



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

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 16.08.2022**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 16.08.2022 BASED ON 0300 UTC OF 16.08.2022.**

**BAY OF BENGAL:**

**(A) DEPRESSION OVER EAST RAJASTHAN AND ADJOINING WEST MADHYA PRADESH**

YESTERDAY'S DEPRESSION OVER EAST MADHYA PRADESH MOVED NEARLY WESTWARDS AND LAY CENTERED AT 0300 UTC OF TODAY, THE 16TH AUGUST OVER EAST RAJASTHAN AND ADJOINING WEST MADHYA PRADESH NEAR LATITUDE 24.7°N & LONGITUDE 76.5°E, 80 KM SOUTHEAST OF KOTA (42452), 90 KM WEST OF GUNA (42559) AND 120 KM SOUTHEAST OF BUNDI (42450).

IT IS VERY LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 12 HOURS.

AS PER INSAT 3D IMAGERY AT 0300 UTC, SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WEST MADHYA PRADESH AND ADJOINING UTTAR PRADESH AND EAST RAJASTHAN. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 90°C.

ESTIMATED MAXIMUM SUSTAINED WIND SPEED AROUND SYSTEM CENTRE IS 25 KNOTS GUSTING TO 35 KNOTS. ESTIMATED CENTRAL PRESSURE IS 996 HPA.

**(B) A FRESH LOW PRESSURE AREA IS LIKELY TO FORM OVER NORTH BAY OF BENGAL AROUND 19<sup>TH</sup> AUGUST**

**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	NIL	NIL	NIL	LOW

**(C) CONVECTION OVER BAY OF BENGAL:**

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EXTREME NORTH AND EXTREME SOUTH BAY OF BENGAL. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER WESTCENTRAL BAY OF BENGAL, GULF OF MARTABAN AND ANDAMAN SEA AND WEAK TO MODERATE CONVECTION LAY OVER EASTCENTRAL BAY OF BENGAL AND ARAKAN COAST.

## ARABIAN SEA:

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTHEAST ARABIAN SEA AND ADJOINING SOUTH PAKISTAN. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93<sup>0</sup>C. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER EASTCENTRAL ARABIAN SEA OFF MAHARASHTRA COAST, SOUTHEAST ARABIAN SEA AND LAKSHADWEEP ISLANDS. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED WEAK TO MODERATE CONVECTION LAY OVER REST PARTS OF ARABIAN SEA, GULF OF CAMBAY AND COMORIN AREA.

### 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	NIL	NIL	NIL	NIL

### REMARKS:

LOW LEVEL VORTICITY IS THE SAME AND IS AROUND  $150 \times 10^{-6} \text{ S}^{-1}$  AROUND SYSTEM AREA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE HAS REDUCED SLIGHTLY AND IS AROUND  $10 \times 10^{-5} \text{ S}^{-1}$  TO THE SOUTHWEST OF SYSTEM AREA. POSITIVE UPPER LEVEL DIVERGENCE IS THE SAME AND IS AROUND  $20 \times 10^{-5} \text{ S}^{-1}$  TO THE WEST OF SYSTEM CENTRE AND ALONG THE FORECAST TRACK. WIND SHEAR IS LOW (05-10 KNOTS) OVER SYSTEM AREA AND ALONG THE FORECAST TRACK. UNDER THESE FAVOURABLE ENVIRONMENTAL CONDITIONS, THE SYSTEM IS LIKELY TO MAINTAIN ITS INTENSITY DURING NEXT 12 HOURS.

MOST OF THE MODELS ARE INDICATING THE SYSTEM TO GRADUALLY WEAKEN INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 24 HOURS.

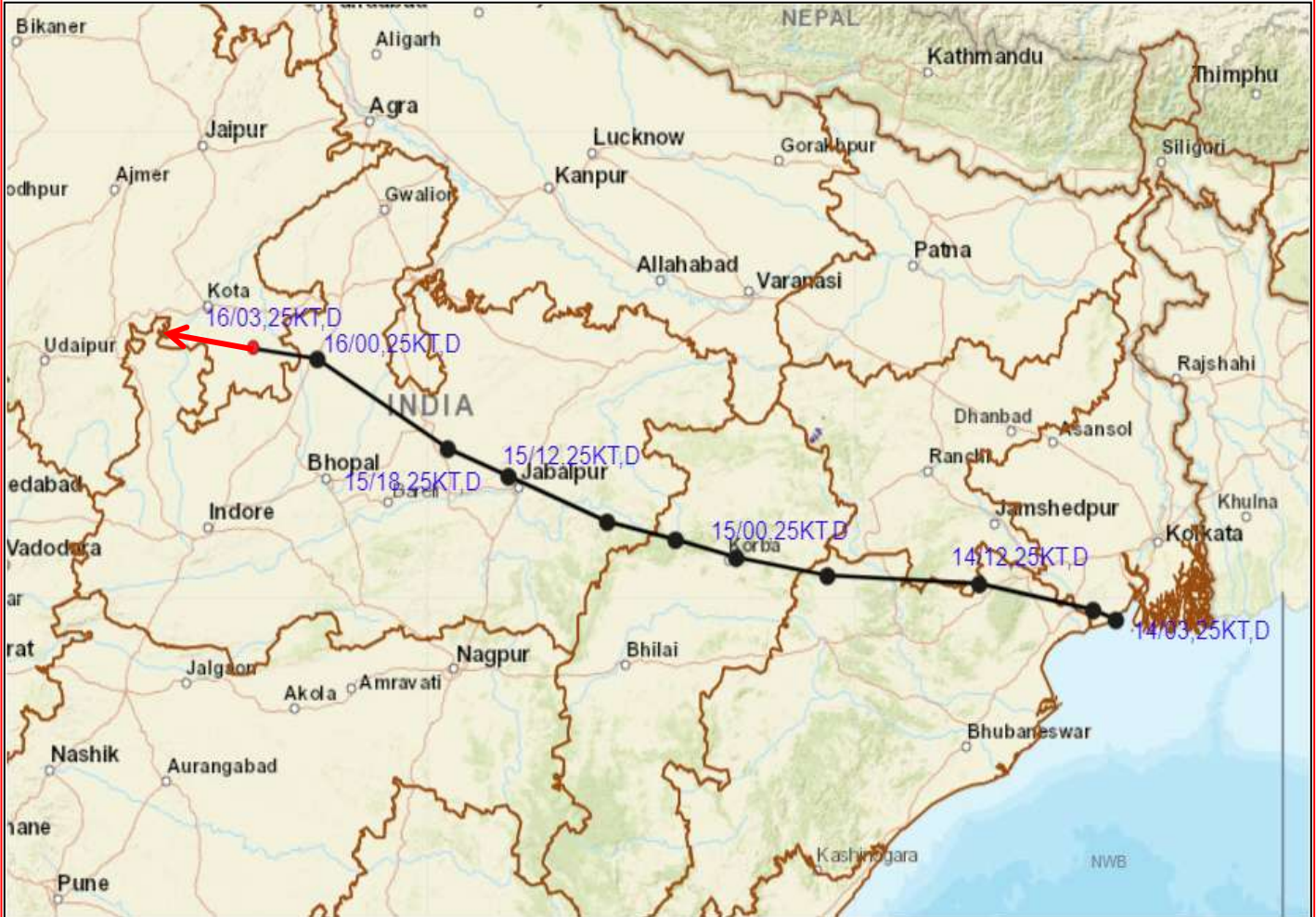
MODELS ARE ALSO INDICATING DEVELOPMENT OF A FRESH LOW PRESSURE AREA OVER NORTH BAY OF BENGAL AROUND 19<sup>TH</sup> AUGUST. MODELS INCLUDING NCEP & ECMWF ARE INDICATING IT'S INTENSIFICATION INTO DEPRESSION AROUND 20<sup>TH</sup> AUGUST AND GFS GROUP IS INDICATING NO SIGNIFICANT INTENSIFICATION.

IN VIEW OF THE PREVAILING ENVIRONMENTAL CONDITIONS AND MODEL GUIDANCE, IT IS INFERRED THAT (A) THE DEPRESSION OVER EAST RAJASTHAN AND ADJOINING WEST MADHYA PRADESH IS VERY LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 12 HOURS AND (B) A FRESH LOW PRESSURE AREA OVER NORTH BAY OF BENGAL AROUND 19<sup>TH</sup> AUGUST. LOW PROBABILITY IS ASSIGNED TO ITS FURTHER INTENSIFICATION INTO DEPRESSION DURING SUBSEQUENT 48 HOURS.

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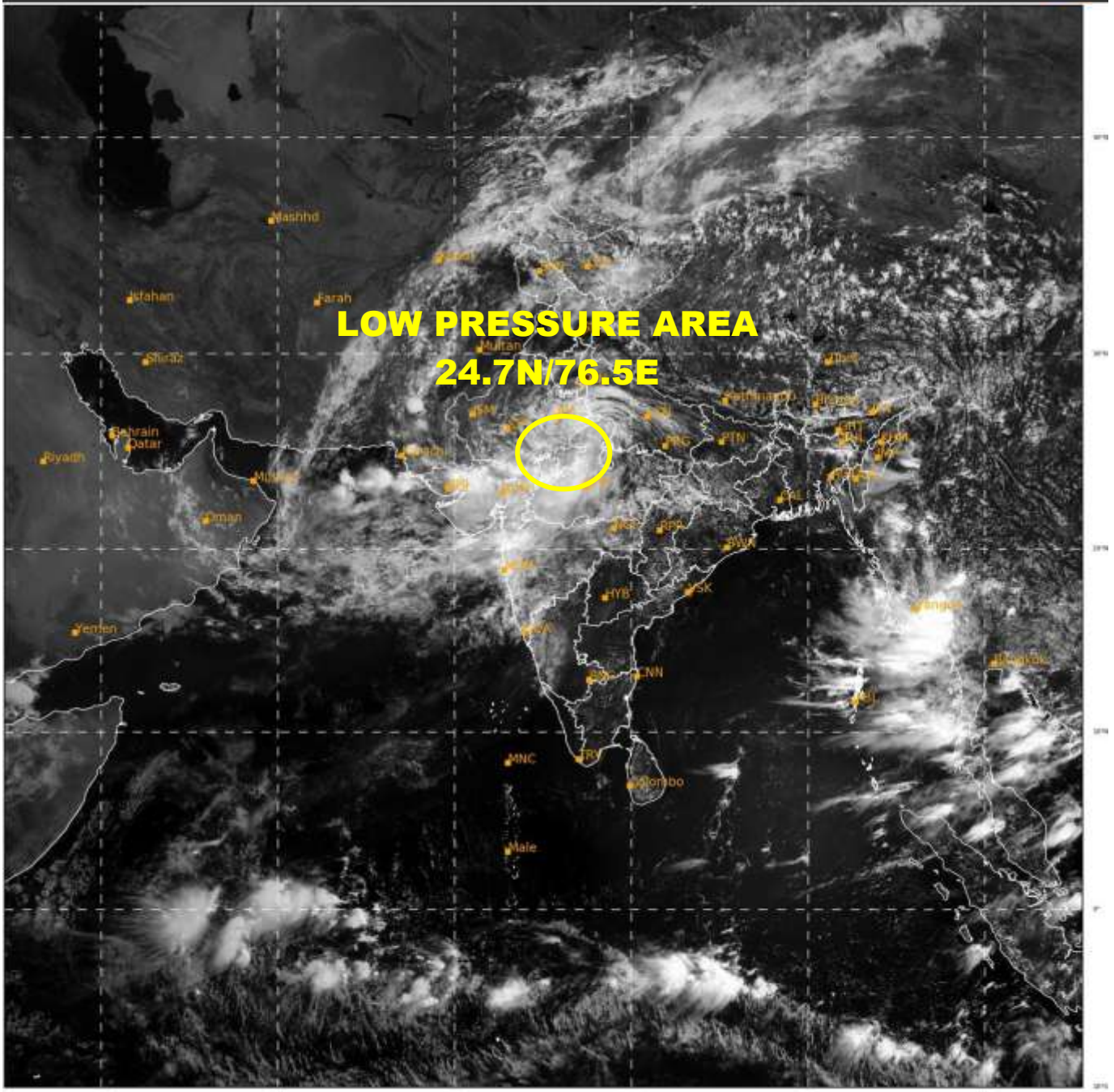


# OBSERVED AND FORECAST TRACK OF DEPRESSION OVER EAST RAJASTHAN ADJOINING WEST MADHYA PRADESH BASED ON 0300 UTC OF 16<sup>th</sup> AUGUST, 2022



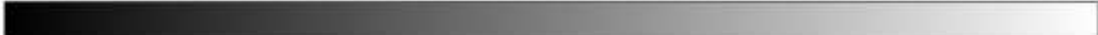
DATE/TIME IN UTC  
 IST=UTC + 0530  
 L: LOW PRESSURE AREA  
 WML: WELL MARKED LOW PRESSURE AREA  
 D: DEPRESSION (17-27 KT)  
 DD: DEEP DEPRESSION (28-33 KT)  
 CS: CYCLONIC STORM (34-47 KT)  
 SCS: SEVERE CYCLONIC STORM (48-63KT)  
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)  
 ESCS: EXTREMELY SEVERE 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



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IMD, 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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