DEPRESSION OVER NORTHWEST BAY OF BENGAL OFF NORTH ODISHA - WEST BENGAL COASTS


AS PER THE SATELLITE IMAGERY OF 1800 UTC ON 06TH AUGUST, 2019, ASSOCIATED BROKEN LOW TO MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER NORTHBAY AND NEIGHBORHOOD.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH AROUND THE SYSTEM CENTER. THE ESTIMATED CENTRAL PRESSURE IS 990 HPA.

AT 1200 UTC OF 06TH AUGUST, A BOUY LOCATED AT 16.3°N/88.0°E REPORTED A MEAN SEA LEVEL PRESSURE OF 995.8 HPA AND MEAN SURFACE WIND SPEED OF 230°/30 KNOTS.

REMARKS:

THE MADDEN JULIAN OSCILLATION (MJO) INDEX LIES CURRENTLY IN PHASE 4 WITH AMPLITUDE MORE THAN 1. IT WILL CONTINUE IN SAME PHASE WITH AMPLITUDE GREATER THAN 1 FOR NEXT 4 DAYS. HENCE, MJO WILL BE FAVOURABLE FOR ENHANCEMENT OF CONVECTIVE ACTIVITY OVER BAY OF BENGAL. ALSO SOUTHWEST MONSOON IS IN IT’S ACTIVE PHASE WITH THE MONSOON TROUGH EXTENDING OVER THE NORTH BAY OF BENGAL AND STRONG CROSS EQUATORIAL FLOW PREVAILING OVER THE BAY OF BENGAL.

CONSIDERING THE ENVIRONMENTAL CONDITIONS, THE SEA SURFACE TEMPERATURE (SST) IS 28-30°C OVER NORTHWEST AND ADJOINING WESTCENTRAL BOB. THE TROPICAL CYCLONE HEAT POTENTIAL IS AROUND 80-90 KJ/CM² OVER THE SYSTEM AREA.

THE LOWER LEVEL POSITIVE VORTICITY IS ABOUT 150 X10⁸SEC⁻¹. THE LOW LEVEL CONVERGENCE IS 30 X10⁸SEC⁻¹ TO THE SOUTHWEST OF THE SYSTEM. THE UPPER LEVEL DIVERGENCE IS ABOUT 20 X10⁸ SEC⁻¹ TO THE SOUTH OF THE SYSTEM. VERTICAL WIND SHEAR IS LOW (5-10 KNOTS) AROUND THE SYSTEM CENTRE. THE CYCLONIC CIRCULATION ASSOCIATED WITH THE SYSTEM IS EXTENDING UPTO 7.6 KM ABOVE MEAN SEA LEVEL AND TILTS SOUTHWESTWARDS WITH HEIGHT. STRONG EASTERLY WINDS IN THE UPPER TRPOSHERIC
LEVELS AND THE MONSOON TROUGH EXTENDING ACROSS THE PLAINS OF NORTH INDIA ARE LIKELY TO STEER THE SYSTEM IN A NEARLY WESTWARD DIRECTION DURING NEXT 3-4 DAYS.

MOST OF THE NUMERICAL MODELS INCLUDING ECMWF, IMD GLOBAL FORECAST SYSTEM (GFS), AND NCEP GFS, SUGGEST FURTHER INTENSIFICATION OF THE SYSTEM INTO A DEEP DEPRESSION DURING NEXT 12 HOURS. THESE MODELS ALSO INDICATE WEST NORTHWESTWARD MOVEMENT OF THE SYSTEM ACROSS ODISHA-WEST BENGAL COASTS DURING NEXT 2 DAYS. HOWEVER, THERE IS SOME VARIATION IN THE TRANSLATIONAL SPEED OF THE SYSTEM ACROSS CENTRAL INDIA DURING THE SUBSEQUENT DAYS.

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PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)
NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%
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