



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 02.08.2023

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 2030 UTC OF 01.08.2023 BASED ON 1800 UTC OF 01.08.2023.

SUB: DEEP DEPRESSION OVER COASTAL BANGLADESH AND ADJOINING GANGETIC WEST BENGAL

THE DEEP DEPRESSION OVER COASTAL BANGLADESH AND NEIGHBOURHOOD MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 09 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 1800 UTC OF 01ST AUGUST, 2023 OVER COASTAL BANGLADESH AND ADJOINING GANGETIC WEST BENGAL NEAR LATITUDE 22.7°N AND LONGITUDE 89.0°E, ABOUT 60 KM NORTHWEST OF MONGLA (BANGLADESH, 41958), 160 KM EAST-NORTHEAST OF DIGHA (WEST BENGAL, 42901) AND 70 KM EAST-NORTHEAST OF KOLKATA (WEST BENGAL, 42807).

IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS ACROSS GANGETIC WEST BENGAL AND MAINTAIN IT'S INTENSITY OF DEEP DEPRESSION TILL AROUND 0000 UTC OF 2ND AUGUST. THEREAFTER, IT IS LIKELY TO WEAKEN INTO A DEPRESSION AND CONTINUE TO MOVE WEST-NORTHWESTWARDS DURING SUBSEQUENT 24 HOURS.

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
01.08.23/1800	22.7/89.0	55-65 GUSTING TO 75	DEEP DEPRESSION
02.08.23/0000	23.2/87.8	50-60 GUSTING TO 70	DEEP DEPRESSION
02.08.23/0600	23.5/86.6	45-55 GUSTING TO 65	DEPRESSION
02.08.23/1200	23.7/85.4	40-50 GUSTING TO 60	DEPRESSION
02.08.23/1800	23.9/84.3	35-45 GUSTING TO 55	DEPRESSION
03.08.23/0600	24.3/82.1	25-35 GUSTING TO 45	WELL MARKED LOW PRESSURE AREA

ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER BIHAR, JHARKHAND, CHHATTISGARH, ODISHA, WEST BENGAL & SIKKI, MANIPUR AND WEST BANGLADESH. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEGREE CELSIUS.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 30 KNOTS GUSTING TO 40 KNOTS. ESTIMATED CENTRAL PRESSURE IS 988 HPA. SEA CONDITION IS LIKELY TO BE ROUGH TO

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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VERY ROUGH OVER NORTH BOB AND ADJOINING CENTRAL BOB AND ALONG & OFF ALONG & OFF BANGLADESH-WEST BENGAL-NORTH ODISHA COASTS TILL AROUND 0600 UTC OF 2ND AUGUST.

REMARKS:

MADDEN JULIAN OSCILLATION IS IN PHASE 1 WITH AMPLITUDE LESS THAN 1. IT WOULD CONTINUE IN SAME PHASE DURING NEXT 4-5 DAYS. HENCE MJO IS NOT LIKELY TO SUPPORT CONVECTIVE ACTIVITY OVER THE BAY OF BENGAL (BOB) REGION. HOWEVER, EQUATORIAL WAVES INDICATE WESTERLY WINDS (1-3 MPS) OVER CENTRAL & SOUTH BOB AND EASTERLY WINDS (1-3 MPS) OVER NORTH BOB, ALONG WITH PRESENCE OF ROSSBY WAVES OVER CENTRAL BOB. THUS EQUATORIAL WAVES ARE LIKELY TO SUPPORT CYCLOGENESIS OVER THE BOB REGION. TOTAL PRECIPITABLE WATER IMAGERY INDICATES WARM MOIST AIR INCURSION INTO THE CORE AND AROUND THE SYSTEM AREA. THE LOW LEVEL VORTICITY IS AROUND $150 \times 10^{-6} \text{S}^{-1}$ AROUND THE SYSTEM CENTER AND VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE IS ABOUT $40 \times 10^{-5} \text{S}^{-1}$ AROUND THE SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND $10 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTHWEST OF SYSTEM CENTRE. VERTICAL WIND SHEAR IS MODERATE TO HIGH AND IS ABOUT 15-25 KNOTS AROUND SYSTEM AREA AND ALONG EXPECTED TRACK. SYSTEM IS IN A MODERATELY FAVOURABLE ENVIRONMENT AND IS LIKELY TO MAINTAIN IT'S INTENSITY OF DEEP DEPRESSION DURING NEXT 06 HOURS AND WEAKEN INTO A DEPRESSION THEREAFTER.

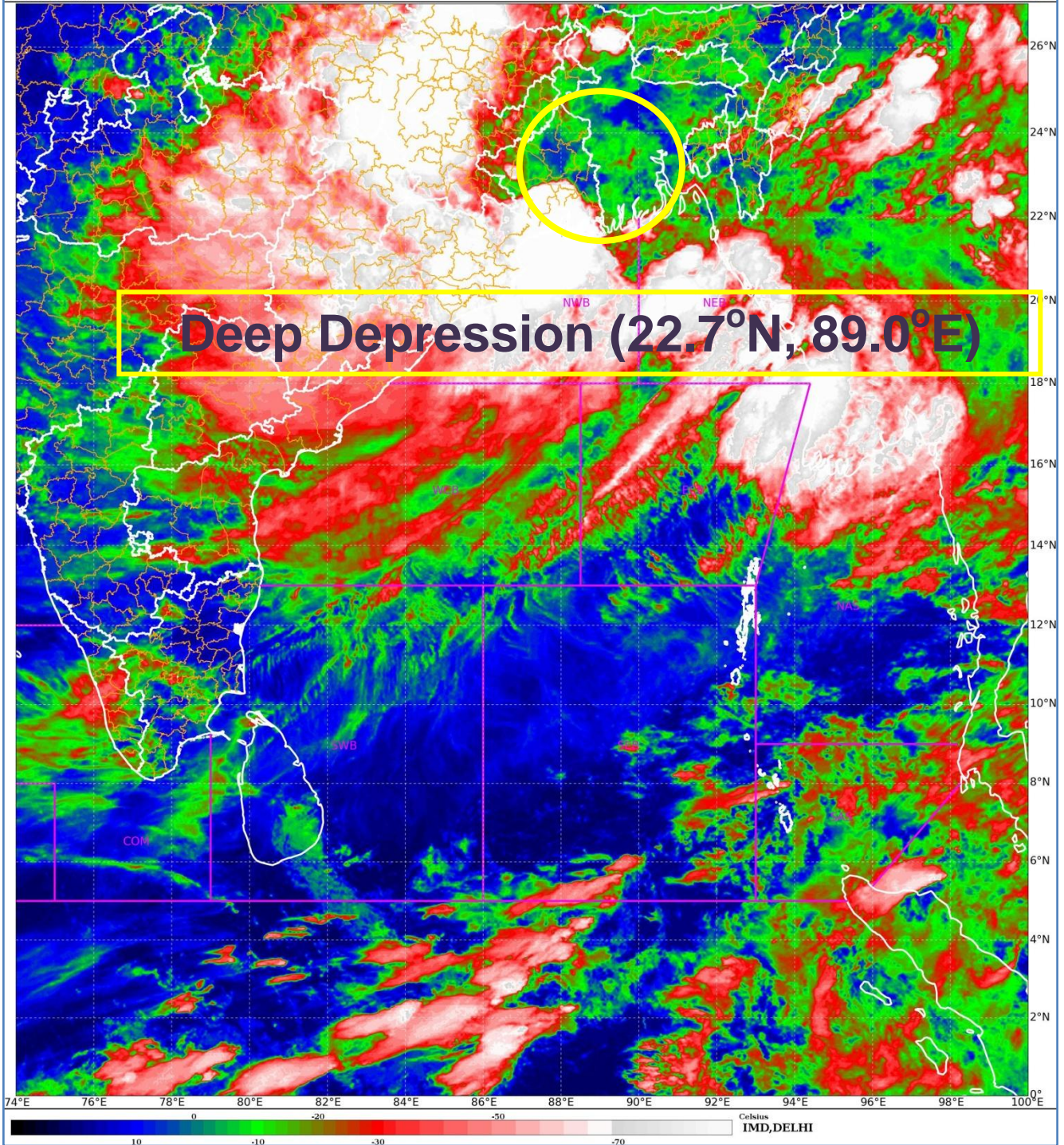
VARIOUS DETERMINISTIC MODELS INDICATE THAT THE SYSTEM WOULD MAINTAIN THE INTENSITY OF DEEP DEPRESSION TILL 2ND AUGUST/0000 UTC AND MOVE WEST-NORTHWESTWARDS TILL 3RD AUGUST/0000 UTC.

HENCE, IT IS INFERRED THAT THE DEEP DEPRESSION VERY LIKELY TO MOVE WEST-NORTHWESTWARDS ACROSS GANGETIC WEST BENGAL AND MAINTAIN IT'S INTENSITY OF DEEP DEPRESSION TILL AROUND 0000 UTC OF 2ND AUGUST. THEREAFTER, IT IS LIKELY TO WEAKEN INTO A DEPRESSION AND CONTINUE TO MOVE WEST-NORTHWESTWARDS DURING SUBSEQUENT 24 HOURS.

**(SHOBHIT KATIYAR)
SCIENTIST-D
RSMC, NEW DELHI**

SAT : INSAT-3DR IMG
IMG_TIR1_TEMP 10.8 um
LIC Mercator

01-08-2023/(1915 to 1942) GMT
02-08-2023/(0045 to 0112) IST



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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 OF DEEP DEPRESSION OVER COASTAL BANGLADESH AND ADJOINING GANGETIC WEST BENGAL BASED ON 1800 UTC (2330 IST) OF 01ST AUGUST 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 (≥ 120 KT)

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

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OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER COASTAL BANGLADESH AND ADJOINING GANGETIC WEST BENGAL BASED ON 1800 UTC (2330 IST) OF 01ST AUGUST 2023.



DATE/TIME IN UTC

IST=UTC + 0530

L: LOW PRESSURE AREA

WML: WELL MARKED LOW PRESSURE AREA

D: DEPRESSION (17-27 KT)

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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)

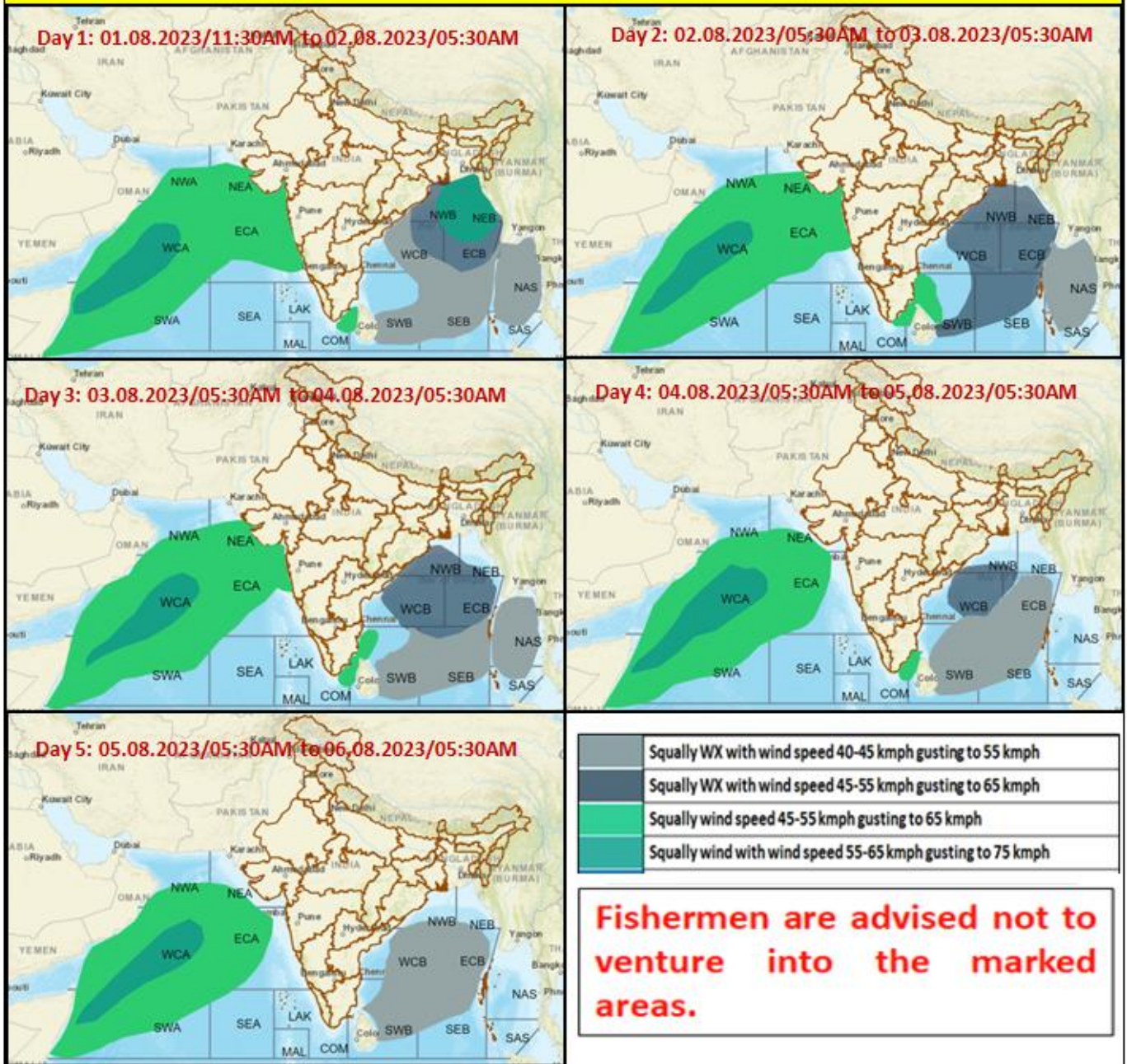
■ ≥ 64 KT (≥118 KMPH)

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

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Fishermen warning graphics



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