



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

**DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 03.10.2024**

**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 03.10.2024 BASED ON 0300 UTC OF 03.10.2024.**

**BAY OF BENGAL:**

YESTERDAY'S CYCLONIC CIRCULATION OVER NORTH ANDAMAN SEA AND ADJOINING SOUTH MYANMAR COAST LAY OVER SOUTHEAST BANGLADESH & NEIGHBOURHOOD EXTENDING UPTO 5.8 KM ABOVE MEAN SEA LEVEL AT 0300 UTC OF TODAY, THE 3<sup>RD</sup> OCTOBER, 2024. UNDER ITS INFLUENCE, A LOW PRESSURE AREA IS LIKELY TO FORM OVER NORTH BAY OF BENGAL & NEIGHBOURHOOD AROUND 04TH OCTOBER.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTH & CENTRAL BAY OF BENGAL SOUTHEAST BAY OF BENGAL AND ANDAMAN SEA (MINIMUM CTT MINUS 75-90 DEG CEL). SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER SOUTHWEST BAY OF BENGAL ARAKAN COAST GULF OF MARTABAN & TENASSERIM COAST.

**\*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**

**ARABIAN SEA:**

YESTERDAY'S CYCLONIC CIRCULATION OVER MALDIVES & NEIGHBOURHOOD LAY OVER LAKSHADWEEP & NEIGHBOURHOOD AT 0300 UTC OF 3<sup>RD</sup> OCTOBER AND EXTENDED UPTO 4.5 KM ABOVE MEAN SEA LEVEL TILTING SOUTHWESTWARDS WITH HEIGHT.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER CENTRAL & SOUTH ARABIAN SEA, LAKSHADWEEP ISLAND AREA, MALDIVES 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**

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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## REMARKS:

THE MADDEN-JULIAN OSCILLATION (MJO) IS CURRENTLY IN PHASE 2, WITH AMPLITUDE CLOSE TO 1, AND IS EXPECTED TO MOVE ACROSS PHASES 3 & 4 DURING NEXT 7 DAYS. THUS, MJO IS FAVOURABLE FOR ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE ARABIAN SEA (AS) AND THE BAY OF BENGAL DURING NEXT 7 DAYS. CICS MODEL GUIDANCE REGARDING EQUATORIAL WAVES INDICATE STRONG (7-9 MPS) EASTERLY WIND ANOMALY OVER THE SOUTH BAY OF BENGAL (BOB) AND ARABIAN SEA (AS) DURING NEXT 3 DAYS. WESTERLY WIND ANOMALY (1-3 MPS) IS INDICATED OVER NORTH BOB. EQUATORIAL WAVES ARE NOT LIKELY TO CONTRIBUTE TO ENHANCEMENT OF ANY CONVECTIVE ACTIVITY OVER THE AS AND BOB DURING NEXT 7 DAYS.

## BAY OF BENGAL (BOB)

THE SEA SURFACE TEMPERATURE (SST) IS MORE THAN 28°C OVER ENTIRE BOB. THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS GREATER THAN 100 KJ/CM<sup>2</sup> OVER THE NORTHERN AND ADJOINING CENTRAL PARTS OF BOB AND OFF THE COASTS OF ODISHA, WEST BENGAL, BANGLADESH & MYANMAR, AND OVER WESTCENTRAL & ADJOINING SOUTHWEST BOB OFF NORTH TAMIL NADU COAST, WHILE IT IS BELOW 50 KJ/CM<sup>2</sup> OVER REMAINING PARTS OF THE BOB AND THE ANDAMAN SEA. A ZONE OF POSITIVE LOW-LEVEL VORTICITY ( $30-40 \times 10^{-5} \text{S}^{-1}$ ) IS SEEN OVER IRRAWADY DELTA OFF SOUTH MYANMAR COAST WITH VERTICAL EXTENSION UPTO 200 HPA LEVEL. POSITIVE LOW-LEVEL CONVERGENCE IS AROUND  $30 \times 10^{-5} \text{S}^{-1}$  OVER EASTCENTRAL BOB OFF SOUTH MYANMAR AND ANOTHER ZONE OF  $05-10 \times 10^{-5} \text{S}^{-1}$  IS SEEN OVER SOUTH BANGLADESH. POSITIVE UPPER-LEVEL DIVERGENCE IS AROUND  $10 \times 10^{-5} \text{S}^{-1}$  OVER SYSTEM AREA AND ANOTHER OVER EASTCENTRAL BOB TO THE SOUTH OF SYSTEM AREA. VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE (10-20 KNOTS) OVER THE NORTH BOB. AN UPPER TROPOSPHERIC RIDGE RUNS ALONG 21°N IN ASSOCIATION WITH ANTICYCLONIC CIRCULATION OVER SOUTHEAST BANGLADESH IN 100-250 HPA LAYER. ALL THESE FEATURES ARE INDICATING FAVOURABLE ENVIRONMENT FOR MAINTENANCE OF INTENSITY OF EXISTING CYCLONIC CIRCULATION OVER SOUTH BANGLADESH.

MODELS LIKE NCUM, IMD GFS, NCEP GFS ARE CAPTURING THE EXISTING CIRCULATION OVER SOUTH BANGLADESH TO MOVE NORTH-NORTHWESTWARDS TILL 4<sup>TH</sup> OCTOBER AND NORTHWESTWARDS THEREAFTER DURING SUBSEQUENT 3-4 DAYS. HOWEVER, NO SIGNIFICANT INTENSIFICATION IS INDICATED. MODEL LIKE NCUM IS INDICATING ITS DEVELOPMENT INTO A LOW PRESSURE AREA.

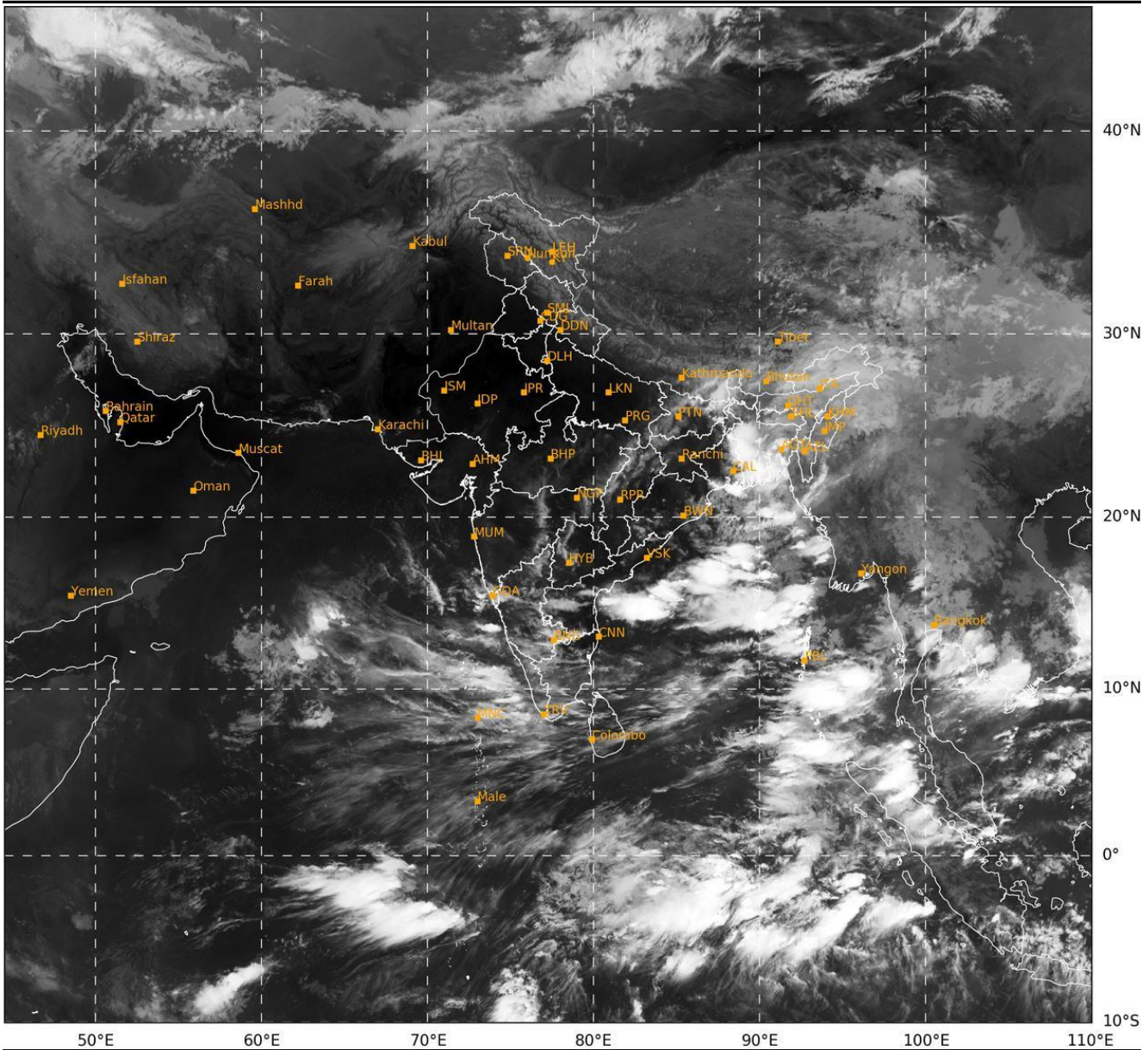
THUS, THE EXISTING CYCLONIC CIRCULATION OVER SOUTHEAST BANGLADESH & NEIGHBOURHOOD IS LIKELY TO INTENSIFY INTO A LOW PRESSURE AREA AND MOVE NORTHWESTWARDS DURING NEXT 3-4 DAYS. PROBABILITY OF CYCLOGENESIS OVER BOB MAY BE TAKEN AS NIL DURING NEXT 5 DAYS.

## **ARABIAN SEA (AS)**

THE SEA SURFACE TEMPERATURE (SST) IS ABOVE 28°C OVER THE EASTERN PARTS OF BOB AND BELOW 26°C OVER THE WESTCENTRAL AND SOUTHWEST PARTS OF AS. THE TCHP IS >100 KJ/CM<sup>2</sup> OVER THE CENTRAL PARTS OF SOUTH AS AND IS BELOW 50 KJ/CM<sup>2</sup> OVER THE REMAINING AREAS OIF AS. A ZONE OF POSITIVE CYCLONIC VORTICITY OF 50-60 X 10<sup>-5</sup> IS SEEN OVER WEST EQUATORIAL INDIAN OCEAN AND ADJOINING SOUTHEAST AS. NO ZONE OF POSITIVE LOW-LEVEL CONVERGENCE IS SEEN OVER AS. ZONE OF POSITIVE UPPER-LEVEL DIVERGENCE AROUND 05 X10<sup>-5</sup> S<sup>-1</sup> IS SEEN OVER SOUTHEAST AS AND ANOTHER OVER MALDIVES AREA. VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE (5-20 KNOTS) OVER MAJOR PARTS OF NORTH AS. UPPER TROPOSPHERIC RIDGE RUNS ALONG 21°N.

MOST OF THE MODELS ARE INDICATING EXISTING CYCLONIC CIRCULATION OVER LAKSHADWEEP & NEIGHBOURHOOD TO MOVE NEARLY WESTWARDS DURING NEXT 2-3 DAYS WITHOUT ANY SIGNIFICANT INTENSIFICATION.

IN VIEW OF ALL THE ABOVE, THE EXISTING CYCLONIC CIRCULATION OVER MALDIVES & NEIGHBOURHOOD IS LIKELY TO MOVE NEARLY WESTWARDS DURING NEXT 2-3 DAYS WITHOUT ANY SIGNIFICANT INTENSIFICATION.



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IMD,DELHI

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