



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 11.11.2021

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0900 UTC OF 11.11.2021 BASED ON 0600 UTC OF 11.11.2021.

(A) DEPRESSION OVER SOUTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL

THE DEPRESSION OVER SOUTHWEST BAY OF BENGAL (BOB) MOVED NORTHWESTWARDS WITH A SPEED OF 14 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 0600 UTC OF TODAY, THE 11TH NOVEMBER 2021, OVER SOUTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL, NEAR LAT. 12.6°N AND LONG. 80.9°E, ABOUT 80 KM EAST-SOUTHEAST OF CHENNAI (43279) AND 140 KM EAST-NORTHEAST OF PUDUCHERRY (43331). IT IS VERY LIKELY TO MOVE NORTHWESTWARDS AND CROSS NORTH TAMIL NADU & ADJOINING SOUTH ANDHRA PRADESH COASTS AROUND CHENNAI (43279) DURING EVENING (1200-1500 UTC) OF 11TH NOVEMBER 2021.

AS PER INSAT 3D IMAGERY AT 0600UTC, THE CLOUDS ARE ORGANISED IN SHEAR PATTERN. THE CONVECTIVE CLOUD MASS IS SHEARED IN THE NORTHWEST OF SYSTEM CENTRE. ALSO ANOTHER INTENSE CLOUD MASS HAS DEVELOPED OVER THE NORTHEAST SECTOR DUE TO CONVERGENCE IN THE NORTHEASTERLY WINDS. THE INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 1.5. BROKEN LOW & MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHWEST & ADJOINING WESTCENTRAL BOB BETWEEN LATITUDE 11.0N & 19.0N, LONGITUDE 81.0E & 90.0E, OVER NORTH TAMIL NADU, COASTAL ANDHRA PRADESH AND NEIGHBOURHOOD. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEGREE CELCIUS.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME (UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
11.11.21/0600	12.6/80.9	45-55 GUSTING TO 65	DEPRESSION
11.11.21/1200	13.0/80.4	45-55 GUSTING TO 65	DEPRESSION
11.11.21/1800	13.3/80.1	40-50 GUSTING TO 60	DEPRESSION

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS 1000 HPA. STRONGER WINDS ARE SEEN IN NORTHEAST SECTOR.

AT 0600 UTC, A BUOY LOCATED NEAR 13.4°N/84.1°E REPORTED MEAN SEA LEVEL PRESSURE (MSLP) OF 1005.1 HPA AND MAXIMUM SUSTAINED WIND SPEED (MSW) OF 08KT/120°. ANOTHER BUOY LOCATED NEAR 13.9°N/87.1°E REPORTED MEAN SEA LEVEL PRESSURE (MSLP) OF 1007.1 HPA AND MAXIMUM SUSTAINED WIND SPEED (MSW) OF 15KT/120°. THE PAST 24 HOUR FALL OF MEAN SEA LEVEL PRESSURE IS -9.0 HPA OVER CHENNAI (TAMILNADU).

REMARKS:

SEA SURFACE TEMPERATURE (SST) IS ABOUT 29-30°C OVER SOUTHWEST & ADJOINING WESTCENTRAL BOB. TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS ABOUT 80-100 KJ/CM² OVER THE SYSTEM REGION. POSITIVE LOW LEVEL VORTICITY IS ABOUT (150 X10⁻⁶ S⁻¹) AROUND THE SYSTEM CENTRE AND IS ORIENTED SLIGHTLY TO THE WEST WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. POSITIVE LOW LEVEL CONVERGENCE IS AROUND 30 X10⁻⁵ S⁻¹ TO THE NORTHWEST OF SYSTEM CENTRE. THE POSITIVE UPPER LEVEL DIVERGENCE IS AROUND 30 X10⁻⁵ S⁻¹ TO THE EAST OF SYSTEM CENTRE. WARM MOIST AIR INCURSION IS SEEN INTO THE CORE OF SYSTEM AS PER TOTAL PRECIPITABLE WATER IMAGERY. WIND SHEAR IS LOW TO MODERATE (15-20 KTS) OVER THE SYSTEM REGION AND CONTINUES TO REMAIN HIGH (>25 KT) NEAR TAMILNADU-ANDHRA PRADESH COASTS. THIS HIGH VERTICAL WIND SHEAR WILL OFF-SET THE OTHER FAVOURABLE ENVIRONMENTAL CONDITIONS AND HENCE THE DEPRESSION IS NOT LIKELY TO INTENSIFY FURTHER. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 17°N OVER BOB. HENCE, THE SYSTEM IS STEERED NORTHWESTWARDS UNDER THE INFLUENCE OF SOUTHEASTERLY WINDS PREVAILING IN THE SOUTHERN PERIPHERY OF UPPER TROPOSPHERIC LEVEL.

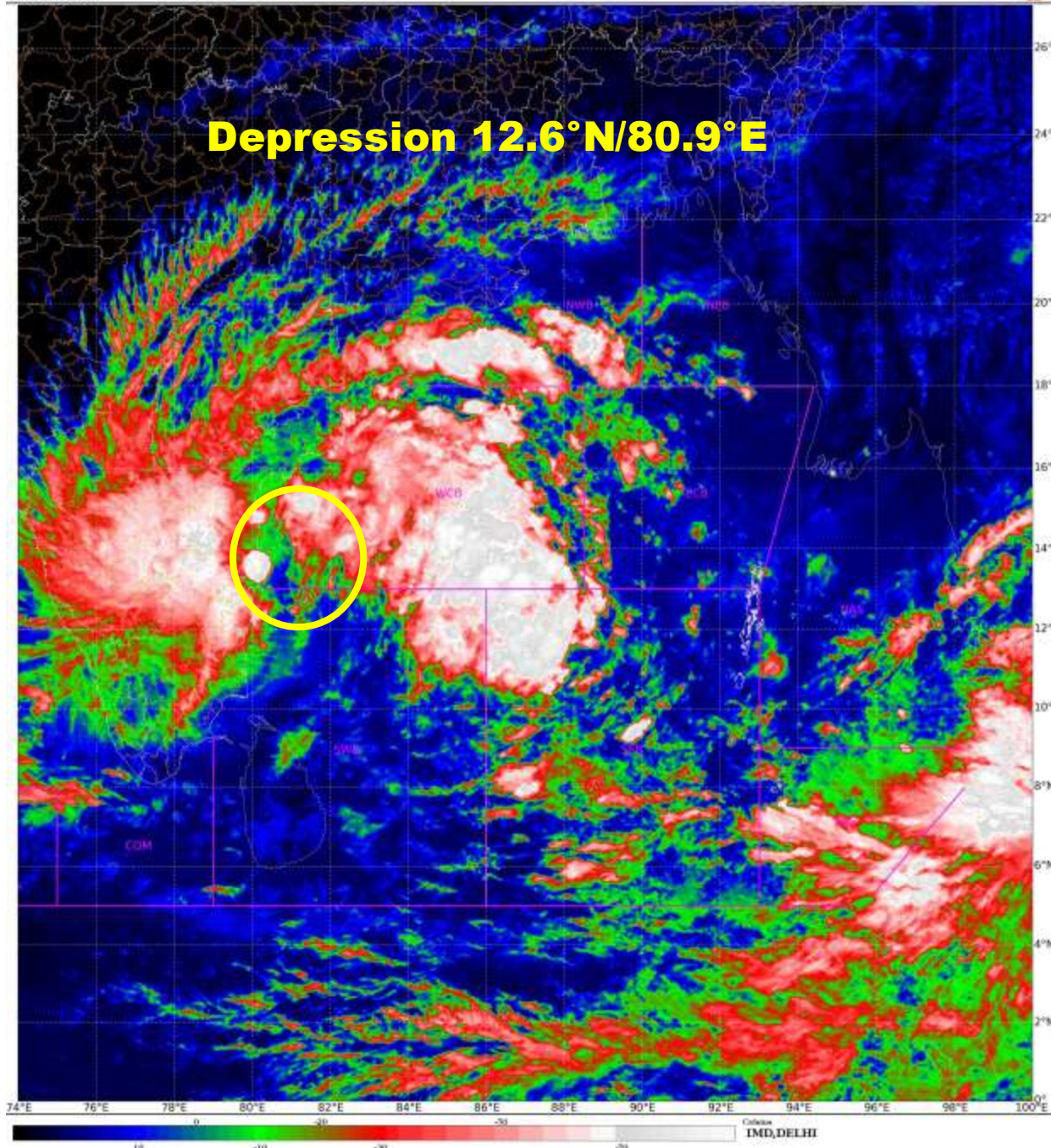
MODELS ARE ALSO INDICATING THAT THE SYSTEM WOULD MOVE WEST-NORTHWESTWARDS TOWARDS NORTH TAMIL NADU & ADJOINING SOUTH ANDHRA PRADESH COASTS CLOSE TO CHENNAI. HOWEVER, THERE IS LARGE DIVERGENCE AMONG VARIOUS MODELS W.R.T. LANDFALL TIME VARYING FROM 1200 UTC OF 11TH TO 0000 UTC OF 12TH, NOVEMBER.

HENCE, THE DEPRESSION OVER SOUTHWEST BOB WOULD MOVE NORTHWESTWARDS AND CROSS NORTH TAMIL NADU & ADJOINING SOUTH ANDHRA PRADESH COASTS AROUND CHENNAI (43279) DURING THE EVENING (1200-1500 UTC) OF 11TH NOVEMBER 2021.

(B) LIKELY FORMATION OF FRESH LOW PRESSURE AREA OVER SOUTH ANDAMAN SEA AND NEIGHBOURHOOD

A FRESH LOW PRESSURE AREA IS LIKELY TO FORM OVER SOUTH ANDAMAN SEA AND NEIGHBOURHOOD AROUND 13TH NOVEMBER. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND BECOME MORE MARKED DURING SUBSEQUENT 48 HOURS.

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OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER SOUTHWEST & ADJOINING SOUTHWEST BAY OF BENGAL BASED ON 0600 UTC OF 11TH NOVEMBER, 2021



DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
SuCS: SUPER CYCLONIC STORM \geq 120 KT)

- LESS THAN 34 KT
- 34-47 KT
- \geq 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY