



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

**DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 25.04.2019**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 25.04.2019 BASED ON 0300 UTC OF 25.04.2019.**

**BAY OF BENGAL:**

A LOW PRESSURE AREA FORMED OVER EAST EQUATORIAL INDIAN OCEAN (EIO) AND ADJOINING SOUTHEAST BAY OF BENGAL (BOB) AT 0000 UTC OF TODAY, THE 25<sup>TH</sup> APRIL 2019. IT BECAME A WELL MARKED LOW PRESSURE AREA OVER THE SAME REGION AT 0300 UTC.

IT IS VERY LIKELY TO INTENSIFY INTO A DEPRESSION DURING NEXT 24 HOURS AND INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HRS. IT IS VERY LIKELY TO MOVE NORTHWESTWARDS ALONG AND OFF EAST COAST OF SRI LANKA AND REACH NEAR NORTH TAMIL NADU COAST ON 30<sup>TH</sup> APRIL 2019.

AS PER SATELLITE IMAGERY, THE CONVECTION HAS ORGANISED DURING PAST 24 HRS AND THE VORTEX HAS THE INTENSITY OF T 1.0 WITH CENTRE NEAR LAT. 2.0 DEG. N AND LONG. 90.5 DEG.E. SCATTERED LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH BAY OF BENGAL AND TO THE SOUTH OF LATITUDE 10.5<sup>0</sup>N.

**PROBABILITY OF CYCLOGENESIS DURING NEXT 120 HRS:**

0-24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS
HIGH	HIGH	HIGH	HIGH	HIGH

**ARABIAN SEA:**

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER SOUTHEAST ARABIAN SEA OFF KERALA COAST AND GULF OF MANNAR.

**PROBABILITY OF CYCLOGENESIS DURING NEXT 120 HRS:**

0-24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS
NIL	NIL	NIL	NIL	NIL

**REMARKS:**

MANY NUMERICAL MODELS INCLUDING ECMWF, GLOBAL ENSEMBLE FORECAST SYSTEM (GEFS), IMD GFS AND NCEP GFS SUGGEST FORMATION OF LOW PRESSURE AREA AROUND 25<sup>TH</sup> OVER EQUATORIAL INDIAN OCEAN AND ADJOINING SOUTHEAST BOB. THESE MODELS ARE ALSO SUGGESTING FURTHER INTENSIFICATION OF THE SYSTEM INTO CYCLONIC STORM BY 27<sup>TH</sup> APRIL. ALL THESE MODELS ARE INDICATING NORTHWESTWARDS MOVEMENT AND THE SYSTEM TO REACH NORTH TAMIL NADU COAST ON 30<sup>TH</sup>. THEREAFTER IT IS LIKELY TO RECURVE NORTHEASTWARDS

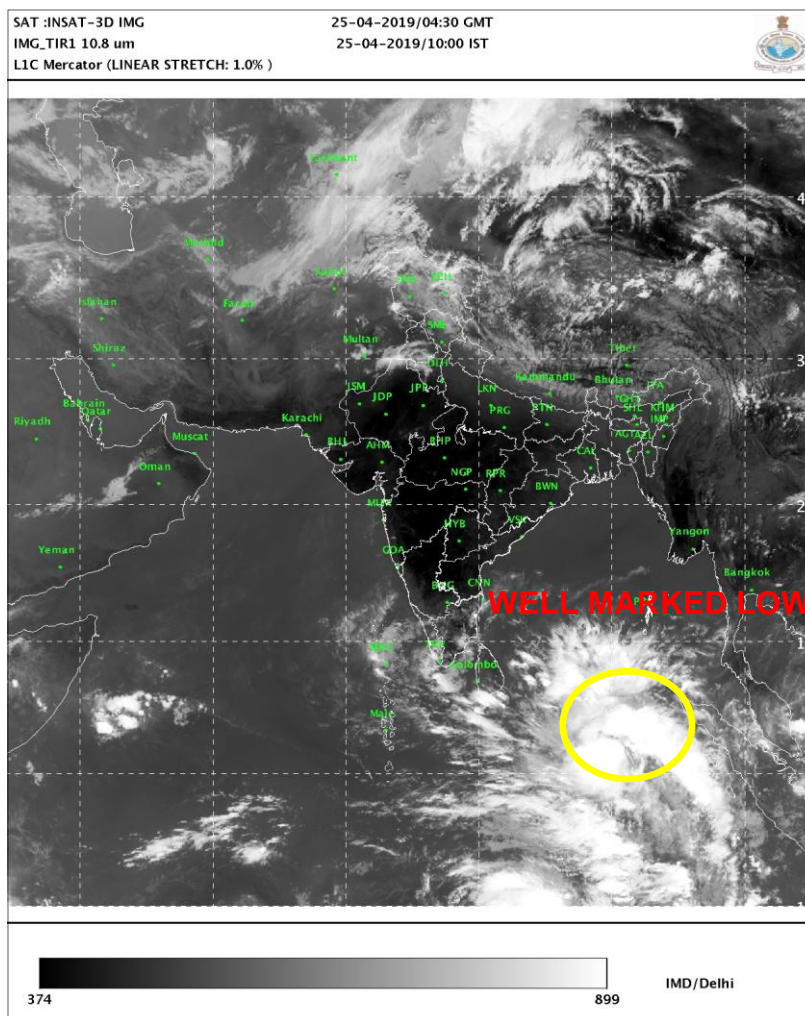
THE MADDEN JULIAN OSCILLATION (MJO) INDEX IS CURRENTLY IN PHASE 3 WITH AMPLITUDE MORE THAN 1. IT WILL CONTINUE IN SAME PHASE WITH AMPLITUDE MORE THAN 1 FOR NEXT 2 DAYS. THEREAFTER, IT WILL MOVE TO PHASE 4 WITH AMPLITUDE

**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)**

**NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%**

MORE THAN 1 FOR THE SUBSEQUENT 3 DAYS. HENCE, MJO PHASE WILL BE FAVOURABLE FOR ENHANCEMENT OF CONVECTION & CYCLOGENESIS OVER BAY OF BENGAL REGION. CONSIDERING THE ENVIRONMENTAL CONDITIONS, THE SEA SURFACE TEMPERATURE (SST) IS ABOUT 30°C OVER THE SYSTEM REGION. THE TROPICAL CYCLONE HEAT POTENTIAL IS AROUND 70-80 KJ/CM<sup>2</sup> OVER THE ABOVE REGION. THE LOWER LEVEL POSITIVE VORTICITY IS ABOUT 120 X10<sup>-6</sup>SEC<sup>-1</sup> WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. THE LOW LEVEL CONVERGENCE IS AROUND 30 X10<sup>-5</sup>SEC<sup>-1</sup> UPPER LEVEL DIVERGENCE IS ABOUT 40 X10<sup>-5</sup>SEC<sup>-1</sup>. VERTICAL WIND SHEAR IS HIGH AROUND THE SYSTEM. THE UPPER TROPOSPHERIC RIDGE LIES NEAR 10<sup>0</sup>N.

CONSIDERING ALL THE ABOVE, THE WELL MARKED LOW PRESSURE AREA IS VERY LIKELY TO INTENSIFY INTO A DEPRESSION DURING NEXT 24 HOURS AND INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HRS. IT IS VERY LIKELY TO MOVE NORTHWESTWARDS ALONG AND OFF EAST COAST OF SRI LANKA AND REACH NEAR NORTH TAMIL NADU COAST ON 30<sup>TH</sup> APRIL 2019.



**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)**

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