



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 20.10.2024

MODIFIED TROPICAL WEATHER OUTLOOK FOR THE NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR THE NEXT 168 HOURS ISSUED AT 0830 UTC OF 20.10.2024 BASED ON 0300 UTC OF 20.10.2024.

BAY OF BENGAL:

- (i) THE YESTERDAY'S CYCLONIC CIRCULATION OVER CENTRAL ANDAMAN SEA LAY OVER NORTH ANDAMAN SEA AND NEIGHBOURHOOD AT 0300 UTC OF TODAY, THE 20 OCTOBER. UNDER ITS INFLUENCE, A LOW-PRESSURE AREA IS LIKELY TO FORM OVER THE EASTCENTRAL BAY OF BENGAL AND ADJOINING NORTH ANDAMAN SEA BY NEXT 24 HOURS.

THEREAFTER, IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS AND INTENSIFY INTO A DEPRESSION AROUND 0000 UTC OF 22ND OCTOBER AND INTO A CYCLONIC STORM BY 23RD OCTOBER, 2024 OVER EASTCENTRAL BAY OF BENGAL. THEREAFTER, IT IS VERY LIKELY TO MOVE NORTHWESTWARDS AND REACH NORTHWEST BAY OF BENGAL OFF ODISHA-WESTBENGAL COASTS BY 24TH OCTOBER MORNING.

UNDER IT'S INFLUENCE:

(A) WIND WARNING:

ANDAMAN SEA: SQUALLY WEATHER WITH WIND SPEED REACHING 35-45 GUSTING TO 55 KMPH IS VERY LIKELY OVER ANDAMAN SEA TILL 21ST OCTOBER.

EASTCENTRAL BAY OF BENGAL: SQUALLY WIND SPEED REACHING 40-50 GUSTING TO 60 KMPH IS VERY LIKELY ON 21ST OCTOBER, 55-65 GUSTING TO 75 KMPH BY 22ND EVENING , 70-90 KMPH GUSTING TO 100 KMPH FROM 23RD EVENING TILL 24TH MORNING.

ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL: SQUALLY WIND SPEED REACHING 45-55 GUSTING TO 65 KMPH IS VERY LIKELY ON 23RD AND 24TH OCT.

NORTH BAY OF BENGAL: SQUALLY WIND SPEED REACHING 40-50 GUSTING TO 60 KMPH IS VERY LIKELY TO COMMENCE FROM 23RD MORNING. IT WOULD GRADUALLY INCREASE BECOMING GALE WIND SPEED REACHING 100-110 KMPH GUSTING TO 120 KMPH FROM 24TH OCT EVENING TO 25TH OCT MORNING AND DECREASE THEREAFTER.

ALONG & OFF ODISHA-WEST BENGAL COASTS: SQUALLY WIND SPEED REACHING 40-50 GUSTING TO 60 KMPH IS VERY LIKELY TO COMMENCE FROM 23RD OCT

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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EVENING. IT WOULD GRADUALLY INCREASE BECOMING GALE WIND SPEED REACHING 100-110 KMPH GUSTING TO 120 KMPH FROM 24TH OCT NIGHT TILL 25TH OCT MORNING.

(B) SEA CONDITION:

ANDAMAN SEA: SEA CONDITION IS LIKELY TO BE **MODERATE TO ROUGH** TILL 21ST OCTOBER.

EASTCENTRAL BAY OF BENGAL: SEA CONDITION IS LIKELY TO BECOME **ROUGH TO VERY ROUGH** FROM 21ST OCT MORNING TO 22ND OCTOBER EVENING, BECOMING **VERY ROUGH TO HIGH** THEREAFTER TILL 24TH OCT MORNING.

ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL: SEA CONDITION IS LIKELY TO BE **ROUGH TO VERY ROUGH** ON 23RD AND 24TH OCT.

NORTH BAY OF BENGAL: SEA CONDITION IS LIKELY TO BE **ROUGH TO VERY ROUGH** FROM 23RD MORNING AND WOULD BECOME **HIGH** FROM 24TH OCT MORNING TILL 25TH OCT FORENOON.

ALONG & OFF ODISHA-WEST BENGAL COASTS: SEA CONDITION IS LIKELY TO BE **ROUGH TO VERY ROUGH** FROM 23RD EVENING AND WOULD BECOME **HIGH** FROM 24TH OCT EVENING TO 25TH OCT FORENOON.

(IV) FISHERMEN WARNING:

FISHERMEN ARE ADVISED NOT TO VENTURE INTO

- ANDAMAN SEA TILL 21ST OCTOBER.
 - EASTCENTRAL BAY OF BENGAL DURING 21ST-24TH OCTOBER.
 - **ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL ON 23RD AND 24TH OCT.**
 - **NORTH BAY OF BENGAL AND ALONG & OFF ODISHA, WEST BENGAL AND BANGLADESH COASTS DURING 23RD TO 25TH OCT.**
- FISHERMEN OUT AT SEA ARE ADVISED TO RETURN TO COASTS BY 21ST OCT.

(C) ACTION SUGGESTED [AFFECTED AREAS OF ODISHA AND WEST BENGAL DUE TO HEAVY RAINFALL]

- FISHERMEN ARE ADVISED NOT TO VENTURE INTO
 - ✓ ANDAMAN SEA TILL 21ST OCTOBER.
 - ✓ EASTCENTRAL BAY OF BENGAL DURING 21ST-24TH OCTOBER.
 - ✓ **ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL ON 23RD AND 24TH OCT.**
 - ✓ **NORTH BAY OF BENGAL AND ALONG & OFF ODISHA-WEST BENGAL COASTS DURING 23RD TO 25TH OCT. MORNING.**
- FISHERMEN OUT AT SEA ARE ADVISED TO RETURN TO COASTS BY 21ST OCTOBER.
- TOTAL SUSPENSION OF FISHING OPERATIONS DURING 22ND TO 25TH OCT OVER CENTRAL AND NORTH BAY OF BENGAL.
- JUDICIOUS REGULATION OF ONSHORE/OFFSHORE, PORT AND MARITIME ACTIVITIES INCLUDING SHIPPING.
- JUDICIOUS REGULATION OF TOURISM ACTIVITIES IN ANDAMAN & NICOBAR ISLANDS.

- (ii) YESTERDAY'S CYCLONIC CIRCULATION OVER GULF OF THAILAND BECAME LESS MARKED AT 0300 UTC OF TODAY, THE 20TH OCTOBER, 2024.
- (iii) YESTERDAY'S CYCLONIC CIRCULATION OVER SOUTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL OFF NORTH TAMIL NADU COAST EXTENDING UPTO 5.8 KM ABOVE MEAN SEA LEVEL TILTING SOUTHWESTWARDS WITH HEIGHT PERSISTED OVER THE SAME REGION AT 0300 UTC OF TODAY, THE 20TH OCTOBER, 2024.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL ADJOINING NORTHEAST & SOUTHEAST BAY OF BENGAL AND ANDAMAN SEA, TENASSERIM COAST, GULF OF MARTABAN (MINIMUM CTT MINUS 80⁰ -93⁰ C). SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER REST OF 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	LOW	MOD	HIGH	-	-	-

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

ARABIAN SEA:

YESTERDAY'S **WELL MARKED LOW PRESSURE AREA** OVER EASTCENTRAL AND ADJOINING WESTCENTRAL ARABIAN MOVED WEST-NORTHWESTWARDS AND WEAKENED INTO A LOW PRESSURE AREA WITH ASSOCIATED CYCLONIC CIRCULATION EXTENDING UPTO 5.8 KM ABOVE MEAN SEA LEVE OVER THE WESTCENTRAL ARBIAN SEA AT 0300 UTC OF TODAY, THE 20TH OCTOBER, 2024. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDSS AWAY FROM INDIAN COAST (TOWARDS YEMEN-OMAN COASTS) AND WEAKEN FURTHER DURING NEXT 24 HOURS.

SQUALLY WEATHER WIND SPEED REACHING 20-30 GUSTING TO 40 KMPH WITH MODERATE SEA CONDITION IS VERY LIKELY OVER WESTCENTRAL ARABIAN SEA DURING NEXT 24 HOURS AND IMPROVE THEREAFTER.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER WESTCENTRAL ARABIAN SEA & SOUTHEAST ARABIAN SEA OFF KARNATAKA-KERALA COASTS. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED ISOLATED WEAK TO MODERATE CONVECTION OVER NORTHEAST ARABIAN SEA OFF SOUTH GUJARAT COAST GULF OF CAMBAY EASTCENTRAL & SOUTH ARABIAN 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**

REMARKS:

THE MADDEN-JULIAN OSCILLATION (MJO) IS CURRENTLY IN PHASE 5, WITH AMPLITUDE MORE THAN 1, AND IS EXPECTED TO MOVE ACROSS PHASE 5 DURING NEXT 7 DAYS WITH FURTHER INCREASING AMPLITUDE. THUS, MJO WOULD SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER BAY OF BENGAL DURING NEXT 5 DAYS.

THE GUIDANCE FROM NCICS BASED FORECAST OVER BOB INDICATES WESTERLY WINDS (1-3 MPS) OVER SOUTH BOB AND ADJOINING EQUATORIAL INDIAN OCEAN AND EASTERLY WINDS (1-3 MPS) OVER WESTCENTRAL BOB. EASTWARD MOVING MJO & KELVIN WAVES ALONG WITH EQUATORIAL ROSSBY WAVES ARE ALSO LIKELY OVER THE CENTRAL BAY OF BENGAL DURING NEXT 5-7 DAYS. THESE FEATURES INDICATE HIGHLY FAVOURABLE ENVIRONMENT FOR CYCLOGENESIS (FORMATION OF DEPRESSION) OVER THE CENTRAL PARTS OF THE BAY OF BENGAL.

BAY OF BENGAL (BOB)

THE SEA SURFACE TEMPERATURE (SST) IS 29-32°C OVER ENTIRE BOB. THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS >100 KJ/CM² OVER NORTHEAST BOB AND WESTCENTRAL BOB, <80 KJ/CM² OVER NORTHWEST & ADJOINING WESTCENTRAL BOB & 80-100 KJ/CM² OVER REMAINING BOB. A ZONE OF POSITIVE CYCLONIC VORTICITY OF 80-100X 10⁻⁵ OVER NORTH ANDAMAN SEA AND NEIGHBOURHOOD WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL AND 20-30 X10⁻⁵S⁻¹ OVER WESTCENTRAL BOB OFF TAMIL NADU COAST. POSITIVE LOW-LEVEL CONVERGENCE IS 10-20 X10⁻⁵S⁻¹ OVER NORTH ANDAMAN SEA OFF THAILAND COAST. POSITIVE UPPER-LEVEL DIVERGENCE IS 20-30 X10⁻⁵S⁻¹ OVER NORTH ANDAMAN SEA OFF THAILAND COAST. VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE OVER NORTH & CENTRAL BOB AND HIGH OVER SOUTH BOB AND ADJOINING EIO. UPPER TROPOSPHERIC RIDGE RUNS ALONG 17°N.

IMD GFS INDICATING LOW-PRESSURE AREA OVER EAST BOB (12.5/93) ON 21/00 UTC, DEPRESSION OVER EASTCENTRAL BOB (15/93) ON 21/12 UTC, CYCLONIC STORM (CS) OVER EAST CENTRAL PARTS OB BOB (15/89) AT 23/00 UTC, CROSSING NEAR PURI AS VSCS (19.8/85.5) ON 25/00 UTC.

NCUM(G) IS INDICATING A LOW-PRESSURE AREA OVER EASTCENTRAL BOB (15/92.5) ON 20/12 UTC, DEPRESSION OVER EASTCENTRAL BOB ON 21/06 UTC, CS OVER WESTCENTRAL BOB (16.5/88) ON 23/06 UTC, AND CROSSING NEAR BHUBANESWAR (20/85) ON 24/12 UTC.

ECMWF IS INDICATING LOW OVER EASTCENTRAL BOB (15.1/93.1) ON 22/03 UTC, DEPRESSION OVER EASTCENTRAL BOB (14.9/91.5) ON 23/00 UTC, CYCLONIC STORM (CS) OVER EASTCENTRAL BOB (16.7/88.7) ON 23/09 UTC AND CROSSING NEAR PURI COASTS (19.9/85.6) ON 25/06 UTC.

NCEP GFS IS INDICATING LPA OVER NORTH ANDAMAN SEA (13.7/94.6) ON 20/12 UTC, DEPRESSION OVER EASTCENTRAL BOB (15/92.5) ON 21/00 UTC, CS OVER EASTCENTRAL BOB (16.5/92.1) ON 22/00 UTC AND CROSSING OVER WEST BENGAL-BANGLADESH COASTS (22/88) 24/06 UTC AS VSCS AND ABOVE CATEGORY SYSTEMS.

IMD MME IS INDICATING LOW PRESSURE AREA OVER NRTH ANDAMAN SEA ON 20TH OCT, DEPRESSION ON 21/00 UTC, CS ON 22/12 UTC WITH NORTHWESTWARDS MOVEMENT TOWARDS NORTH ODISHA AND CROSSING AROUND 25/01 UTC NEAR 21.3/86.8.

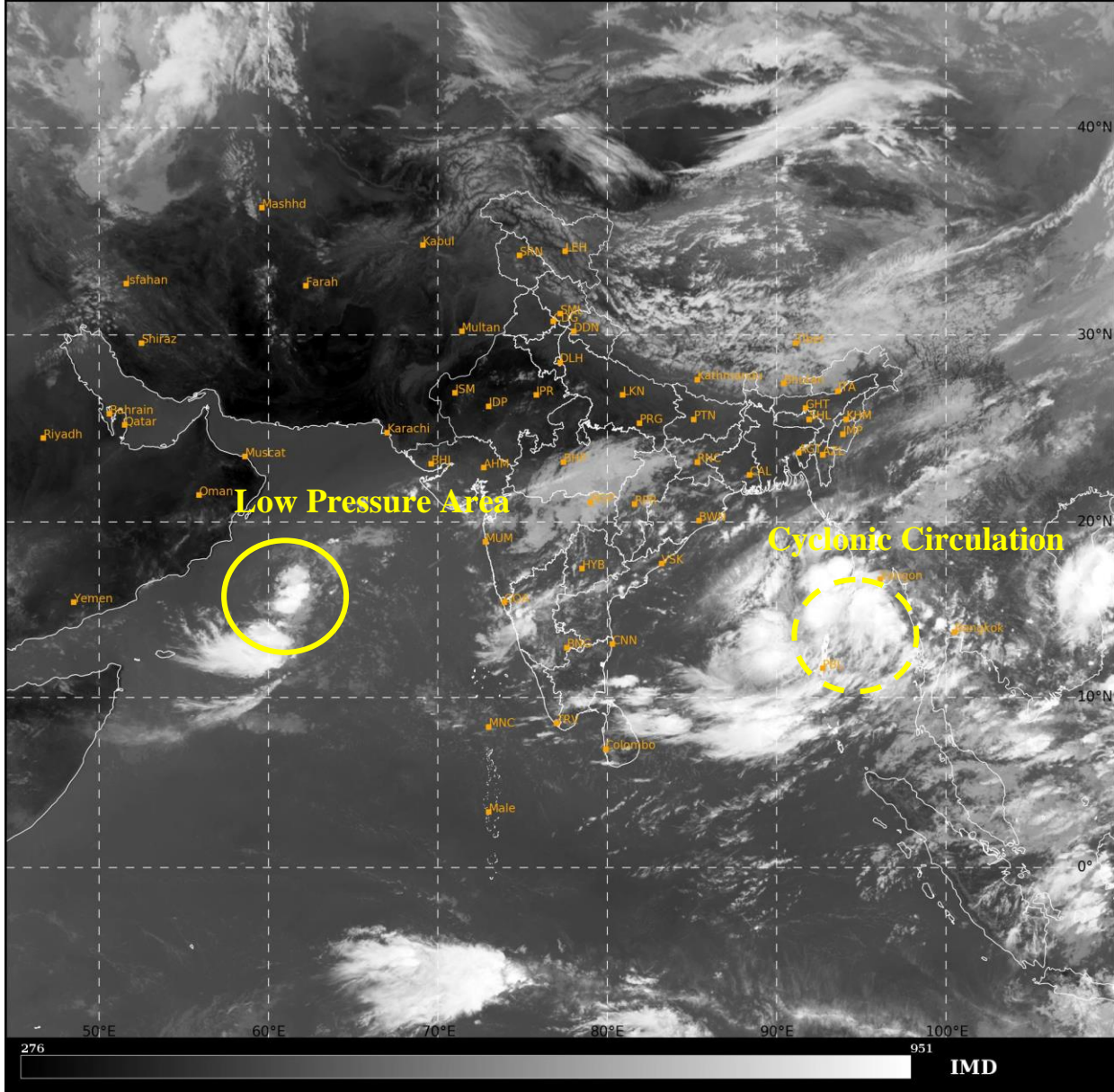
CONSIDERING ALL THE ABOVE, IT IS INFERRED THAT UNDER THE INFLUENCE OF CYCLONIC CIRCULATION OVER NORTH ANDAMAN SEA A LOW-PRESSURE AREA IS LIKELY TO FORM OVER THE EASTCENTRAL BAY OF BENGAL AND ADJOINING NORTH ANDAMAN SEA BY NEXT 24 HRS. IT IS LIKELY TO MOVE NORTHWESTWARDS AND INTENSIFY INTO A DEPRESSION BY 22ND OCTOBER MORNING AND INTO A CYCLONIC STORM BY 23RD OCTOBER OVER EAST CENTRAL BAY OF BENGAL. THEREAFTER, IT IS VERY LIKELY TO MOVE NORTHWESTWARDS AND REACH NORTHWEST BAY OF BENGAL OFF ODISHA-WEST BENGAL COSTS BY 24TH OCTOBER.

ARABIAN SEA (AS)

MOST OF THE MODELS ARE INDICATING NEARLY WESTWARDS MOVEMENT AND WEAKENING OF THE LOW PRESSURE AREA OVER WESTCENTRAL ARABIAN BY 21/00 UTC.

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

20-10-2024/(0630 to 0657) GMT
20-10-2024/(1200 to 1227) IST



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