



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 05.10.2024

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 05.10.2024 BASED ON 0300 UTC OF 05.10.2024.

BAY OF BENGAL:

YESTERDAY'S LOW PRESSURE AREA OVER NORTH BAY OF BENGAL & ADJOINING COASTAL AREAS OF BANGLADESH & WEST BENGAL BECAME LESS MARKED AT 0300 UTC OF TODAY, THE 05TH OCTOBER.

YESTERDAY'S CYCLONIC CIRCULATION OVER WESTCENTRAL AND ADJOINING SOUTH BAY OF BENGAL LAY OVER WESTCENTRAL BAY OF BENGAL OFF ANDHRA PRADESH COAST BETWEEN 1.5 KM TO 4.5 KM ABOVE MEAN SEA LEVEL TILTING SOUTHWESTWARDS WITH HEIGHT AT 0300 UTC OF TODAY, THE 05TH OCTOBER.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER BAY OF BENGAL & SOUTH ANDAMAN SEA (MINIMUM CTT MINUS 75-93 DEG CEL). SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER NORTH 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	NIL	NIL	NIL

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

ARABIAN SEA:

YESTERDAY'S CYCLONIC CIRCULATION OVER SOUTHEAST ARABIAN SEA BECAME LESS MARKED AT 0300 UTC OF TODAY, THE 5TH OCTOBER.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL & SOUTH ARABIAN SEA AND LAKSHADWEEP ISLAND AREA (MINIMUM CTT MINUS 70-85 DEG CEL). SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED ISOLATED WEAK TO MODERATE CONVECTION LAY OVER WESTCENTRAL ARABIAN SEA & COMORIN AREA.

SCATTERED LOW & MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER EASTCENTRAL & SOUTH ARABIAN SEA AND LAKSHADWEEP ISLANDS AREA.

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

REMARKS:

THE MADDEN-JULIAN OSCILLATION (MJO) IS CURRENTLY IN PHASE 2, WITH AMPLITUDE CLOSE TO 1, AND IS EXPECTED TO ENTER INTO PHASE 3 TOMORROW, THE 6TH OCTOBER. IT IS LIKELY TO MOVE ACROSS PHASES 3 & 4 DURING THE SUBSEQUENT 5 DAYS. THUS, MJO IS FAVOURABLE FOR THE ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE ARABIAN SEA (AS) DURING THE NEXT 3-4 DAYS AND THE BAY OF BENGAL FROM 7TH ONWARDS. NCICS MODEL GUIDANCE REGARDING EQUATORIAL WAVES INDICATE WEAK (1-3 MPS) EASTERLY WIND ANOMALY IS PREVAILING OVER THE SOUTH & CENTRAL BAY OF BENGAL (BOB) AND LIKELY INCREASE TO BECOME STRONG (7-9 MPS) OVER SOUTH BAY OF BENGAL AFTER 7TH OCTOBER. A WEAK WESTERLY WIND ANOMALY (1-3 MPS) IS INDICATED OVER NORTH BOB & SOUTH BANGLADESH.

BAY OF BENGAL (BOB)

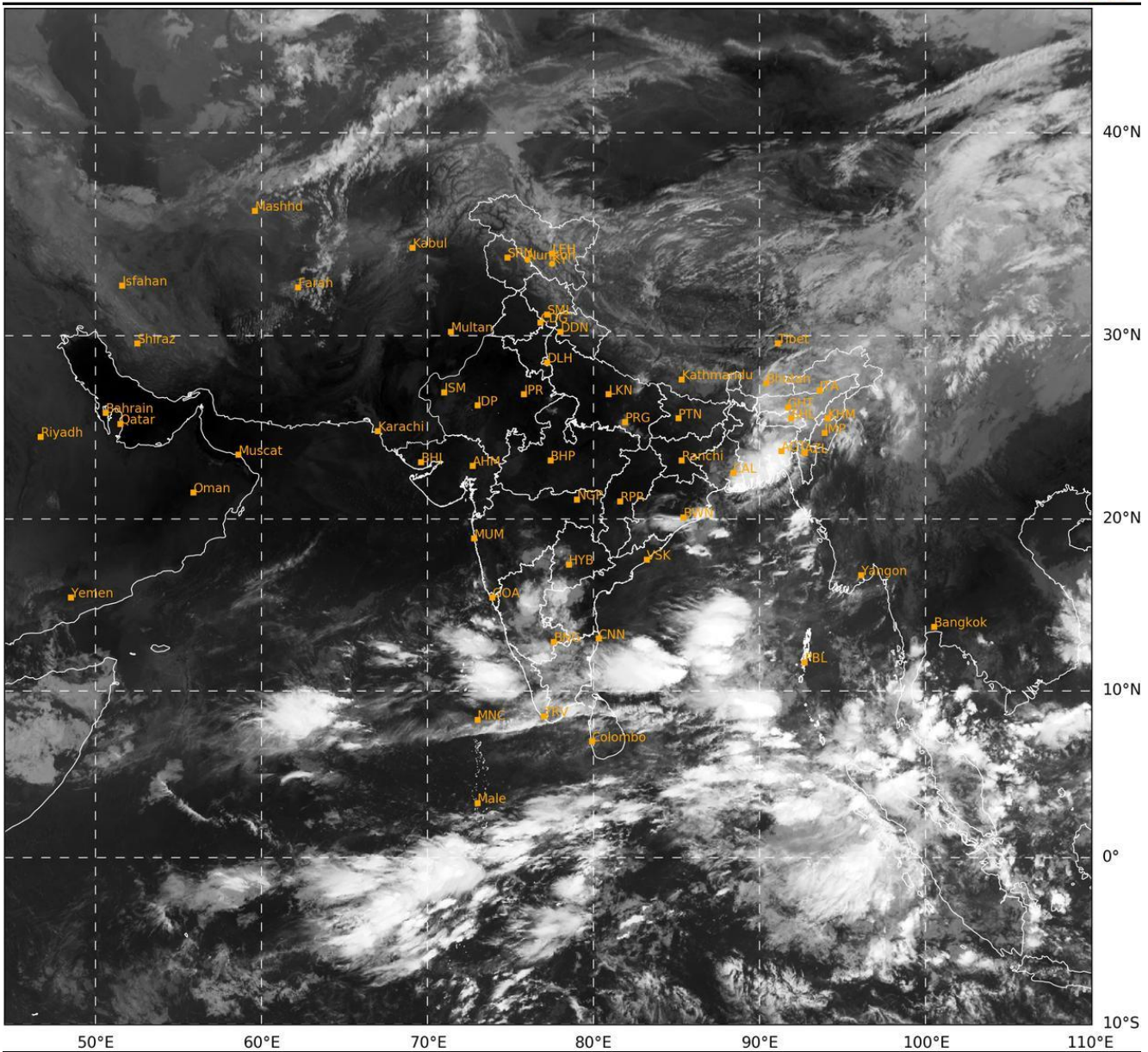
THE SEA SURFACE TEMPERATURE (SST) IS 28-32°C OVER ENTIRE BOB. THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS GREATER THAN 100 KJ/CM² OVER THE NORTHERN AND ADJOINING EASTCENTRAL PARTS OF BOB AND OFF THE COASTS OF, WEST BENGAL, BANGLADESH & MYANMAR, AND OVER WESTCENTRAL & ADJOINING SOUTHWEST BOB OFF NORTH TAMIL NADU COAST AND THE SOUTH ANDAMAN SEA, WHILE IT IS BELOW 50 KJ/CM² OVER REMAINING PARTS OF THE BOB. A ZONE OF POSITIVE LOW-LEVEL VORTICITY ($40-50 \times 10^{-5} S^{-1}$) IS SEEN OVER THE SOUTHWEST BAY OF BENGAL AND OFF TEMILNADU COAST. POSITIVE LOW-LEVEL CONVERGENCE IS AROUND $10 \times 10^{-5} S^{-1}$ OVER NORTH BOB OFF SOUTH BANGLADESH AND SOUTHWEST BAY OF BENGAL. POSITIVE UPPER-LEVEL DIVERGENCE IS AROUND $10-20 \times 10^{-5} S^{-1}$ OVER SOUTH BAY OF BENGAL AND ANDAMAN SEA. VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE (05-15 KNOTS) OVER SOUTH BANGLADESH & ADJOINING AREAS. AN ANTICYCLONIC CIRCULATION LAY OVER BANGLADESH IN 100-250 HPA LEVELS. AND A RIDGE EXTENDS ACROSS PENINSULAR INDIA UP TO EASTCENTRAL ARABIAN SEA.

MODELS LIKE NCUM, IMD GFS, NCEP GFS ARE CAPTURING ARE INDICATING NO CYCLONIC DISTURBANCES IS LIKELY TO FORM OVER THE REGION DUERING NEXT 7 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/CM² OVER THE CENTRAL PARTS OF SOUTH AS AND IS BELOW 50 KJ/CM² OVER THE REMAINING AREAS OF AS. A ZONE OF POSITIVE CYCLONIC VORTICITY OF $30-40 \times 10^{-5}$ IS SEEN OVER CENTRAL PARTS OF SOUTH AS AND OTHER OVER WESTCENTRAL AS OFF OMAN COAST & OFF

SOMALIA COASTS. POSITIVE LOW-LEVEL CONVERGENCE IS SEEN OVER CENTRAL PARTS OF SOUTH AS. ZONE OF POSITIVE UPPER-LEVEL DIVERGENCE AROUND $20 \times 10^{-5} \text{ S}^{-1}$ IS SEEN OVER SOUTHWEST AS. VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE (5-20 KNOTS) OVER MAJOR PARTS OF NORTH & CENTRAL AS AND HIGH OVER SOUTH AS. UPPER TROPOSPHERIC RIDGE RUNS ALONG 22°N IN ASSOCIATION WITH ANTICYCLONIC CIRCULATION OVER GUJARAT REGION IN 250-350 HPA LEVEL.



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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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