



**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 1500 UTC OF 19.08.2022 BASED ON 1200 UTC OF 19.08.2022.

SUB: DEEP DEPRESSION OVER NORTHWEST BAY OF BENGAL CROSSED COAST CLOSE TO DIGHA (42901)

THE DEEP DEPRESSION OVER NORTHWEST & ADJOINING NORTHEAST BAY OF BENGAL MOVED WEST-NORTHWESTWARDS DURING PAST 06 HOURS WITH A SPEED OF 14 KMPH AND LAY CENTERED AT 1200 UTC OF TODAY, THE 19TH AUGUST, 2022 OVER NORTHWEST BAY OF BENGAL NEAR LATITUDE 21.5°N AND LONGITUDE 88.1°E, ABOUT 20 KM SOUTH OF SAGAR ISLANDS (42903), 60 KM EAST-SOUTHEAST OF DIGHA (42901) AND 120 KM EAST OF BALASORE (42895).

CONTINUING TO MOVE WEST-NORTHWESTWARDS, THE SYSTEM CROSSED WEST BENGAL AND ADJOINING NORTH ODISHA COASTS BETWEEN BALASORE (42895) AND SAGAR ISLANDS (42903), CLOSE TO DIGHA (42901) DURING 1330 UTC TO 1430 UTC OF 19TH AUGUST.

IT WOULD CONTINUE TO MOVE WEST-NORTHWESTWARDS ACROSS WEST BENGAL, NORTH ODISHA AND JHARKHAND TOWARDS NORTH CHHATTISGARH DURING NEXT 24 HOURS 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
19.08.22/1200	21.5/88.1	55-65 GUSTING TO 75	DEEP DEPRESSION
19.08.22/1800	21.9/87.2	55-65 GUSTING TO 75	DEEP DEPRESSION
20.08.22/0000	22.2/86.2	50-60 GUSTING TO 70	DEEP DEPRESSION
20.08.22/0600	22.4/85.2	45-55 GUSTING TO 65	DEPRESSION
20.08.22/1200	22.6/84.2	40-50 GUSTING TO 60	DEPRESSION

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 30 KNOTS GUSTING TO 40 KNOTS. ESTIMATED CENTRAL PRESSURE IS ABOUT 988 HPA AROUND SYSTEM CENTRE OVER NORTHWEST BAY OF BENGAL. 24 HOUR PRESSURE FALL OF 5-8 HPA IS REPORTED ALONG WEST BENGAL-NORTH ODISHA COASTS AND THE MAXIMUM PRESSURE DEPARTURE IS OBSERVED OVER DIGHA (42901) AND DIAMOND HARBOUR (42811) ARE MINUS 12.5.0 HPA AND MINUS 13.9 HPA. RESPECTIVELY. LOWEST MEAN SEA LEVEL PRESSURE IS REPORTED OVER DIGHA (988.7 HPA) WITH 24 HOUR PRESSURE CHANGE OF MINUS 8.0 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 1200 UTC OF 20TH AUGUST.

AS PER INSAT 3D IMAGERY AT 1200 UTC, INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 2.0. 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 93⁰C. AS PER MULTISAT WINDS AT 1200 UTC, STRONGER WINDS ARE PREVAILING IN THE NORTHEAST & NORTHWEST SECTORS OF THE SYSTEM OVER NORTH BAY OF BENGAL & ADJOINING WEST BENGAL & BANGLADESH COASTS.

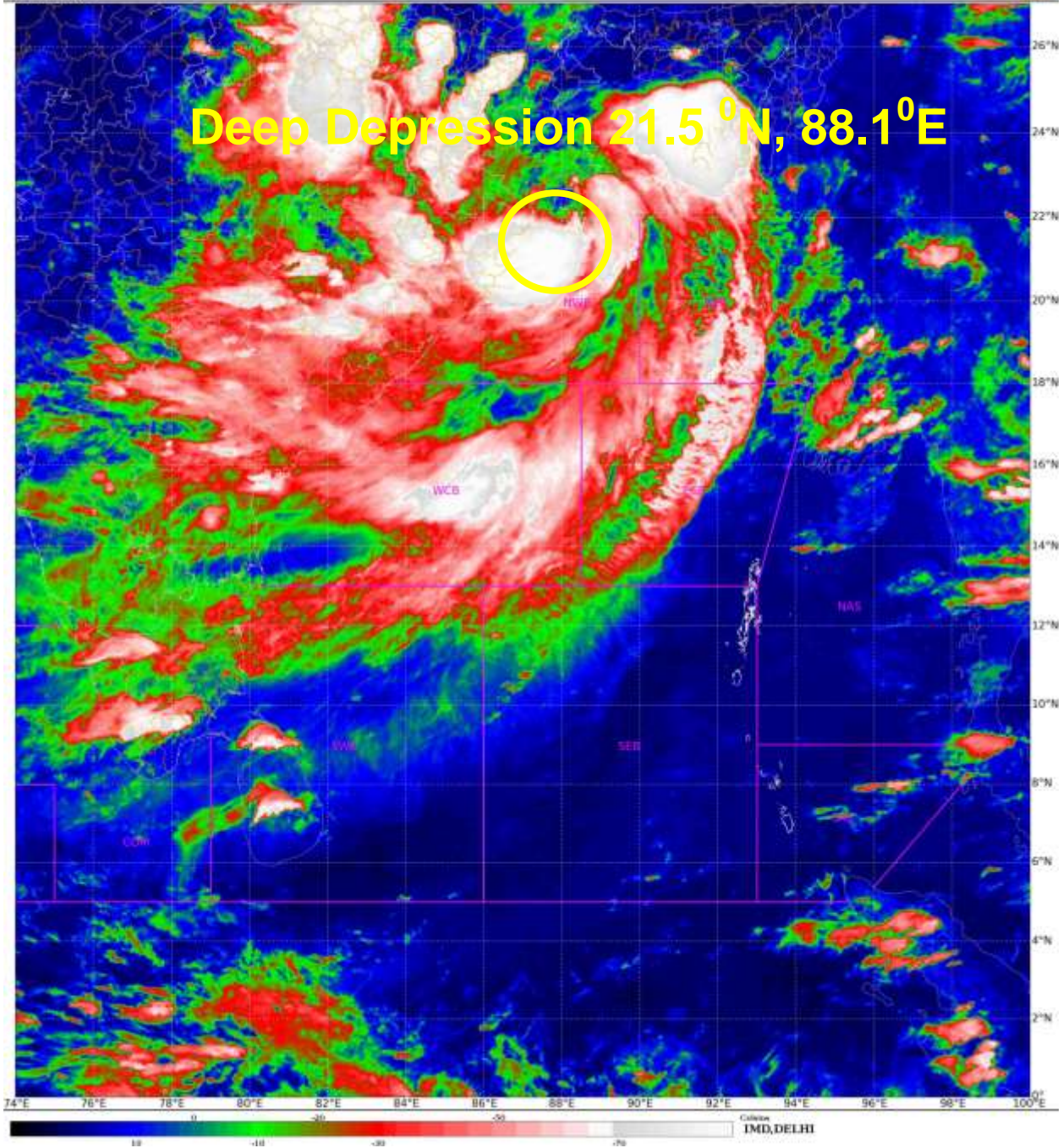
REMARKS:

MADDEN JULIAN OSCILLATION (MJO) INDEX IS CURRENTLY IN PHASE 1 WITH AMPLITUDE MORE THAN 1. IT IS LIKELY TO CONTINUE IN SAME PHASE DURING NEXT 2-3 DAYS. 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. OCEAN THERMAL ENERGY IS ABOUT 35-50 KJ/CM² NEAR SYSTEM CENTRE. LOW LEVEL RELATIVE VORTICITY IS AROUND 220X10⁻⁶ S⁻¹ TO THE SOUTHWEST OF SYSTEM CENTRE. LOW LEVEL CONVERGENCE IS ABOUT 20X10⁻⁵ S⁻¹ TO THE SOUTH OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS ABOUT 10X10⁻⁵ S⁻¹ TO THE EAST OF THE SYSTEM CENTRE AS WELL AS OVER AN EXTENDED ZONE TOWARDS WEST AND ASSOCIATED WESTWARD OUTFLOW IS PREVAILING IN UPPER LEVELS. VERTICAL WIND SHEAR IS AROUND 20 KNOTS NEAR THE SYSTEM CENTER AND HIGH ABOUT 25-30 KNOTS ALONG THE FORECAST TRACK.

MOST OF THE NUMERICAL MODELS INDICATE THAT THE SYSTEM WOULD MAINTAIN IT'S INTENSITY AND MOVE WEST-NORTHWESTWARDS DURING NEXT 24 HOURS.

IN VIEW OF ALL THE ABOVE, THE SYSTEM IS LIKELY TO MOVE WEST-NORTHWESTWARDS ACROSS WEST BENGAL, NORTH ODISHA AND JHARKHAND TOWARDS NORTH CHHATTISGARH DURING NEXT 24 HOURS AND WEAKEN GRADUALLY

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SCIENTIST-E
RSMC NEW DELHI



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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OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION OVER NORTHWEST BAY OF BENGAL BASED ON 1200 UTC OF 19th 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 DEEP DEPRESSION OVER NORTHWEST BAY OF BENGAL BASED ON 1200 UTC OF 19th AUGUST, 2022



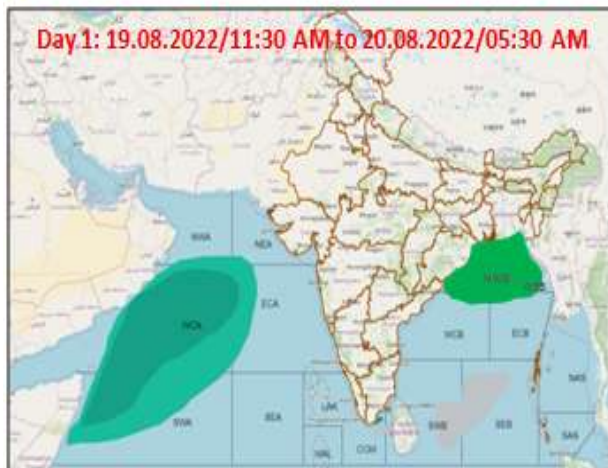
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- LESS THAN 34 KT
- 34-47 KT
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- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

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
\geq 64 (\geq 118)	Phenomenal	Total suspension of fishing operations

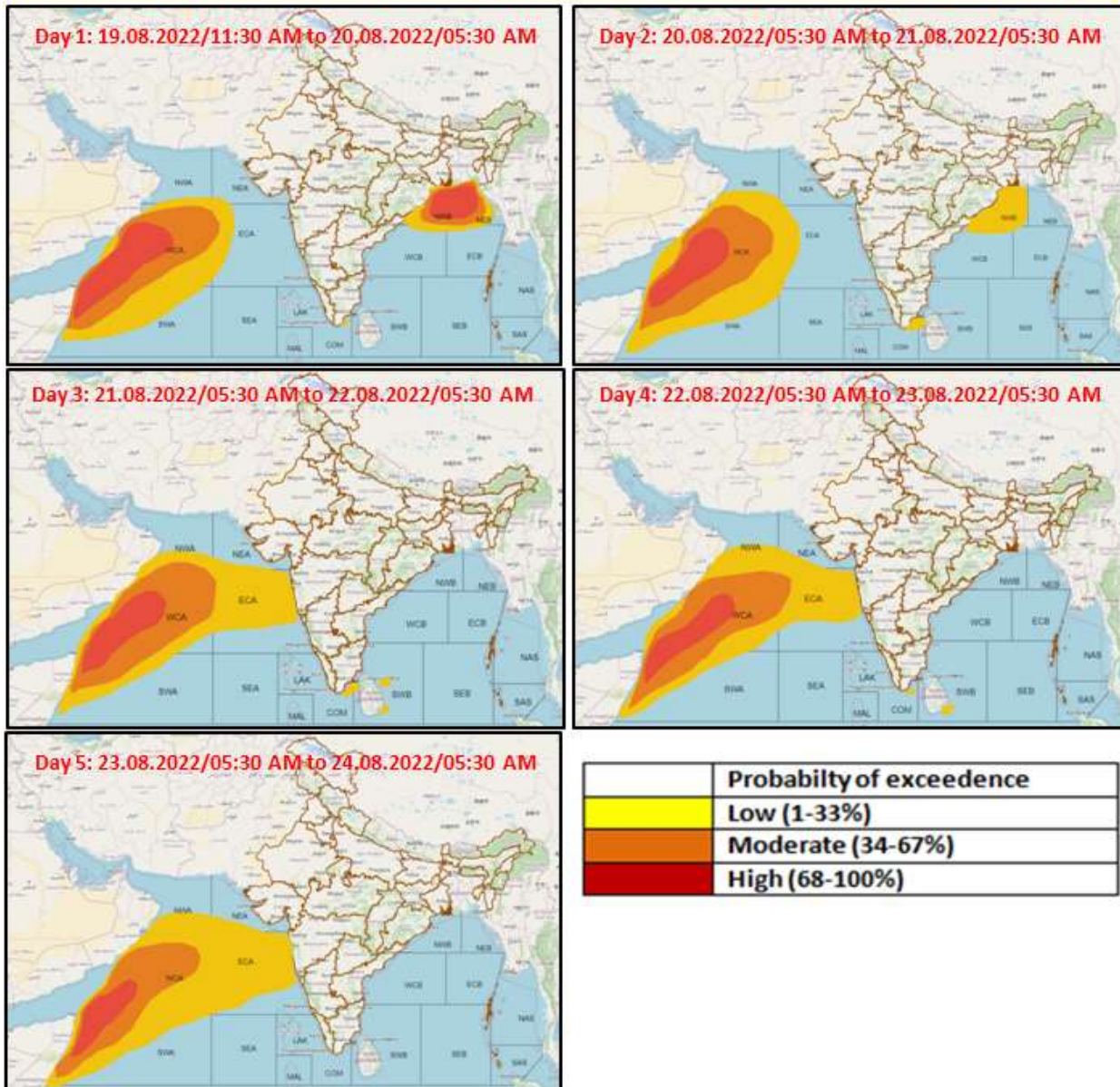
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Fishermen warning graphics



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

Probability of exceedance of maximum sustained winds ≥ 45 kmph



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