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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 17.09.2024

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 168 HOURS ISSUED AT 1500 UTC OF 17.09.2024 BASED ON 1200 UTC OF 17.09.2024.

SUB: DEPRESSION OVER NORTHEAST MADHYA PRADESH

THE DEPRESSION OVER NORTH CHHATTISGARH AND ADJOINING NORTHEAST MADHYA PRADESH MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 25 KMPH DURING PAST 6 HOURS AND LAY CENTERED AT 1200 UTC OF TODAY, THE 17TH SEPTEMBER 2024, OVER NORTHEAST MADHYA PRADESH NEAR LATITUDE 24.0° N AND LONGITUDE 81.3° E, 70 KM SOUTHWEST OF SATNA (42571, MADHYA PRADESH), 180 KM SOUTHEAST OF KHAJURAO (42567, MADHYA PRADESH), 70 KM SOUTHWEST OF SIDHI (42577, MADHYA PRADESH).

IT IS LIKELY TO MOVE NEARLY WEST-NORTHWESTWARDS ACROSS NORTHEAST MADHYA PRADESH AND WEAKEN INTO A WELL-MARKED LOW PRESSURE AREA DURING NEXT 12 HOURS.

AT 1200 UTC, AS PER INSAT 3DR IMAGERY, ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WEST BIHAR, UTTAR PRADESH, EAST MADHYA PRADESH, SOUTH JHARKHAND, NORTH CHHATTISGARH, NORTH ODISHA, (MINIMUM CLOUD TOP TEMPERATURE MINUS 70-90 DEG CELSIUS) AND MODERATE TO INTENSE CONVETION LAY OVER EAST GANGETIC WEST BENGAL & SUBHIMALAYAN WEST BENGAL AND BANGLADESH. (MINIMUM CLOUD TOP TEMPERATURE MINUS 50-70 DEG CELSIUS).

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IN ASSOCIATION WITH THE SYSTEM IS 20 KT GUSTING TO 30 KT. ESTIMATED CENTRAL PRESSURE IS 996 HPA.

AT 1200 UTC, SATNA REPORTED LOWEST MEAN SEA LEVEL PRESSURE (MSLP) OF 996.0 HPA, AND MAXIMUM WIND SPEED (MSW) OF 50°/06KT. KHAJURAO REPORTED MSLP OF 998.9 HPA AND MSW 20°/12KT. ALAHABAD REPORTED MSLP OF 999.2 HPA, MSW OF 90°/08KT. JABALPUR REPORTED MSLP OF 999.9 HPA, MSW OF 320°/03KT.

REMARKS:

MADDEN JULIAN OSCILLATION (MJO) INDEX HAS ENTERED PHASE 6 (UNFAVOURABLE). THE NCICS BASED FORECAST INDICATES PERSISTENCE OF WESTERLY WINDS (3-5 MPS) OVER CENTRAL PARTS OF INDIA WITH EASTERLY WINDS (3-5 MPS) OVER NORTHEASTERN PARTS OF INDIA. OTHER EQUATORIAL WAVES HAVE MOVED AWAY. THE LOW LEVEL CONVERGENCE IS AROUND $20X10^{-5}$ S^{-1} SOUTHEAST OF THE SYSTEM AREA. UPPER LEVEL DIVERGENCE IS AROUND $20X10^{-5}$ S^{-1} OVER SYSTEM AREA. THE WIND SHEAR IS MODERATE (10-15 KT) OVER SYSTEM AREA AND ALONG THE FORECAST TRACK. VORTICITY AT 850 HPA LEVEL HAS FURTHER DECREASED & IS AROUND $120X10^{-5}$ S^{-1} TO THE SOUTH OF SYSTEM CENTRE. THE VORTICITY AT UPPER LEVELS HAS ALSO DECREASED. DEPTH OF CONVECTION HAS ALSO DECREASED. ENVIRONMENTAL FEATURES ARE INDICATING GRADUAL WEAKENING OF SYSTEM.

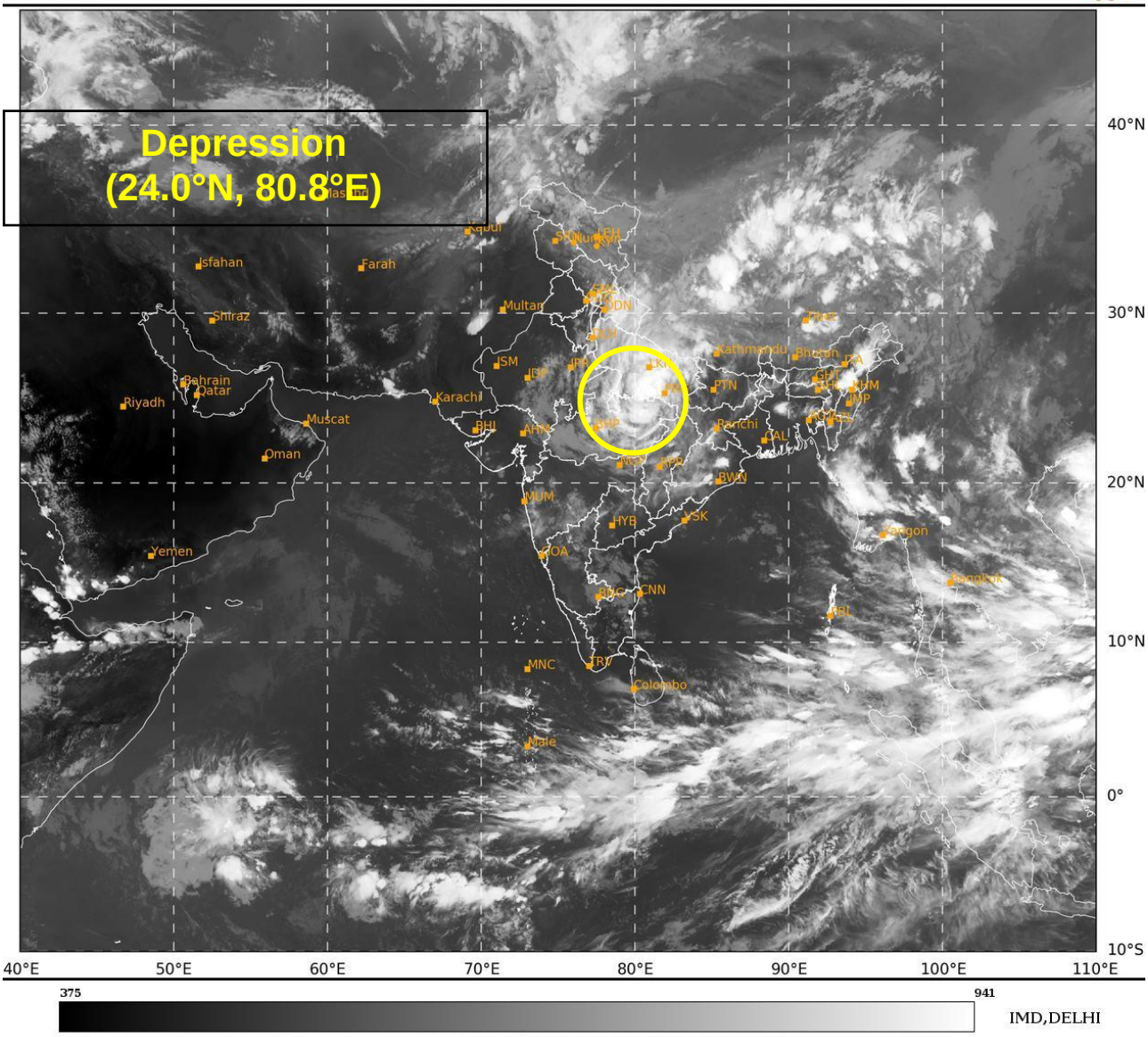
IMD MME IS INDICATING GRADUAL WEST-NORTHWESTWARDS MOVEMENT ACROSS NORTHEAST MADHYA PRADESH AND GRADUAL WEAKENING INTO A WELL MARKED LOW PRESSURE AREA AROUND 1800 UTC OF 17^{TH} SEPTEMBER OVER NORTHWEST MADHYA PRADESH.

IN VIEW OF ALL THE ABOVE, THE DEPRESSION OVER NORTHEAST MADHYA PRADESH IS LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS ACROSS NORTHEAST MADHYA PRADESH AND WEAKEN INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 12 HOURS.

DR. AMIT BHARDWAJ
SC.-C, RSMC NEW DELHI

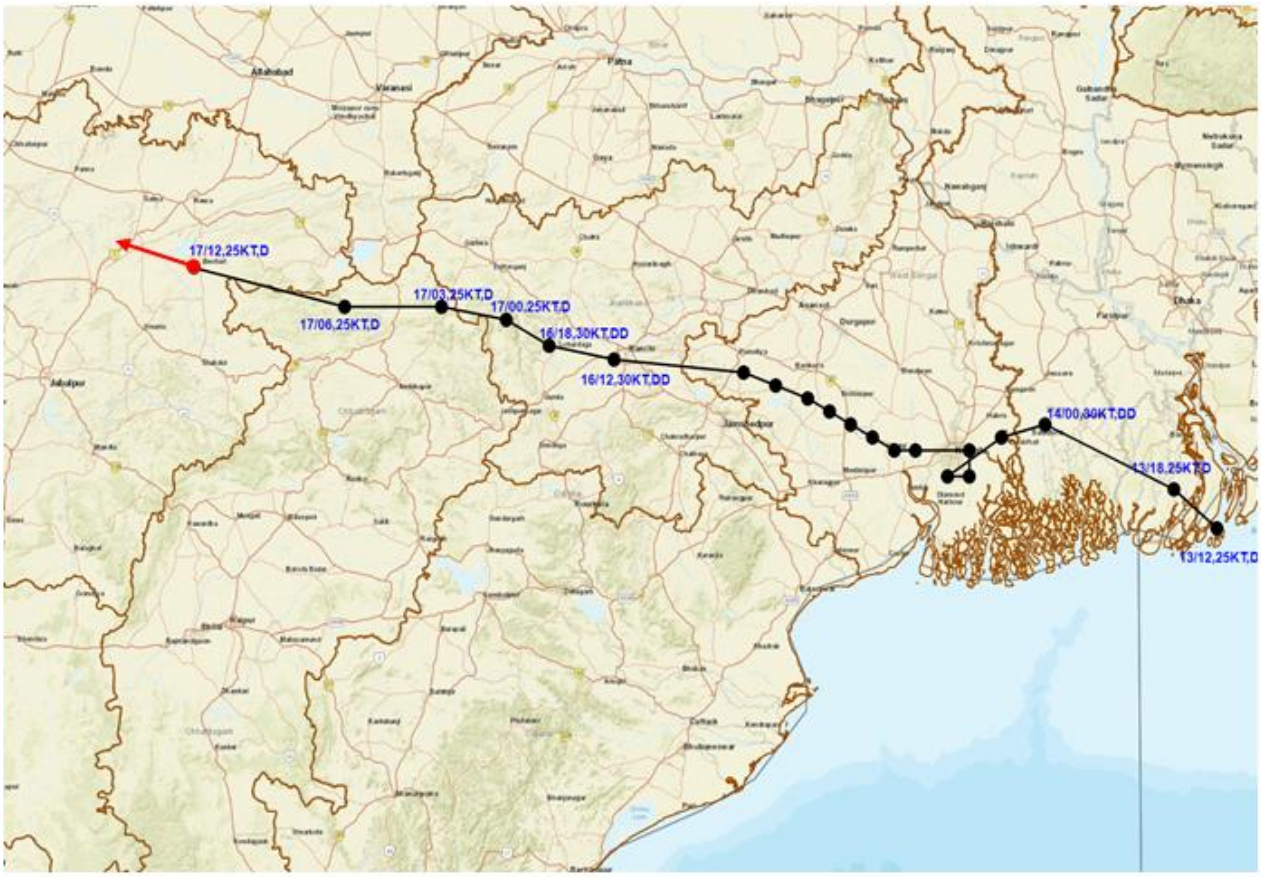
SAT : INSAT-3DR IMG
IMG_TIR1 10.8 um
L1C Mercator

17-09-2024/(1315 to 1342) GMT
17-09-2024/(1845 to 1912) 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

OBSERVED AND FORECAST TRACK OF DEPRESSION OVER NORTHEAST MADHYA PRADESH BASED ON 1200 UTC (1730 IST) OF 17TH 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

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