



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 11.09.2024

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 168 HOURS ISSUED AT 0900 UTC OF 11.09.2024 BASED ON 0600 UTC OF 11.09.2024.

SUB: DEPRESSION OVER NORTHEAST MADHYA PRADESH

THE DEPRESSION OVER NORTHEAST MADHYA PRDESH MOVED SLOWLY NEARLY NORTH-NORTHWESTWARDS WITH A SPEED OF 8 KMPH DURING PAST 3 HOURS AND LAY CENTERED AT 0600 UTC OF TODAY, THE 11TH SEPTEMBER OVER THE SAME REGION NEAR LATITUDE 24.2°N AND LONGITUDE 79.9°E, ABOUT 60 KM NORTHEAST OF DAMOH (42674), 90 KM SOUTH OF KHAJURAHO (42567), 100 KM WEST-SOUTHWEST OF SATNA (42571) AND 190 KM SOUTHEAST OF JHANSI (42463).

IT IS LIKELY TO MOVE SLOWLY NORTH-NORTHWESTWARDS DURING NEXT 24 HRS. THE SYSTEM IS UNDER CONTINUOUS SURVEILLANCE OF DOPPLER WEATHER RADAR AT BHOPAL (MADHYA PRADESH).

AS PER INSAT 3DR IMAGERY AT 0600 UTC, ASSOCIATED SCATTERED TO BROKEN LOW & MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER UTTAR PRADESH, EAST RAJASTHAN AND MADHYA PRADESH WITH MINIMUM CLOUD TOP TEMPERATURE OF -93°C AND MODERATE TO INTENSE CONVECTION LAY OVER VIDARBHA AND CHHATTISGARH.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IN ASSOCIATION WITH THE SYSTEM IS 20 KTS GUSTING TO 30 KTS. ESTIMATED CENTRAL PRESSURE IS 995 HPA.

REMARKS:

MADDEN JULIAN OSCILLATION (MJO) INDEX IS CURRENTLY IN PHASE 5 WITH AMPLITUDE LESS THAN 1. IT IS LIKELY TO CONTINUE IN SAME PHASE DURING NEXT 2-3 DAYS. THUS, MJO WOULD SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER EAST & CENTRAL INDIA. NCICS BASED GUIDANCE ON EQUATORIAL WAVES INDICATE, STRONG WESTERLY WINDS (5-7 MPS) ALONGWITH ROSSBY WAVES OVER CENTRAL PARTS OF INDIA AND STRONG EASTERLY WINDS (5-7MPS) OVER NORTHERN PARTS OF INDIA DURING NEXT 3-4 DAYS.

THE LOW LEVEL CONVERGENCE IS AROUND $10 \times 10^{-5} \text{ s}^{-1}$ OVER SYSTEM AREA. UPPER LEVEL DIVERGENCE IS AROUND $20 \times 10^{-5} \text{ s}^{-1}$ OVER SYSTEM AREA. THE WIND SHEAR IS MODERATE (15-20 KT) OVER SYSTEM AREA AND HIGH (>20) TO THE NORTH OF SYSTEM

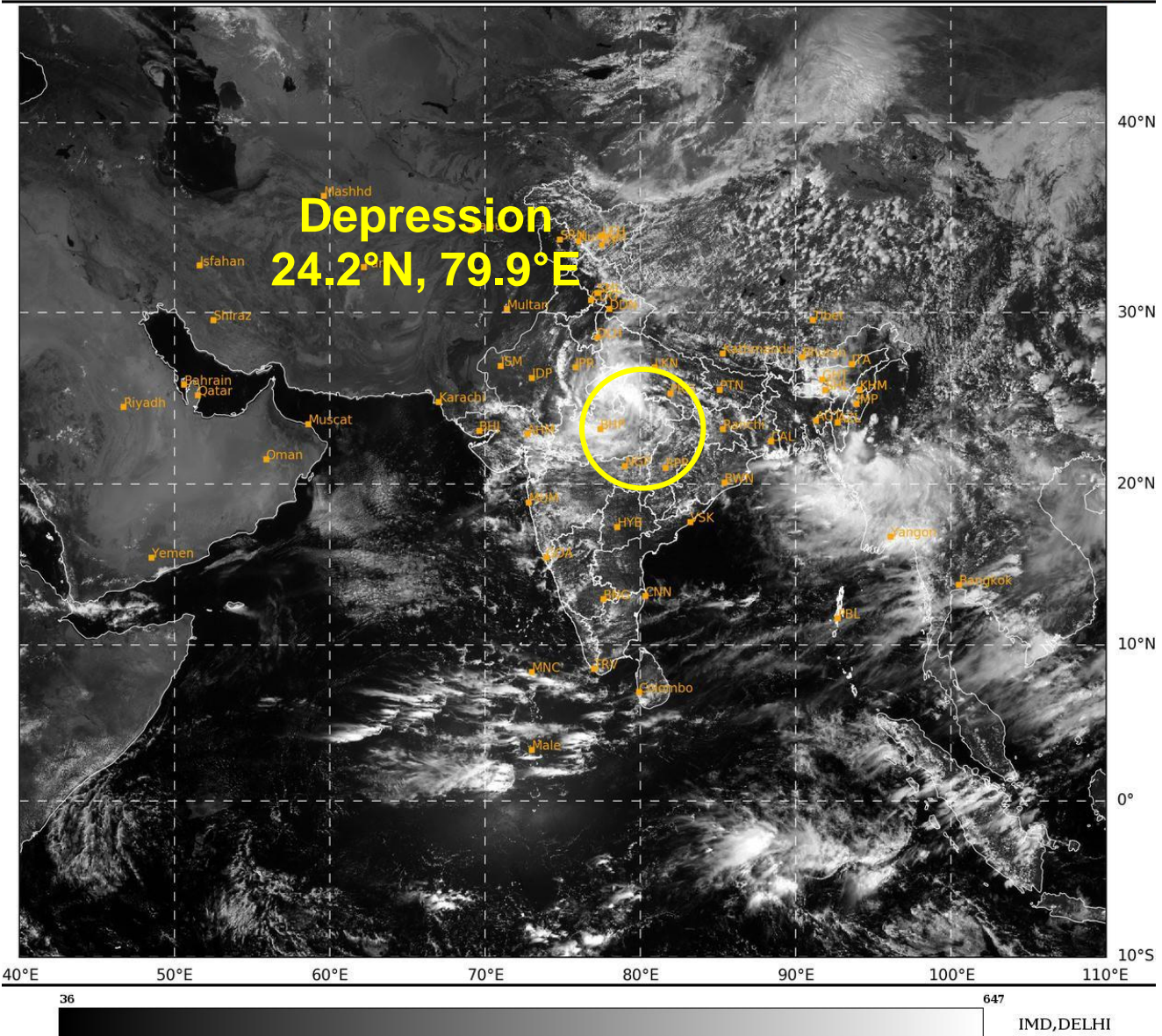
AREA. VORTICITY AT 850 HPA LEVEL IS AROUND $150 \times 10^{-5} \text{ S}^{-1}$ OVER SYSTEM AREA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. MID LEVEL SHEAR IS CYCLONIC OVER SYSTEM AREA. CURRENT ENVIRONMENTAL CONDITONS INDICATE THAT THE DEPRESSION OVER NORTHEAST MADHYA PRDAESH IS LYING IN A MODERATELY FAVOURABLE ENVIRONMENT

MOST OF THE MODELS ARE INDICATING THAT THE SYSTEM WILL MOVE SLOWLY NORTH-NORTHWESTWARDS INITIALLY AND THEREAFTER, IT IS LIKELY TO RECURVE NORTH-NORTHEASTWARDS UNDER THE INFLUENCE OF APPROACHING WESTERLY TROUGH AT 400 HPA LEVEL. IT WOULD ALSO INHIBIT ITS FURTHER NORTHWESTWARDS MOVEMENT. MOST OF THE MODELS ARE INDICATING WEAKENING OF THE SYSTEM AROUND 14TH EVENING

IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT DEPRESSION OVER NORTHEAST MADHYA PRADESH IS LIKELY TO MAINTAIN ITS INTENSITY AND MOVE SLOWLY NORTH-NORTHWESTWARDS DURING NEXT 24 HRS.

NEXT UPDATE IN ASSOCIATION WITH THIS SYSTEM WILL BE ISSUED AT 1500 UTC OF TODAY, THE 11TH SEPTEMBER.

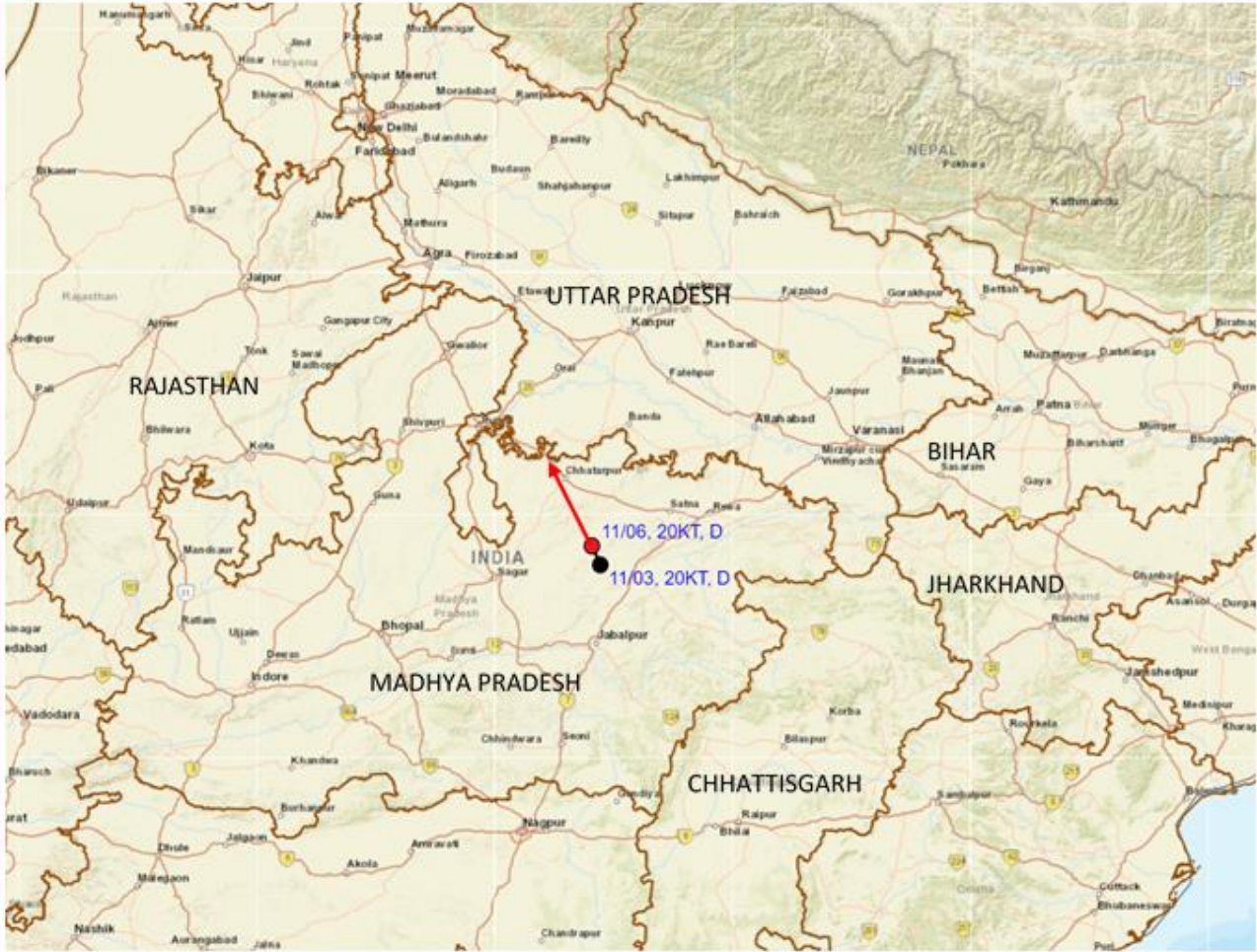
(M. T. BUSHAIR)
SC.-C, RSMC NEW DELHI



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 OF DEPRESSION OVER NORTHEAST MADHYA PRADESH BASED ON 0600 UTC (1130 IST) OF 11TH SEPTEMBER, 2024.



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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