



**India Meteorological Department  
(Ministry of Earth Sciences)**

**NATIONAL BULLETIN NO.23 (BOB/01/2024)**

**TIME OF ISSUE: 1430 HOURS IST**

**DATED: 27.05.2024**

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**Sub: Cyclonic Storm “Remal” (pronounced as “Re-Mal”) over Bangladesh and adjoining West Bengal**

The Cyclonic Storm “Remal” (pronounced as “Re-Mal”) over Coastal Bangladesh and adjoining Coastal West Bengal moved nearly northwards, with a speed of 08 kmph during past 06 hours and lay centered at 1130 hrs IST of today, the 27<sup>th</sup> May, 2024 over Bangladesh and adjoining West Bengal, near **latitude 23.0°N** and **longitude 89.2°E** about 65 km northwest of Mongla (Bangladesh), 100 km north-northeast of Canning (West Bengal), 110 km northeast of Kolkata (West Bengal), 150 km northwest of Khepupara (Bangladesh) and 150 km southwest of Dhaka (Bangladesh)

The system is likely to move north-northeastwards, and gradually weaken further into Deep Depression by evening of today, the 27<sup>th</sup> May 2024.

Forecast track and intensity are given in the following table:

<b>Date/Time (IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
27.05.24/1130	23.0/89.2	60-70 gusting to 80	Cyclonic Storm
27.05.24/1730	23.6/89.4	50-60 gusting to 70	Deep Depression
27.05.24/2330	24.2/90.0	40-50 gusting to 60	Depression
28.05.24/0530	24.8/90.7	35-45 gusting to 55	Depression
28.05.24/1130	25.4/91.5	25-35 gusting to 45	Well Marked Low Pressure Area

## **Warnings (Graphics Attached):**

### **Heavy Rainfall Warning:**

- (a) **West Bengal:** Light to moderate rainfall at most places with **heavy to very heavy rainfall** at a few places is likely over coastal and eastern districts of Gangetic West Bengal adjacent to Bangladesh on 27<sup>th</sup> May.  
Light to moderate rainfall at most places with **heavy to very heavy rainfall** at a few places likely over eastern districts of Sub-Himalayan West Bengal on 27<sup>th</sup> and 28<sup>th</sup> May.
- (b) **Northeastern States:** Light to moderate rainfall at most places with **heavy to very heavy rainfall** at a few places is likely over Assam, Meghalaya, Arunachal Pradesh, Nagaland, Mizoram, Manipur & Tripura on 27<sup>th</sup> & 28<sup>th</sup> May. Isolated **extremely heavy rainfall** ( $\geq 20$  cm) is also likely over Assam, Meghalaya, Mizoram & Tripura on 27<sup>th</sup>, and Arunachal Pradesh on 28<sup>th</sup> May.

### **Wind Warning:**

#### **(a) Bay of Bengal**

- ❖ **Gale wind speed reaching 65-75 kmph gusting to 85 kmph** is prevailing over North Bay of Bengal. It is likely to decrease becoming squally wind speed reaching 50-60 kmph gusting to 70 kmph by evening of 27<sup>th</sup> May.
- ❖ **Squally wind speed reaching 40-50 kmph gusting to 60 kmph** will continue to prevail over adjoining central Bay of Bengal till afternoon of 27<sup>th</sup> May.

#### **(b) Along & off Bangladesh and West Bengal coasts**

- ❖ **Gale wind speed reaching 65-75 kmph gusting to 85 kmph** will continue to prevail along & off Bangladesh and adjoining West Bengal coasts during next 3 hours. It is likely to decrease becoming squally wind reaching 45-55 kmph gusting to 65 kmph by evening of 27<sup>th</sup> May and decrease gradually thereafter.
- ❖ **Gale wind speed reaching 60-70 kmph gusting to 80 kmph** will continue to prevail over Howrah, Hoogly, Kolkata & Nadia and squally wind speed reaching 45-55 gusting to 65 kmph over East Medinipur during next 3 hours. The wind speed would decrease over these regions gradually thereafter.

#### **(c) Along & off North Odisha coasts**

**Squally wind speed reaching 40-50 kmph gusting to 60 kmph** is likely to prevail during next 6 hours and decrease thereafter.

#### **(d) Northeastern States**

**Squally wind speed reaching 50-60 kmph gusting to 70 kmph** is likely over South Assam and Meghalaya, Tripura and **40-50 kmph gusting to 60 kmph** is likely over & Mizoram, Manipur and remaining parts of Assam on 27<sup>th</sup> May. It would reduce to 40-50 gusting to 60 kmph over Assam & Meghalaya till noon of 28<sup>th</sup> May.

### **Sea condition warning:**

#### **(a) North Bay of Bengal**

High Sea condition is likely over North Bay of Bengal till afternoon and gradually improve becoming very rough to rough thereafter till night of 27<sup>th</sup> May. It would improve thereafter.

#### **(b) Along & off Bangladesh and West Bengal coasts**

High sea condition is likely along & off Bangladesh and West Bengal coasts till afternoon and gradually improve becoming very rough to rough thereafter till 27<sup>th</sup> May night. It would improve thereafter.

#### **(c) Along & off North Odisha coast**

Rough sea condition is likely along & off North Odisha coast during next 6 hours and improve thereafter.

#### **(d) Central Bay of Bengal**

Rough sea condition is likely to prevail over central Bay of Bengal during next 6 hours and improve thereafter.

**Damage Expected over West Bengal (South & North 24 Parganas, Howrah, Hoogly, Kolkata, Nadia, Murshidabad districts) and Northeastern States (Assam, Meghalaya, Manipur, Tripura, Mizoram)**

- Damage to vulnerable structures and thatched houses/ huts.
- Unattached metal sheets may fly.
- Breaking of tree branches, uprooting of small trees. Damage to banana and papaya trees.
- Partial damage to power and communication lines due to breaking of branches and uprooting of small trees.
- Damage to Kutcha and minor damage to Pucca roads due to heavy rain.
- Damage to paddy crops, horticultural crops and orchards.
- Inundation of low-lying areas and localized flooding
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic due to water logging and squally winds

**Action Suggested for Damage Expected over West Bengal (South & North 24 Parganas, Howrah, Hoogly, Kolkata, Nadia, Murshidabad districts) and Northeastern States (Assam, Meghalaya, Manipur, Tripura, Mizoram) on 27<sup>th</sup> May:**

- People in vulnerable areas to move to safer places.
- People in affected areas to remain indoors.
- Total suspension of fishing operations on 27<sup>th</sup> May.
- Surface transport and shipping Onshore & Offshore operations over North Bay of Bengal need to be regulated till afternoon of 27<sup>th</sup> May
- Avoid going to areas that face the water logging problems often.

**Fishermen Warning (graphics attached):**

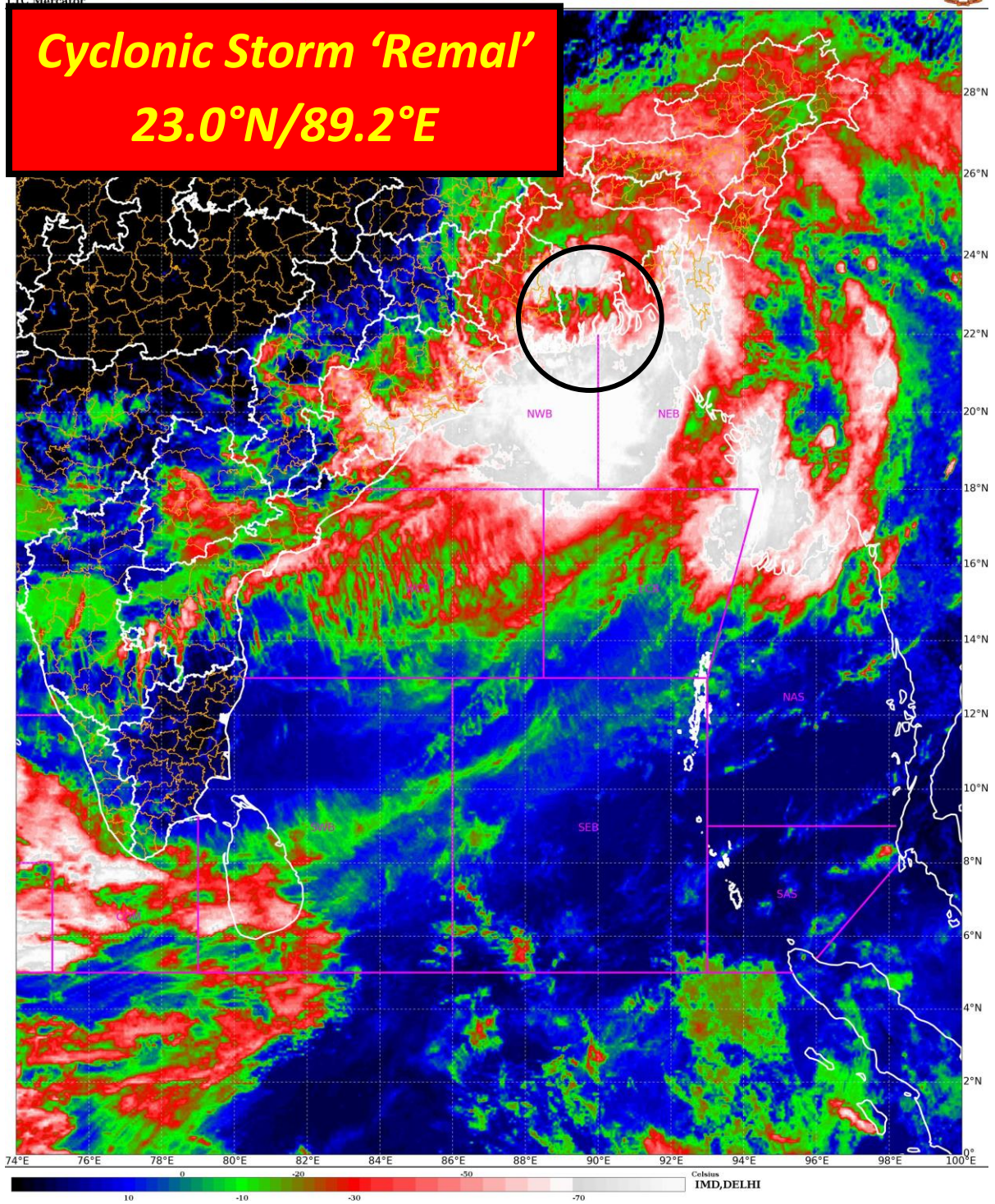
Fishermen are advised not to venture into North Bay of Bengal along and off West Bengal and Bangladesh coasts till 27<sup>th</sup> May evening.

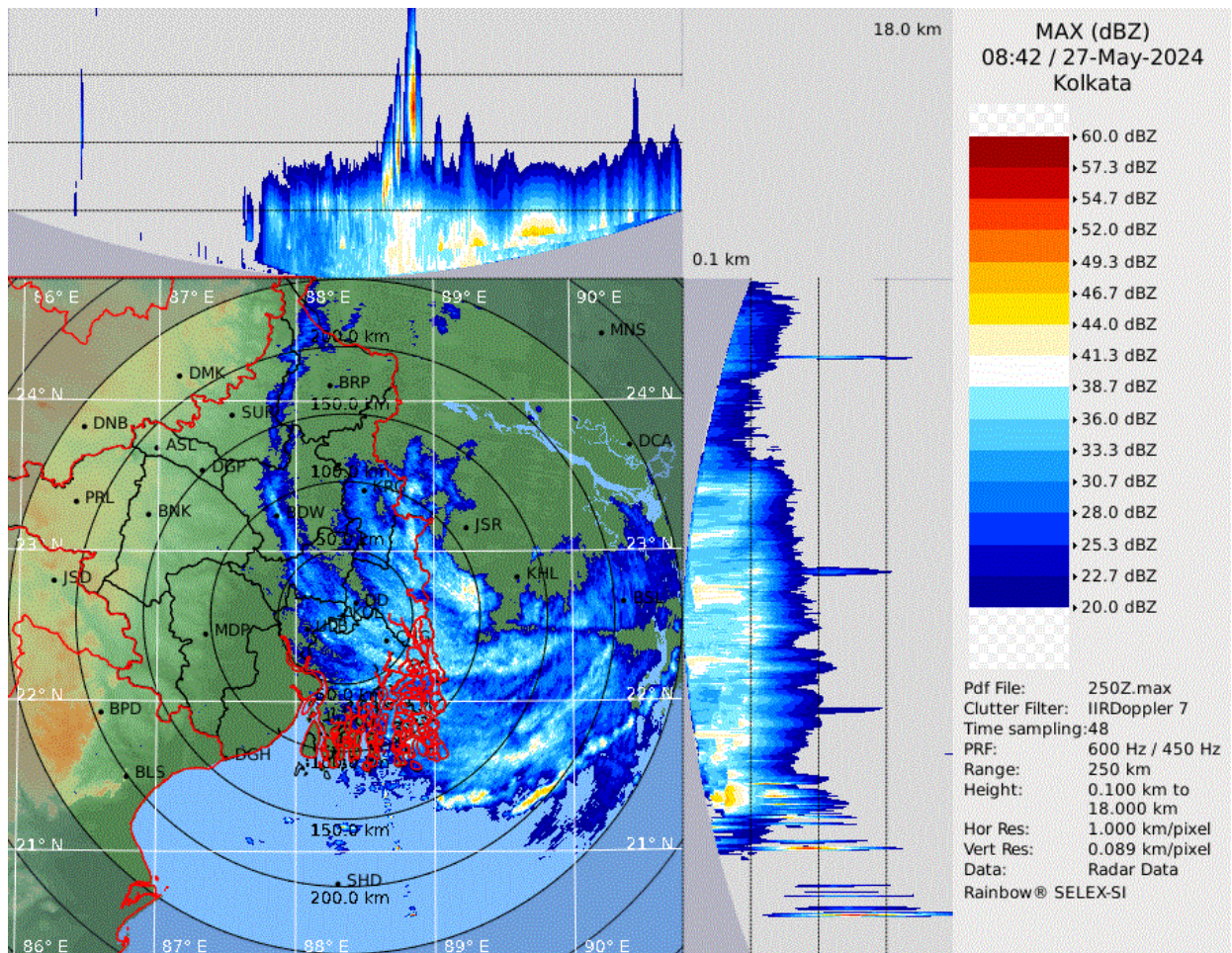
**The system is under continuous surveillance and the next message will be issued at 1730 hours IST of today, the 27<sup>th</sup> May, 2024.**

**(S. P. Singh)**

**Scientist C, Cyclone Warning Division, New Delhi**

*Copy to: ACWC Kolkata/ ACWC Chennai/ CWC Bhubaneswar/CWC Visakhapatnam/MO  
Port Blair/RMC Guwahati*

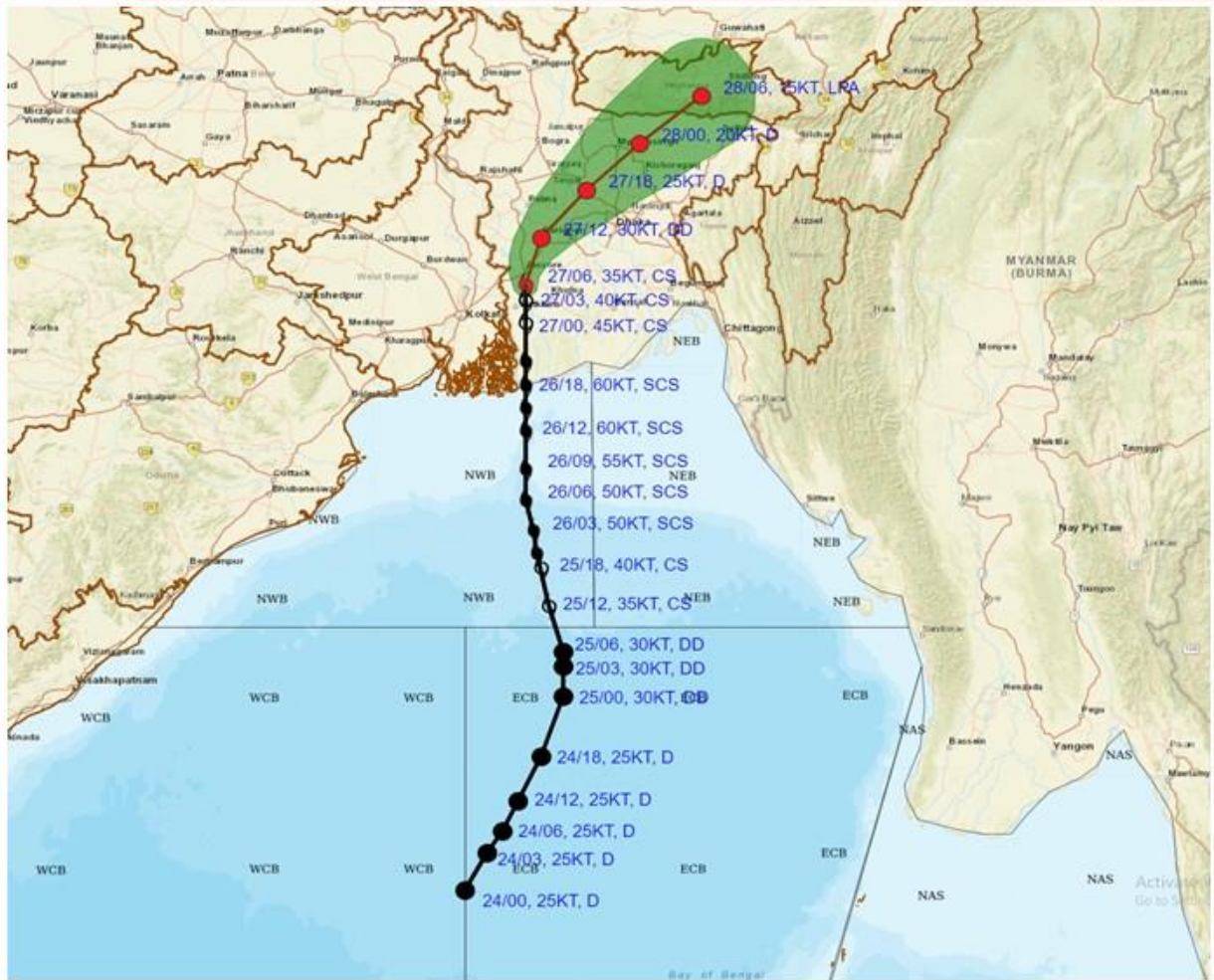




**Kolkata Radar Image 1410 hrs IST of today, the 27<sup>th</sup> May**



**FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY IN ASSOCIATION WITH CYCLONIC STORM 'REMAL' OVER BANGLADESH AND ADJOINING WEST BENGAL BASED ON 0600 UTC (1130 IST) OF 27<sup>TH</sup> MAY 2024.**



DATE/TIME IN UTC  
IST=UTC + 0530

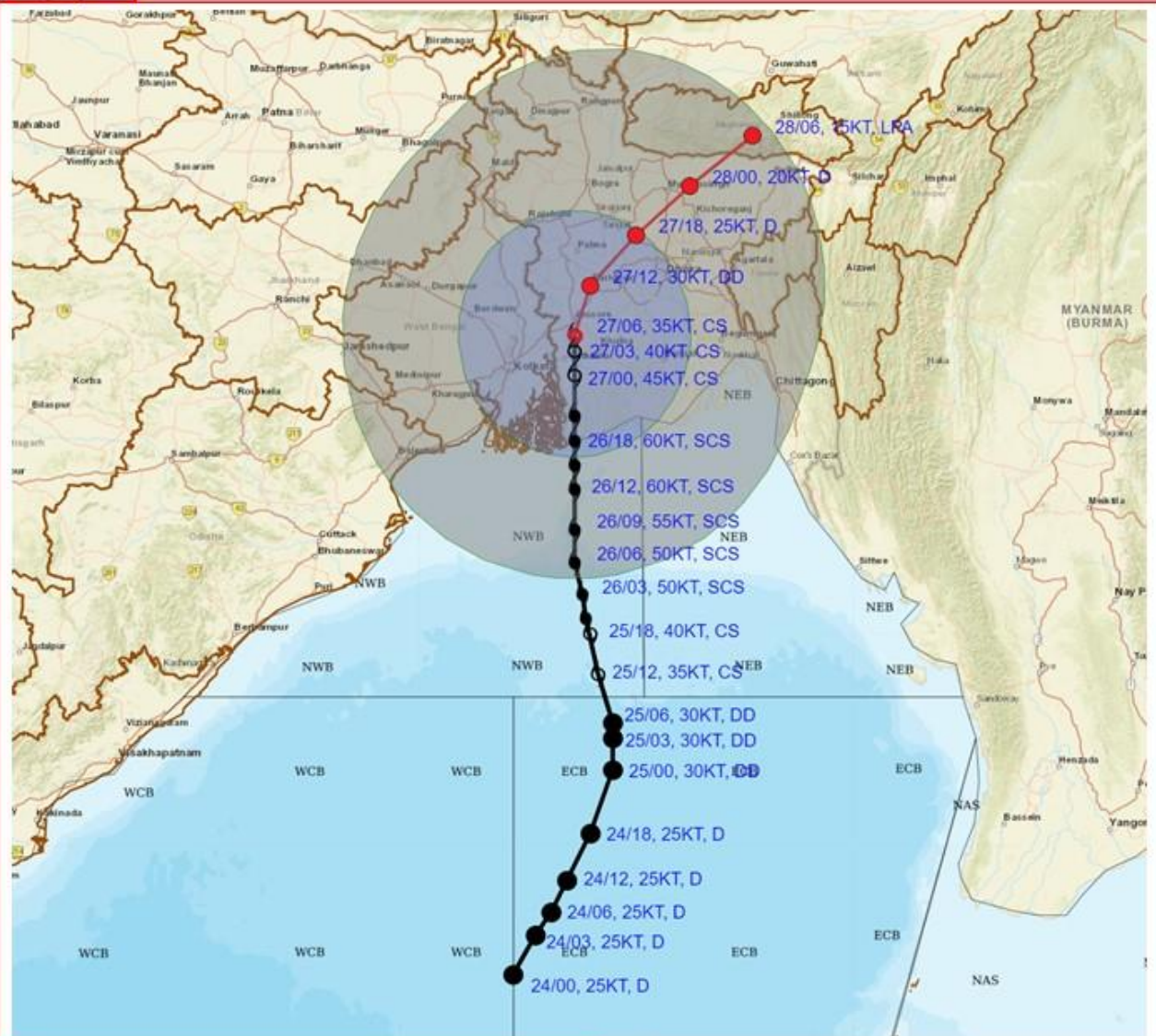
L: LOW PRESSURE AREA  
WML: WELL MARKED LOW PRESSURE AREA  
D: DEPRESSION (17-27 KT)  
DD: DEEP DEPRESSION (28-33 KT)  
CS: CYCLONIC STORM (34-47 KT)  
SCS: SEVERE CYCLONIC STORM (48-63KT)  
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)  
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)  
SuCS: SUPER 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 FROM STATIONS				
	Date and Time (UTC)	Canning	Khepupara	Sagar Island	Mongla
	27.05.24/0600	100, NNE	160, NW	200, NE	60, NW
	27.05.24/1200	170, NNE	200, NNW	260, NNE	120, N
	27.05.24/1800	260, NNE	250, N	350, NE	190, NNE
	28.05.24/0000	360, NE	320, N	450, NE	280, NNE
	28.05.24/0600	460, NE	410, NNE	550, NE	380, NNE



**FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION IN ASSOCIATION WITH CYCLONIC STORM 'REMAL' OVER BANGLADESH AND ADJOINING WEST BENGAL BASED ON 0600 UTC (1130 IST) OF 27TH MAY 2024.**



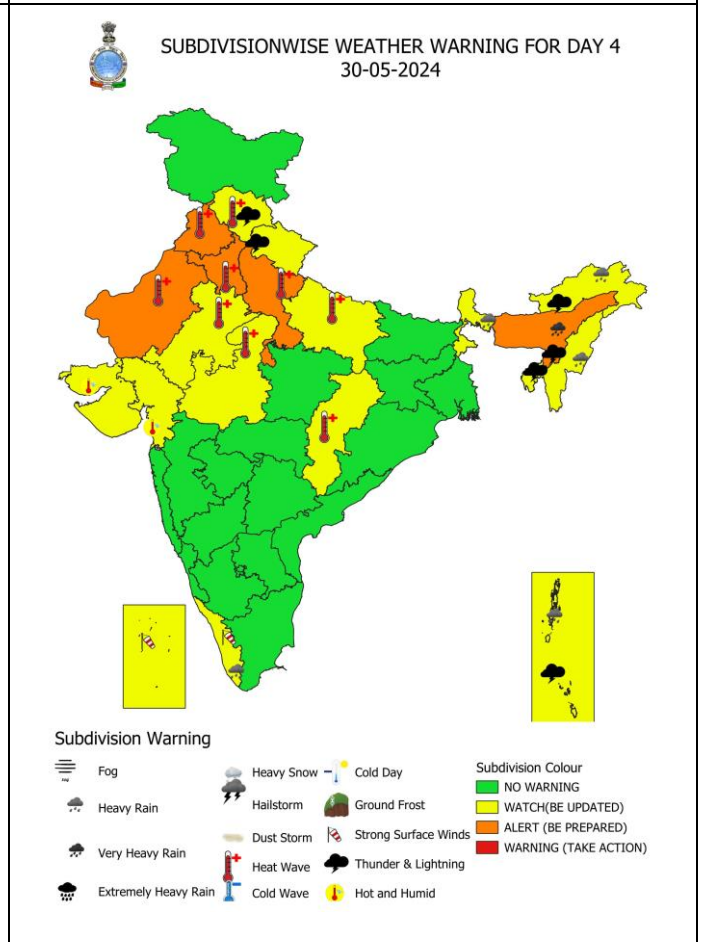
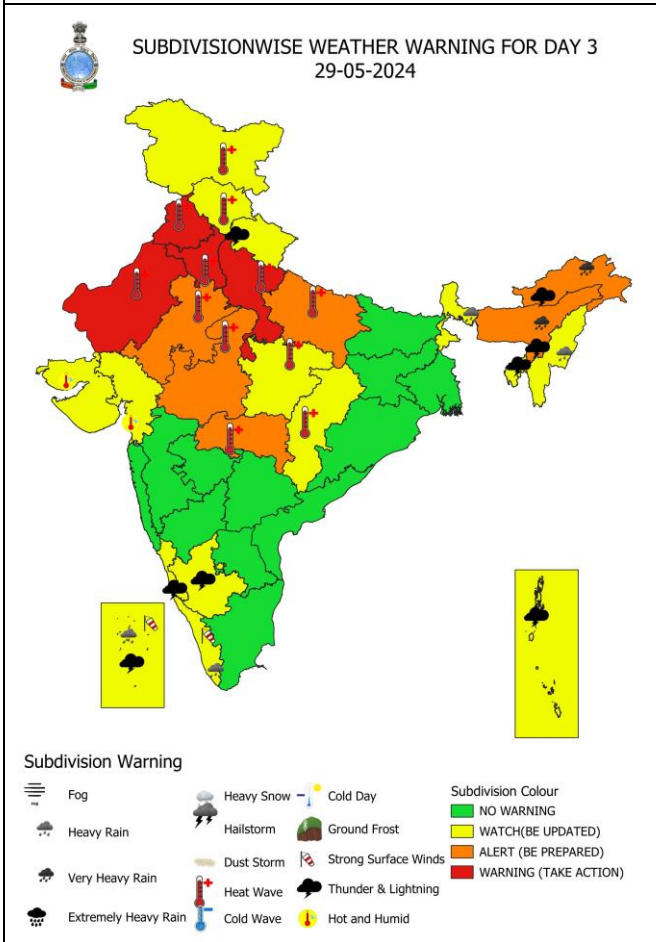
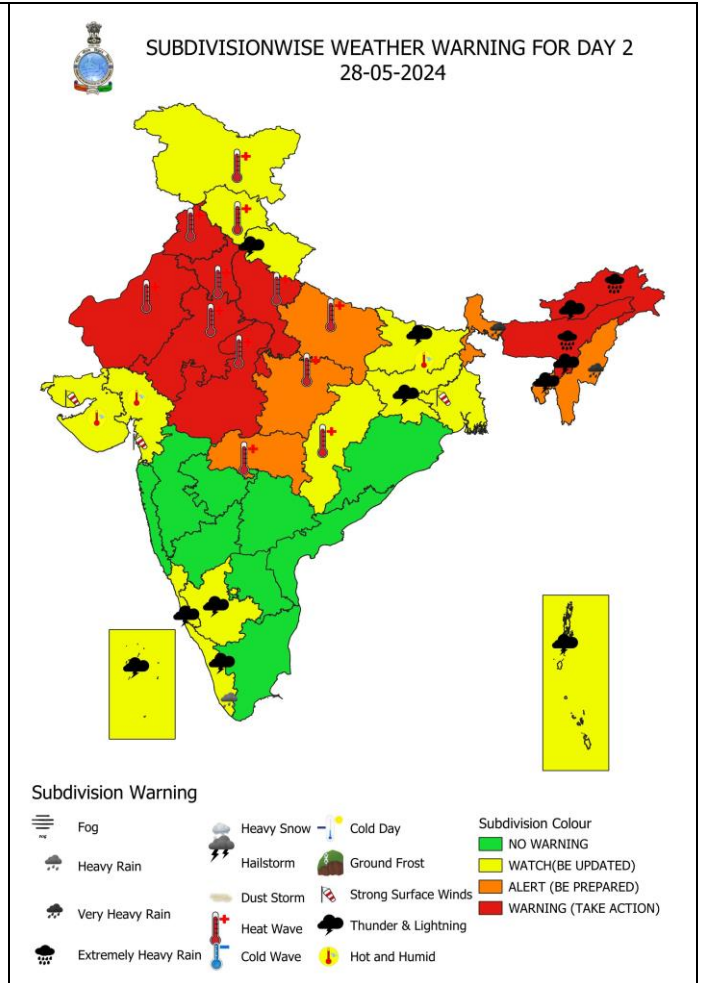
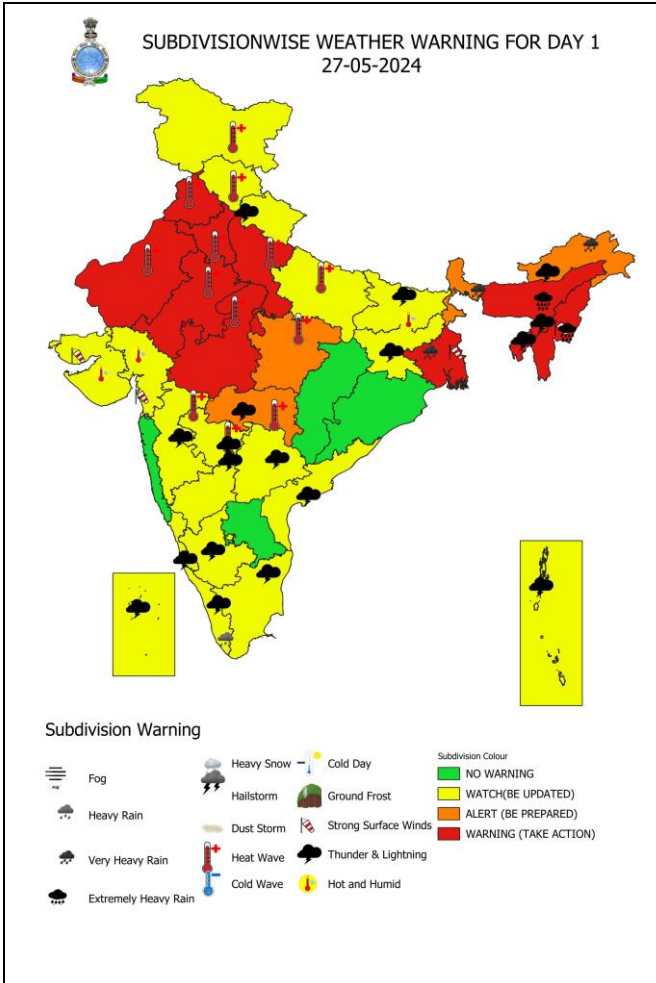
DATE/TIME IN UTC  
 IST=UTC + 0530  
 L: LOW PRESSURE AREA  
 WML: WELL MARKED LOW PRESSURE AREA  
 D: DEPRESSION (17-27 KT)  
 DD: DEEP DEPRESSION (28-33 KT)  
 CS: CYCLONIC STORM (34-47 KT)  
 SCS: SEVERE CYCLONIC STORM (48-63KT)  
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)  
 ESCS: EXTREMELY SEVERE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

- LESS THAN 34 KT
- 34-47 KT
- ≥ 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)
- ≥ 64 KT (≥118 KMPH)

**IMPACT OVER THE SEA**

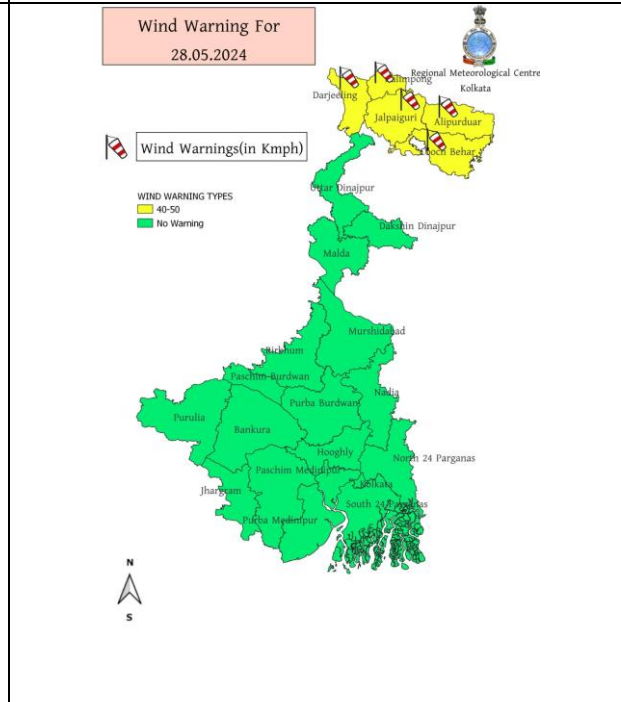
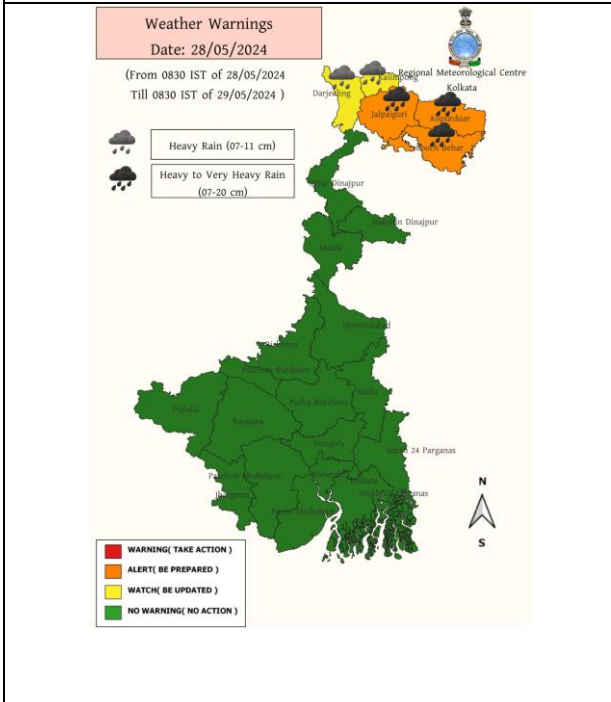
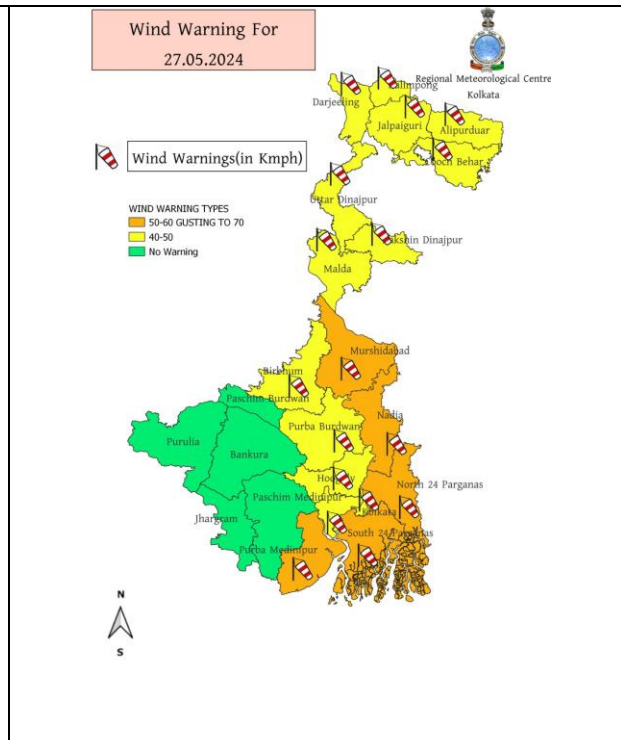
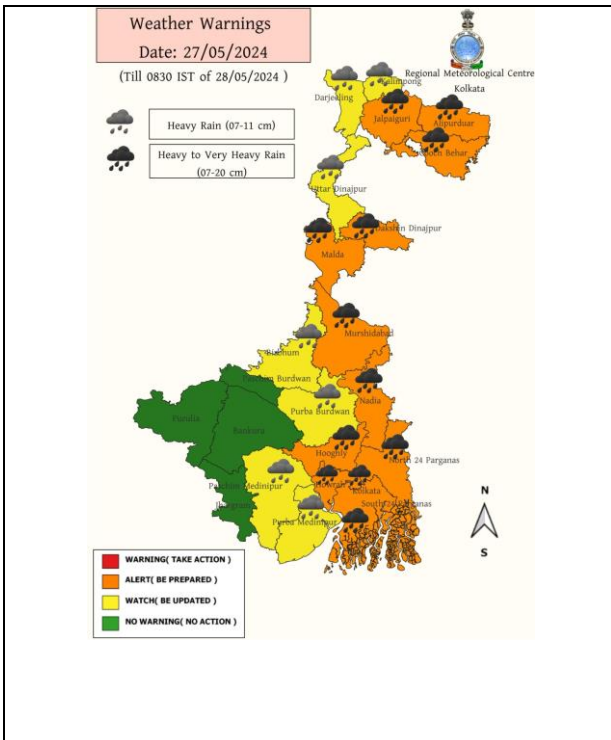
MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

# All India Warning Graphics





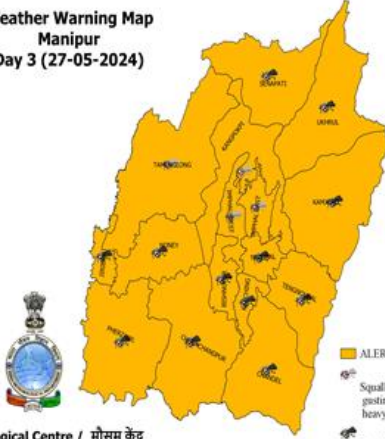
# Warning Graphics of West Bengal



# Warning Graphics of North-eastern States of India

## MANIPUR

**Weather Warning Map  
Manipur  
Day 3 (27-05-2024)**



Issue Date:  
25-05-2024



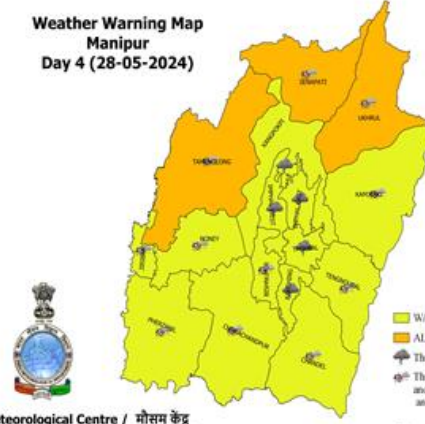
**Warning**

ALERT (BE PREPARED)

- Squally wind with wind speed 40 to 50 kmph gusting to 60 kmph and heavy rain is very likely at isolated places
- Squally wind with wind speed 40 to 50 kmph gusting to 60 kmph and very heavy rain is very likely at isolated places

Meteorological Centre / मौसम केंद्र  
Imphal - 795140 / इम्फाल- 795140

**Weather Warning Map  
Manipur  
Day 4 (28-05-2024)**



Issue Date:  
25-05-2024



**Warning**

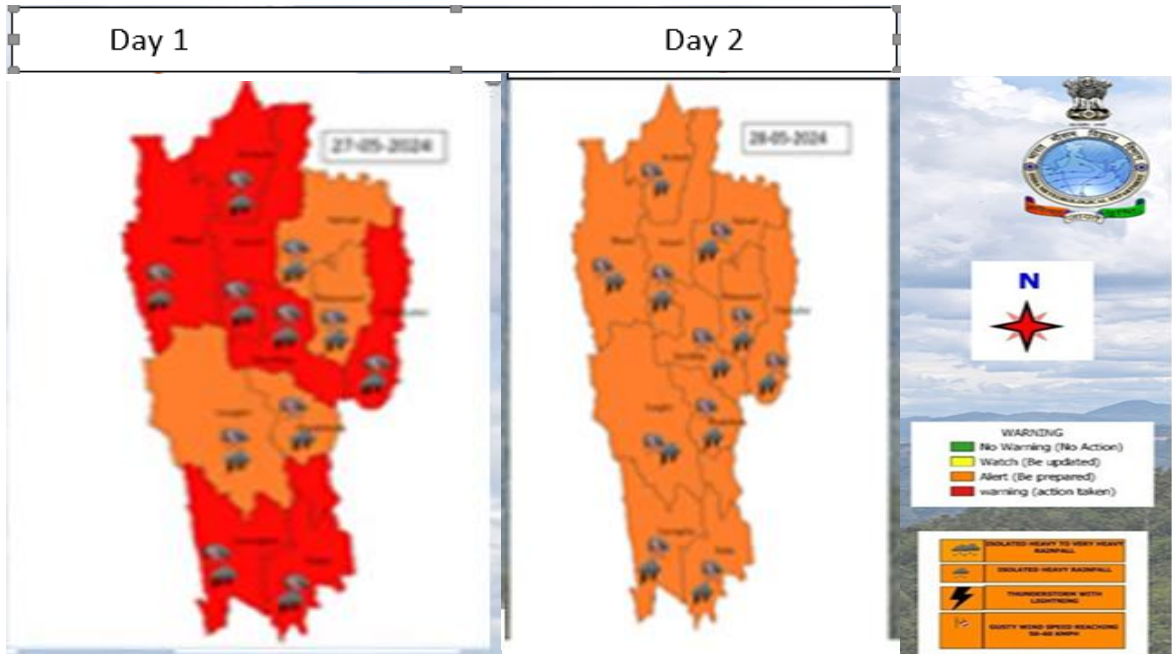
WATCH (BE UPDATED)  
ALERT (BE PREPARED)

- Thunder
- Thunderstorm with lightning and gusty with wind speed 30 to 40 kmph and heavy rain very likely at isolated places.
- Squally wind with wind speed 40 to 50 kmph gusting to 60 kmph and heavy rain is very likely at isolated places

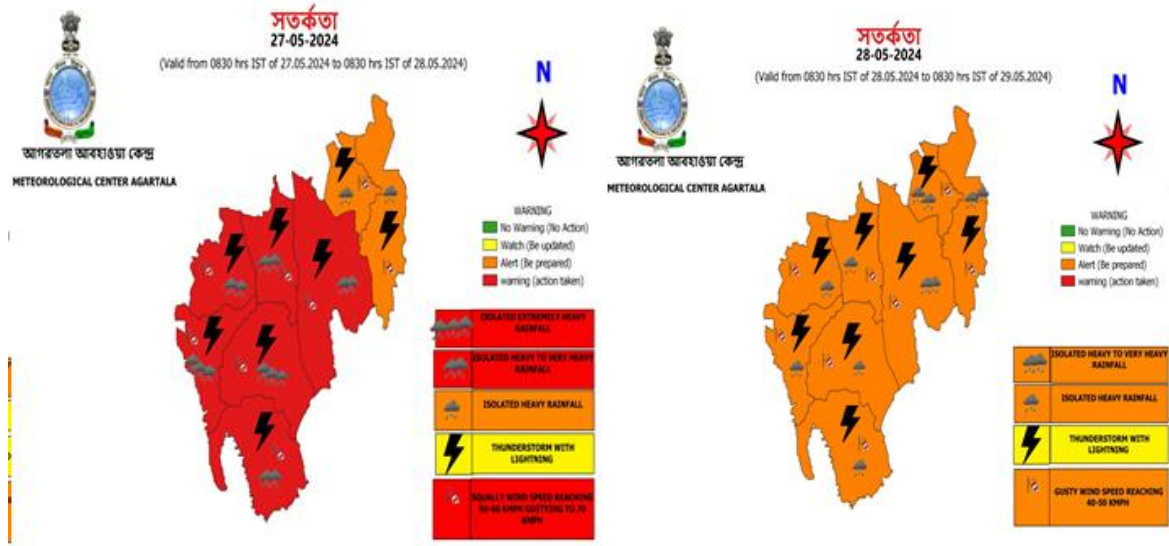
Meteorological Centre / मौसम केंद्र  
Imphal - 795140 / इम्फाल- 795140

Issue Date:

## MIZORAM



# TRIPURA



# MEGHALAYA



### Fishermen Warning Graphics

**Day 1: 26.05.2024/11:30 AM to 27.05.2024/05:30AM**



**Day 2: 27.05.2024/05:30AM to 28.05.2024/05:30AM**



**Day 3: 28.05.2024/05:30AM to 29.05.2024/05:30AM**









**Day 4: 29.05.2024/05:30AM to 30.05.2024/05:30AM**



**Day 5: 30.05.2024/05:30AM to 31.05.2024/05:30AM**



	Squally WX with wind speed 35-45 kmph gusting to 55 kmph
	Squally WX with wind speed 45-55 kmph gusting to 65 kmph
	Squally wind with speed 45-55 kmph gusting to 65 kmph
	Squally wind with speed 50-60 kmph gusting to 70 kmph
	CS with Gale wind speed 60-90 kmph gusting to 110 kmph
	SCS with Gale wind speed 90-120 kmph gusting to 135 kmph

**Fishermen are advised not to venture into the marked areas.**

## Wind Reported over West Bengal

MAXIMUM WIND REPORTED IN AWS STATIONS ON 26<sup>TH</sup> & 27<sup>TH</sup> MAY 2024

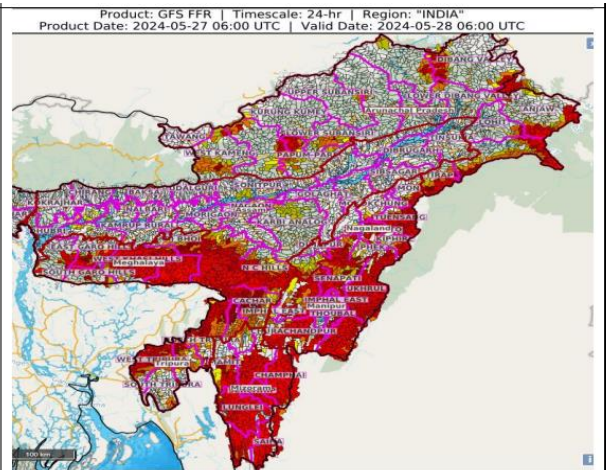
DISTRICT	AWS NAME	DATE	TIME	WIND DIR	WIND SPEED(KT)	MAX GUST(KT)
SOUTH TWENTY FOUR PARGANAS	CANNING	26-05-2024	16:15:00	47	21	42
SOUTH TWENTY FOUR PARGANAS	RAMKRISHNA MISSION COLLEGE	26-05-2024	20:15:00	20	14	42
HOOGHLY	DEGREE COLLEGE TARAKESWAR	27-05-2024	00:15:00	337	17	41
HOWRAH	ULUBERIA	27-05-2024	00:00:00	281	17	39
SOUTH TWENTY FOUR PARGANAS	DIAMOND HARBOUR	26-05-2024	13:45:00	7	22	37
SOUTH TWENTY FOUR PARGANAS	BARUIPUR AMFU	26-05-2024	20:00:00	333	14	37
HOWRAH	RAMSADAY COLLEGE AMTA	27-05-2024	00:15:00	297	17	36
DURGAPUR	KZI AIRPORT	26-05-2024	13:10:00	89	17	35
NADIA	KALYANI AMFU	26-05-2024	22:30:00	346	14	35
HOWRAH	KVK HOWRAH JAGATBALLAVAPUR	26-05-2024	19:30:00	325	12	35
SOUTH TWENTY FOUR PARGANAS	GANGASAGAR	26-05-2024	13:00:00	125	13	34
SOUTH TWENTY FOUR PARGANAS	NIMPITH	26-05-2024	13:00:00	42	12	34
SOUTH TWENTY FOUR PARGANAS	RAIDIGHI	26-05-2024	13:45:00	107	10	34
EAST MIDNAPORE	TAMLUK	27-05-2024	18:45:00	301	11	-

## Flash Flood Guidance for Northeastern States

### 24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 28-05-2024 :

**Moderate flash flood risk** likely over few watersheds & neighbourhoods of **Arunachal Pradesh, Assam & Meghalaya** and NMMT Met Sub-divisions during next 24 hours.

Surface runoff/ Inundation may occur on low lying areas due to persistent rainfall under the influence of impending Cyclonic Storm "Remal" in next 24 hours.



Flash Flood Threat	Flash Flood Risk
<span style="display: inline-block; width: 20px; height: 10px; background-color: red; border: 1px solid black;"></span> <b>High Threat (Take Action)</b>	<span style="display: inline-block; width: 20px; height: 10px; background-color: red; border: 1px solid black;"></span> <b>High Risk (Take Action)</b>
<span style="display: inline-block; width: 20px; height: 10px; background-color: orange; border: 1px solid black;"></span> <b>Moderate threat (Be Prepared)</b>	<span style="display: inline-block; width: 20px; height: 10px; background-color: orange; border: 1px solid black;"></span> <b>Moderate Risk (Be Prepared)</b>
<span style="display: inline-block; width: 20px; height: 10px; background-color: yellow; border: 1px solid black;"></span> <b>Low Threat (Be Updated)</b>	<span style="display: inline-block; width: 20px; height: 10px; background-color: yellow; border: 1px solid black;"></span> <b>Low Risk (Be Updated)</b>