



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

**DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 20.10.2022**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 20.10.2022 BASED ON 0300 UTC OF 20.10.2022.**

**BAY OF BENGAL:**

YESTERDAY'S CYCLONIC CIRCULATION OVER NORTH ANDAMAN SEA AND NEIGHBOURHOOD PERSISTED OVER THE SAME REGION AT 0300 UTC OF TODAY, THE 20TH OCTOBER 2022. UNDER THE INFLUENCE OF A CYCLONIC CIRCULATION OVER NORTH ANDAMAN SEA & NEIGHBOURHOOD, A LOW PRESSURE AREA FORMED OVER NORTH ANDAMAN SEA AND ADJOINING AREAS OF SOUTH ANDAMAN SEA & SOUTHEAST BAY OF BENGAL IN THE MORNING (0000 UTC) AND IT PERSISTED OVER THE SAME REGION AT 0300 UTC OF TODAY, THE 20<sup>TH</sup> OCTOBER, 2022. IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST BAY OF BENGAL AROUND 22<sup>ND</sup> OCTOBER AND INTO A DEEP DEPRESSION ON 23<sup>RD</sup> OCTOBER. SUBSEQUENTLY, IT IS VERY LIKELY TO RECURVE NORTHWARDS AND INTENSIFY INTO A CYCLONIC STORM OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL BY 24<sup>TH</sup> OCTOBER. THEREAFTER, IT IS LIKELY TO MOVE GRADUALLY NORTH-NORTHEASTWARDS AND REACH WEST BENGAL-BANGLADESH COASTS ON 25<sup>TH</sup> OCTOBER, SKIRTING ODISHA COAST.

IN ASSOCIATION WITH THE SYSTEM ABOVE, SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER ANDAMAN SEA AND NEIGHBOURHOOD. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEGREE CELSIUS.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH BAY OF BENGAL OF BENGAL AND ANDAMAN SEA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER NORTH AND WESTCENTRAL BAY OF BENGAL OF BENGAL. SCATTERED LOW AND MEDIUM CLOUDS WITH ISOLATED WEAK TO MODERATE CONVECTION LAY OVER EASTCENTRAL BAY OF BENGAL OF BENGAL.

**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 120 HRS:**

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS
NIL	LOW	MODERATE	HIGH	HIGH

**ARABIAN SEA:**

YESTERDAY'S CYCLONIC CIRCULATION OVER SOUTHWEST ARABIAN SEA & NEIGHBOURHOOD BECAME LESS MARKED.

A CYCLONIC CIRCULATION LAY OVER EASTCENTRAL ARABIAN SEA AT 0300 UTC OF TODAY, THE 20TH OCTOBER, 2022.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER CENTRAL & SOUTH ARABIAN SEA AND LAKSHADWEEP ISLANDS AREA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATEERATE TO INTENSE CONVECTION LAY OVER COMORIN AREA.

**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 120 HRS:**

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

**Remarks:**

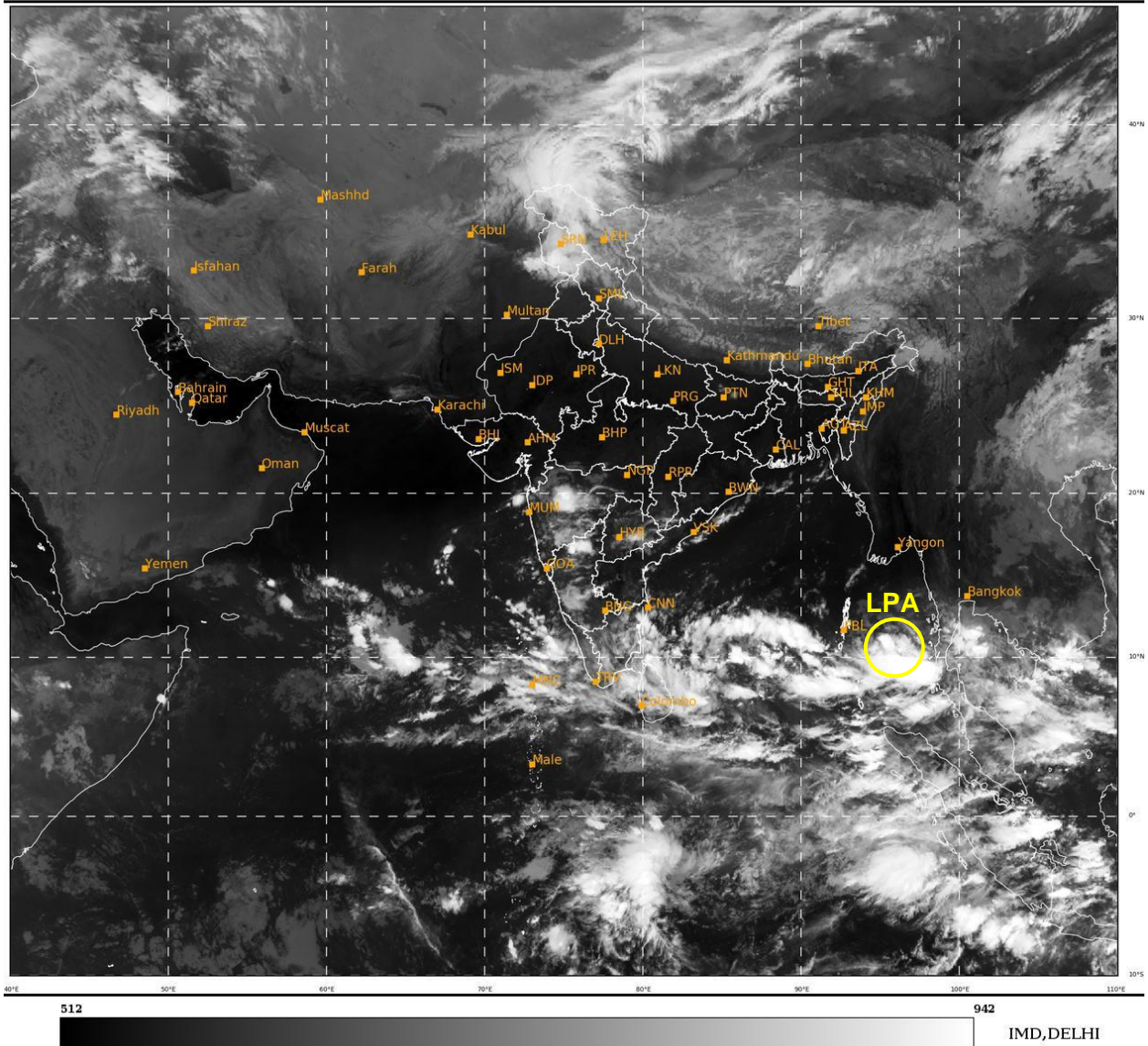
THE MADDEN JULIAN OSCILLATION INDEX (MJO) CURRENTLY LIES IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. IT WOULD CONTINUE IN SAME PHASE DURING NEXT 5 DAYS WITH GRADUALLY INCREASING AMPLITUDE. HENCE MJO IS NOT SUPPORTIVE FOR ENHANCEMENT OF CONVECTIVE AVTIVITY OVER THE BAY OF BENGAL.

SEA SURFACE TEMPERATURE (SST) IS AROUND 29-31<sup>0</sup>C OVER ENTIRE BOB. THE OCEAN HEAT CONTENT (OHC) IS >100 KJ/CM<sup>2</sup> OVER ENTIRE ANDAMAN SEA, CENTRAL BOB AND SOUTH BOB AND 50-70 KJ/CM<sup>2</sup> OVER WESTERN PARTS OF BOB.

LOW LEVEL VORTICITY HAS INCREASED DURING PAST 24 HOURS AND IS AROUND 100 X10<sup>-6</sup> S<sup>-1</sup> TO THE SOUTHWEST OF SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE IS AROUND 10 X10<sup>-5</sup> S<sup>-1</sup> TO THE WEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND 10 X10<sup>-5</sup> S<sup>-1</sup> OVER ANDAMAN SEA TO THE SOUTHWEST OF SYSTEM CENTRE. WIND SHEAR IS MODERATE (10-15 KNOTS) OVER ANDAMAN SEA. CURRENTLY, THE CYCLONIC CIRCULATION OVER ANDAMAN SEA IS IN A FAVOURABLE ENVIRONMENT.

MOST OF THE MODELS ARE INDICATING DEVELOPMENT OF DEVELOPMENT OF DEPRESSION BY 22<sup>ND</sup> OCTOBER (ECMWF ON 22<sup>ND</sup>, GFS ON 23<sup>RD</sup>, NCUM ON 22<sup>ND</sup>) OVER SOUTHEAST & ADJOINING EASTCENTRAL BOB. MODELS ARE FURTHER INDICATING INTENSIFICATION INTO A CYCLONIC STORM ON 24<sup>TH</sup> OVER WESTCENTRAL BOB. WRT CROSSING THE AREA IS VARYING BETWEEN WEST-BANNGLADESH COASTS WITH BOTH ECMWF & NCUM INDICATING CROSSING OVER WEST BENGAL- BNAGLADESH BORDER AND GFS INDICATING CROSSING SLIGHTLY WESTWARDS OVER WEST BENGAL COAST. THE LANDFALL TIME IS 25<sup>TH</sup>/0300-0600 UTC BASED ON GFS & ECMWF AND NCUM INDICATING EARLY LANDFALL AROUND 24<sup>TH</sup>/2100 UTC.

IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT THE LOW PRESSURE AREA OVER NORTH ANDAMAN SEA & NEIGHBOURHOOD IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST BAY OF BENGAL AROUND 22<sup>ND</sup> OCTOBER AND INTO A DEEP DEPRESSION ON 23<sup>RD</sup> OCTOBER. SUBSEQUENTLY, IT IS VERY LIKELY TO RECURVE NORTHWARDS AND INTENSIFY INTO A CYCLONIC STORM OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL BY 24<sup>TH</sup> OCTOBER. THEREAFTER, IT IS LIKELY TO MOVE GRADUALLY NORTH-NORTHEASTWARDS AND REACH WEST BENGAL-BANGLADESH COASTS ON 25<sup>TH</sup> OCTOBER, SKIRTING ODISHA COAST



LPA: LOW PRESSURE AREA