



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

**DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 15.11.2021**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0700 UTC OF 15.11.2021 BASED ON 0300 UTC OF 15.11.2021.**

**BAY OF BENGAL:**

YESTERDAY'S LOW PRESSURE AREA OVER CENTRAL PARTS OF ANDAMAN SEA MOVED SLIGHTLY WEST-NORTHWESTWARDS AND LAY OVER NORTH ANDAMAN SEA & NEIGHBOURHOOD AT 0000 UTC OF TODAY THE 15<sup>TH</sup> NOVEMBER 2021 AND PERSISTED OVER THE SAME REGION AT 0300 UTC. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND BECOME WELL MARKED OVER EASTCENTRAL & ADJOINING SOUTHEAST BAY OF BENGAL DURING NEXT 48 HOURS. THEREAFTER IT IS LIKELY TO CONTINUE TO MOVE NEARLY WESTWARDS AND REACH WESTCENTRAL & ADJOINING SOUTHWEST BAY OF BENGAL OFF SOUTH ANDHRA PRADESH AND ADJOINING NORTH TAMIL NADU COASTS ON 18<sup>TH</sup> NOVEMBER 2021.

THE POSSIBILITY OF FURTHER INTENSIFICATION OF THE SYSTEM APPEARS TO BE LOW BASED ON TODAY'S ANALYSIS, MAINLY OWING TO THE ENHANCED LIKELIHOOD OF FORMATION OF ANOTHER LOW PRESSURE AREA OVER EAST-CENTRAL ARABIAN SEA OFF SOUTH MAHARASHTRA COAST DURING NEXT 24 HOURS AND THE OCCURRENCE OF A TROUGH TO THE SOUTH OF SYSTEM CENTRE OVER EAST EQUATORIAL INDIAN OCEAN WHICH IS PREVENTING INFLOW OF CROSS EQUATORIAL WINDS INTO THE CORE OF SYSTEM.

AS PER SATELLITE IMAGERY AT 0300 UTC, SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER ANDAMAN SEA, SOUTHEAST BOB AND NEIGHBOURHOOD IN ASSOCIATION WITH THE LOW PRESSURE AREA OVER NORTH ANDAMAN SEA & NEIGHBOURHOOD. MINIMUM CLOUD TOP TEMPERATURE (CTT) WAS MINUS 80°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

**ARABIAN SEA:**

A CYCLONIC CIRCULATION LAY OVER EASTCENTRAL & ADJOINING SOUTHEAST ARABIAN SEA (AS) AT 0300 UTC OF TODAY. UNDER ITS INFLUENCE, A LOW PRESSURE AREA IS LIKELY TO FORM OVER EASTCENTRAL ARABIAN SEA OFF SOUTH MAHARASHTRA COAST DURING NEXT 24 HOURS. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS & BECOME MORE MARKED DURING SUBSEQUENT 48 HOURS.

AS PER SATELLITE IMAGERY AT 0300 UTC, SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL & SOUTHEAST ARABIAN SEA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER COMORIN. MINIMUM CTT WAS MINUS 85°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	LOW	MODERATE	MODERATE

**REMARKS:**

**(A): LOW PRESSURE AREA OVER NORTH ANDAMAN SEA AND NEIGHBOUHOOD:**

SEA SURFACE TEMPERATURE (SST) IS ABOUT 30-32°C OVER SOUTHEAST BOB AND ANDAMAN SEA. TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS ABOUT 80-100 KJ/CM<sup>2</sup> OVER ANDAMAN SEA ADJOINING SOUTHWEST BOB AND CENTRAL BOB. HOWEVER, IT IS DECREASING BECOMING <50 KJ/CM<sup>2</sup> OVER WESTCENTRAL BOB OFF NORTH ANDHRA PRADESH AND ADJOINING SOUTH ODISHA & NORTH TAMILNADU COASTS. MADDEN JULIAN OSCILLATION INDEX IS IN PHASE 4 WITH AMPLITUDE CLOSE TO 1. IT WILL CONTINUE IN SAME PHASE WITH AMPLITUDE REMAINING CLOSE TO 1 DURING NEXT 4 DAYS. THE POSITIVE LOW LEVEL VORTICITY HAS DECREASED SLIGHTLY DURING PAST 24 HOURS AND IS ABOUT (40-50 X10<sup>-6</sup> S<sup>-1</sup>) OVER SOUTH ANDAMAN SEA AND ADJOINING SOUTHEAST BOB WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. AN EAST-WEST ORIENTED EXTENDED ZONE OF POSITIVE LOW LEVEL CONVERGENCE OF 05-10 X10<sup>-5</sup> S<sup>-1</sup> LAY OVER SOUTH ANDAMAN SEA & ADJOINING THAILAND. AN EXTENDED ZONE OF POSITIVE UPPER LEVEL DIVERGENCE IS AROUND 05-10X10<sup>-5</sup> S<sup>-1</sup> OVER SOUTH THAILAND AND ANOTHER ZONE OVER SOUTHEAST BOB. WIND SHEAR IS LOW (05-15 KT) OVER ANDAMAN SEA AND ENTIRE CENTRAL BOB. THE UPPER TROPOSPHERIC RIDGE LAY NEAR 18.5°N IN ASSOCIATION WITH ANTICYCLONIC CIRCULATION OFF MYANMAR COAST. UNDER THESE SEA AND ENVIRONMENTAL CONDITIONS, THERE WAS NO SIGNIFICANT CHANGE IN INTENSITY OF THE LOW PRESSURE AREA OVER ANDAMAN SEA.

THE POSSIBILITY OF FURTHER INTENSIFICATION OF THE SYSTEM APPEARS TO BE LOW BASED ON TODAY'S ANALYSIS, MAINLY OWING TO THE ENHANCED LIKELIHOOD OF FORMATION OF ANOTHER LOW PRESSURE AREA OVER EAST-CENTRAL ARABIAN SEA OFF SOUTH MAHARASHTRA COAST DURING NEXT 24 HOURS AND THE OCCURRENCE OF A TROUGH TO THE SOUTH OF SYSTEM CENTRE OVER EAST EQUATORIAL INDIAN OCEAN WHICH IS PREVENTING INFLOW OF CROSS EQUATORIAL WINDS INTO THE CORE OF SYSTEM.

MOST OF THE MODELS (IMD GFS, NCEP GFS, GEFS, NCUM, ECMWF DETERMINISTIC AND ENSEMBLE) ARE INDICATING THAT THE LOW PRESSURE AREA OVER ANDAMAN SEA WOULD MOVE NEARLY WEST-NORTHWESTWARDS AND REACH WESTCENTRAL & ADJOINING SOUTHWEST BAY OF BENGAL OFF SOUTH ANDHRA PRADESH – NORTH TAMIL NADU COASTS ON 18<sup>TH</sup> NOVEMBER 2021. HOWEVER, NEPS IS INDICATING INTENSIFICATION OF THE SYSTEM. THUS, THERE IS GOOD AGREEMENT AMONG VARIOUS MODELS W.R.T. INTENSITY AND TRACK OF THE SYSTEM.

IN VIEW OF ALL THE ABOVE, IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND BECOME WELL MARKED OVER EASTCENTRAL & ADJOINING SOUTHEAST BAY OF BENGAL DURING NEXT 48 HOURS. THEREAFTER IT IS LIKELY TO CONTINUE TO MOVE NEARLY WESTWARDS AND REACH WESTCENTRAL & ADJOINING SOUTHWEST BAY OF BENGAL OFF SOUTH ANDHRA PRADESH – NORTH TAMIL NADU COASTS ON 18<sup>TH</sup> NOVEMBER 2021.

**(B): CIRCULATION OVER EASTCENTRAL & ADJOINING SOUTHEAST ARABIAN SEA**

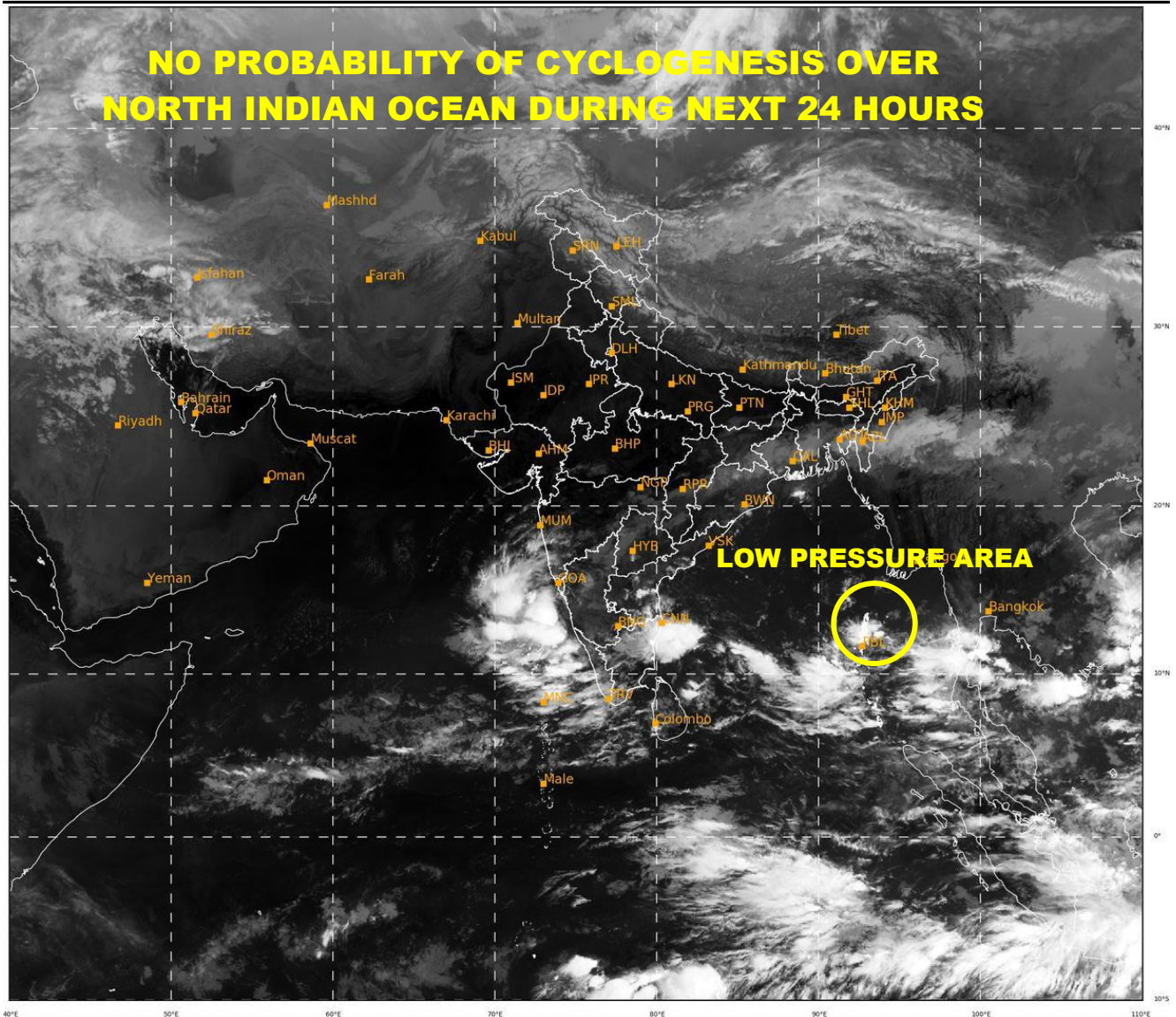
SEA SURFACE TEMPERATURE (SST) IS ABOUT 28-29°C OVER SOUTHEAST & ADJOINING EASTCENTRAL AS BECOMING <28°C OVER WESTERN PARTS OF AS. TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS ABOUT 60-80 KJ/CM<sup>2</sup> OVER THE SAME SOUTHEAST & ADJOINING EASTCENTRAL AS. THE POSITIVE LOW LEVEL VORTICITY IS ABOUT (50-60 X10<sup>-6</sup> S<sup>-1</sup>) OVER SOUTHEAST AND ADJOINING EASTCENTRAL AS WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. HIGHER VORTICITY IS SEEN AT 500 HPA LEVEL COMPARED TO 850 HPA LEVEL. POSITIVE LOW LEVEL CONVERGENCE OF 05-10 X10<sup>-5</sup> S<sup>-1</sup> LAY OVER SOUTHEAST AS. POSITIVE UPPER LEVEL DIVERGENCE HAS DECREASED DURING PAST 24 HOURS AND IS AROUND 20X10<sup>-5</sup> S<sup>-1</sup> OVER SOUTHEAST AS. WIND SHEAR IS MODERATE (15-20 KT) OVER SOUTHEAST & ADJOINING EASTCENTRAL AS. UNDER THESE FAVOURABLE SEA AND ENVIRONMENTAL CONDITIONS, A LOW PRESSURE AREA IS LIKELY TO FORM OVER

EASTCENTRAL AS AROUND 16<sup>TH</sup>.

MOST OF THE MODELS LIKE IMD GFS, GEFS, IMD GPP, NCUM, NEPS, NCUM (REGIONAL) AND ECMWF ARE INDICATING FORMATION OF LOW PRESSURE AREA OVER EASTCENTRAL AS AROUND 16<sup>TH</sup>. AND DEPRESSION OVER THE SAME REGION WHILE MOVING NORTH-NORTHWESTWARDS AROUND 18<sup>TH</sup>.

UNDER THESE CONDITIONS A LOW PRESSURE AREA IS LIKELY TO FORM OVER EASTCENTRAL AS OFF SOUTH MAHARASHTRA COAST DURING NEXT 24 HOURS. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS & BECOME MORE MARKED DURING SUBSEQUENT 48 HOURS

NEXT MESSAGE WILL BE ISSUED AT 0600 UTC OF 16<sup>TH</sup> NOVEMBER, 2021.



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IMD,DELHI

LPA: LOW PRESSURE AREA