



**India Meteorological Department
Earth System Science Organisation
(Ministry of Earth Sciences)**

BULLETIN NO.: 34 (BOB/04/2019)

TIME OF ISSUE: 1040 HOURS IST

DATED: 09.11.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)
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Sub: Very Severe Cyclonic Storm 'Bulbul' (Pronounced as Bul bul) over northwest Bay of Bengal: CYCLONE WARNING AND POST-LANDFALL OUTLOOK FOR WEST BENGAL COAST: RED MESSAGE

The Very Severe Cyclonic Storm 'Bulbul' (Pronounced as Bul bul) over northwest Bay of Bengal moved nearly northwards with a speed of 15 kmph during past 06 hours, and lay centred at 0830 hrs IST of today, the 9th November 2019, over northwest Bay of Bengal, near Lat.20.4°N and Long. 87.6°E about 95 km east-northeast of Paradip (Odisha), 140 km south-southwest of Sagar Islands (West Bengal), 100 km southeast of Chandbali, 140 km south-southwest Balasore, 130 km south-southwest of Digha and 320 km southwest of Khepupara (Bangladesh). It is very likely to weaken gradually, move northeastwards and cross West Bengal - Bangladesh Coasts between Sagar Islands (West Bengal) and Khepupara (Bangladesh), across Sunderban delta by late evening/ night of 9th November as a Severe Cyclonic Storm with maximum sustained wind speed of 110-120 Kmph gusting to 135 Kmph.

The Very Severe Cyclonic Storm 'Bulbul' is being tracked by the Doppler Weather Radars at Gopalpur, Paradip and Kolkata in addition to other observing platforms.

Forecast track and intensity are given in the following table:

Date/Time (IST)	Position		Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
	Lat. (°N)	Long. (°E)		
09.11.19/0830	20.4	87.6	130-140 gusting to 155	Very Severe Cyclonic Storm
09.11.19/1130	20.8	87.8	125-135 gusting to 150	Very Severe Cyclonic Storm
09.11.19/1730	21.4	88.5	115-125 gusting to 140	Very Severe Cyclonic Storm
09.11.19/2330	21.9	89.2	100-110 gusting to 120	Severe Cyclonic Storm
10.11.19/0530	22.5	90.0	70-80 gusting to 90	Cyclonic Storm
10.11.19/1730	23.6	91.4	40-50 gusting to 60	Depression

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

Warnings:

(i) Rainfall:

Odisha:

- Light to moderate rainfall at most places very likely over **north coastal districts of Odisha** with **isolated heavy to very heavy falls** over Balasore, Bhadrak, Kendrapara and Jagatsinghpur districts and with heavy falls at isolated places over Jajpur district today, the 9th November 2019.

West Bengal:

- Light to moderate rainfall at most places very likely over **coastal districts of West Bengal** with heavy to very heavy falls at a few places and **extremely heavy falls (≥ 20 cm in 24 hours)** at isolated places over North & South 24 Parganas, East Medinipur, and isolated heavy to very heavy rainfall over West Medinipur, Howrah and Hooghly today, the 9th November 2019.
- Light to moderate rainfall at most places with heavy falls at isolated places very likely over North and South 24 Parganas and Nadiya till 10th November morning.

North-eastern States:

- Light to moderate rainfall at many places with isolated heavy falls very likely over Mizoram and Tripura on today, the 9th November and over South Assam & Meghalaya, Tripura, and Mizoram on 10th November.

(ii) Wind warning

- **Bay of Bengal:** Gale wind speed reaching 130-140 kmph gusting to 155 kmph is prevailing over northwest Bay of Bengal around the system centre. It is very likely to decrease gradually and become 115-125 kmph gusting to 140 kmph by today, the 9th evening and decrease gradually thereafter.
- **Odisha coast:** Gale wind speed reaching 70-80 kmph gusting to 90 kmph is likely to continue along & off Kendrapara, Jagatsinghpur districts during next 3 hours, and along & off Balasore and Bhadrak districts for next 6 hours. Puri and Ganjam districts are likely to experience squally wind speed reaching 40-50 kmph gusting to 60 kmph during next 06 hours.
- **West Bengal coast:** Squally wind speed reaching 70-80 kmph gusting to 90 kmph is prevailing along and off West Bengal coast. It will gradually increase becoming gale wind speed reaching 115-125 kmph gusting to 140 kmph from the evening of today, the 9th November for next 12 hours along & off East Medinipur, North & South 24 Parganas. Squally wind speed reaching 50-60 Kmph gusting to 70 Kmph also likely over adjoining districts of West Medinipur, Howrah and Hooghly during the same period.

(iii) Sea condition

- Sea condition will be high to very high till tonight along & off north Odisha coast and along & off West Bengal & Bangladesh coasts till 10th November morning.
- Sea condition is phenomenal over northwest Bay of Bengal. It is very likely to continue to be phenomenal till today evening and improve gradually thereafter. Sea condition will be high to very high over northeast Bay of Bengal till today evening and become high to very rough for subsequent 12 hours.

(iv) Storm Surge

- Storm surge of about 1.0 to 2.0 meter height above Astronomical tide is very likely to inundate low lying areas of South and North 24 Parganas and 0.5-1.0 meter height above Astronomical tide is very likely to inundate low lying areas of east Medinipur during the time of landfall. The maximum extent of inundation is likely to be around 2 km over South and North 24 Parganas.

(v) Fishermen Warning

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

- Total suspension of fishing operations over Odisha-West Bengal coasts till morning of 10th November.
- Fishermen are advised not to venture into Sea along & off Odisha – West Bengal coasts till 10th morning.
- Fishermen are advised not to venture into westcentral Bay of Bengal during next 12 hours and over north Bay of Bengal for next 24 hours.

(vi) Damage Expected over coastal districts of north Odisha:

- Damage to thatched houses/ huts. Unattached metal sheets may fly.
- Damage to embankments/ salt pans.
- Partial damage to power and communication lines.
- Major damage to Kutcha and some damage to Pucca roads. Flooding of escape routes.
- Breaking of tree branches, uprooting of trees. Damage to banana and papaya trees. Large dead limbs blown from trees.
- Major damage to coastal crops

Damage Expected over coastal districts of West Bengal:

- Major damage to thatched houses/ huts. Roof tops may blow off. Unattached metal sheets may fly.
- Minor damage to power and communication lines.
- Major damage to Kutcha and some damage to Pucca roads. Flooding of escape routes.
- Breaking of tree branches, uprooting of large avenue trees. Moderate damage to banana and papaya trees. Dead limbs blown from trees.
- Major damage to coastal crops.
- Damage to embankments/ salt pans.
- Small boats, country crafts may get detached from moorings.

(vii) Action suggested for coastal districts of north Odisha

- Total suspension of fishing operations till 10th morning.
- People in affected areas to remain indoors.
- Movement in motor boats unsafe.
- Beach movement to be restricted.

Action suggested for coastal districts of West Bengal

- Total suspension of fishing operations till 10th morning.
- Coastal hutment dwellers to be moved to safer places. Mobilise evacuation from coastal areas of South and North 24 Parganas. People in affected areas to remain indoors.
- Rail and Road traffic to be regulated.
- **Movement in motor boats and small ships unsafe.**
- Beach movement to be restricted.

Post-Landfall Outlook

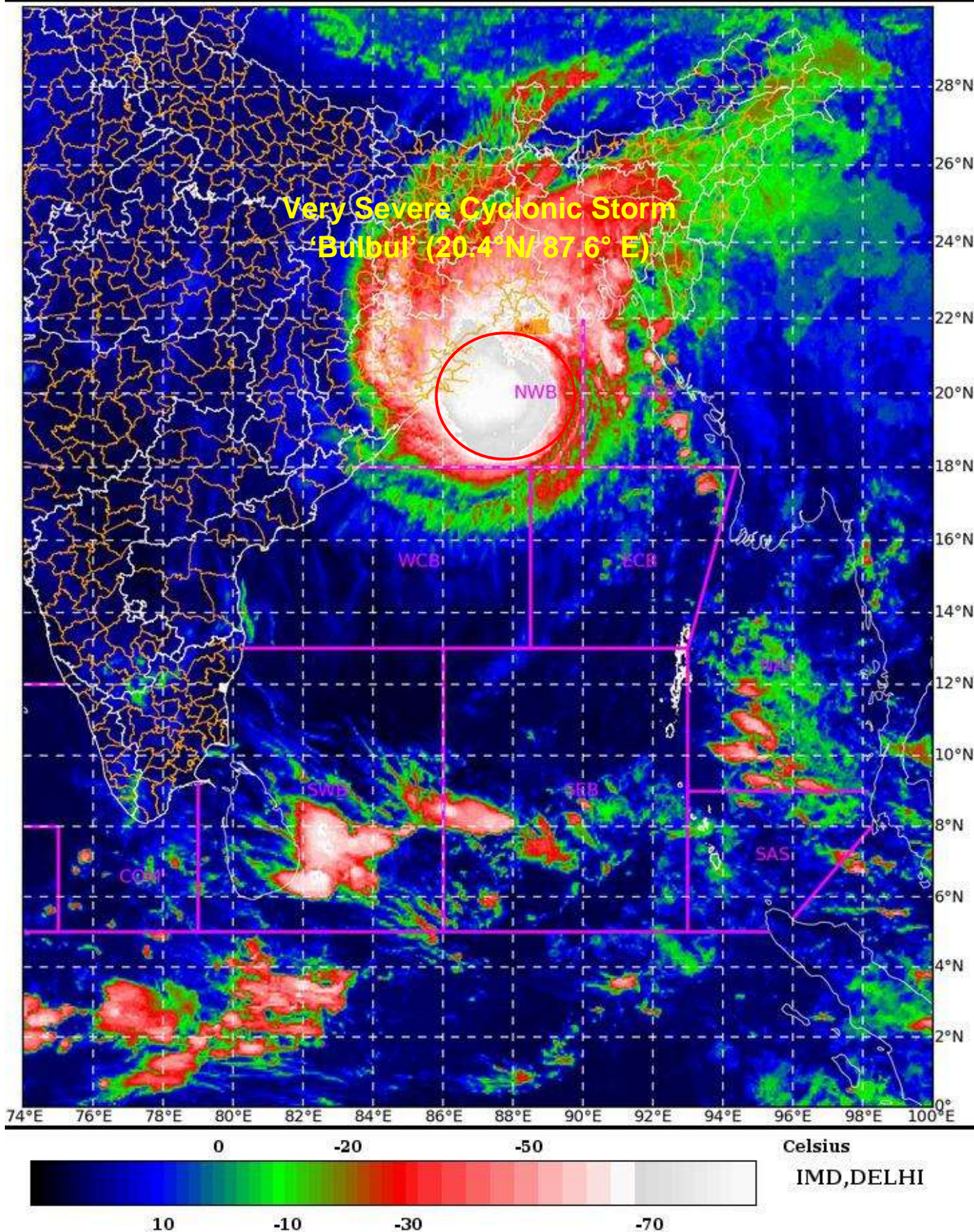
- After the landfall over Sunderban delta by night of today, the 9th November as a Severe Cyclonic Storm with a wind speed of 110-120 kmph gusting to 135 kmph, it is very likely to move east-northeastwards across Bangladesh and weaken gradually. As such, the system is expected to maintain Cyclone intensity till 10th morning over Bangladesh and adjoining areas of Gangetic West Bengal North and South 24 Parganas and Nadiya district.
- Under its influence, light to moderate rainfall at most places with heavy falls at isolated places very likely over North and South 24 Parganas and Nadiya districts of West Bengal till the morning of 10th November 2019.

- Gale wind speed reaching 110-120 kmph gusting to 135 kmph is likely over North and South 24 Parganas and Nadiya districts of West Bengal during the night of today, the 9th November for the next 06 hours and decrease gradually thereafter becoming squally wind speed reaching 50-60 Kmph gusting to 70 Kmph over these districts till 10th morning.
- Squally wind speed reaching 40-50 Kmph gusting to 60 Kmph is likely over adjoining districts of West Medinipur, Howrah and Hooghly during the same period.
- Strong wind speed reaching 30-40 kmph gusting to 50 kmph is likely over Kolkata during the night of today, 9th November 2019.

The next bulletin will be issued at 1430 hrs IST of 09th November, 2019.

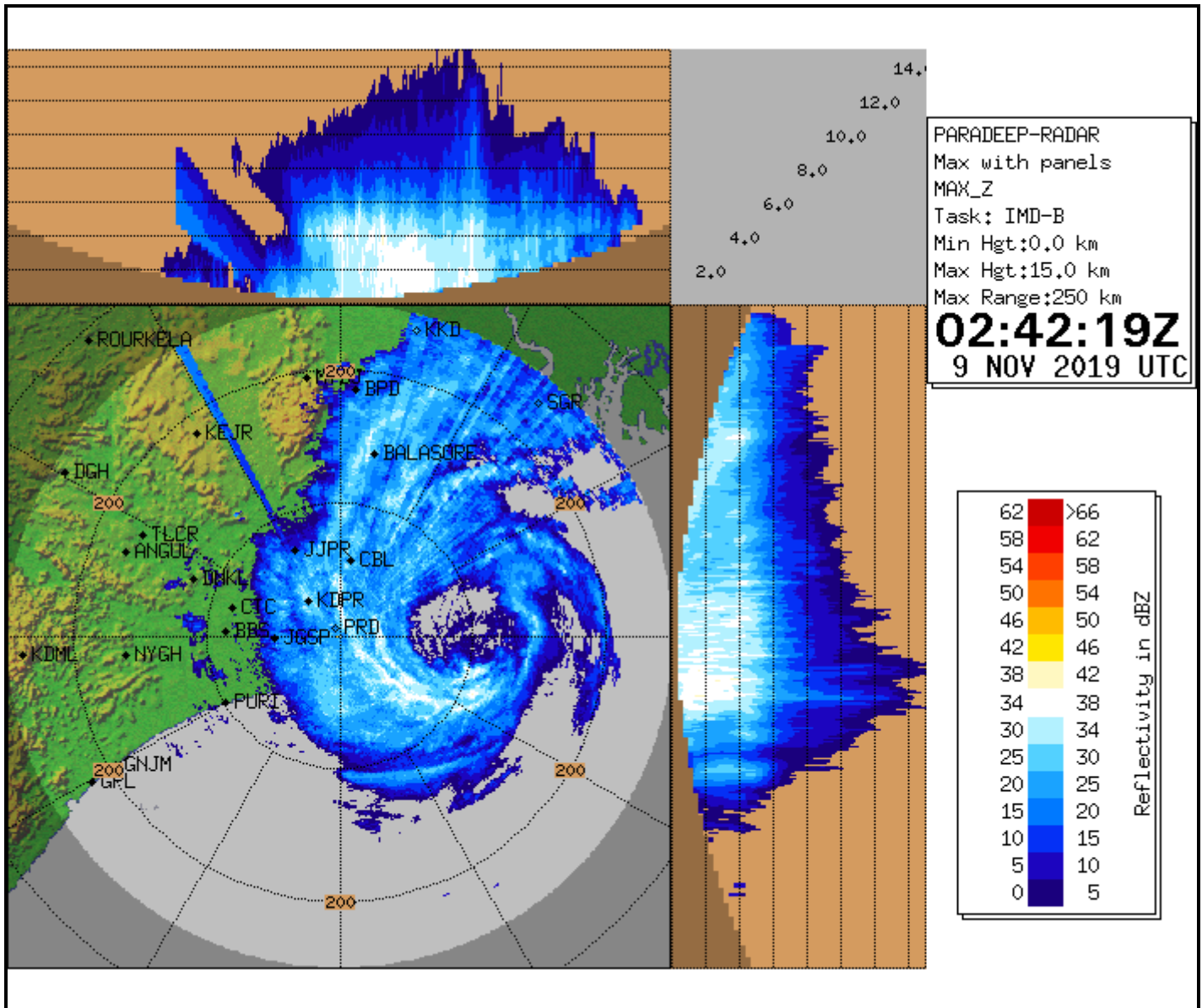
**(Neetha K. Gopal)
Scientist-E, RSMC, New Delhi**

Copy to: ACWC Chennai / ACWC Kolkata/ CWC Visakhapatnam/ CWC Bhubaneswar/ M.O. Port Blair.

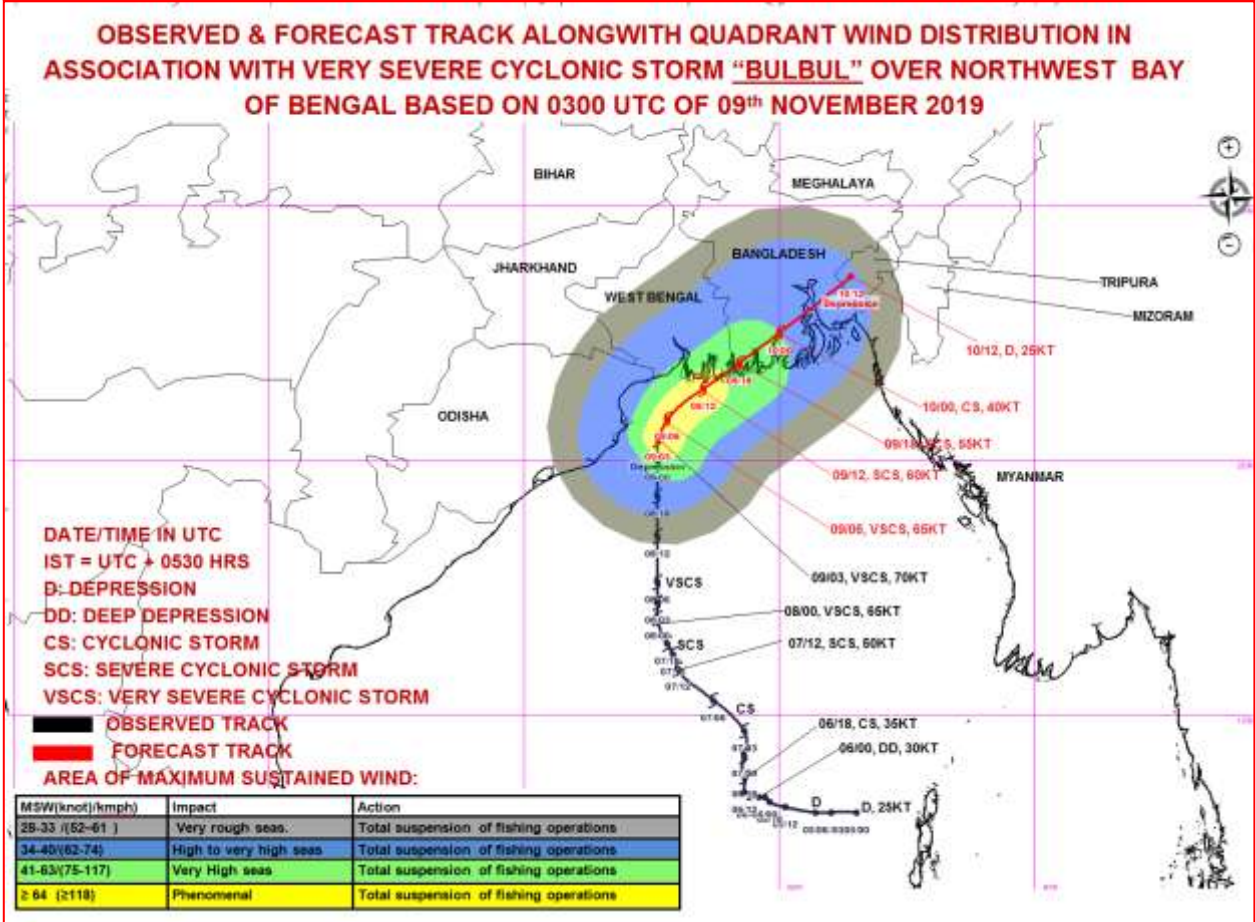
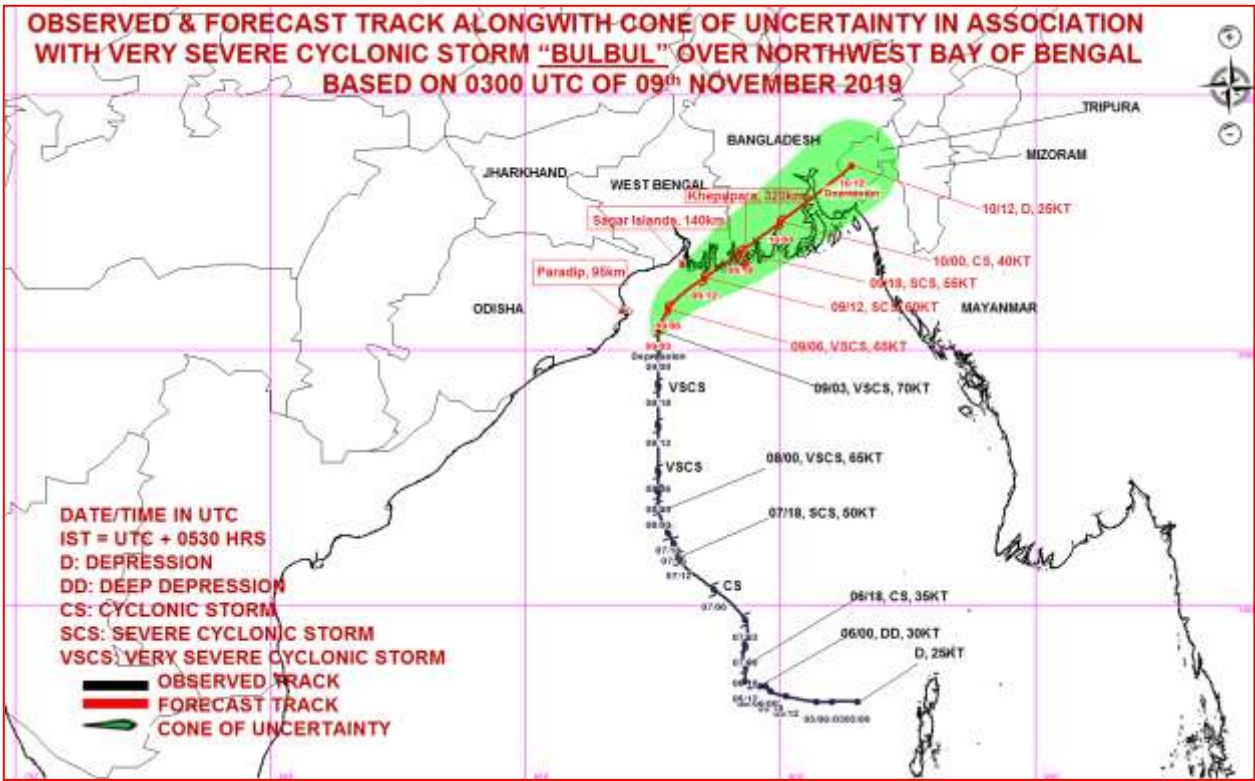


NWB=> NorthWest Bay of Bengal

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