



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 10.11.2021

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 10.11.2021 BASED ON 0300 UTC OF 10.11.2021.

BAY OF BENGAL:

(A) YESTERDAY'S LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL (BOB) & NEIGHBOURHOOD LAY AS A WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST AND ADJOINING SOUTHWEST BOB AT 0000 UTC OF TODAY, THE 10TH NOVEMBER, 2021. IT LAY AS A WELL MARKED LOW PRESSURE AREA OVER CENTRAL PARTS OF SOUTH BOB AT 0300 UTC OF TODAY. THE ASSOCIATED CIRCULATION EXTENDED UPTO 5.8 KM ABOVE MEAN SEA LEVEL. IT IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER SOUTHWEST BOB DURING NEXT 12 HOURS. THEREAFTER, IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND CROSS NORTH TAMIL NADU & ADJOINING SOUTH ANDHRA PRADESH COAST BETWEEN KARAIKAL (43346) & SRIHARIKOTA (ANDHRA PRADESH, INDIA) AROUND CUDDALORE (43329) BY THE EVENING (1200 UTC) OF 11TH NOVEMBER 2021.

AS PER INSAT 3D IMAGERY AT 0300UTC, SCATTERED TO BROKEN LOW & MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH BOB BETWEEN LATITUDE 7.0N & 13.0N, LONGITUDE 81.0E & 86.0E AND ANDAMAN SEA. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEGREE CELCIUS.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 15 KNOTS GUSTING TO 25 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH AROUND THE SYSTEM AREA. THE ESTIMATED CENTRAL PRESSURE IS 1005 HPA.

(B) A FRESH LOW PRESSURE AREA IS LIKELY TO FORM OVER SOUTH ANDAMAN SEA AND NEIGHBOURHOOD AROUND 13TH NOVEMBER. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND BECOME MORE MARKED DURING SUBSEQUENT 48 HOURS.

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

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

ARABIAN SEA:

YESTERDAY'S WELL MARKED LOW PRESSURE AREA OVER CENTRAL PARTS OF ARABIAN SEA LAY AS A LOW PRESSURE AREA OVER CENTRAL AND ADJOINING SOUTH ARABIAN SEA (AS) AT 0000 UTC OF TODAY, THE 10TH NOVEMBER, 2021. THE ASSOCIATED CIRCULATION EXTENDED UPTO 5.8 KM ABOVE MEAN SEA LEVEL.

AS PER INSAT 3D IMAGERY AT 0300 UTC, ASSOCIATED MINIMUM CLOUD TOP TEMPERATURE IS -83⁰C. ASSOCIATED SCATTERED TO BROKEN LOW & MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH ARABIAN SEA BETWEEN LATITUDE 8.5⁰N & 11.5⁰N AND LONGITUDE 62.0⁰E & 67.0⁰E IN ASSOCIATION WITH THE LOW PRESSURE AREA OVER THE REGION.

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:

(A) WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST & ADJOINING SOUTHWEST BOB

SEA SURFACE TEMPERATURE (SST) IS ABOUT 29-30°C OVER ENTIRE BOB. TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS ABOUT 100-120 OVER PARTS OF EASTERN EQUATORIAL INDIAN OCEAN ADJOINING SOUTHEAST BOB & SOUTH ANDAMAN SEA. IN ADDITION, A NEAR EQUATORIAL CONVERGENCE ZONE IS PRESENT ROUGHLY ALONG 5 DEG.N LATITUDE OVER THE REGION, PROVIDING THE NECESSARY CYCLONIC VORTICITY.

POSITIVE LOW LEVEL VORTICITY HAS INCREASED AND IS ABOUT $(100 \times 10^{-6} \text{ S}^{-1})$ TO THE SOUTHWEST OF SYSTEM AREA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. POSITIVE LOW LEVEL CONVERGENCE AROUND $10 \times 10^{-5} \text{ S}^{-1}$ OVER SYSTEM AREA AND $30 \times 10^{-5} \text{ S}^{-1}$ TO THE WEST OF SYSTEM CENTRE OVER NORTH SRILANKA. SIMILARLY, POSITIVE UPPER LEVEL DIVERGENCE AROUND $10 \times 10^{-5} \text{ S}^{-1}$ OVER SYSTEM AREA AND $50 \times 10^{-5} \text{ S}^{-1}$ TO THE WEST OF SYSTEM CENTRE OVER NORTH SRILANKA. UNDER THESE FAVOURABLE CONDITIONS YESTERDAY'S LOW PRESSURE AREA LAY AS A WELL MARKED LOW PRESSURE AREA OVER CENTRAL PARTS OF SOUTH BOB AT 0000 UTC OF TODAY.

MOST OF THE MODELS INCLUDING IMD GFS, ECMWF AND NCUM ARE INDICATING FURTHER INTENSIFICATION OF THE WELL MARKED LOW PRESSURE AREA OVER CENTRAL PARTS OF SOUTH BOB UPTO DEPRESSION STAGE OVER SOUTHWEST BOB DURING 10TH-11TH NOVEMBER. SOME MODELS ARE ALSO INDICATING THAT THE SYSTEM WOULD CROSS NORTH TAMILNADU COAST AROUND 11TH EVENING (1200 UTC).

IN VIEW OF ABOVE, THE WELL MARKED LOW PRESSURE AREA OVER CENTRAL PARTS OF SOUTH BOB IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER SOUTHWEST BOB DURING NEXT 12 HOURS, MOVE WEST-NORTHWESTWARDS AND REACH TAMILNADU COAST BY 11TH MORNING (0000 UTC).

(B) LOW PRESSURE AREA OVER CENTRAL AND ADJOINING SOUTH ARABIAN SEA

UNDER UNFAVOURABLE ENVIRONMENTAL CONDITIONS INCLUDING INCREASED VERTICAL WIND SHEAR, LOW OCEAN THERMAL ENERGY, DECREASED LOW LEVEL POSITIVE VORTICITY, LOW LEVEL CONVERGENCE AND UPPER LEVEL DIVERGENCE, THE SYSTEM OVER ARABIAN SEA WEAKENED INTO A LOW PRESSURE AREA IN THE MORNING (0000 UTC) OF TODAY, THE 10TH NOVEMBER, 2021.

