖ **Adjoining areas of Northwest Bay of Bengal:**

Rough to very rough during 13th-14th May.

(iv) Fishermen Warning (warning graphics enclosed)

- ❖ Fishermen, ships, boats and trawlers are advised not to venture into southeast Bay of Bengal till 12th May, central Bay of Bengal and north Andaman Sea till 14th May and into northeast Bay of Bengal during 12th-14th May.
- ❖ Those over central & northeast Bay of Bengal and north Andaman Sea are advised to return to coast.

(v) Damage expected & Action suggested: Mizoram, Tripura, and South Manipur

- ❖ Minor Damage to loose/unsecured structures
- ❖ Some breaches in kutchra road due to heavy rain with the possibility of landslide, in vulnerable areas
- ❖ Uprooting of small trees and breaking of tree branches.
- ❖ Damage to small trees like Banana, Drum stick and Papaya etc.
- ❖ Damage to standing crops

Action Suggested

- ❖ Immediately harvest mature fruits and crops.
- ❖ Provide staking and cover to vegetables nurseries, fruit orchards.
- ❖ Avoid application of fertilizers and pesticides.
- ❖ Keep livestock inside sheds

(vi) Damage expected & Action suggested: Marine community (shipping, offshore industries, Tourism etc. over Bay of Bengal, Andaman Sea & Andaman & Nicobar Islands)

- ❖ Very rough to phenomenal sea could effect marine operation and offshore activities.
- ❖ Regulation of tourism and offshore activities and shipping near Andaman & Nicobar Islands till 13th May.
- ❖ Regulation of shipping activity over the sea areas of southeast Bay of Bengal and Andaman Sea till 12th May, eastcentral Bay of Bengal till 14th May, and westcentral Bay of Bengal till 13th May.
- ❖ Regulation of shipping activity over the sea areas of northeast Bay of Bengal during 12th-14th May.

Forecast and warning over rest parts of the country during next 5 days:

Northeast India:

- ❖ Light/moderate fairly widespread to widespread rainfall very likely over Northeast India during 13th-16th May.
- ❖ **Heavy rainfall** very likely at isolated places over Arunachal Pradesh & Assam & Meghalaya during 14th-16th; over Nagaland, Manipur, Mizoram & Tripura during 13th-16th May.
- ❖ Isolated **very heavy falls** also likely over Arunachal Pradesh on 15th; Assam & Meghalaya on 15th & 16th and over Nagaland, Manipur, Mizoram & Tripura on 14th & 15th May.

No significant weather likely over rest parts of the country.

Maximum Temperatures, its forecast and Heat Wave Warnings (Graphics in Annexure II):

- ❖ Yesterday, Maximum Temperatures were in the range of 42-44°C over most parts of Gujarat state and West Rajasthan and in isolated places over West Madhya Pradesh, Vidarbha, north Interior Odisha; in the range of 40-42°C over many parts of Interior Maharashtra, some parts of Madhya Pradesh, southeast Uttar Pradesh, Bihar, East Rajasthan and Jharkhand and below 44°C remaining parts of the country.
- ❖ Maximum Temperatures were above normal by 4-6°C over parts of Gujarat state, east Bihar, West Bengal & Sikkim and northeast India. Maximum temperatures are very likely to rise by 2-4°C over many parts of the country during next 3 days except over East India where no significant change in maximum temperatures is likely.
- ❖ **Heat wave conditions** very likely in isolated pockets over
 - ✓ Konkan and Madhya Maharashtra on 12th
 - ✓ Gujarat state and West Rajasthan on 12th & 13th
 - ✓ West Madhya Pradesh during 12th-14th
 - ✓ Vidarbha on 13th & 14th
 - ✓ Bihar, Odisha and Gangetic West Bengal on 15th & 16th
 - ✓ Coastal Andhra Pradesh & Yanam during 14th-16th May.
- ❖ Due to humid air and high temperature, Hot and Discomfort weather is very likely over Konkan during next 2 days; over Odisha during next 5 days; Kerala and Tamil Nadu on 13th & 14th May.

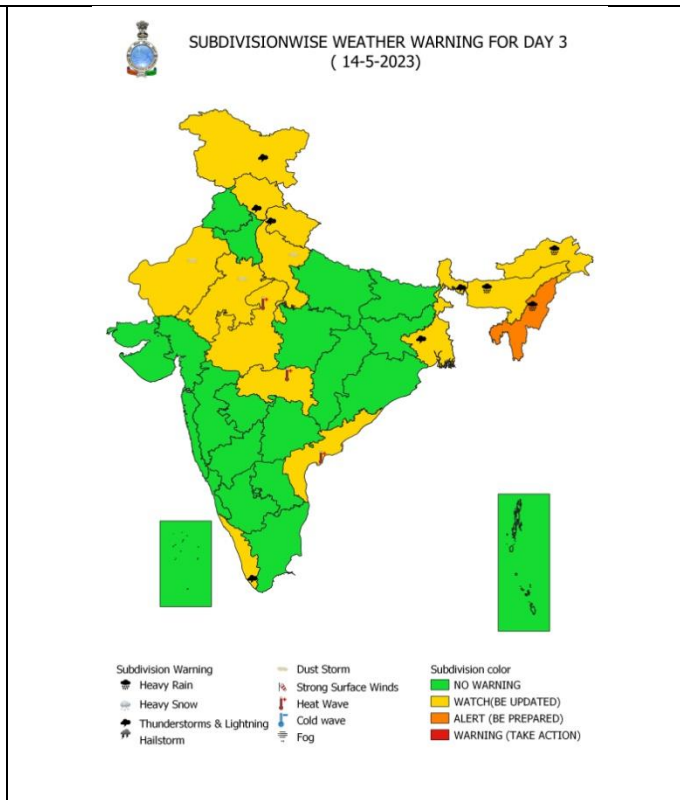
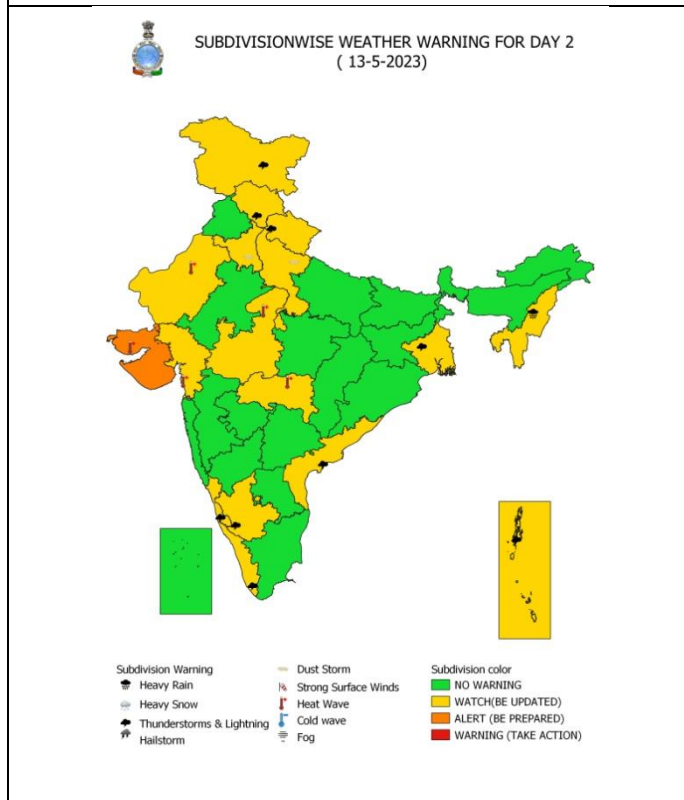
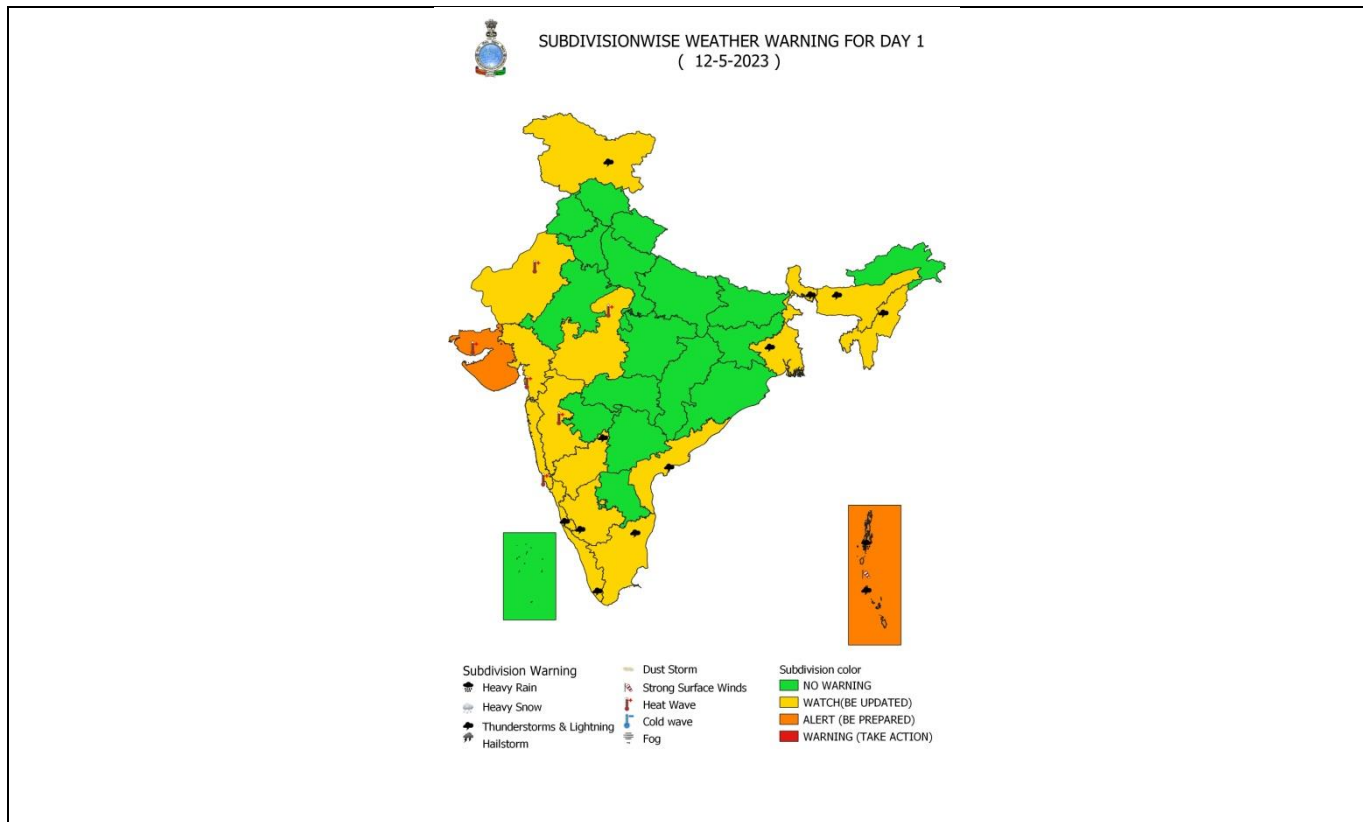
For more details kindly refer:

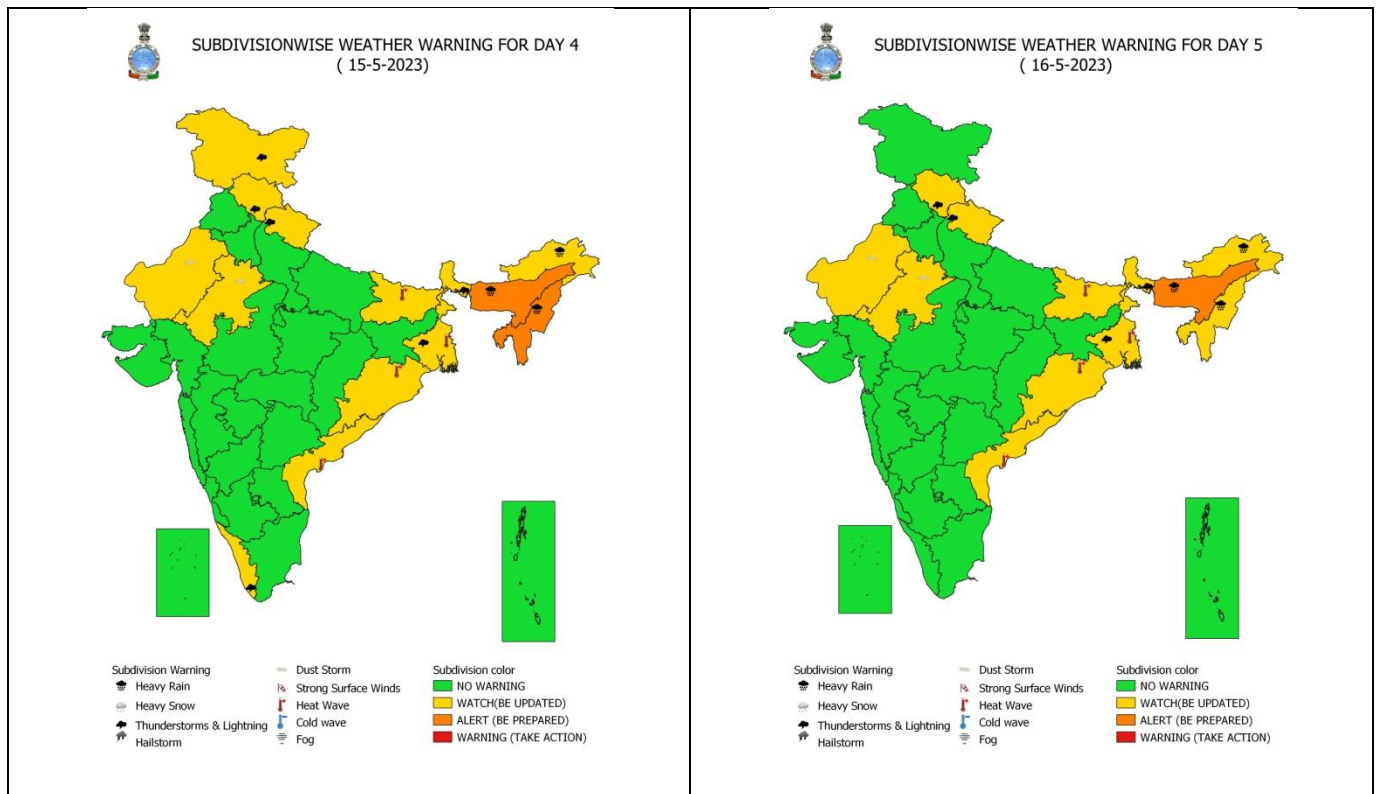
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<https://mausam.imd.gov.in/responsive/districtWiseNowcast.php>

Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today):

- **Rainfall/thundershowers observed at most places** over Andaman & Nicobar Islands; **at many places** over Kerala & Mahe, Coastal & South Interior Karnataka; **at a few places** over Arunachal Pradesh and **at isolated places** over Sub-Himalayan West Bengal & Sikkim, Odisha, Uttarakhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana, Rayalaseema, Coastal Andhra Pradesh, Tamil Nadu, Puducherry & Karaikal and North Interior Karnataka.
- **Heavy Rainfall occurred** at isolated places over Kerala.
- **Significant rainfall recorded** (in cm): **Nicobar Islands:** Long Island (dist north Andaman) 4; **Tamil Nadu:** Mulanur (dist Tiruppur), Tallakulam (dist Madurai) 6, Suralacode (dist Kanyakumari), Nilakottai (dist Dindigul), Mullanginavillai (dist Kanyakumari), Madurai South (dist Madurai) 5 each, **Kerala:** Mattannur ARG (Kannur district) 7. Varkala (Thiruvananthapuram district) 6, **Karnataka:** Puttur Hms (dist Dakshina Kannada) 6; Mani (dist Dakshina Kannada) 5, Krishnarajasagara (dist Mandya) 5, Balehonnur (dist Chikkamagaluru) 5 each, **Assam & Meghalaya:** Resubelpara (dist North Garo Hills) 4,
- **Hailstorm** observed in isolated pockets over Madhya Maharashtra.
- Yesterday, **Heat wave to severe heat wave conditions** prevailed in isolated pockets over Gujarat state; **Heat wave conditions** prevailed in isolated pockets over West Bengal and Bihar.





(i) Damage expected & Action suggested: Mizoram, Tripura, and South Manipur

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- ❖ Regulation of shipping activity over the sea areas of northeast Bay of Bengal during 12th-14th May.

(iii) IMPACT & ACTION SUGGESTED due to Heat Wave over Saurashtra & Kutch:

❖ Yellow alert Areas:

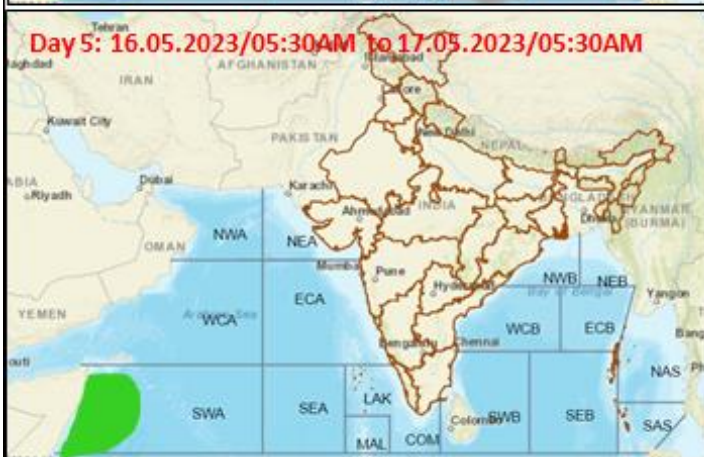
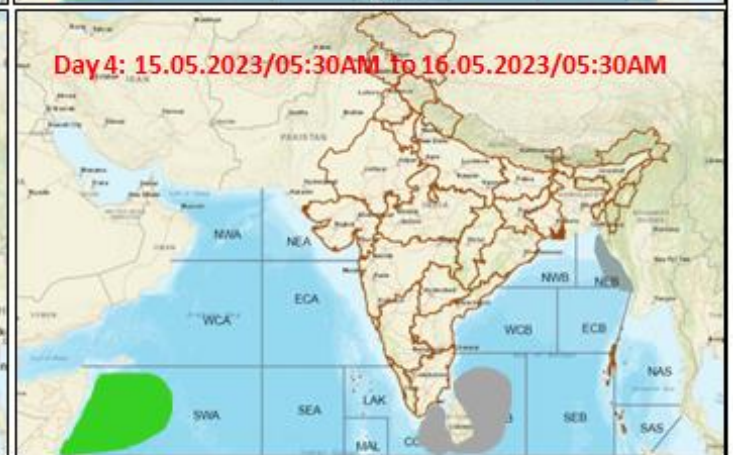
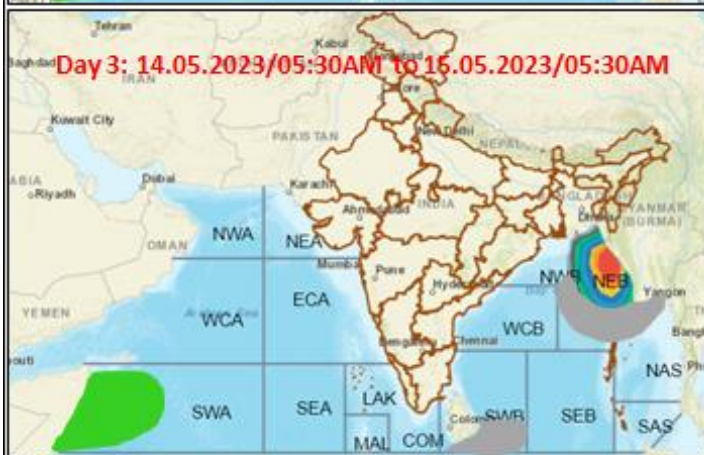
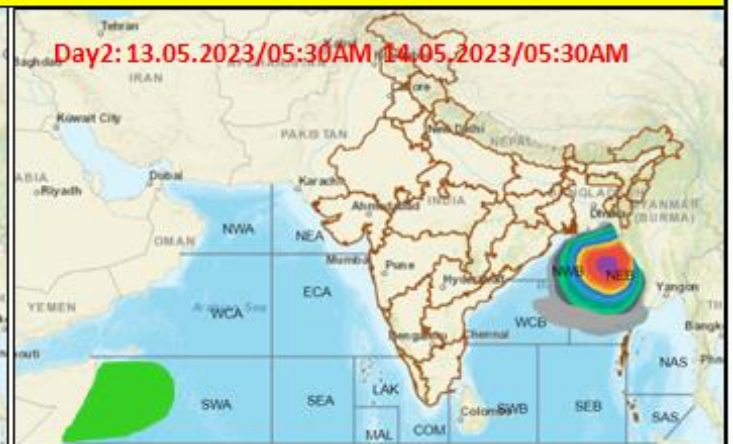
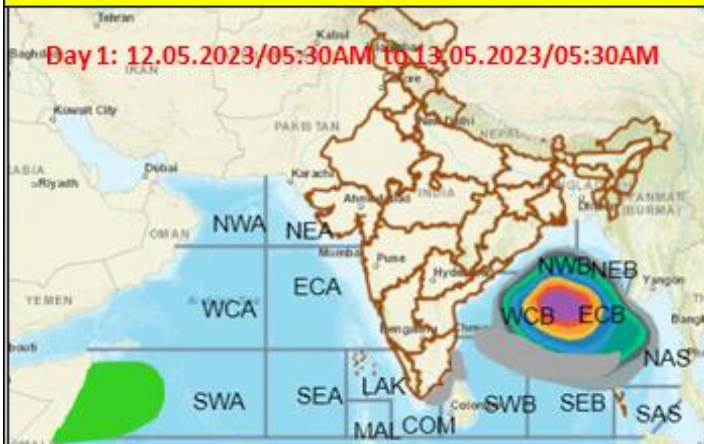
(1) Moderate temperature, Heat is tolerable for general public but moderate health concern for vulnerable people e.g. infants, elderly, people with chronic diseases. (2) Avoid heat exposure, Wear lightweight, light coloured, loose, cotton clothes, Cover your head, use a cloth, hat or umbrella.

❖ Orange alert Areas:

(1) High temperature, Increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work. High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.

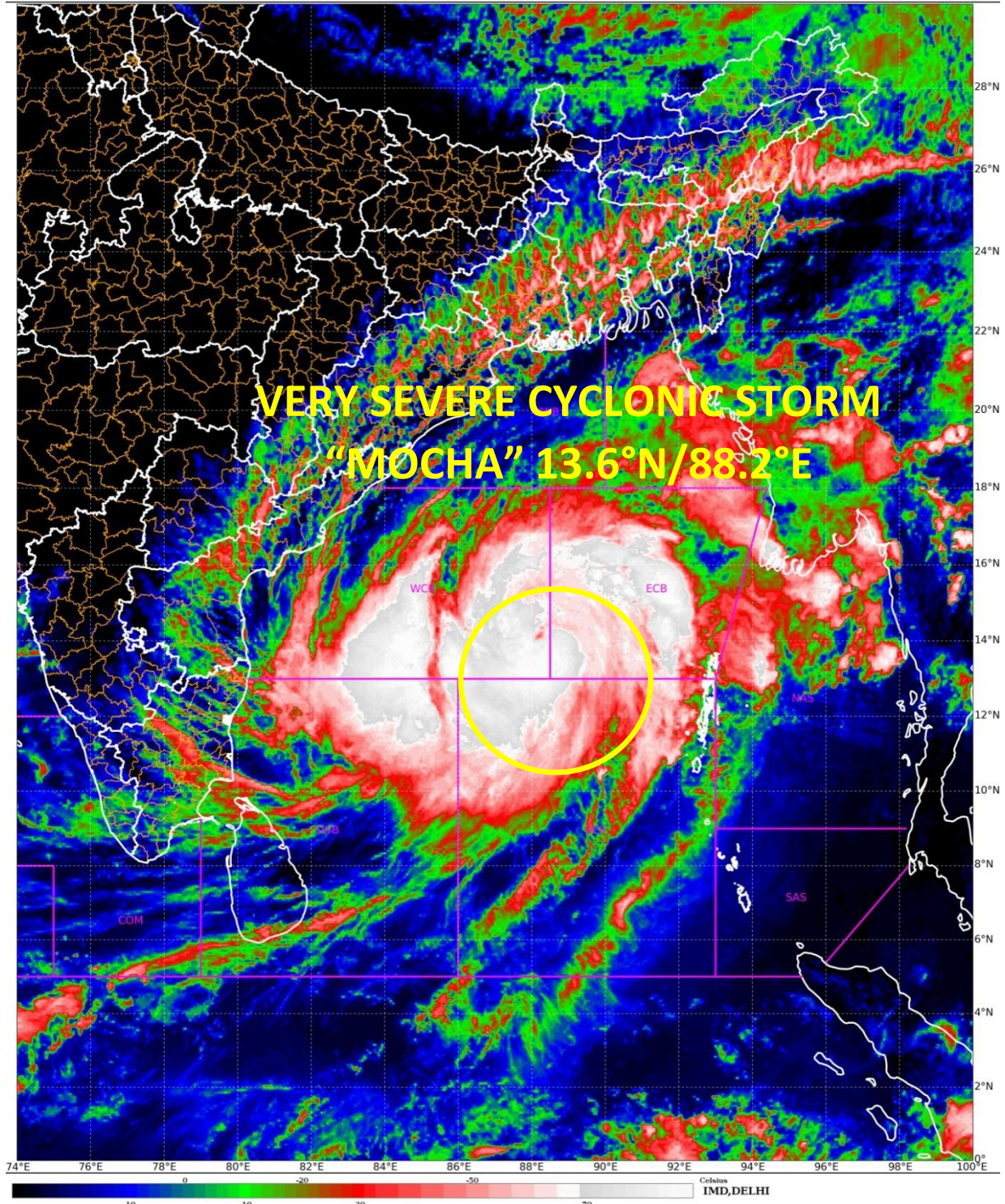
(2) Drink sufficient water- even if not thirsty, Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated.

Fishermen warning graphics



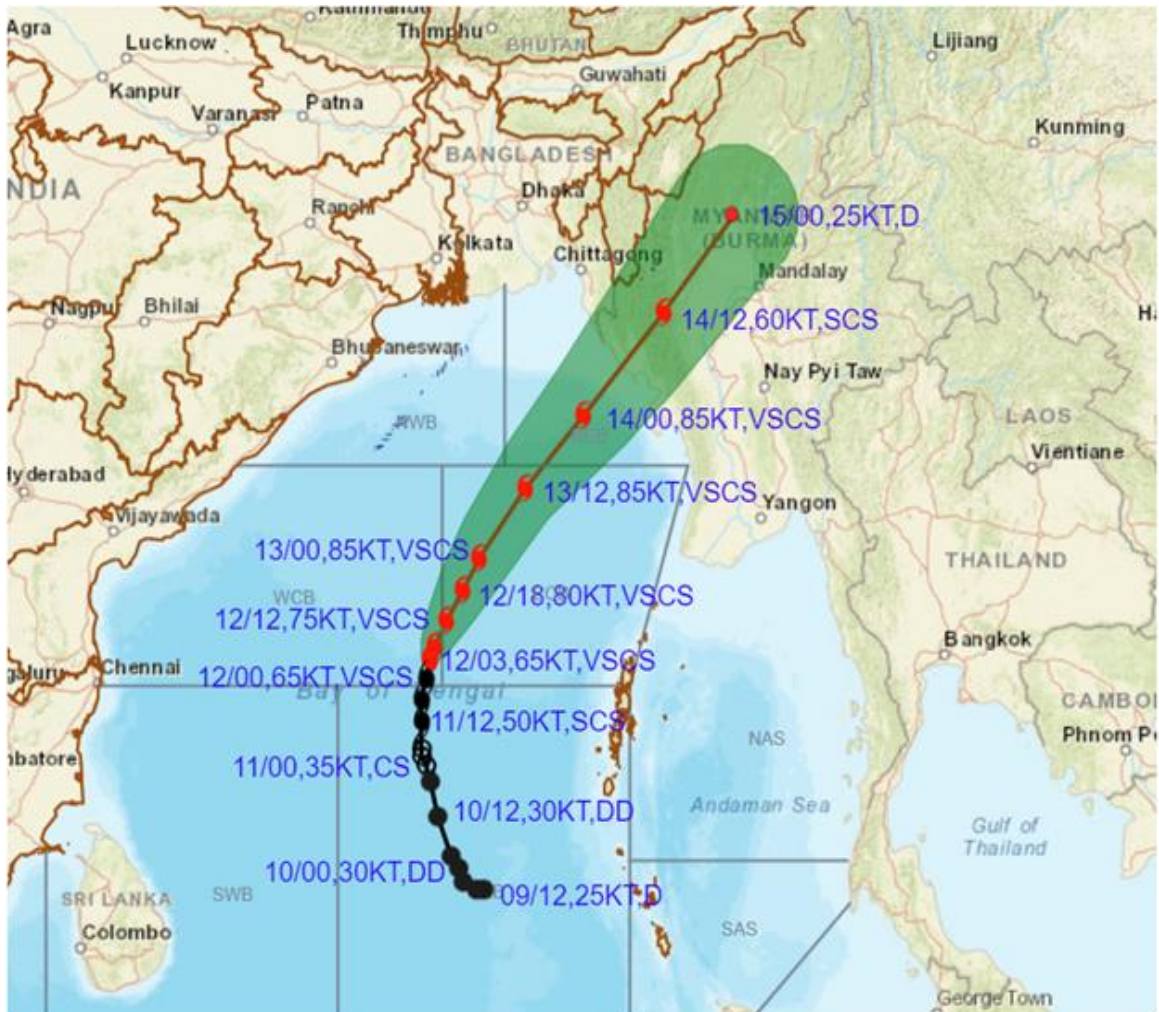
	Squally WX with wind speed 40-50 kmph gusting to 60 kmph
	Squally WX with wind speed 50-60 kmph gusting to 70 kmph
	Gale wind speed 60-70 kmph gusting to 80 kmph
	Gale wind with wind speed 70-80 kmph gusting to 90 kmph
	Gale wind with wind speed 80-90 kmph gusting to 100 kmph
	Gale wind with wind speed 90-100 kmph gusting to 110 kmph
	Gale wind with wind speed 100-110 kmph gusting to 120 kmph
	Gale wind with wind speed 110-120 kmph gusting to 140 kmph
	Gale wind with wind speed 130-140 kmph gusting to 155 kmph
	Gale wind with wind speed 140-150 kmph gusting to 165 kmph

FISHERMEN ARE ADVISED NOT TO VENTURE INTO THE MARKED AREAS





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF VERY SEVERE CYCLONIC STORM MOCHA OVER CENTRAL AND ADJOINING SOUTHEAST BAY OF BENGAL BASED ON 0300 UTC (0830 IST) OF 12TH MAY 2023.



DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
 SuCS: SUPER CYCLONIC STORM (\geq 120 KT)

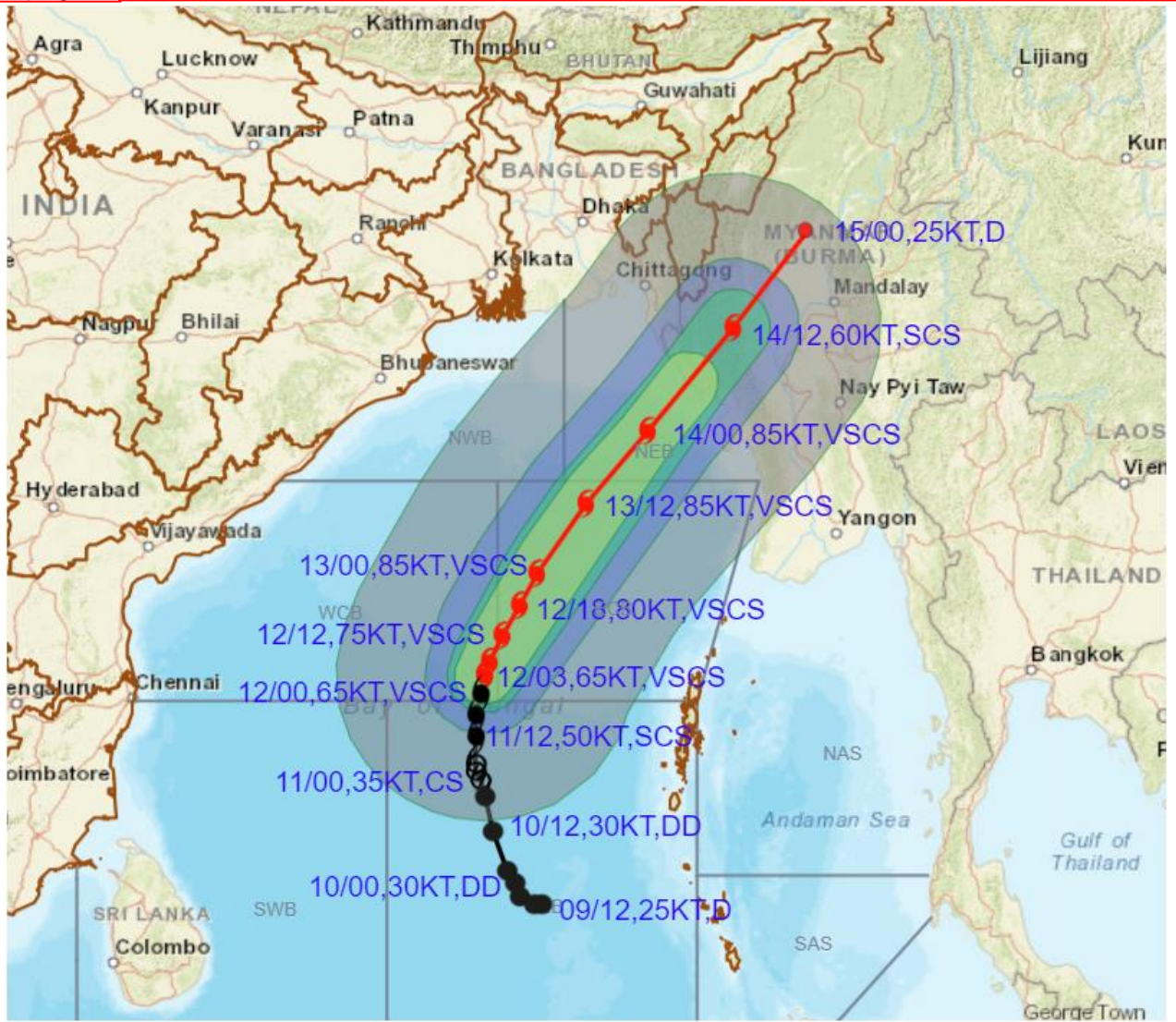
- LESS THAN 34 KT
- 34-47 KT
- \geq 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

Forecast distance (km) and direction of the centre from nearest 5 coastal stations

Forecast Date and Time	Lead Period	Lat	Lon	Station 1	Station 2	Station 3	Station 4	Station 5
12.05.23/0300	0	13.6	88.2	MAYA BANDAR (517,W)	LONG ISLAND (530,WNW)	PORT BLAIR (536,WNW)	COCO ISLAND (561,W)	HUT BAY (580,NW)
13.05.23/0000	21	15.9	89.4	COCO ISLAND (470,WNW)	MAYA BANDAR (504,NW)	LONG ISLAND (544,NW)	SANDHEADS (564,SSE)	MANAUNG (565,SW)
14.05.23/0000	45	19.1	91.9	SITTWE (154,SW)	KYAUKPYU (177,W)	MANAUNG (195,W)	TEKNAF (201,SSW)	KYAUKTAW (209,SSW)
15.05.23/0000	69	23.5	95.5	PINLEBU (66,SSE)	SHWEBO (104,NNW)	MAWLAIK (112,E)	KATHA (113,SW)	KALEWA (127,ENE)



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF VERY SEVERE CYCLONIC STORM MOCHA OVER CENTRAL AND ADJOINING SOUTHEAST BAY OF BENGAL BASED ON 0300 UTC (0830 IST) OF 12TH MAY 2023.



DATE/TIME IN UTC

IST=UTC + 0530

L: LOW PRESSURE AREA

WML: WELL MARKED LOW PRESSURE AREA

D: DEPRESSION (17-27 KT)

DD: DEEP DEPRESSION (28-33 KT)

CS: CYCLONIC STORM (34-47 KT)

SCS: SEVERE CYCLONIC STORM (48-63KT)

VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)

ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)

SuCS: SUPER CYCLONIC STORM (\geq 120 KT)

- LESS THAN 34 KT
- 34-47 KT
- \geq 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY
- AREA OF MAXIMUM SUSTAINED WIND SPEED:
- 28-33 KT (52-61 KMPH)
- 34-49 KT (62-91 KMPH)
- 50-63 KT (92-117 KMPH)
- \geq 64 KT (\geq 118 KMPH)














IMPACT OVER THE SEA

MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
\geq 64 (\geq 118)	Phenomenal	Total suspension of fishing operations

Legends:

- ❖ **Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **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-Himalaya 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, Tamilnadu, 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