



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 10.08.2022

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0630 UTC OF 12.08.2022 BASED ON 0300 UTC OF 12.08.2022.

ARABIAN SEA:

LATEST OBSERVATIONS INDICATE THAT A DEPRESSION HAS FORMED OVER NORTHEAST ARABIAN SEA AND IT LAY CENTERED AT 0300 UTC OF TODAY, THE 12TH AUGUST, 2022 NEAR LATITUDE 22.5°N AND LONGITUDE 66.5°E, ABOUT 260 KM WEST-SOUTHWEST OF NALIYA (42631), 350 KM WEST-NORTHWEST OF PORBANDAR (42830), 270 KM SOUTH OF KARACHI (41780) AND 660 KM EAST-SOUTHEAST OF CHAHBAHAR (40898).

IT IS VERY LIKELY TO MOVE SLOWLY WEST-NORTHWESTWARDS AWAY FROM INDIAN COAST DURING NEXT 24 HOURS.

AS PER INSAT 3D IMAGERY AT 0300 UTC, INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 1.5. THE CLOUD MASS IS SHEARED TO THE WEST OF SYSTEM CENTRE. BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTH AND ADJOINING CENTRAL ARABIAN SEA. MINIMUM CTT MINUS 93⁰C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH OVER NORTHEAST AND ADJOINING CENTRAL ARABIAN SEA AND ALONG & OFF GUJARAT AND PAKISTAN COASTS. THE ESTIMATED CENTRAL PRESSURE IS 992 HPA.

BAY OF BENGAL:

A CYCLONIC CIRCULATION LIES OVER WEST MYANMAR AND NEIGHBOURHOOD. UNDER IT'S INFLUENCE, A LOW PRESSURE AREA IS LIKELY TO FORM OVER NORTH BAY OF BENGAL AROUND 13TH AUGUST, 2022. IT IS LIKELY TO BECOME MORE MARKED DURING NEXT 24 HOURS AND MOVE WEST-NORTHWESTWARDS THEREAFTER.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER NORTH BAY OF BENGAL, ARAKAN COAST, GULF OF MARTABAN AND MODERATE TO INTENSE CONVECTION OVER REST PARTS OF BAY OF BENGAL.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 120 HRS:

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS
NIL	LOW	MOD	NIL	NIL

REMARKS:

ARABIAN SEA:

SEA SURFACE TEMPERATURE IS AROUND 28-29°C OVER NORTH ARABIAN SEA. THE MADDEN JULIAN OSCILLATION (MJO) INDEX CURRENTLY LIES IN PHASE 3 WITH AMPLITUDE LESS THAN 1 AND WOULD CONTINUE IN SAME PHASE DURING NEXT 3-4 DAYS. TOTAL PRECIPITABLE WATER IMAGERY INDICATE WARM MOIST AIR INCURSION INTO THE CORE OF SYSTEM OVER NORTHEAST ARABIAN SEA. LOW LEVEL VORTICITY HAS INCREASED DURING PAST 24 HOURS AND IS AROUND $150 \times 10^{-6} \text{ S}^{-1}$ TO THE SOUTH OF SYSTEM CENTRE. LOW LEVEL CONVERGENCE HAS INCREASED SIGNIFICANTLY DURING PAST 24 HOURS AND IS AROUND $50 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTHWEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE HAS ALSO INCREASED AND IS AROUND $30 \times 10^{-5} \text{ S}^{-1}$ OVER THE SAME REGION. WIND SHEAR IS MODERATE (15-20 KNOTS) OVER THE SYSTEM AREA AND IS LIKELY TO INCREASE ALONG THE FORECAST TRACK BECOMING 20-25 KNOTS. THE CFS BASED FORECAST INDICATE PERSISTENCE OF MJO WAVES AND ROSSBY WAVES OVER NORTH ARABIAN SEA DURING NEXT 2 DAYS ALONGWITH 5-7 MPS EASTERLIES OVER NORTH ARABIAN SEA AND 5-7 MPS WESTERLIES OVER CENTRAL ARABIAN SEA. THUS, THE SYSTEM IS CURRENTLY TRACKING IN A FAVOURABLE ENVIRONMENT.

MOST OF THE MODELS ARE INDICATING SLOW WEST-NORTHWESTWARDS MOVEMENT OF THE SYSTEM. HOWEVER, THERE IS LACK OF CONSENSUS AMONG VARIOUS MODELS WRT INTENSIFICATION OF THE SYSTEM.

IN VIEW OF ABOVE, THE DEPRESSION OVER NORTHEAST ARABIAN SEA IS VERY LIKELY TO MOVE SLOWLY WEST-NORTHWESTWARDS AWAY FROM INDIAN COAST DURING NEXT 24 HOURS

BAY OF BENGAL:

MOST OF THE MODELS ARE INDICATING LIKELY FORMATION OF A LOW PRESSURE AREA OVER NORTH BAY OF BENGAL AROUND 13TH AUGUST. IT IS LIKELY TO INTENSIFY FURTHER DURING NEXT 24 HOURS AND MOVE WEST-NORTHWESTWARDS THEREAFTER.

(M. SHARMA)
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OBSERVED AND FORECAST TRACK OF DEPRESSION OVER NORTHEAST ARABIAN SEA BASED ON 0300 UTC OF 12th 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

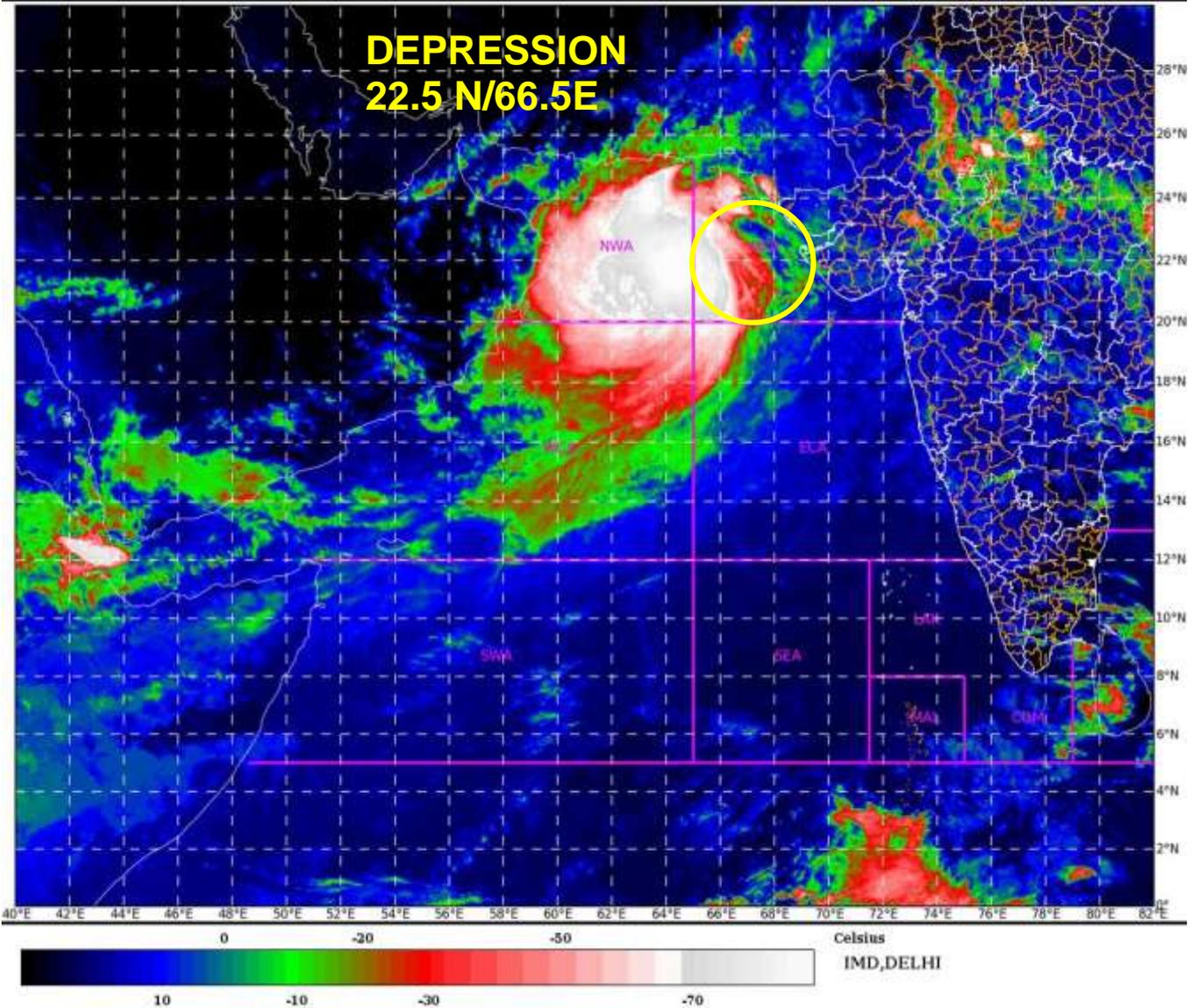
34-47 KT

≥ 48 KT

OBSERVED TRACK

FORECAST TRACK

CONE OF UNCERTAINTY



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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