REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

TROPICAL WEATHER OUTLOOK

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 25.07.2023

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 168 HOURS ISSUED AT 0600 UTC OF 25.07.2023 BASED ON 0300 UTC OF 25.07.2023.

BAY OF BENGAL:

YESTERDAY'S CYCLONIC CIRCULATION OVER WESTCENTRAL AND ADJOINING NORTHWEST BAY OF BENGAL OFF NORTH ANDHRA PRADESH-SOUTH ODISHA COASTS LAY AS A LOW PRESSURE AREA OVER THE SAME REGION IN THE EVENING (1200 UTC) OF 24TH JULY. IT LAY AS A WELL MARKED LOW PRESSURE AREA AT 0000 UTC AND PERSISTED OVER THE SAME REGION AT 0300 UTC OF TODAY, THE 25TH JULY, 2023. AT THE SYSTEM IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER THE SAME REGION DURING NEXT 24 HOURS. SUBSEQUENTLY, IT IS LIKELY TO MOVE SLOWLY NORTHWESTWARDS ACROSS NORTH ANDHRA PRADESH-SOUTH ODISHA COASTS.

AS PER INSAT 3D IMAGERY, INTENSITY OF THE SYSTEM IS T1.0. BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL BAY OF BENGAL. MINIMUM CLOUD TOP TEMPERATURE (CTT) IS MINUS 93 DEG CEL.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 10-15 KNOTS GUSTING TO 20 KNOTS. ESTIMATED CENTRAL PRESSURE IS 998 HPA. SEA CONDITION IS LIKELY TO BE ROUGH OVER WESTCENTRAL BOB AND ADJOINING AREAS OF NORTH, EASTCENTRAL AND SOUTH BOB.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER CENTRAL & SOUTH BAY OF BENGAL AND ANDAMAN SEA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER NORTHEAST BAY OF BENGAL, ARAKAN COAST, GULF OF MARTABAN, TENASERIM COAST AND ISLOATED WEAK TO MODERATE CONVECTION LAY OVER NORTHWEST BAY OF BENGAL.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 168 HRS:

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS	120-144 HOURS	144-168 HOURS
HIGH	HIGH	LOW	NIL	NIL	NIL	NIL

ARABIAN SEA:

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTHWEST ARABIAN SEA AND MODERATE TO INTENSE CONVECTION LAY OVER EAST ARABIAN SEA, GULF OF CAMBAY, LAKSHADWEEP ISLAND

AREA, COMORIN AREA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED WEAK TO MODERATE CONVECTION LAY OVER WESTCENTRAL & SOUTHWEST ARABIAN SEA.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 168 HRS:

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS	120-144 HOURS	144-168 HOURS
NIL	NIL	NIL	NIL	NIL	NIL	NIL

REMARKS:

MADDEN JULIAN OSCILLATION IS IN PHASE 6 WITH AMPLITUDE LESS THAN 1 AND WOULD CONTINUE IN SAME PHASE DURING NEXT 3-4 DAYS. TOTAL PRECIPITABLE WATER IMAGERY INDICATES WARM MOIST AIR INCURSION INTO THE CORE AND AROUND THE SYSTEM AREA. SEA SURFACE TEMPERATURE IS AROUND 29-30°C OVER WESTCENTRAL & ADJOINING NORTHWEST BOB. THE LOW LEVEL VORTICITY IS $150X10^{-6}S^{-1}$ OVER WESTCENTRAL BOB TO THE SOUTH OF SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE IS ABOUT $20X10^{-5}S^{-1}$ OVER WESTCENTRAL BOB TO THE SOUTHWEST OF THE SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS $30X10^{-5}$ S^{-1} TO THE SOUTHWEST OF SYSTEM CENTRE. VERTICAL WIND SHEAR IS MODERATE TO HIGH (15-25 KNOTS) OVER THE SYSTEM AREA. SHEAR TENDENCY IS NEGATIVE TOWARDS NORTH-NORTHEAST OF SYSTEM CENTRE. ALL THESE FEATURES INDICATE GRADUAL INTENSIFICATION OF THE SYSTEM INTO A DEPRESSION.

VARIOUS DETERMINISTIC MODELS INCLUDING ECMWF, IMD GFS, NCUM, NEPS AND GEFS ARE INDICATING A WELL MARKED LOW PRESSURE AREA (WML)/ LOW PRESSURE AREA (LPA) OVER WESTECENTRAL & ADJOINING NORTHWEST BOB OFF NORTH ANDHRA PRADESH AND SOUTH ODISHA COASTS AT 0000 UTC OF TODAY, THE 25TH JULY. MOST OF THE MODELS ARE INDICATING FURTHER INTENSIFICATION OF THE SYSTEM INTO A DEPRESSION OVER THE SAME REGION BY 26TH MORNING (0000 UTC). MODELS ARE FURTHER INDICATING GRADUAL NORTHWESTWARDS MOVEMENT ACROSS NORTH ANDHRA PRADESH AND SOUTH ODISHA COASTS TILL 27TH AND GRADUAL NORTHEASTWARDS MOVEMENT THEREAFTER.

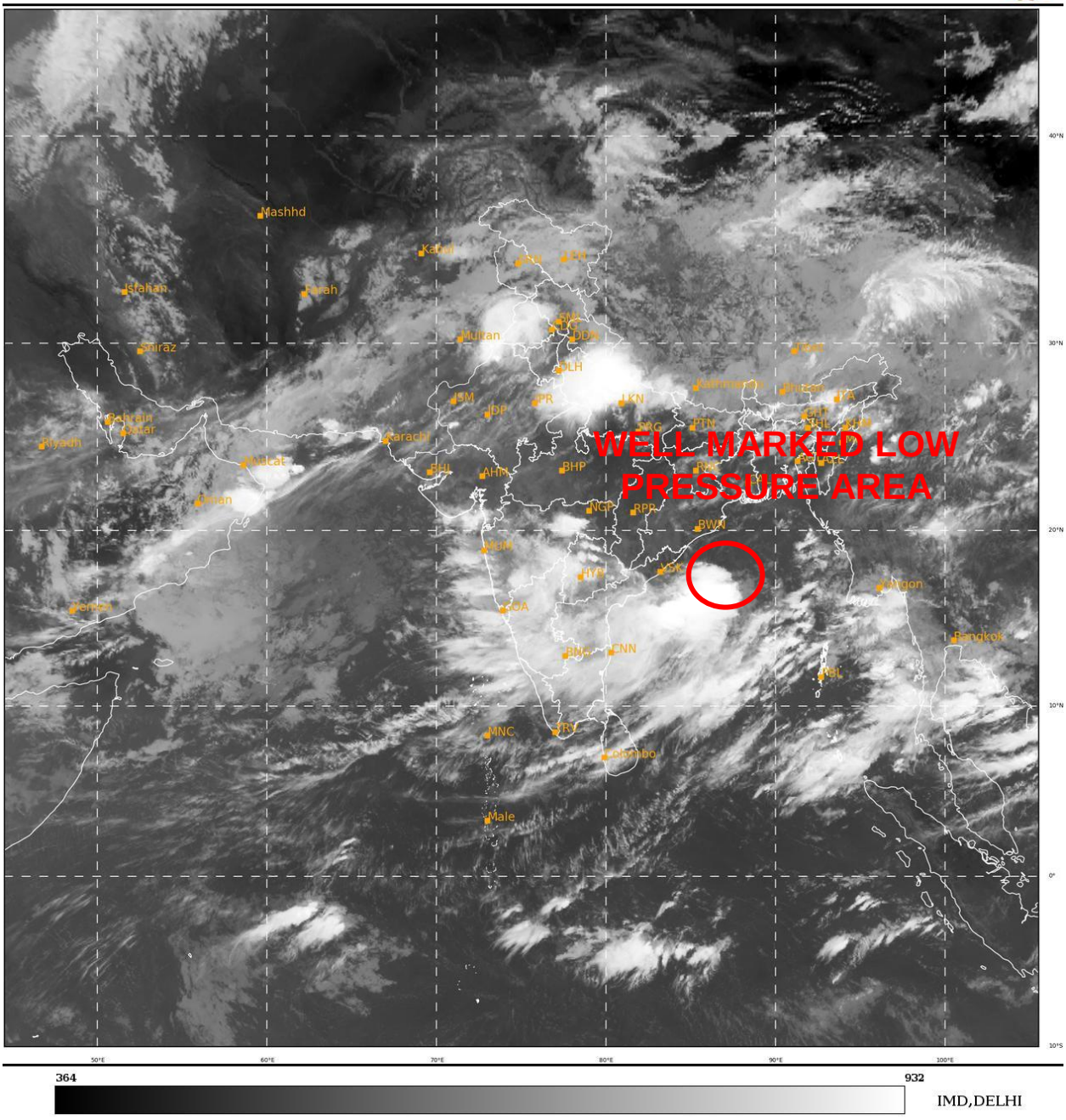
IN VIEW OF THE AVAILABLE MODEL GUIDANCE AND ENVIRONMENTAL FEATURES, IT IS INFERRED THAT THE WELL MARKED LOW PRESSURE AREA OVER WESTCENTRAL & ADJOINING NORTHWEST BOB OFF NORTH ANDHRA PRADESH-SOUTH ODISHA COASTS IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER THE SAME REGION DURING NEXT 24 HOURS. SUBSEQUENTLY, IT IS LIKELY TO MOVE SLOWLY NORTHWESTWARDS ACROSS NORTH ANDHRA PRADESH-SOUTH ODISHA COASTS.

Legends: IMD GFS: India Meteorological Department Global Forecast System, NCUM: National Centre for Medium Range Weather Forecasting Centre (NCMRWF) Unified Model, European Centre for Medium Range Weather Forecasting, GPP: Genesis Potential Parameter, National Centre for Environment Prediction GFS, ECMM: ECMWF multi model, GEFS: GFS ensemble, NEPS: NCUM ensemble prediction system, CNCUM: Coupled NCUM, CPC: Climate Prediction Center, NWS: National Weather Service)

(M. SHARMA)
SCIENTIST-D
RSMC NEW DELHI

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

25-07-2023/(0300 to 0326) GMT
25-07-2023/(0830 to 0856) IST



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IMD,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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