





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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 21.10.2024

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 21.10.2024 BASED ON 0600 UTC OF 21.10.2024.

BAY OF BENGAL:

(i) YESTERDAY'S CYCLONIC CIRCULATION OVER NORTH ANDAMAN SEA LAY AS A LOW PRESSURE AREA OVER THE EASTCENTRAL BAY OF BENGAL AND ADJOINING NORTH ANDAMAN SEA MOVED WEST-NORTHWESTWARDS AND LAY AS **A WELL MARKED LOW PRESSURE AREA** OVER EASTCENTRAL BAY OF BENGAL AT 0600 UTC OF TODAY, THE 21ST OCTOBER 2024.

IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS AND INTENSIFY INTO A DEPRESSION BY 22^{ND} OCTOBER MORNING AND INTO A CYCLONIC STORM BY 23^{RD} OCTOBER, 2024 OVER EASTCENTRAL BAY OF BENGAL. THEREAFTER, IT IS VERY LIKELY TO MOVE NORTHWESTWARDS AND REACH NORTHWEST BAY OF BENGAL OFF ODISHA-WEST BENGAL COASTS BY 24^{TH} OCTOBER/0000 UTC. CONTINUING TO MOVE NORTHWESTWARDS, IT IS VERY LIKELY TO CROSS NORTH ODISHA AND WEST BENGAL COASTS BETWEEN PURI AND SAGAR ISLAND DURING 1800 UTC OF 24^{TH} AND 0000 UTC OF 25^{TH} OCTOBER, 2024 AS A SEVERE CYCLONIC STORM WITH A WIND SPEED OF 100-110 KMPH GUSTING 120 KMPH.

Forecast track and intensity are given in the following table:

Date/Time (UTC)	Position (Lat. °N/	Maximum Sustained Surface Wind	Category Of Cyclonic Disturbance		
	Long. °E)	Speed (Kmph)			
21.10.24/0600	15.0/92.0	25-35 gusting to 45	Well Marked Low Pressure Area		
21.10.24/1800	15.3/91.2	30-40 gusting to 50	Well Marked Low Pressure Area		
22.10.24/0600	15.6/90.3	40-50 gusting to 60	Depression		
22.10.24/1800	16.1/89.4	50-60 gusting to 70	Deep Depression		
23.10.24/0600	16.8/88.7	60-70 gusting to 80	Cyclonic Storm		
23.10.24/1800	18.1/88.1	80-90 gusting to 100	Cyclonic Storm		
24.10.24/0600	19.4/87.6	90-100 gusting to 110	Severe Cyclonic Storm		
24.10.24/1800	20.7/87.0	100-110 gusting to 120	Severe Cyclonic Storm		
25.10.24/0600	21.3/86.4	75-85 gusting to 95	Cyclonic Storm		
25.10.24/1800	21.8/85.7	45-55 gusting 65	Depression		

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 ON 21ST OCTOBER.

EASTCENTRAL BAY OF BENGAL: SQUALLY WIND SPEED REACHING 35-45 GUSTING TO 55 KMPH IS VERY LIKELY ON 21ST OCTOBER, 55-65 GUSTING TO 75 KMPH BY 22/12 UTC, 70-90 KMPH GUSTING TO 100 KMPH FROM 23/12 UTC TILL 24/00 UTC.

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 23/00 UTC. IT WOULD GRADUALLY INCREASE BECOMING GALE WIND SPEED REACHING 100-110 KMPH GUSTING TO 120 KMPH FROM 24/12 UTC TO 25/12UTC 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 23/12 UTC. IT WOULD GRADUALLY INCREASE BECOMING GALE WIND SPEED REACHING 100-110 KMPH GUSTING TO 120 KMPH FROM 24/12 UTC TILL 25/00 UTC.

(B) SEA CONDITION:

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

EASTCENTRAL BAY OF BENGAL: SEA CONDITION IS LIKELY TO BECOME ROUGH TO VERY ROUGH FROM 21/00 UTC TO 22/12 UTC, BECOMING VERY ROUGH TO HIGH THEREAFTER TILL 24/00 UTC.

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 23/00 UTC AND WOULD BECOME HIGH FROM 24/00 UTC TILL 25/06 UTC.

ALONG & OFF ODISHA-WEST BENGAL COASTS: SEA CONDITION IS LIKELY TO BE ROUGH TO VERY ROUGH FROM 23RD EVENING AND WOULD BECOME HIGH FROM 24/12 UTC TO 25/06 UTC.

(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.
 - ✓ FASTCENTRAL 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 25/00 UTC.
- 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.
- (iii) YESTERDAY'S CYCLONIC CIRCULATION OVER SOUTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL OFF NORTH TAMIL NADU COAST LAY OVER TAMILNADU AND NEIGHBOURHOOD EXTENDING UPTO 5.8 KM ABOVE MEAN SEA LEVEL AT 0300 UTC OF TODAY, THE 21ST OCTOBER, 2024.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTHEAST AND EASTCENTRAL BAY OF BENGAL, NORTH ANDAMAN SEA, TENASSERIM COAST, GULF OF MARTABAN (MINIMUM CTT MINUS 800-930C). SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER NORTHWEST AND WESTCENTRAL BAY OF BENGAL, ARAKAN COAST AND SOUTH ANDAMAN SEA.

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

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

*NOTE: EVERY 24HR FORECAST IS VALID UPTO 0300 UTC (0830 IST) OF NEXT DAY "-" INDICATE GENESIS HAS ALREADY OCCURRED.

ARABIAN SEA:

YESTERDAY'S **LOW PRESSURE AREA** OVER WESTCENTRAL ARABIAN SEA PERSIST OVER THE SAME REGION WITH THE ASSOCIATED CYCLONIC CIRCULATION EXTENDING UPTO 3.1 KM ABOVE MEAN SEA LEVEL AT 0300 UTC OF TODAY, THE 21ST OCTOBER, 2024. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDSS AWAY FROM INDIAN COAST AND WEAKEN FURTHER DURING NEXT 12 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 LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL ADJOINING SOUTHEAST ARABIAN SEA OFF SOUTH MAHARASHTRA-GOA-KARNATAKA-KERALA COASTS AND WESTCENTRAL BAY OF

BENGAL (MINIMUM CLOUD TOP TEMPERATURE IS MINUS 70-80 DEGREE CELSIUS). SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER GULF OF CAMBAY REST SOUTHEAST ARABIAN SEA, LAKSHADWEEP ISLAND AREA AND COMORIN AREA.

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

Ī	24	24-48	48-72	72-96	96-120	120-144	144-168
	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS
Ī	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 EASTCENTRAL BAY OF BENGAL & ADJOINING NORTH ANDAMAN SEA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. POSITIVE LOW-LEVEL CONVERGENCE IS 20 X10-5S-1 OVER SYSTEM AREA. POSITIVE UPPER-LEVEL DIVERGENCE IS 20X10-5S-1 TO THE EAST OF SYSTEM AREA OVER NORTH ANDAMAN SEA. VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE OVER CENTRAL BOB AND HIGH OVER NORTH BOB. UPPER TROPOSPHERIC RIDGE RUNS ALONG 17°N.

IMD GFS IS INDICATING LOW-PRESSURE AREA OVER EASTCENTRAL BOB AND ADJOINING NORTH ANDAMAN SEA (14.7/93) ON 21/00 UTC, DEPRESSION OVER EASTCENTRAL BOB (17/92.9) ON 21/12 UTC, CYCLONIC STORM (CS) OVER EAST CENTRAL PARTS OB BOB (16.8/92.2) AT 22/00 UTC, INDICATING HIGHER INTENSIFICATION UPTO SCS STAGE (60 KT) BETWEEN 23/00 UTC & 24/00 UTC AND CROSSING OVER BANGLADESH COAST AS SCS (22/89.9) ON 24/03 UTC.

NCUM(G) IS INDICATING A LOW-PRESSURE AREA OVER EASTCENTRAL BOB 7 ADJOINING NORTH ANDAMAN (15/93) ON 21/00 UTC, DEPRESSION OVER EASTCENTRAL BOB (15.3/91.8) ON 22/00 UTC, CS OVER EASTCENTRAL BOB (16.8/89.9) ON 23/00 UTC, AND CROSSING ODISHA COAST (20.5/86.8) ON 24/21 UTC. PEAK INTENSITY OF SCS (60 KT) BETWEEN 24/00 UTC & 25/00 UTC IS INDICATED.

ECMWF IS INDICATING WELL MARKED LOW OVER EASTCENTRAL BOB (15.0/92.3) ON 21/00 UTC, DEPRESSION OVER EASTCENTRAL BOB (15.6/91.7) ON 22/00 UTC, CYCLONIC STORM (CS) OVER WESTCENTRAL BOB (17.4/87.8) ON 24/00 UTC AND CROSSING OVER ODISHA COAST (20.2/86.4) ON 25/00 UTC. PEAK INTENSITY OF 45 KT IS INDICATED BY THE MODEL.

NCEP GFS IS INDICATING WELL MARKED LOW OVER EASTCENTRAL & ADJOINING NORTH ANDAMAN SEA (15.6/92.6) ON 21/00 UTC, DEPRESSION OVER EASTCENTRAL BOB (15.7/91.9) ON 22/00 UTC, CS OVER EASTCENTRAL BOB (16.4/91.6) ON 22/12 UTC AND CROSSING OVER WEST BENGAL-BANGLADESH COASTS (21.6/87.8) 24/06 UTC AS A SCS CATEGORY SYSTEMS.

IMD MME IS INDICATING DEPRESSION OVER EASTCENTRAL BOB & ADJOINING NORTH ANDAMAN SEA ON 21ST OCT, CS ON 22/12 UTC OVER EASTCENTRAL BOB WITH NORTHWESTWARDS MOVEMENT TOWARDS ODISHA-WESTBENGAL AND CROSSING AROUND 25/05 UTC NEAR 22.13/88.2 AS A DEEP DEPRESSION.

HENCE THERE IS STILL LARGE VARIATION AMONG VARIOUS MODELS WRT MOVEMENT AFTER BECOMING CYCLONIC STORM OVER EASTCENTRAL BOB. LANDFALL POINT IS VARYING FROM GOPALPUR (ODISHA) TO KHEPUPARA (SOUTH BANGLADESH). SIMILARLY, THE LANDFALL TIM IS VARYING BETWEEN 24/03 UTC TO 25/06 UTC. AND INTENSITY AT THE TIME OF LANDFALL IS VARYING FROM DEEP EPRESSION (30 KT) TO SEVERE CYCLONIC STORM (60 KT).

CONSIDERING ALL THE ABOVE, THE WELL MARKED LOW PRESSURE AREA OVER EASTCENTRAL BAY OF BENGAL IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS AND INTENSIFY INTO A DEPRESSION BY 22ND OCTOBER MORNING 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 ODISHAWEST BENGAL COASTS BY 24TH OCTOBER/0000 UTC. CONTINUING TO MOVE NORTHWESTWARDS, IT IS VERY LIKELY TO CROSS NORTH ODISHA AND WEST BENGAL COASTS BETWEEN PURI AND SAGAR ISLAND DURING 1800 UTC OF 24TH AND 0000 UTC OF 25TH OCTOBER, 2024 AS A SEVERE CYCLONIC STORM WITH A WIND SPEED OF 100-110 KMPH GUSTING 120 KMPH.

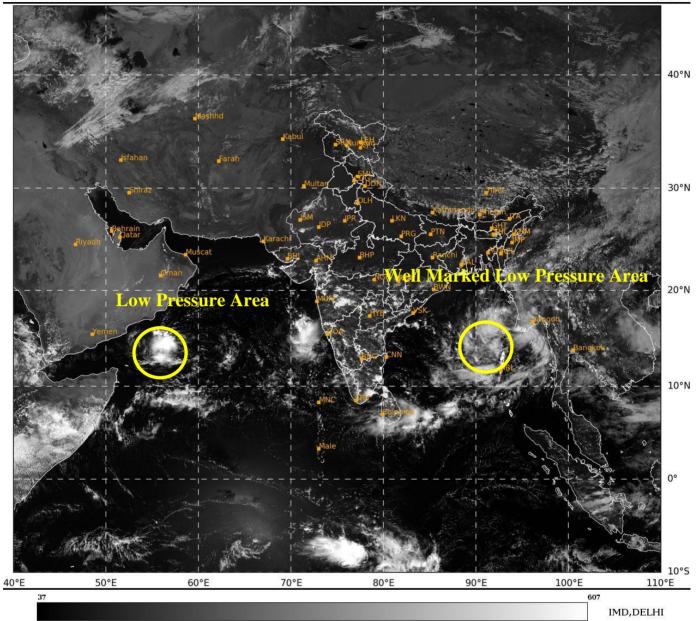
ARABIAN SEA (AS)

MOST OF THE MODELS ARE INDICATING NEARLY WESTWARDS MOVEMENT AND WEAKENING OF THE LOW PRESSURE AREA OVER WESTCENTRAL ARABIAN BY 22/00 UTC.

21-10-2024/(0745 to 0812) GMT 21-10-2024/(1315 to 1342) IST

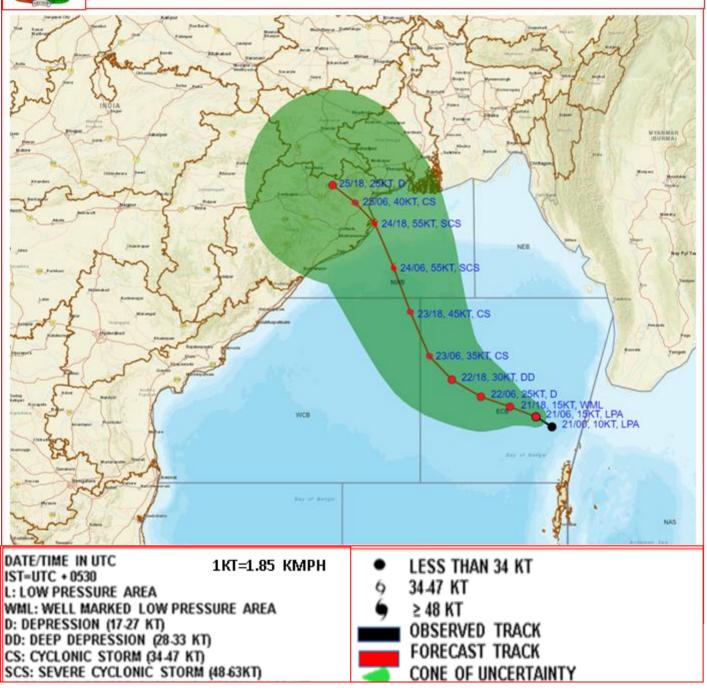
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OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINITY OF LOW-PRESSURE AREA OVER EASTCENTRAL BAY OF BENGAL AND ADJOINIG NORTH ANDAMAN SEA BASED ON 0600 UTC (1130 Hrs. IST) OF 21ST OCTOBER 2024





OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF LOW-PRESSURE AREA OVER EASTCENTRAL BAY OF BENGAL AND ADJOINIG NORTH ANDAMAN SEA BASED ON 0600 UTC (1130 Hrs. IST) OF 21ST OCTOBER 2024

