



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

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 30.11.2021**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 30.11.2021 BASED ON 0300 UTC OF 30.11.2021.**

**BAY OF BENGAL:**

A LOW PRESSURE LAY OVER SOUTH THAILAND & NEIGHBOURHOOD AT 0300 UTC OF TODAY, THE 30<sup>TH</sup> NOVEMBER 2021. IT IS LIKELY TO EMERGE INTO ANDAMAN SEA DURING NEXT 12 HOURS. THEREAFTER, IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER SOUTHEAST & ADJOINING EASTCENTRAL BAY OF BENGAL (BOB) BY 2<sup>ND</sup> DECEMBER AND INTENSIFY INTO A CYCLONIC STORM OVER CENTRAL PARTS OF THE BOB DURING SUBSEQUENT 24 HOURS. SUBSEQUENTLY, IT IS LIKELY TO MOVE NORTHWESTWARDS, INTENSIFY FURTHER AND REACH NORTH ANDHRA PRADESH – ODISHA COASTS AROUND 4<sup>TH</sup> DECEMBER MORNING.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH THAILAND, GULF OF THAILAND AND SOUTH ANDAMAN SEA. MINIMUM CLOUD TOP TEMPERATURE (CTT) IS MINUS 90 DEG C. ALSO SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER SOUTH PARTS OF CENTRAL & SOUTHEAST BAY OF BENGAL (BOB) AND NORTH ANDAMAN SEA. LATEST MULTISATELLITE WINDS INDICATE STRONGER WINDS IN THE NORTHWEST SECTOR AND IS ABOUT 15-20 KNOTS.

THE ESTIMATED CENTRAL PRESSURE IS ABOUT 1008 HPA. SEA CONDITION OVER ANDAMAN SEA IS MODERATE TO ROUGH.

**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	MODERATE	HIGH	HIGH	HIGH

**ARABIAN SEA:**

A CYCLONIC CIRCULATION LAY OVER SOUTHEAST ARABIAN SEA & ADJOINING LAKSHADWEEP AREAS EXTENDING UPTO 5.8 KM ABOVE MEAN SEA LEVEL. UNDER IT'S INFLUENCE, A LOW PRESSURE AREA IS LIKELY TO FORM OVER EASTCENTRAL ARABIAN SEA OFF MAHARASHTRA COAST BY 1ST DECEMBER 2021.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHEAST & EASTCENTRAL ARABIAN SEA. MINIMUM CTT IS MINUS 85 DEG C.

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

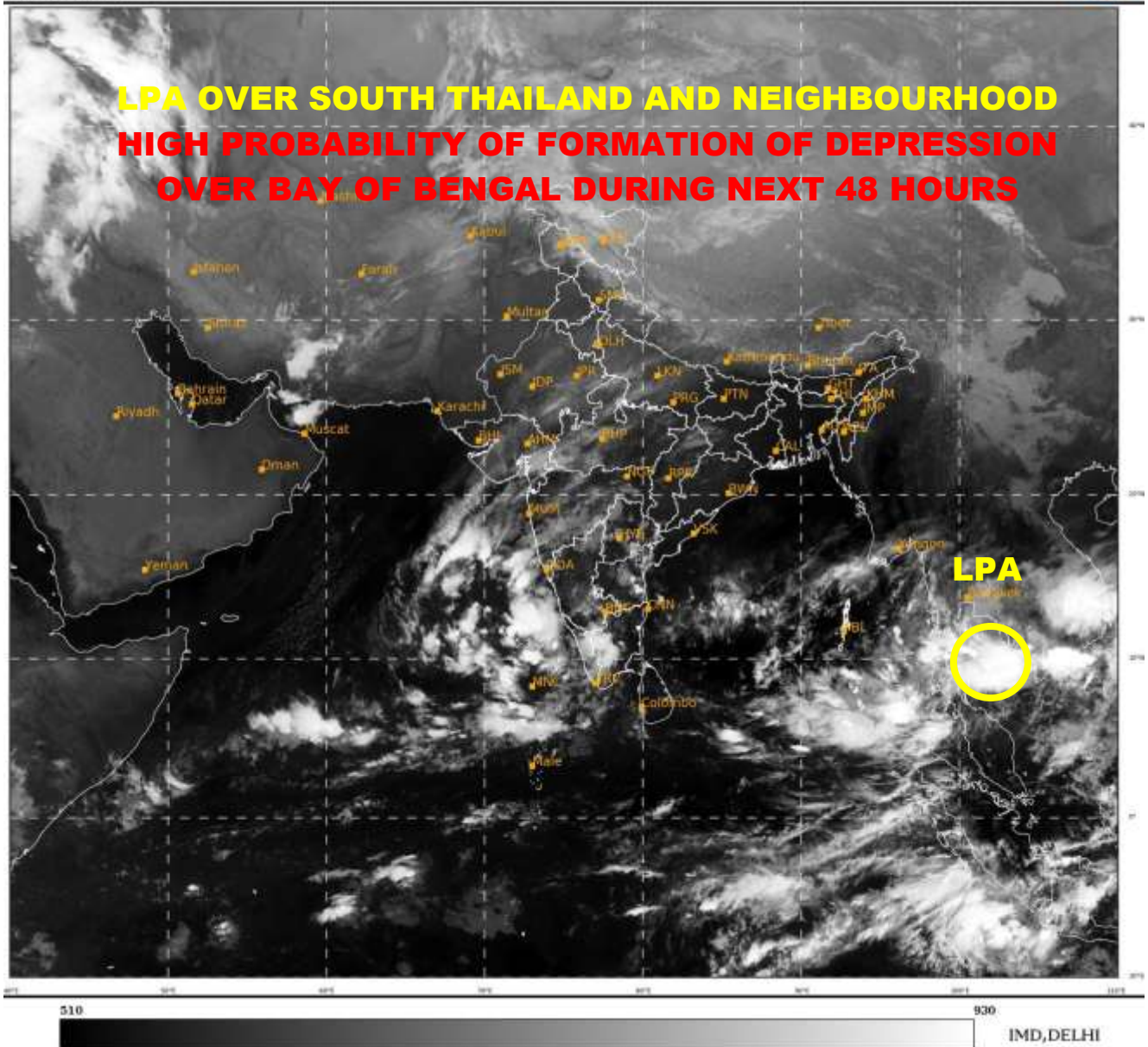
24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS
NIL	NIL	NIL	NIL	NIL

**REMARKS:**

THE SEA SURFACE TEMPERATURE IS 29-31°C OVER ENTIRE BOB. TROPICAL CYCLONE HEAT POTENTIAL IS 100-120 KJ/CM<sup>2</sup> OVER GULF OF THAILAND, SOUTH ANDAMAN SEA & ADJOINING EASTERN EQUATORIAL INDIAN OCEAN AND SOUTHEAST BAY OF BENGAL (BOB). IT IS 80-100 OVER MAJOR PARTS OF CENTRAL & NORTH BOB. DEPTH OF 26°C ISOTHERM IS 100-120 M OVER THE GULF OF THAILAND, ANDAMAN SEA AND ADJOINING EASTCENTRAL BOB. THE MADDEN JULIAN OSCILLATION INDEX IS CURRENTLY IN PHASE 5 WITH AMPLITUDE MORE THAN 1. IT WILL REMAIN IN SAME PHASE FOR NEXT 1 DAY WITH AMPLITUDE REMAINING MORE MORE THAN 1. THEREAFTER, IT WILL PROPAGATE EASTWARDS INTO PHASE 6 FROM 2<sup>ND</sup> DECEMBER ONWARDS. WIND SHEAR IS MODERTE 10-20 OVER GULF OF THAILAND, BECOMING HIGH OVER SOUTH ANDAMAN SEA. HOWEVER, IT IS BECOMING LOW TO MODERATE (05-15) OVER NORTH ANDAMAN SEA, CENTRAL BOB AND ADJOINING NORTH BOB. YESTERDAY'S TWO ZONES OF POSITIVE LOW LEVEL VORTICITY HAVE NOW MERGED AND ONE ZONE IS SEEN WITH VORTICITY 50x10<sup>-6</sup>S<sup>-1</sup> OVER GULF OF THAILAND TO THE WEST OF SYSTEM CENTRE. LOW LEVEL CONVERGENCE IS 20x10<sup>-6</sup>S<sup>-1</sup> OVER SOUTH THAILAND TO THE NORTHWEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS 20x10<sup>-5</sup>S<sup>-1</sup> OVER GULF OF THAILAND TO THE NORTHWEST OF SYSTEM CENTRE. UPPER TROPOSPHERIC RIDGE RUNS ALONG 15°N. A TROUGH IN WESTERLIES RUNS ALONG 18°N/58°E. THE EAST-SOUTHEASTERLY WINDS PREVAILING IN THE THE UPPER LEVELS WILL STEER THE SYSTEM WEST-NORTHWESTWARDS TILL 4<sup>TH</sup> DECEMBER MORNING. THEREAFTER, THE SYSTEM WILL BE STEERED NORTH-NORTHEASTWARDS UNDER THE INFLUENCE OF SOUTH-SOUTHWESTERLIES PREVAILING IN THE NORTHERN PERIPHERY OF RIDGE AND THE APPROACHING TROUGH IN WESTERLIES AT MIDDLE AND UPPER TROPOSPHERIC LEVELS..

MAJORITY OF THE MODELS (INCLUDING IMD GFS, GEFS, NCUM, NEPS) INDICATE EMERGENCE OF LOW PRESSURE AREA FROM GULF OF THAILAND INTO ANDAMAN SEA AROUND 1<sup>ST</sup> DECEMBER WITH INITIAL WEST-NORTHWESTWARD MOVEMENT AND INTENSIFICATION INTO DEPRESSION BY 2<sup>ND</sup> DECEMBER AND INTO A CYCLONIC STORM BY 3<sup>RD</sup> DECEMBER. THESES MODELS ARE ALSO INDICATING FURTHER INTENSIFICATION OF SYSTEM UPTO SEVERE CATEGORY. HOWEVER, ECMWF IS NOT INDICATING INTENSIFICATION UPTO CYCLONIC STORM STAGE. ALL MODELS ARE INDICATING NORTH-NORTHEASTWARDS RECURVATURE ALSO FROM 4<sup>TH</sup> MORNING ONWARDS AS THE SYSTEM IS EXPECTED TO CROSS THE RIDGE AND STEERED BY THE WESTERLY TROUGH AND THE ANTICYCLONE TO THE SOUTHEAST. HENCE, MODERATE PROBABILITY IS ASSIGNED TO FORMATION OF DEPRESSION OVER BOB ON DAY-2 AND HIGH PROBABILITY DURING DAY 3 TO 5.

UNDER, THESE FAVOURABLE CONDITIONS, THE LOW PRESSURE AREA OVER SOUTH THAILAND & NEIGHBOURHOOD IS LIKELY TO EMERGE INTO ANDAMAN SEA DURING NEXT 12 HOURS. THEREAFTER, IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER SOUTHEAST & ADJOINING EASTCENTRAL BAY OF BENGAL (BOB) BY 2<sup>ND</sup> DECEMBER AND INTENSIFY INTO A CYCLONIC STORM OVER CENTRAL PARTS OF THE BOB DURING SUBSEQUENT 24 HOURS. IT IS LIKELY TO MOVE NORTHWESTWARDS, INTENSIFY FURTHER AND REACH NORTH ANDHRA PRADESH – ODISHA COASTS AROUND 4<sup>TH</sup> DECEMBER MORNING.



**LPA: LOW PRESSURE AREA**