



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 24.11.2023

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 168 HOURS ISSUED AT 0600 UTC OF 24.11.2023 BASED ON 0300 UTC OF 24.11.2023.

BAY OF BENGAL:

THERE IS LIKELIHOOD OF EMERGENCE OF A CYCLONIC CIRCULATION OVER SOUTH ANDAMAN SEA AND NEIGHBOURHOOD AROUND 26TH NOVEMBER. UNDER IT'S INFLUENCE, A LOW PRESSURE AREA IS LIKELY TO FORM OVER SOUTH ANDAMAN SEA AND ADJOINING SOUTHEAST BAY OF BENGAL AROUND 27TH NOVEMBER. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND INTENSIFY INTO A DEPRESSION OVER SOUTHEAST BAY OF BENGAL AROUND 29TH NOVEMBER, 2023.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER WESTCENTRAL BAY OF BENGAL ADJOINING SOUTH COASTAL ANDHRA PRADES SOUTHEAST BAY OF BENGAL AND ADJOINING SOUTH ANDAMAN SEA.

***PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 168 HRS:**

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS	120-144 HOURS	144-168 HOURS
NIL	NIL	NIL	NIL	LOW	MOD	HIGH

ARABIAN SEA:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL ARABIAN SEA AND ADJOINING SOUTH KARNATAKA COAST. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER SOUTHEAST ARABIAN SEA, LAKSHADWEEP ISLANDS AREA AND COMORIN AREA.

***PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 168 HRS:**

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS	120-144 HOURS	144-168 HOURS
NIL	NIL	NIL	NIL	NIL	NIL	NIL

*** NOTE: EVERY 24HR FORECAST IS VALID UPTO 0300 UTC (0830 IST) OF NEXT DAY.**

Remarks:

MADDEN JULIAN OSCILLATION (MJO) IS CURRENTLY IN PHASE 2 WITH AMPLITUDE GREATER THAN 1. IT WILL CONTINUE IN SAME PHASE WITH AMPLITUDE GREATER THAN 1 TILL 27TH NOV. THEREAFTER, IT WOULD ENTER INTO PHASE 3 WITH AMPLITUDE GREATER THAN 1 ON 25TH NOV. IT WOULD CONTINUE IN PHASE 3 TILL 28th NOV WITH AMPLITUDE GREATER THAN 1 AND MOVE TO PHASE 4 THERAFTER. THUS, MJO WOULD SUPPORT CYCLOGENESIS OVER THE BAY OF BENGAL (BOB) REGION TILL 6TH DECEMBER. SEA SURFACE TEMPERATURE IS 28-30°C OVER MAJOR PARTS OF BOB. TROPICAL CYCLONE HEAT POTENTIAL IS 80-100 KJ/CM² OVER SOUTH ANDAMAN SEA, 100-120 KJ/CM² OVER PARTS OF EASTCENTRAL AND ADJOINING SOUTHEAST BOB. THE NCICS BASED FORECAST FOR EQUATORIAL WAVES INDICATE STRENGTHENING OF WESTERLY WINDS OVER SOUTH BOB ALONGWITH PRESENCE OF EQUATORIAL ROSSBY WAVES AND MJO. EASTERLY WINDS (1-3 MPS) ARE LIKELY OVER CENTRAL BOB. ALL THESE FEATURES INDICATE A FAVOURABLE ENVIRONMENT FOR CYCLOGENESIS (FORMATION OF DEPRESSION) OVER SOUTHEAST BOB AND ADJOINING ANDAMAN SEA.

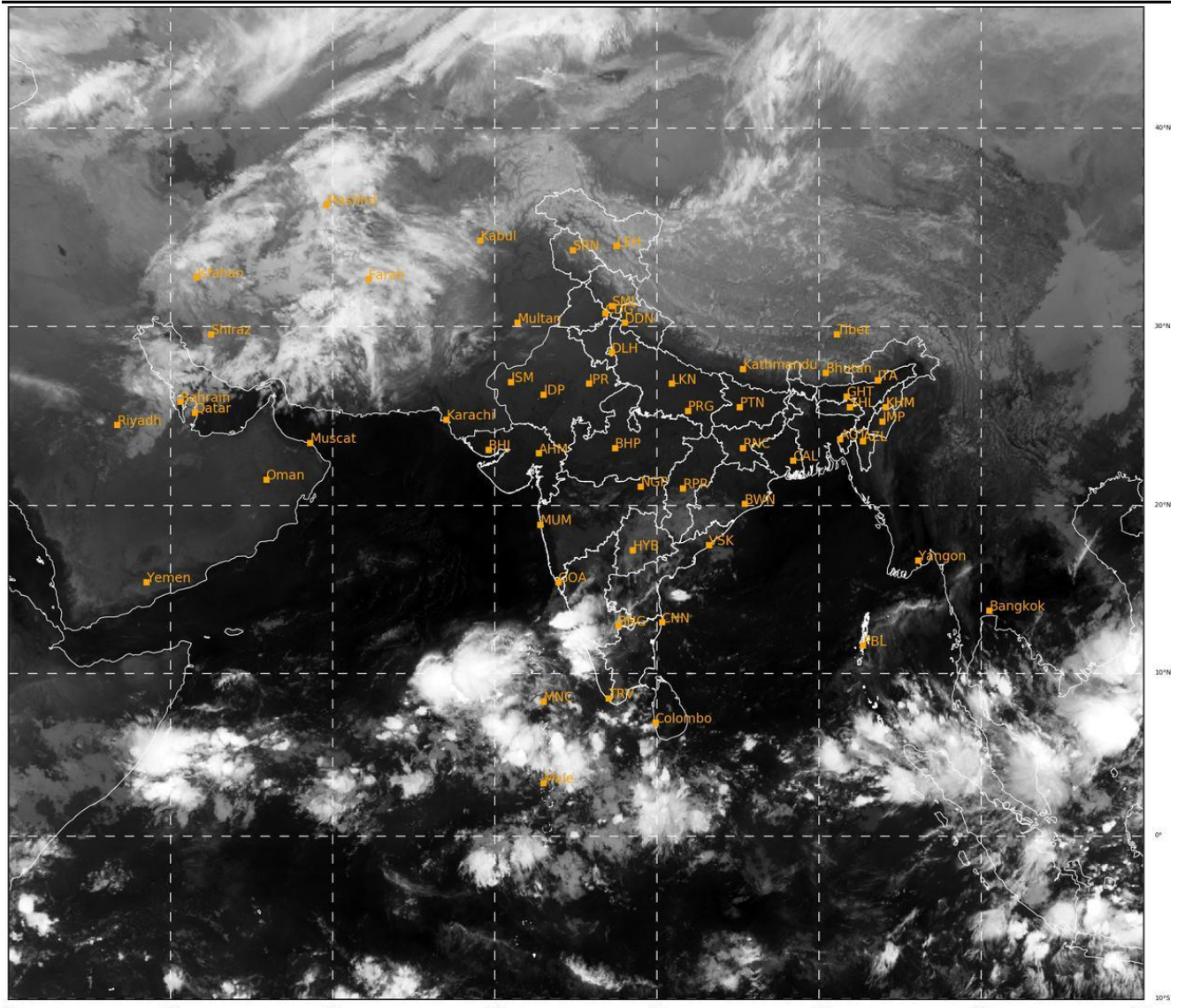
CURRENT ENVIRONMENTAL FEATURES INDICATE, POSITIVE LOW LEVEL VORTICITY OF 60-80X10⁻⁶S⁻¹ OVER GULF OF THAILAND WITH HORIZONTAL EXTENSION UPTO ANDAMAN SEA REGION AT 850 HPA LEVEL. VERTICALLY, IT IS EXTENDING UPTO 500 HPA LEVEL. POSITIVE LOW LEVEL CONVERGENCE OF 10-15 X 10⁻⁵ S⁻¹ OVER THE REGION. POSITIVE UPPER LEVEL DIVERGENCE OF 20-30 X 10⁻⁵ S⁻¹ OVER THE REGION.

MOST OF THE MODELS ARE INDICATING FORMATION OF DEPRESSION OVER BAY OF BENGAL DURING 29TH -30TH NOVEMBER. HOWEVER, THERE IS LARGE VARIATION AMONG VARIOUS MODELS WRT AREA OF FORMATION AND TIME OF FORMATION. IMD GFS AND NCEP GFS ARE INDICATING LIKELY EMERGENCE OF A CYCLONIC CIRCULATION INTO SOUTH ANDAMAN SEA AROUND 26TH WITH FORMATION OF LOW PRESSURE AREA AROUND 27TH OVER SOUTH ANDAMAN SEA. GFS GROUP OF MODELS ARE INDICATING FORMATION OF DEPRESSION AROUND 28TH, WITH FURTHER INTENSIFICATION INTO CYCLONIC STORM. THESE MODELS ARE INDICATING INITIAL WEST-NORTHWESTWARDS MOVEMENT TILL 1ST DECEMBER, FOLLOWED BY NORTHWARDS MOVEMENT THEREAFTER. HOWEVER, GRADUAL WEAKENING IS INDICATED ON 3RD DECEMBER OVER WESTCENTRAL BOB. NCEP IS SHOWING VERY DELAYED FORMATION OF CYCLONIC CIRCULATION OVER SOUTHEAST BOB ON 29TH, LOW PRESSURE AREA ON 1ST DECEMBER AND DEPRESSION OVER SOUTHWEST BOB ON 3RD DECEMBER. ECMWF IS INDICATING A LOW PRESSURE AREA OVER SOUTHEAST BOB ON 28TH, BECOMING A DEPRESSION ON 30TH NOVEMBER.

CONSIDERING VARIOUS ENVIRONMENTAL FEATURES AND MODEL GUIDANCE, THE EMERGENCE OF CYCLONIC CIRCULATION AND SUBSEQUENT DEVELOPMENT OF DEPRESSION OVER SOUTHEAST BOB HAS BEEN DELAYED BASED ON 0300 UTC CONDITIONS.

IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT THERE IS LIKELIHOOD OF EMERGENCE OF A CYCLONIC CIRCULATION OVER SOUTH ANDAMAN SEA AND NEIGHBOURHOOD AROUND 26TH NOVEMBER. UNDER IT'S INFLUENCE, A LOW PRESSURE AREA IS LIKELY TO FORM OVER SOUTH ANDAMAN SEA AND ADJOINING SOUTHEAST BAY OF BENGAL AROUND 27TH NOVEMBER. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND INTENSIFY INTO A DEPRESSION OVER SOUTHEAST BAY OF BENGAL AROUND 29TH NOVEMBER, 2023.

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IMD, DELHI

Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%
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