



**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 0730 UTC OF 10.09.2024 BASED ON 0300 UTC OF 10.09.2024.

SUB: DEPRESSION OVER NORTH CHHATTISGARH

THE DEPRESSION OVER NORTH CHHATTISGARH & ADJOINING INTERIOR ODISHA MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 20 KMPH DURING PAST 6 HOURS, LAY CENTERED AT 0300 UTC OF TODAY, THE 10TH SEPTEMBER, 2024 OVER NORTH CHHATTISGARH NEAR LATITUDE 21.9°N AND LONGITUDE 82.8°E, 70 KM EAST-SOUTHEAST OF BILASPUR (42782), 140 KM NORTHEAST OF RAIPUR (43053) AND 220 KM EAST OF MALANJKHAND (42715).

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
10.09.24/0300	21.9/82.8	40-50 gusting to 60	Depression
10.09.24/0600	22.0/82.4	35-45 gusting to 55	Depression
10.09.24/1200	22.3/81.5	25-35 gusting to 45	Well Marked Low Pressure Area

AS PER INSAT 3DR IMAGERY AT 0300 UTC, ASSOCIATED BROKEN LOW & MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WEST ODISHA, CHHATTISGARH, EAST MADHYA PRADESH, VIDHARBHA AND ADJOINING TELANGANA WITH MINIMUM CLOUD TOP TEMPERATURE OF -93°C AND MODERATE TO INTENSE CONVECTION LAY OVER TELANGANA AND NORTH 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 996 HPA.

AT 0300 UTC, BILASPUR REPORTED LOWEST MEAN SEA LEVEL PRESSURE (MSLP) OF 996.5 HPA, AND MAXIMUM SUSTAINED WIND SPEED (MSW) OF 360°/ 04KT. MALANJKHAND (SOUTHEAST MADHYA PRADESH) REPORTED MSLP OF 998.1 HPA, PRESSURE DEPARTURE OF -6.8 HPA AND MSW OF 320°/ 01KT. MALANJKHAND

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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(SOUTHEAST MADHYA PRADESH) REPORTED MSLP OF 998.1 HPA, PRESSURE DEPARTURE OF -6.8 HPA AND MSW OF 320°/01KT.

REMARKS:

CURRENT ENVIRONMENTAL CONDITIONS INDICATE THAT THE DEPRESSION OVER NORTH CHHATTISGARH IS LYING IN A MODERATELY 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 2-3 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 $20 \times 10^{-5} \text{ S}^{-1}$ 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.

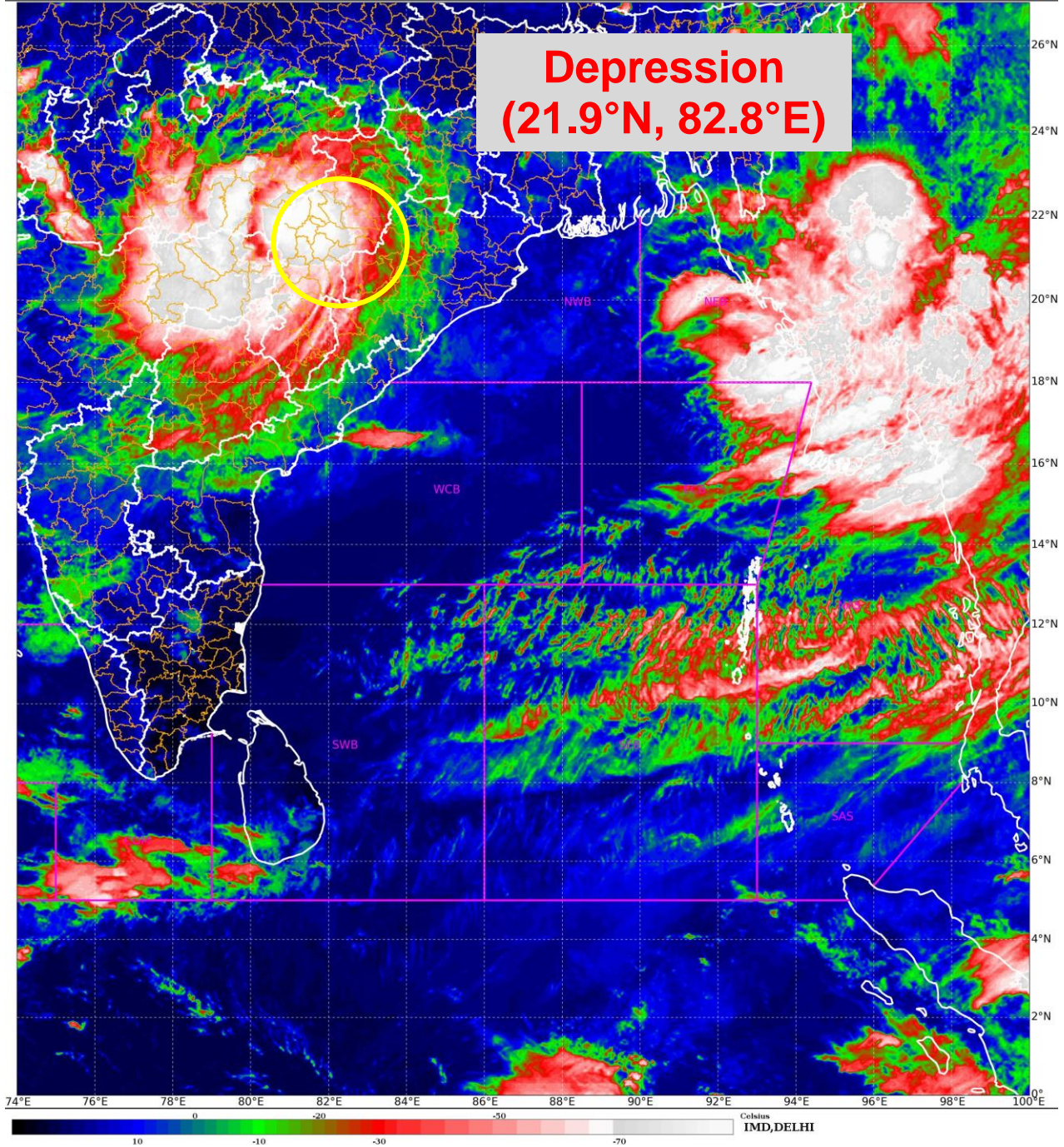
MOST OF THE MODELS ARE INDICATING THAT THE SYSTEM WILL MOVE ACROSS CHHATTISGARH AND CENTRAL PARTS OF NORTH MADHYA PRADESH. THEREAFTER, IT IS LIKELY TO RECURVE NORTHEASTWARDS TOWARDS UTTAR PRADESH. THE SYSTEM IS LIKELY TO MOVE SLOW AS A WESTERLY TROUGH AT 400 HPA LEVEL IS APPROACHING FROM WEST AND WILL THUS SLOW DOWN THE SYSTEM AND TEND TO RECURVE SOUTHEASTWARDS AND MOVE ACROSS SOUTH UTTAR PRADESH.

THE DEPRESSION OVER NORTH CHHATTISGARH 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.

(M. SHARMA)
SC.-D, RSMC NEW DELHI

SAT : INSAT-3DR IMG
IMG_TIR1_TEMP 10.8 um
L1C Mercator

10-09-2024/(0315 to 0342) GMT
10-09-2024/(0845 to 0912) IST



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**OBSERVED AND FORECAST TRACK OF DEPRESSION OVER NORTH CHHATTISGARH
BASED ON 0300 UTC (0830 IST) OF 10th SEPTEMBER, 2024.**

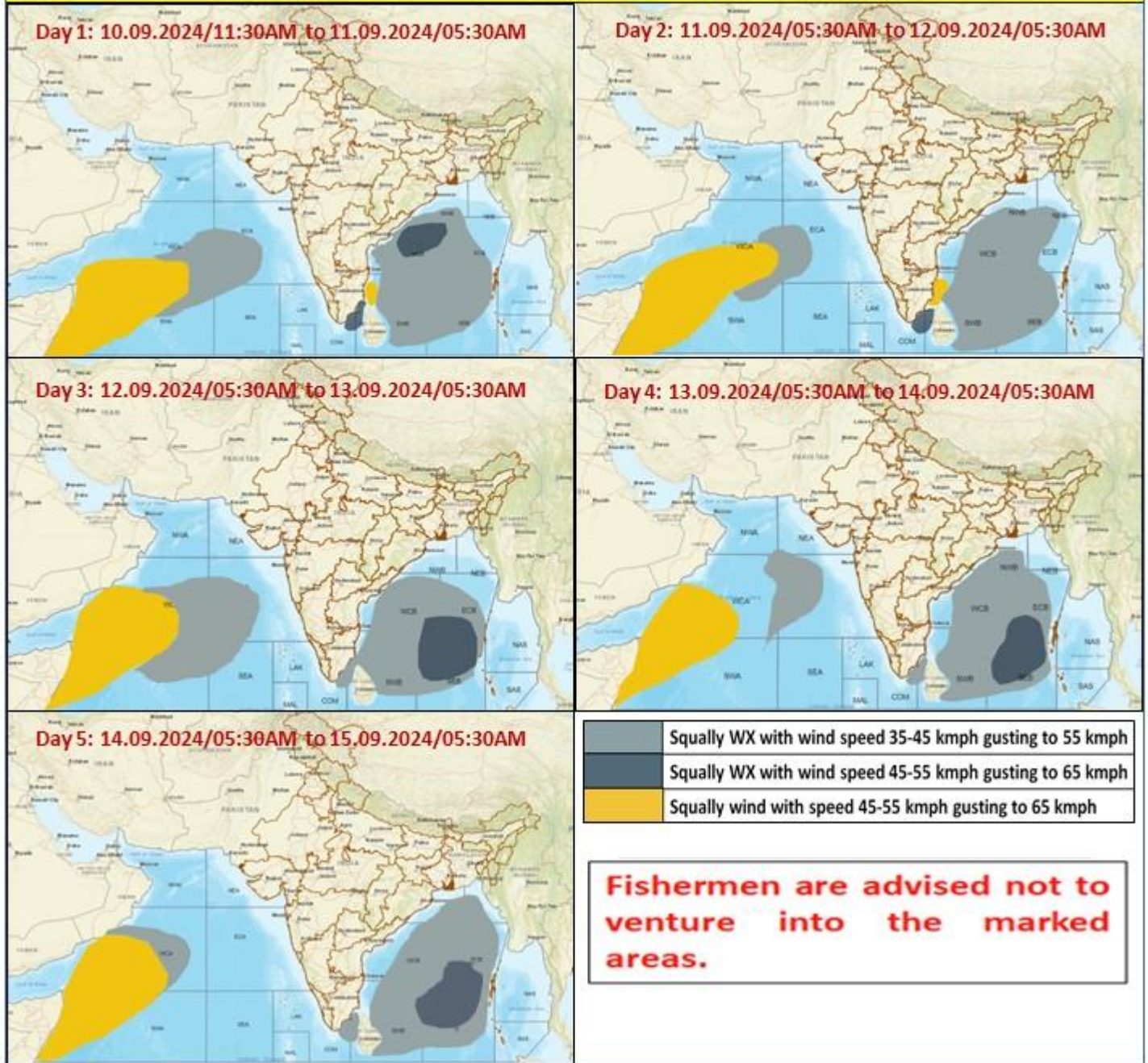


DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM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



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