



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI  
TROPICAL WEATHER OUTLOOK**

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 19.08.2022**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0515 UTC OF 19.08.2022 BASED ON 0300 UTC OF 19.08.2022.**

**SUB: DEPRESSION OVER NORTHWEST & ADJOINING NORTHEAST BAY OF BENGAL**

THE DEPRESSION OVER NORTHWEST & ADJOINING NORTHEAST BAY OF BENGAL MOVED WEST-NORTHWESTWARDS DURING PAST 03 HOURS WITH A SPEED OF 20 KMPH AND LAY CENTERED AT 0300 UTC TODAY, THE 19TH AUGUST 2022 OVER NORTHWEST & ADJOINING NORTHEAST BAY OF BENGAL NEAR LATITUDE 20.8°N AND LONGITUDE 89.2°E, ABOUT 250 KM EAST-SOUTHEAST OF BALASORE (42895), 190 KM EAST-SOUTHEAST OF DIGHA (42901) AND 150 KM SOUTHEAST OF SAGAR ISLANDS (42903).

IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS AND INTENSIFY INTO A DEEP DEPRESSION DURING NEXT 06 HOURS. CONTINUING TO MOVE IN THE SAME DIRECTION, IT IS LIKELY TO CROSS WEST BENGAL AND ODISHA COASTS BETWEEN BALASORE (42895) & SAGAR ISLANDS (42903) AROUND EVENING OF TODAY THE 19TH AUGUST, 2022. AFTER LANDFALL, IT WOULD CONTINUE TO MOVE WEST-NORTHWESTWARDS ACROSS NORTH ODISHA, WEST BENGAL AND JHARKHAND TOWARDS NORTH CHHATTISGARH AND WEAKEN GRADUALLY.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME(UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
19.08.22/0300	20.8/89.2	45-55 GUSTING TO 65	DEPRESSION
19.08.22/0600	21.1/88.6	55-65 GUSTING TO 75	DEEP DEPRESSION
19.08.22/1200	21.6/87.5	55-65 GUSTING TO 75	DEEP DEPRESSION
19.08.22/1800	22.0/86.4	50-60 GUSTING TO 70	DEEP DEPRESSION
20.08.22/0000	22.3/85.3	45-55 GUSTING TO 65	DEPRESSION

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35 KNOTS. ESTIMATED CENTRAL PRESSURE IS ABOUT 994 HPA AROUND SYSTEM CENTRE OVER NORTHWEST BAY OF BENGAL. 24 HOUR PRESSURE FALL OF 2-3 HPA IS REPORTED ALONG NORTH ODISHA-WEST BENGAL COASTS AND THE MAXIMUM PRESSURE DEPARTURE OVER HALDIA (-4.0 HPA). LOWEST MEAN SEA LEVEL PRESSURE IS REPORTED OVER DIGHA (997.9 HPA) WITH 24 HOUR PRESSURE CHANGE OF -3.0 HPA. SEA CONDITION IS LIKELY TO BE ROUGH TO VERY ROUGH OVER NORTH BAY OF BENGAL AND ALONG & OFF WEST BENGAL, ODISHA AND BANGLADESH COASTS TILL 0600 UTC OF 20<sup>TH</sup> AUGUST.

AS PER INSAT 3D IMAGERY AT 0300 UTC, INTENSITY OF THE SYSTEM IS CHARACTERISED AS T1.5. SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTH AND ADJOINING CENTRAL BAY OF BENGAL. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93°C. AS PER MULTISAT WINDS AT 0000 UTC, STRONGER WINDS ARE PREVAILING IN THE NORTHEAST & NORTHWEST SECTORS OF THE SYSTEM OVER NORTH BAY OF BENGAL & ADJOINING WEST BENGAL & BANGLADESH COASTS.

Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C  
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION): NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%  
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**REMARKS:**

CURRENT CONDITIONS INDICATE THAT THE SYSTEM OVER NORTHWEST BAY OF BENGAL IS IN FAVOURABLE ENVIRONMENT WITH SEA SURFACE TEMPERATURE OF ABOUT 29-30°C OVER NORTH BAY OF BENGAL. LOW LEVEL RELATIVE VORTICITY IS SHOWING INCREASING TREND AND NOW VALUE IS AROUND  $200 \times 10^{-6} \text{ S}^{-1}$  TO THE SOUTH OF SYSTEM CENTRE. LOW LEVEL CONVERGENCE IS ABOUT  $10 \times 10^{-5} \text{ S}^{-1}$  AROUND THE SYSTEM CENTRE OVER AN EXTENDED REGION. UPPER LEVEL DIVERGENCE IS ABOUT  $20 \times 10^{-5} \text{ S}^{-1}$  SITUATING AT THE NORTHWEST & SOUTHWEST OF THE SYSTEM CENTRE AND ASSOCIATED WESTWARD OUTFLOW IS PREVAILING IN UPPER LEVELS. HIGH VERTICAL WIND SHEAR OF ABOUT 25-30 KNOTS IS PREVAILING OVER NORTHWEST BAY OF BENGAL AND ALONG THE FORECAST TRACK.

MOST OF THE NUMERICAL MODELS INDICATE FURTHER INTENSIFICATION OF THE SYSTEM INTO A DEEP DEPRESSION OVER NORTHWEST BAY OF BENGAL AROUND 0600 UTC OF 19<sup>TH</sup> AUGUST. MODELS ARE ALSO UNANIMOUSLY INDICATING WEST-NORTHWESTWARDS MOVEMENT OF THE SYSTEM DURING NEXT 48 HOURS.

IN VIEW OF ALL THE ABOVE, THE DEPRESSION OVER NORTHWEST BAY OF BENGAL IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS AND INTENSIFY INTO A DEEP DEPRESSION DURING NEXT 06 HOURS. CONTINUING TO MOVE IN THE SAME DIRECTION. IT IS LIKELY TO CROSS WEST BENGAL AND ODISHA COAST BETWEEN BALASORE (42897) & SAGAR ISLANDS (42903) AROUND 1200 UTC OF TODAY THE 19<sup>TH</sup> AUGUST, 2022. AFTER LANDFALL, IT WOULD CONTINUE TO MOVE WEST-NORTHWESTWARDS ACROSS NORTH ODISHA, WEST BENGAL AND JHARKHAND TOWARDS NORTH CHHATTISGARH AND WEAKEN GRADUALLY.

(ANANDA KUMAR DAS)  
SCIENTIST-E  
RSMC NEW DELHI

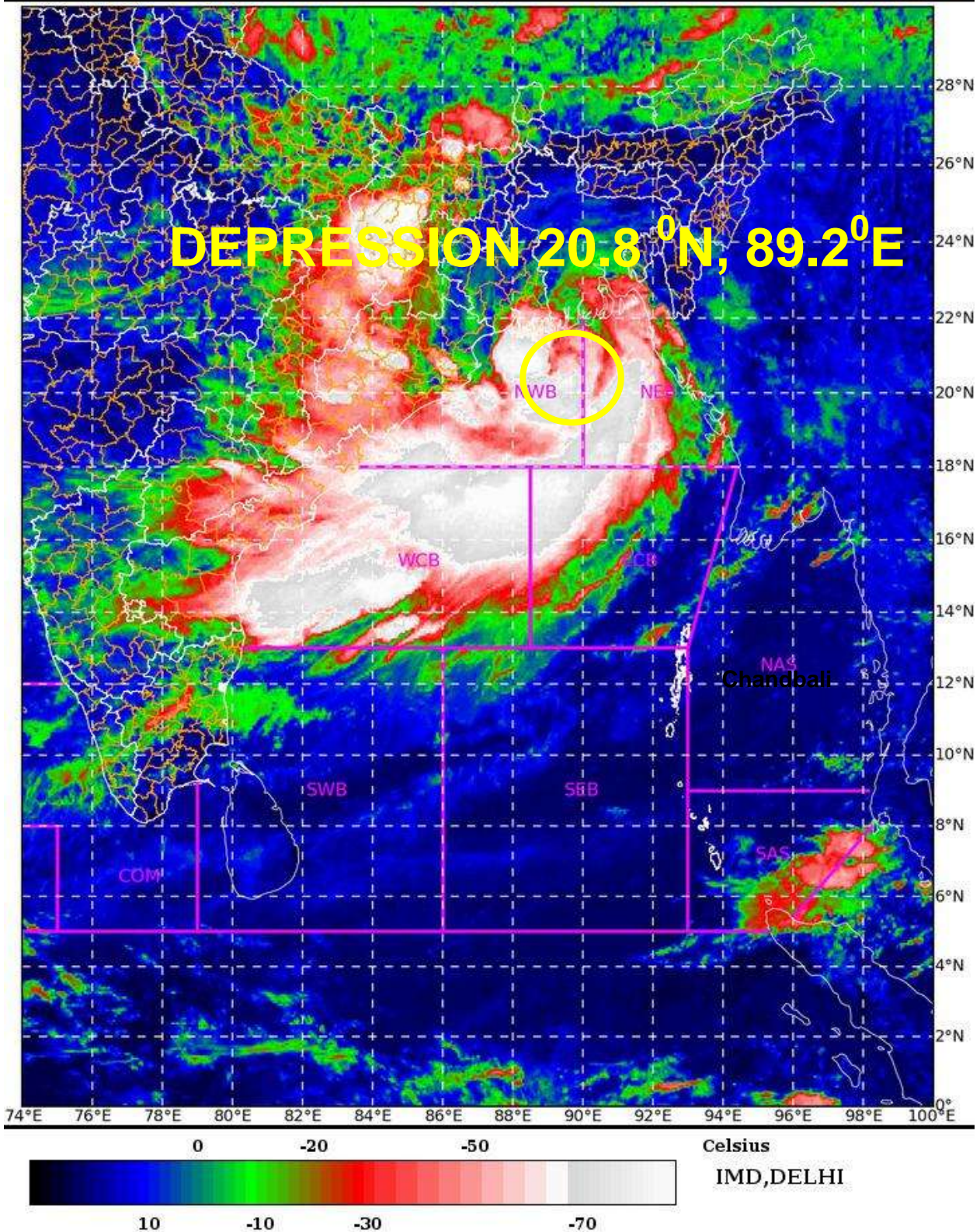
SAT : INSAT-3D IMG

19-08-2022/(0400 to 0426) GMT

IMG\_TIR1\_TEMP 10.8 um

19-08-2022/(0930 to 0956) IST

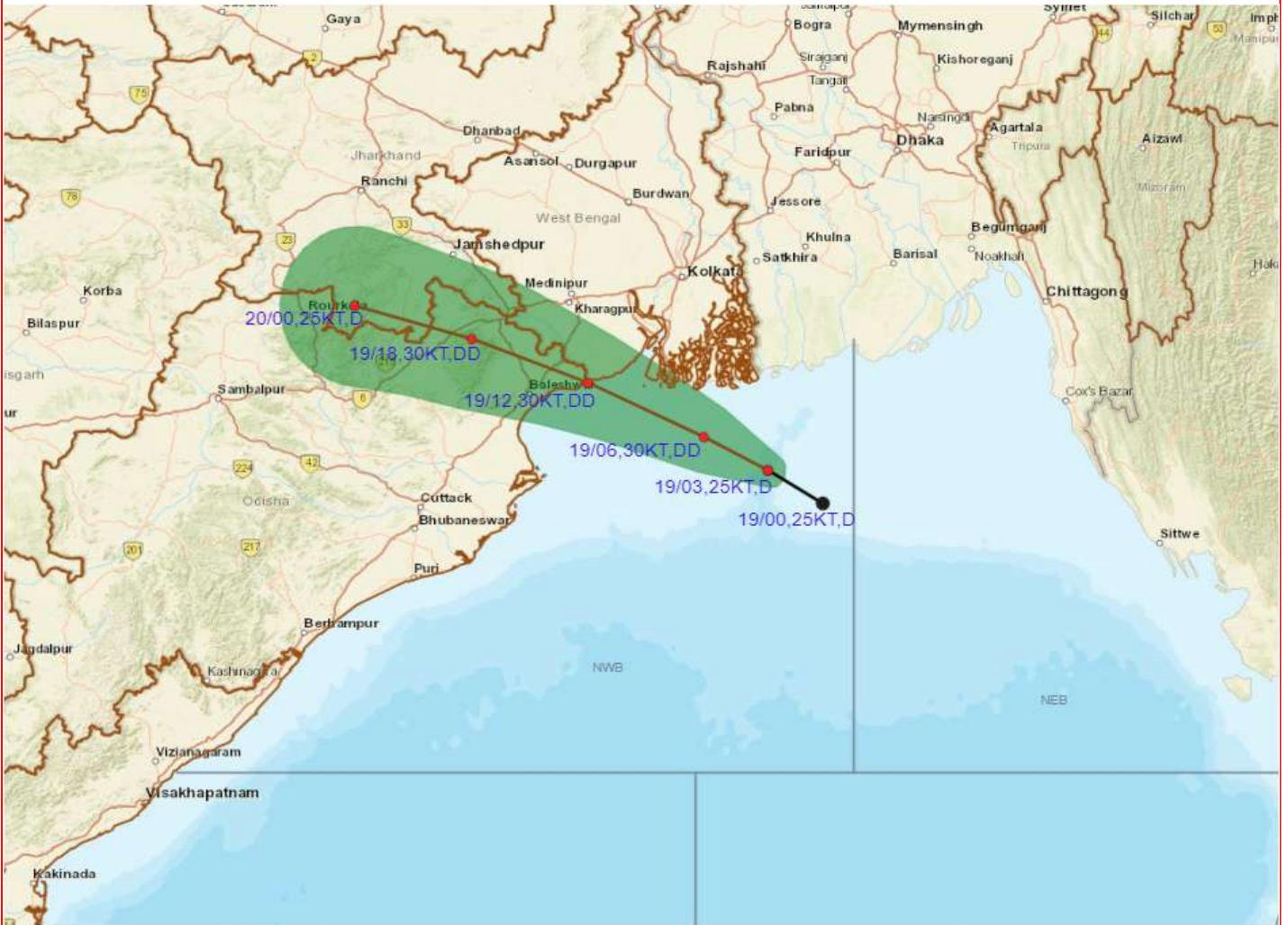
L1C Mercator



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PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION): NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%  
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**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER NORTHWEST AND ADJOINING NORTHEAST BAY OF BENGAL BASED ON 0300 UTC OF 19<sup>th</sup> AUGUST, 2022**



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

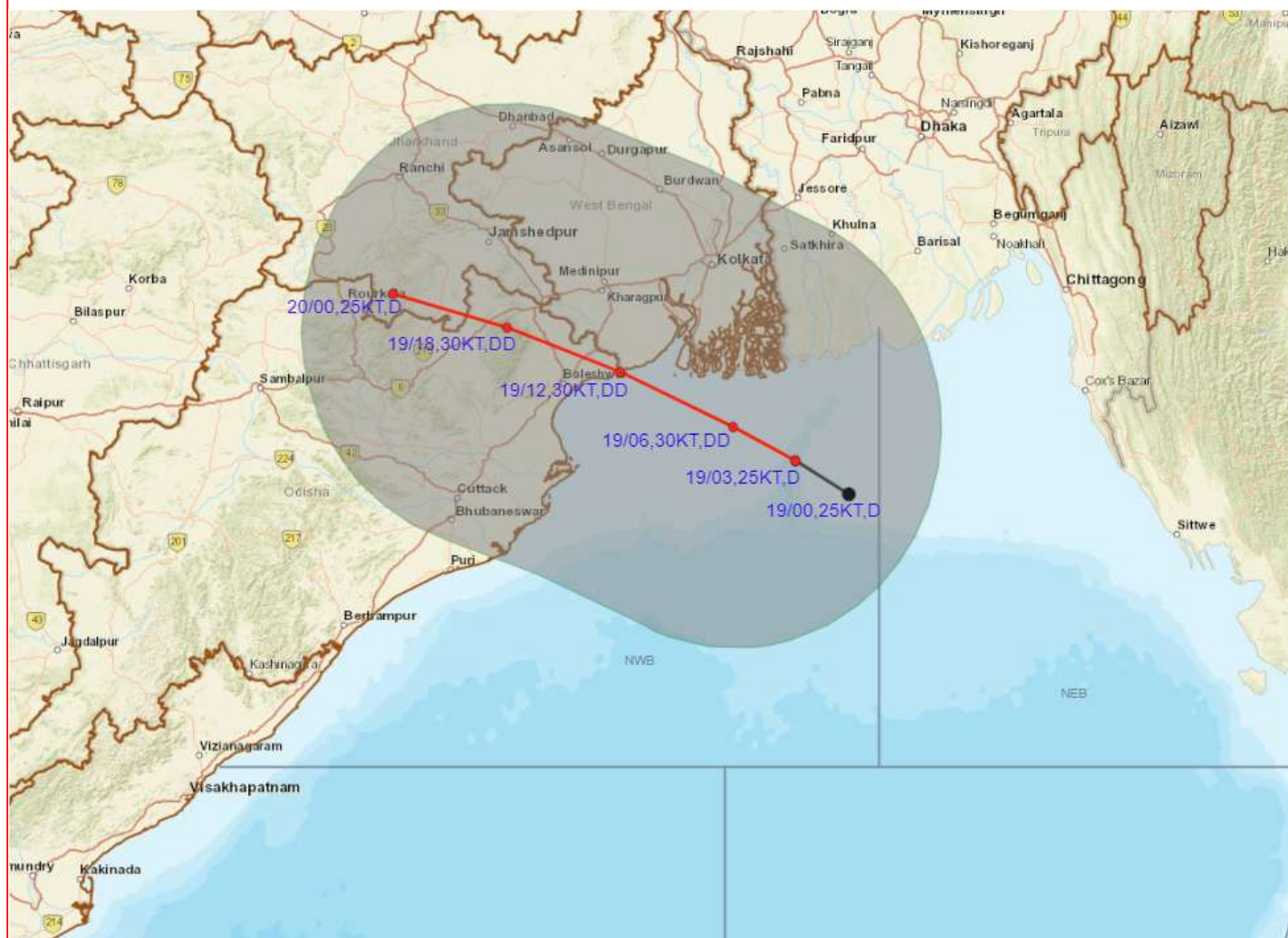
— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY



# OBSERVED AND FORECAST TRACK ALONG WITH QUADRANT WIND DISTRIBUTION OF DEPRESSION OVER NORTHWEST AND ADJOINING NORTHEAST BAY OF BENGAL BASED ON 0300 UTC OF 19<sup>th</sup> AUGUST, 2022



**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

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

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## Fishermen warning graphics

**Day 1** 19.08.2022/05:30 AM to 20.08.2022/05:30 AM



**Day 2** 20.08.2022/05:30 AM to 21.08.2022/05:30 AM



**Day 3** 21.08.2022/05:30 AM to 22.08.2022/05:30 AM



**Day 4** 22.08.2022/05:30 AM to 23.08.2022/05:30 AM



	Squally WX with wind speed 40-50 gusting to 60 kmph
	Squally wind speed 55-65 gusting to 75
	Squally wind speed 45-55kmph gusting to 65 kmph
	Squally wind speed 50-60kmph gusting to 70 kmph