



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 06.10.2024

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 06.10.2024 BASED ON 0300 UTC OF 06.10.2024.

BAY OF BENGAL:

YESTERDAY'S UPPER AIR CYCLONIC CIRCULATION OVER WESTCENTRAL BAY OF BENGAL OFF ANDHRA PRADESH COASTS LAY OVER SOUTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL OFF NORTH TAMIL NADU-SOUTH ANDHRA PRADESH COASTS AT 0300 UTC OF TODAY, THE 06TH OCTOBER. THE CIRCULATION EXTENDED BETWEEN 1.5 KM TO 5.8 KM ABOVE MEAN SEA LEVEL, TILTING SOUTHWESTWARDS WITH HEIGHT.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH BAY OF BENGAL AND ANDAMAN SEA (MINIMUM CLOUD TOP TEMPERATURE MINUS 75-90 DEG CEL). SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER REST BAY OF BENGAL.

***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:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH ADJOINING EASTCENTRAL ARABIAN SEA (MINIMUM CLOUD TOP TEMPERATURE MINUS 70-90 DEG CEL). SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER WESTCENTRAL ARABIAN SEA LAKSHADWEEP ISLANDS COMORIN & MALDIVES 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:

THE MADDEN-JULIAN OSCILLATION (MJO) IS CURRENTLY IN PHASE 3, WITH AMPLITUDE CLOSE TO 1, AND IS EXPECTED TO CONTINUE IN SAME PHASE DURING NEXT 3 DAYS. THEREAFTER, IT IS LIKELY TO MOVE ACROSS PHASE 4 DURING THE SUBSEQUENT 10 DAYS. THUS, MJO IS FAVOURABLE FOR THE ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE ARABIAN SEA (AS) DURING THE NEXT 3 DAYS AND THE BAY OF BENGAL FROM 9TH ONWARDS. NCICS MODEL GUIDANCE REGARDING EQUATORIAL WAVES IS INDICATING (5-7 MPS) EASTERLY WIND ANOMALY OVER THE SOUTH & ADJOINING CENTRAL BAY OF BENGAL (BOB) DURING 4TH-10TH OCTOBER. DURING WEEK 1, WESTERLY WIND ANOMALY (3-5MPS) IS LIKELY WEST EQUATORIAL INDIAN OCEAN & ADJOINING SOUTH ARABIAN SEA (AS) ALONGWITH EASTERLY WIND ANOMALY (1-3 MPS) OVER SOUTH AS (TO THE NORTH OF WESTERLY WIND ANOMALY). IT IS INDICATING FAVOURABLE ENVIRONMENT FOR DEVELOPMENT OF CYCLONIC DISTURBANCE OVER THE AS DURING THE ENSUING WEEK.

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 ($30-40 \times 10^{-5} S^{-1}$) IS SEEN OVER THE SOUTHWEST BAY OF BENGAL OFF TAMILNADU COAST. POSITIVE LOW-LEVEL CONVERGENCE AROUND $05-10 \times 10^{-5} S^{-1}$ IS SEEN OVER NORTH BOB OFF SOUTH BANGLADESH AND SOUTHWEST BAY OF BENGAL. POSITIVE UPPER-LEVEL DIVERGENCE IS AROUND $10-20 \times 10^{-5} S^{-1}$ IS SEEN OVER SOUTH ANDAMAN SEA AND SOUTHWEST BAY OF BENGAL. VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE (05-15 KNOTS) OVER NORTH BOB, ANDAMAN SEA AND SOUTHWEST BOB. UPPER TROPOSPHERIC RIDGE RUNS ALONG 22°N IN ASSOCIATION WITH ANTICYCLONIC CIRCULATION OVER NORTHEAST INDIA IN 100-250 HPA LEVELS.

MODELS LIKE NCUM, IMD GFS, NCEP GFS ARE NOT INDICATING ANY CYCLONIC DISTURBANCE OVER THE BOB DURING NEXT 7 DAYS.

ARABIAN SEA (AS)

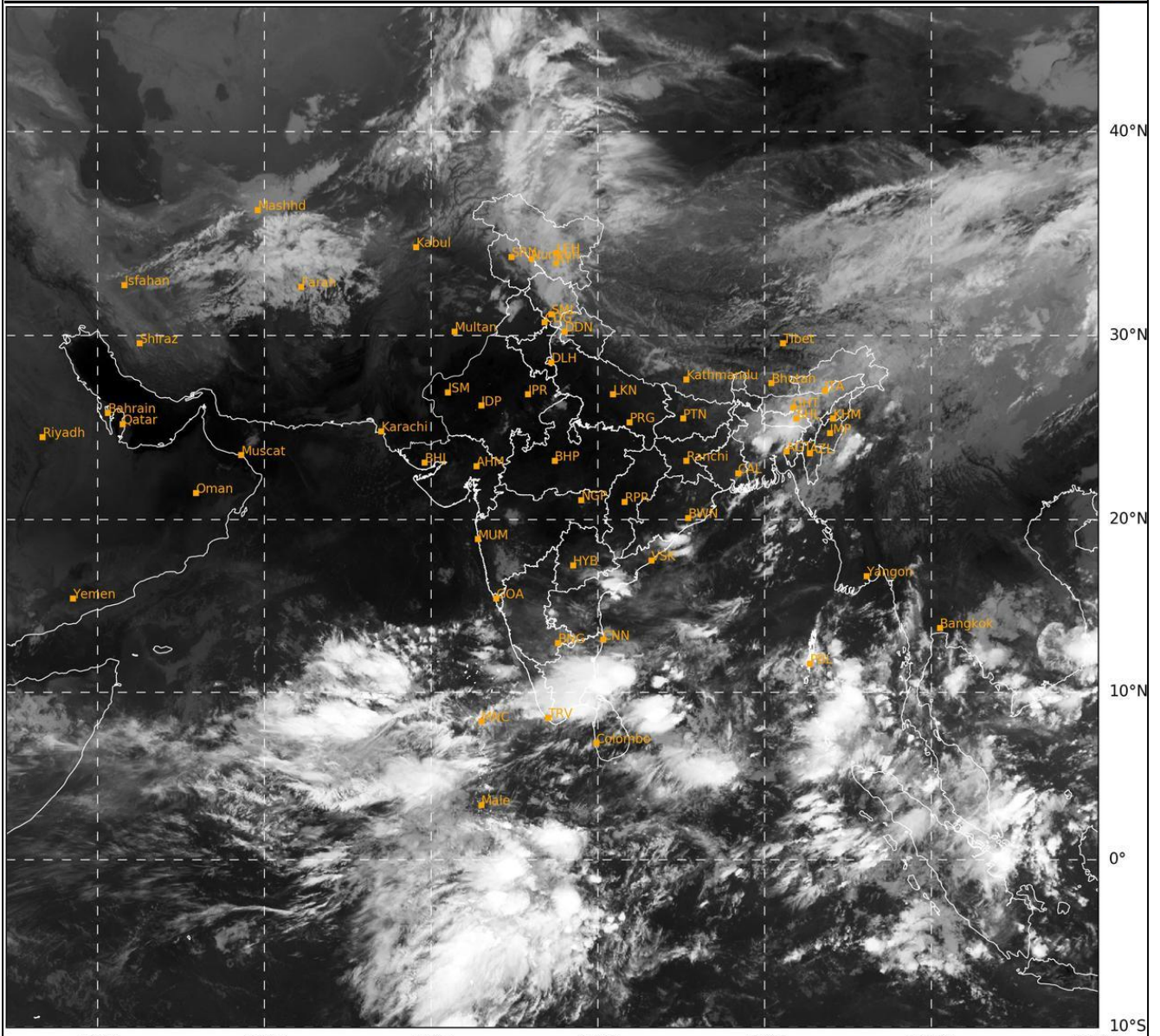
THE SEA SURFACE TEMPERATURE (SST) IS ABOVE 28°C OVER THE EASTERN PARTS OF BOB AND BELOW 26°C OVER THE WESTCENTRAL AND SOUTHWEST PARTS OF AS. THE TCHP IS >100 KJ/CM² OVER THE CENTRAL PARTS OF SOUTH AS AND IS BELOW 50 KJ/CM² OVER THE REMAINING AREAS OF AS. A ZONE OF POSITIVE CYCLONIC VORTICITY OF $30-40 \times 10^{-5}$ IS SEEN OVER WEST EQUATORIAL INDIAN OCEAN & ADJOINING PARTS OF SOUTHEAST AS AND OTHER OVER WESTCENTRAL AS OFF OMAN COAST & OFF SOMALIA COASTS. POSITIVE LOW-LEVEL CONVERGENCE IS SEEN OVER CENTRAL PARTS OF SOUTH AS AND ANOTHER OFF SOMALIA COAST. ZONE OF POSITIVE UPPER-LEVEL DIVERGENCE AROUND $20 \times 10^{-5} S^{-1}$ IS SEEN OVER CENTRAL PARTS OF SOUTH 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 21°N IN ASSOCIATION WITH ANTICYCLONIC CIRCULATION OVER OMAN COAST N IN 250-350 HPA LEVEL.

MOST OF THE MODELS INCLUDING IMD GFS, NCUM, GEFS, NCEP GFS, ECMWF ARE INDICATING DEVELOPMENT OF LOW-PRESSURE AREA OVER SOUTHEAST ARABIAN SEA AROUND 11TH OCTOBER. SOME OF THE MODELS INCLUDING IMD GFS, NCUM, NCEP GFS ARE INDICATING INTENSIFICATION OF THIS SYSTEM INTO A DEPRESSION AROUND 13TH OCTOBER OVER EASTCENTRAL ARABIAN SEA. THESE MODELS ARE ALSO INDICATING FURTHER INTENSIFICATION OF THIS SYSTEM. ECMWF AND GEFS ARE NOT INDICATING ANY SIGNIFICANT INTENSIFICATION. CONSIDERING ALL THE ABOVE, PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) IS TAKEN AS NIL DURING NEXT 7 DAYS. HOWEVER, CONTINUOUS WATCH IS BEING MAINTAINED.

SAT : INSAT-3DR IMG
IMG_TIR1 10.8 um
LIC Mercator

06-10-2024/(0315 to 0342) GMT
06-10-2024/(0845 to 0912) IST



50°E 60°E 70°E 80°E 90°E 100°E 110°E
447 938
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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