



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 12.09.2024

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 12.09.2024 BASED ON 0000 UTC OF 12.09.2024.

SUB: DEPRESSION OVER NORTHWEST MADHYA PRADESH AND NEIGHBOURHOOD

THE DEPRESSION OVER NORTHWEST MADHYA PRADESH AND ADJOINING SOUTHWEST UTTAR PRADESH MOVED SLOWLY NEARLY NORTHWARDS WITH A SPEED OF 8 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 0000 UTC OF TODAY, THE 12TH SEPTEMBER OVER NORTHWEST MADHYA PRADESH AND NEIGHBOURHOOD NEAR LATITUDE 26.7°N AND LONGITUDE 78.3°E, ABOUT 50 KM NORTH OF GWALIOR (42361, MADHYA PRADESH), ABOUT 60 KM SOUTH-SOUTHEAST OF AGRA (42261, UTTAR PRADESH), 130 KM SOUTH OF ALIGARH (42262, UTTAR PRADESH) AND 140 KM NORTH-NORTHWEST OF JHANSI (42463, UTTAR PRADESH).

IT IS LIKELY TO MOVE SLOWLY NORTH-NORTHEASTWARDS DURING NEXT 24 HRS. THE SYSTEM IS UNDER CONTINUOUS SURVEILLANCE OF DOPPLER WEATHER RADARS AT DELHI AND LUCKNOW.

AS PER INSAT 3DR IMAGERY AT 0000 UTC, ASSOCIATED SCATTERED TO BROKEN LOW & MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER UTTAR PRADESH, EAST RAJASTHAN, MADHYA PRADESH, UTTAR PRADESH AND ADJOINING AREAS OF HARYANA, DELHI, UTTARAKHAND, WITH MINIMUM CLOUD TOP TEMPERATURE OF -93°C.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IN ASSOCIATION WITH THE SYSTEM IS 20 KTS GUSTING TO 30 KTS. ESTIMATED CENTRAL PRESSURE IS 993 HPA. AT 0000 UTC, THE LOWEST MEAN SEA LEVEL PRESSURE 993.1 HPA IS RECORDED AT GWALIOR (42361).

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 $15 \times 10^{-5} \text{ S}^{-1}$; UPPER LEVEL DIVERGENCE IS AROUND $30 \times 10^{-5} \text{ S}^{-1}$ OVER SYSTEM AREA. THE WIND SHEAR IS MODERATE (10-15 KT) OVER SYSTEM AREA AND HIGH (>20) TO THE NORTH OF SYSTEM AREA. VORTICITY AT 850 HPA LEVEL IS AROUND $200 \times 10^{-5} \text{ S}^{-1}$ OVER SYSTEM AREA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. CURRENT ENVIRONMENTAL CONDITIONS INDICATE THAT THE DEPRESSION OVER NORTHWEST MADHYA PRADESH AND ADJOINING SOUTHWEST UTTAR PRADESH IS LYING IN A MODERATELY FAVOURABLE ENVIRONMENT

MOST OF THE MODELS ARE INDICATING THAT THE SYSTEM WILL MOVE SLOWLY NORTH-NORTHWESTWARDS INITIALLY TILL MORNING OF 12TH SEPTEMBER AND THEREAFTER, IT IS LIKELY TO BE UNDER THE INFLUENCE OF WESTERLY TROUGH AT 400 HPA LEVEL OVER THE REGION. IT WOULD ALSO INHIBIT ITS FURTHER NORTHWESTWARDS MOVEMENT AND RECURVE NORTH-NORTHEASTWARDS. MOST OF THE MODELS ARE INDICATING THAT THE SYSTEM WILL MAINTAIN ITS INTENSITY FOR NEXT 2 HOURS AND WEAKEN AROUND 14TH EVENING

IN VIEW OF ALL THE ABOVE, IT IS LIKELY TO MOVE SLOWLY NORTH-NORTHEASTWARDS DURING NEXT 24 HRS.

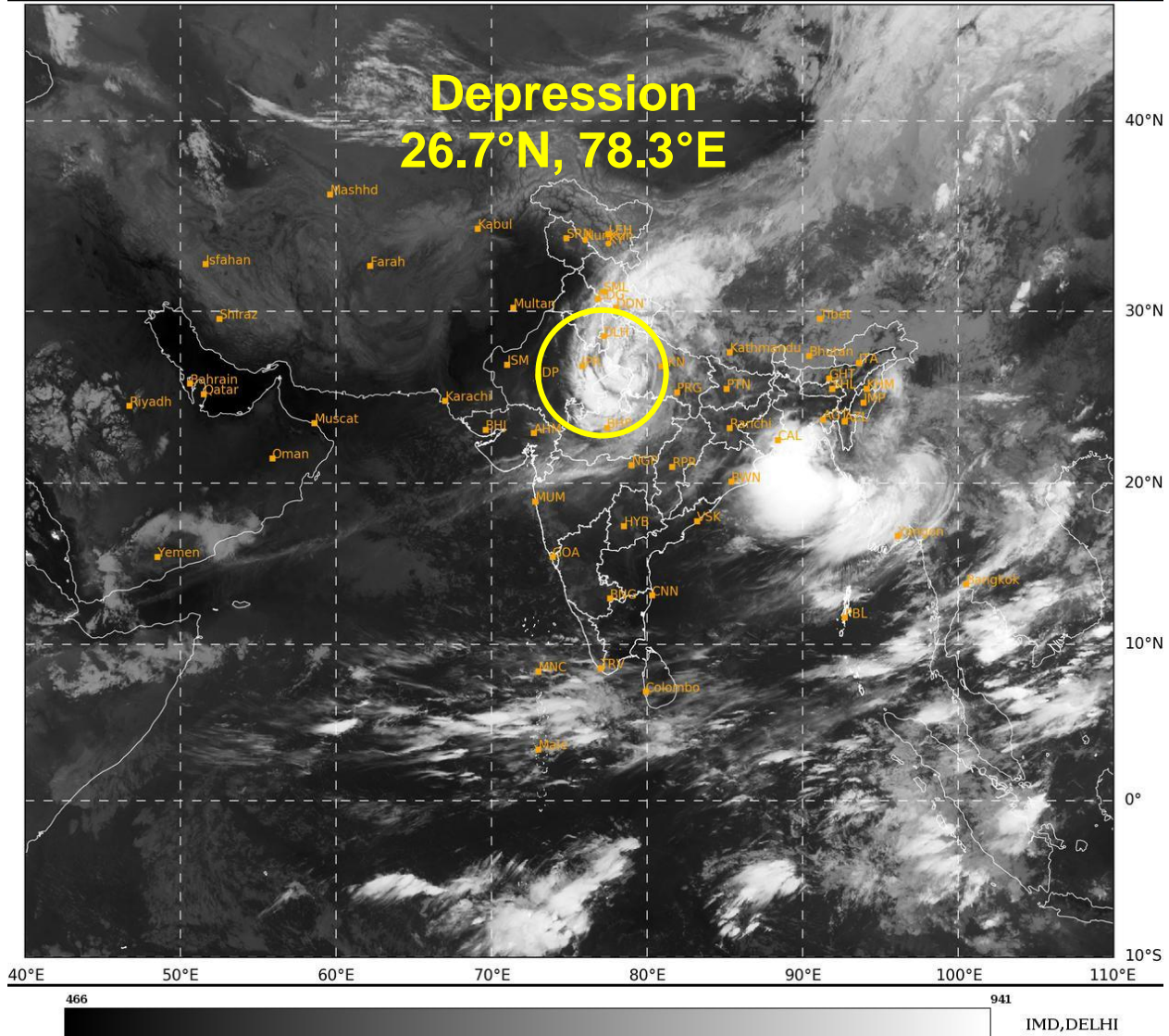
NEXT UPDATE IN ASSOCIATION WITH THIS SYSTEM WILL BE ISSUED AT 0600 UTC OF TODAY, THE 12TH SEPTEMBER.

(SHASHI KANT)

SC.-D, RSMC NEW DELHI

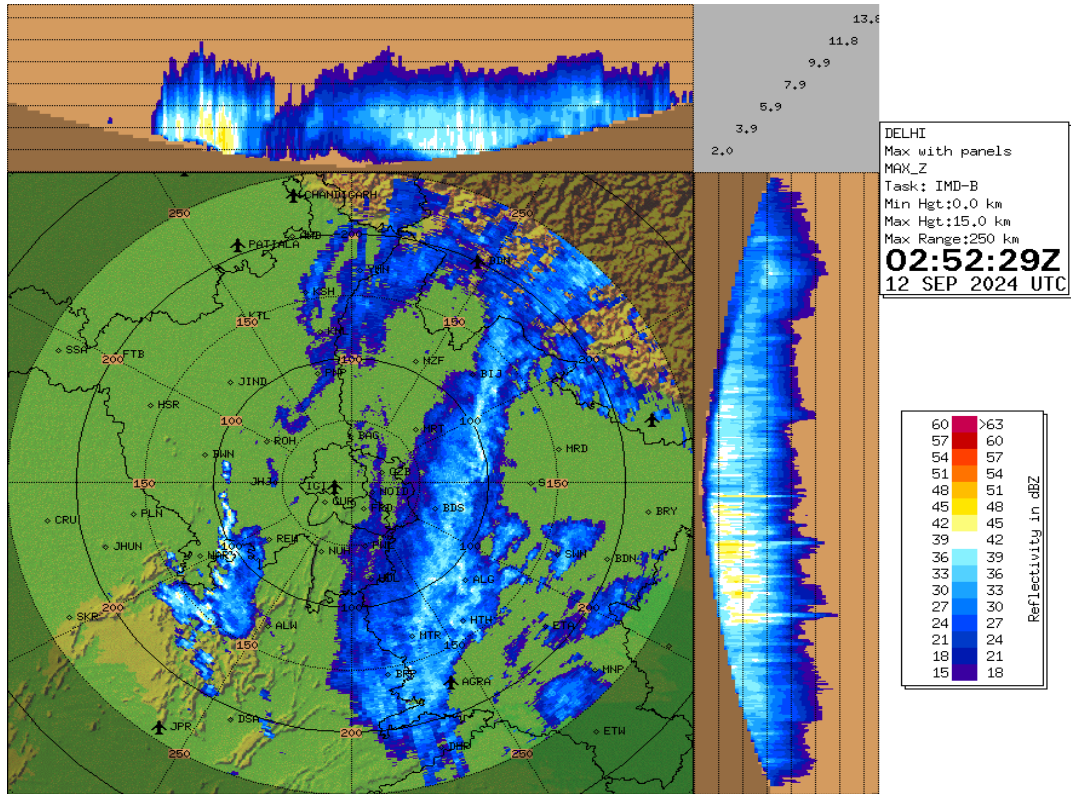
SAT : INSAT-3DR IMG
IMG_TIR1 10.8 um
L1C Mercator

12-09-2024/(0215 to 0242) GMT
12-09-2024/(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%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins

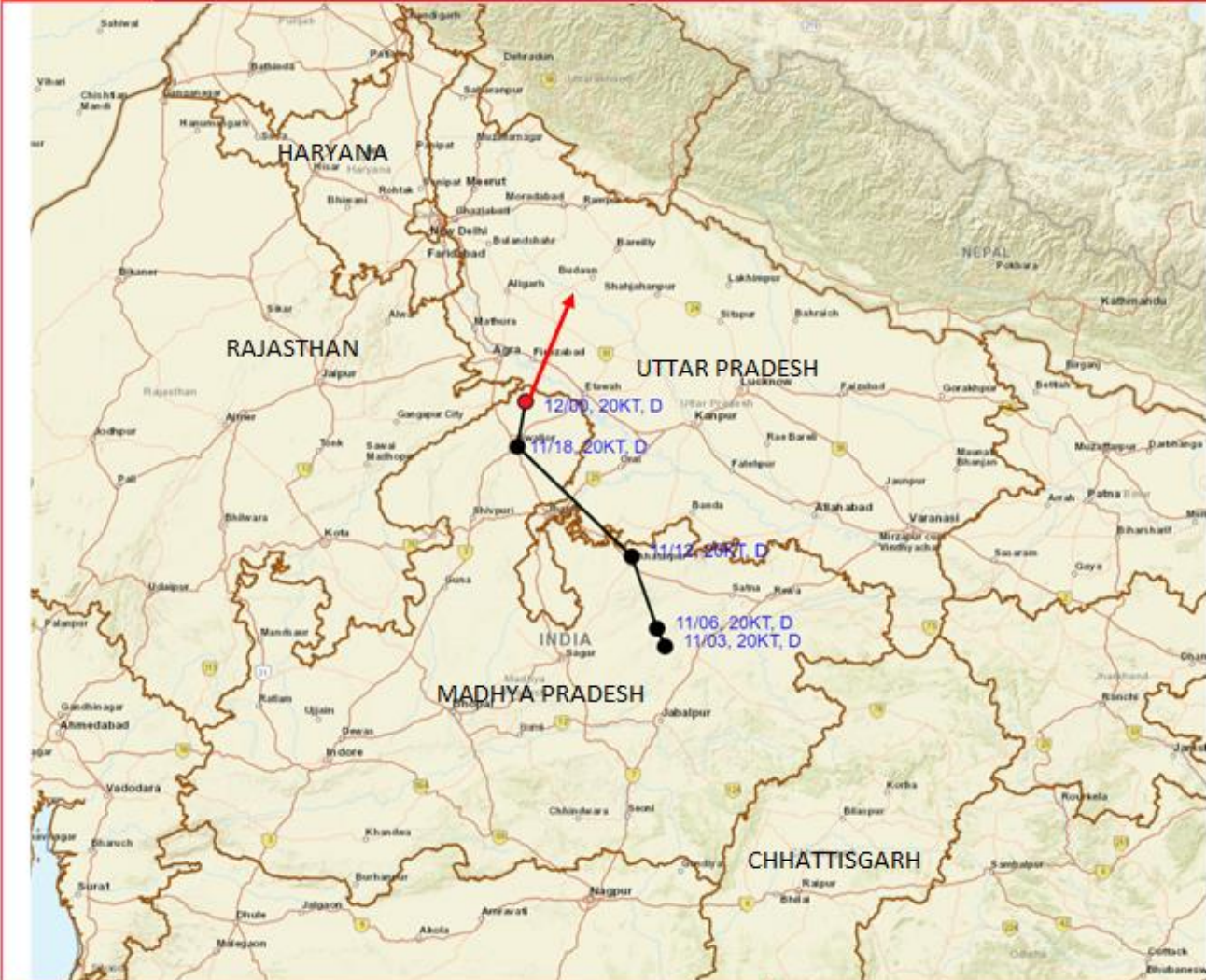
Doppler Weather Radar at Delhi



Doppler Weather Radar at Lucknow



OBSERVED AND FORECAST TRACK OF DEPRESSION OVER NORTHWEST MADHYA PRADESH AND NEIGHBOURHOOD BASED ON 0000 UTC (0530 IST) OF 12TH SEPTEMBER, 2024.

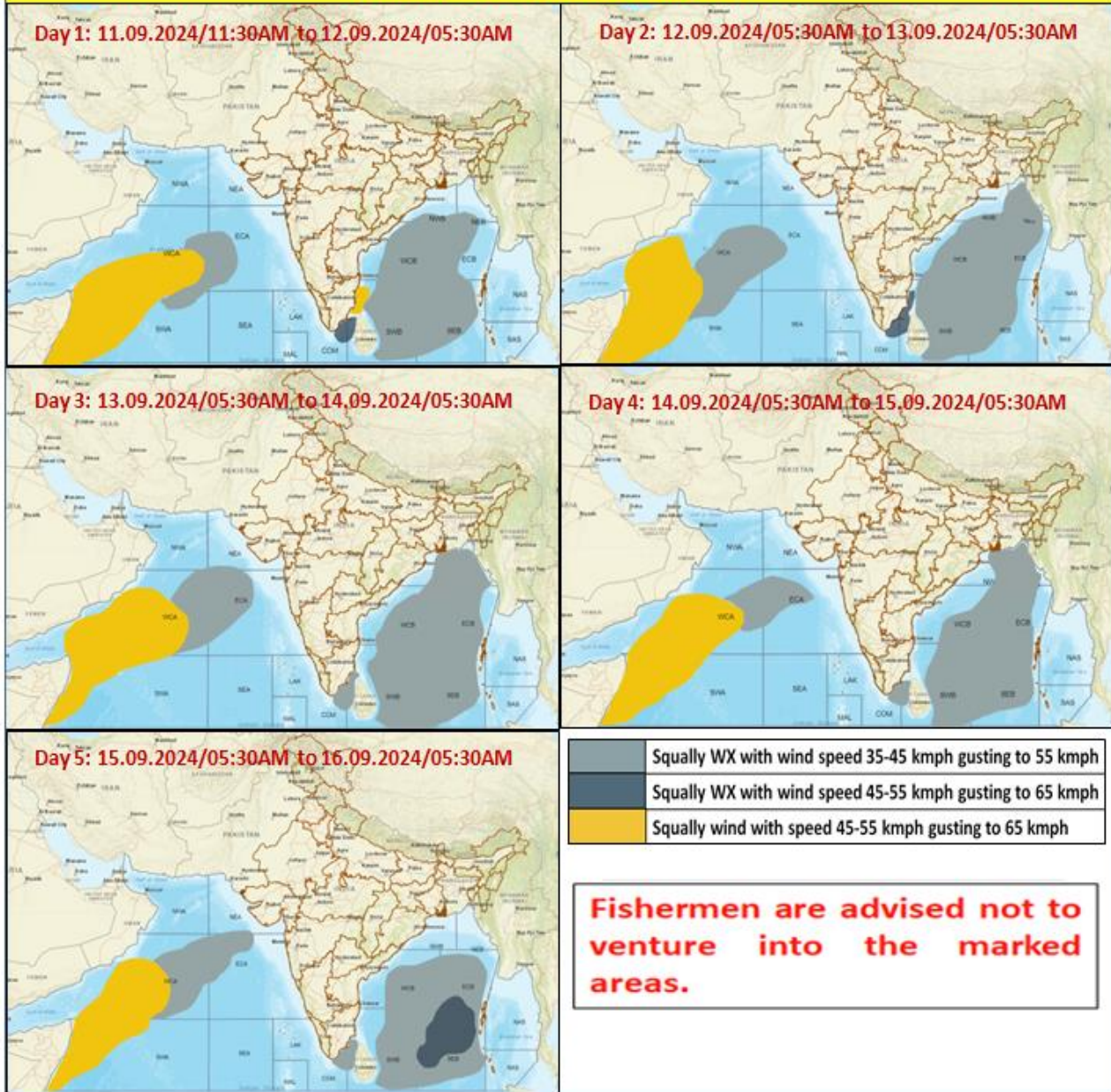


DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM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



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