



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 10.09.2024

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 168 HOURS ISSUED AT 0300 UTC OF 10.09.2024 BASED ON 0000 UTC OF 10.09.2024.

SUB: DEPRESSION OVER NORTH CHHATTISGARH & ADJOINING INTERIOR ODISHA

THE DEPRESSION OVER INTERIOR ODISHA MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 22 KMPH DURING PAST 6 HOURS, LAY CENTERED AT 0000 UTC OF THE 10TH SEPTEMBER, 2024 OVER NORTH CHHATTISGARH & ADJOINING INTERIOR ODISHA NEAR LATITUDE 21.7°N AND LONGITUDE 83.3°E, ABOUT 90 KM WEST-SOUTHWEST OF JHARSUGUDA (42886), 70 KM WEST-NORTHWEST OF SAMBALPUR (42883), 120 KM EAST-SOUTHEAST OF BILASPUR (42782) AND 170 KM EAST-NORTHEAST OF RAIPUR (43053).

IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS ACROSS NORTH CHHATTISGARH AND WEAKEN INTO A WELL MARKED LOW PRESSURE AREA OVER CHHATTISGARH AND ADJOINING EAST MADHYA PRADESH AROUND 1200 UTC OF 10TH SEPTEMBER.

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
10.09.24/0000	21.7/83.3	40-50 gusting to 60	Depression
10.09.24/0600	22.2/82.6	35-45 gusting to 55	Depression
10.09.24/1200	22.5/81.6	25-35 gusting to 45	Well Marked Low Pressure Area

AS PER INSAT 3DR IMAGERY AT 0000 UTC, ASSOCIATED BROKEN LOW & MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WEST ODISHA, CHHATTISGARH, EAST MADHYAPRADESH, VIDHARBHA ADJOINING TELANGANA WITH MINIMUM CLOUD TOP TEMPERATURE OF -93°C AND MODERATE TO INTENSE CONVECTION OVER TELANGANA, AND COASTAL ANDHRA PRADESH.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IN ASSOCIATION WITH THE SYSTEM IS 25 KTS GUSTING TO 35 KTS. ESTIMATED CENTRAL PRESSURE IS 995 HPA.

AT 0000 UTC, RAIPUR REPORTED LOWEST MEAN SEA LEVEL PRESSURE (MSLP) OF 995.9 HPA, AND 24 HOUR PRESSURE CHANGE OF -3.1 HPA.

REMARKS:

CURRENT ENVIRONMENTAL CONDITIONS INDICATE THAT THE DEPRESSION OVER INTERIOR ODISHA IS LYING IN A FAVOURABLE ENVIRONMENT. 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 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) along with Rossby waves over central parts of India and strong easterly winds (5-7 mps) over northern parts of India.

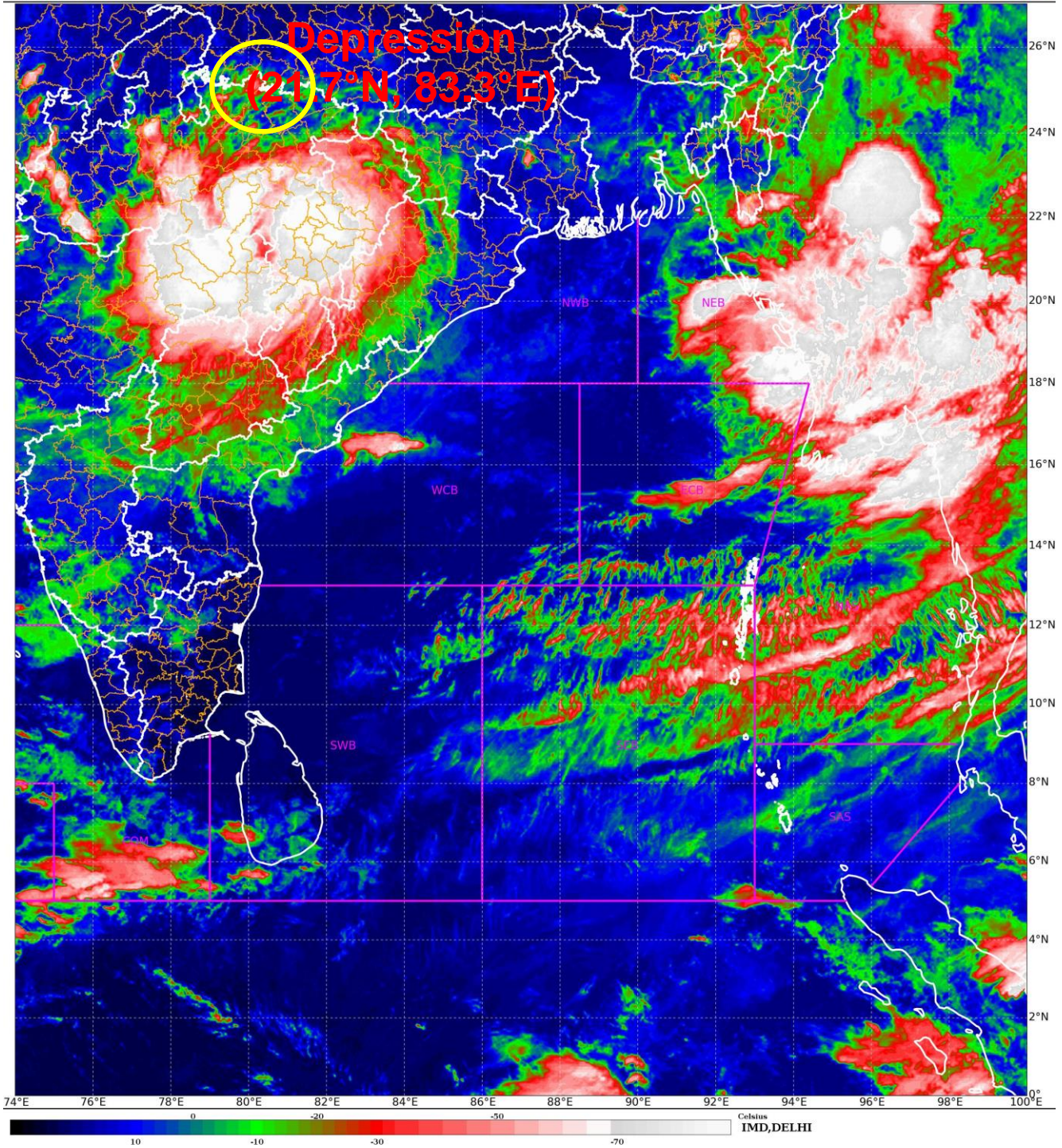
The low level convergence is around $20 \times 10^{-5} \text{ s}^{-1}$ to the southwest of system centre. Upper level divergence is around $20 \times 10^{-5} \text{ s}^{-1}$ to the southwest of system centre. The wind shear is low (05-10 kt) over system area and along the forecast track. Vorticity at 850 hpa level is around $100 \times 10^{-5} \text{ s}^{-1}$ to the south of system area and extends upto 500 hpa level with a reduced vorticity of $60 \times 10^{-5} \text{ s}^{-1}$. Mid level shear is anticyclonic. These features indicate that the system is still in moderately favourable environment.

The depression over interior Odisha is very likely to move west-northwestwards across north Chhattisgarh and weaken into a well marked low pressure area over Chhattisgarh and adjoining East Madhya Pradesh around 1200 UTC of 10th September.

(D. R. Pattanaik)
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SAT : INSAT-3DR IMG
IMG_TIR1_TEMP 10.8 um
LIC Mercator

10-09-2024/(0215 to 0242) GMT
10-09-2024/(0745 to 0812) IST



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 NORTH CHHATTISGARH AND ADJOINING INTERIOR ODISHA BASED ON 0000 UTC (0530 IST) OF 10th 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 \geq 120 KT)

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

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