



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 10.11.2021

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1500 UTC OF 10.11.2021 BASED ON 1200 UTC OF 10.11.2021.

(A) DEPRESSION OVER SOUTHWEST BAY OF BENGAL

THE WELL MARKED LOW PRESSURE AREA OVER CENTRAL PARTS OF SOUTH BAY OF BENGAL (BOB) MOVED WEST-NORTHWESTWARDS, CONCENTRATED INTO A DEPRESSION AND LAY CENTRED AT 1200 UTC OF 10TH NOVEMBER 2021, OVER SOUTHWEST BAY OF BENGAL, NEAR LAT. 10.6°N AND LONG. 83.4°E, ABOUT 430 KM EAST-SOUTHEAST OF CHENNAI & 420 KM EAST-SOUTHEAST OF PUDUCHERRY. IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS AND REACH NEAR NORTH TAMILNADU COAST BY THE EARLY MORNING (0000 UTC) OF 11TH NOVEMBER, 2021. THEREAFTER, IT IS LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS AND CROSS NORTH TAMIL NADU & ADJOINING SOUTH ANDHRA PRADESH COASTS BETWEEN KARAIKAL (43346) & SRIHARIKOTA (ANDHRA PRADESH, INDIA) CLOSE TO THE NORTH OF PUDUCHERRY (43331) BY THE EVENING (1200-1500 UTC) OF 11TH NOVEMBER 2021.

AS PER INSAT 3D IMAGERY AT 1200UTC, INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 1.5. THE SYSTEM SHOWS SHEAR PATTERN. THE CONVECTIVE CLOUDS ARE SHEARED TO THE NORTHWEST OF SYSTEM CENTRE. THE CONVECTION HAS ORGANISED DURING PAST SIX HOURS. THE CENTRE OF THE SYSTEM IS CLEARLY SEEN IN F-18 MICROWAVE PASS IMAGERY AT 1056 UTC. SCATTERED TO BROKEN LOW & MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHWEST & ADJOINING WESTCENTRAL BOB BETWEEN LATITUDE 9.5N & 17.5N, LONGITUDE 80.0E & 89.0E. 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
10.11.21/1200	10.6/83.4	45-55 gusting to 65	Depression
11.11.21/0000	11.7/81.6	45-55 gusting to 65	Depression
11.11.21/1200	12.2/80.0	45-55 gusting to 65	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. THE WINDS ARE STRONGER IN NORTHEAST SECTOR UNDER THE INFLUENCE OF ACTIVE NORTHEAST MONSOON CONDITIONS.

AT 1200 UTC, A BUOY LOCATED NEAR 13.4°N/84.0°E REPORTED MEAN SEA LEVEL PRESSURE (MSLP) OF 1003 HPA AND MAXIMUM SUSTAINED WIND SPEED (MSW) OF 21.4KT/100°. ANOTHER BUOY LOCATED NEAR 13.9°N/87.0°E REPORTED MSLP OF 1005.4 HPA AND MSW OF 19.4KT/120° AND A BUOY LOCATED NEAR 6.6°N/88.3°E REPORTED MSLP OF 1005.8 HPA AND MSW OF 7.8KT/230°. THERE IS A FALL OF MSLP BY ABOUT 1-3 HPA OVER NORTH TAMILNADU COAST WITH P24= -3.0 HPA AT NAGAPATTINAM, -1.7 HPA AT PUDUCHERRY AND -1.3 AT CHENNAI AT 1200 UTC.

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.

DURING PAST SIX HOURS, THE LOW LEVEL VORTICITY, LOW LEVEL CONVERGENCE AND UPPER LEVEL DIVERGENCE HAVE INCREASED. POSITIVE LOW LEVEL VORTICITY IS ABOUT ($100 \times 10^{-6} \text{ S}^{-1}$) AROUND SYSTEM AREA AND IS ORIENTED NORTHWESTWARDS WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. POSITIVE LOW LEVEL CONVERGENCE IS AROUND $30 \times 10^{-5} \text{ S}^{-1}$ TO THE NORTHWEST OF SYSTEM CENTRE. SIMILARLY, POSITIVE UPPER LEVEL DIVERGENCE IS AROUND $40 \times 10^{-5} \text{ S}^{-1}$ TO THE NORTHWEST 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 (10-20 KTS) OVER THE SYSTEM REGION AND HIGH (>30 KT) NEAR TAMILNADU-ANDHRA PRADESH COASTS. THIS HIGH VERTICAL WIND SHEAR WILL OFF-SET THE FAVOURABLE OTHER ENVIRONMENTAL CONDITIONS AND HENCE THE DEPRESSION IS NOT LIKELY TO INTENSIFY FURTHER. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 19°N OVER BOB. HENCE, THE SYSTEM IS STEERED WEST-NORTHWESTWARDS UNDER THE INFLUENCE OF EAST-SOUTHEASTERLY WINDS PREVAILING IN THE UPPER TROPOSPHERIC LEVEL.

MOST OF THE MODELS INCLUDING IMD GFS, ECMWF AND NCUM ARE INDICATING NO FURTHER INTENSIFICATION OF SYSTEM. MODELS ARE ALSO INDICATING THAT THE SYSTEM WOULD MOVE WEST-NORTHWESTWARDS AND CROSS NORTH TAMIL NADU & ADJOINING SOUTH ANDHRA PRADESH COASTS AROUND 1200 UTC OF 11TH. HOWEVER, THERE IS DIVERGENCE IN MODEL GUIDANCE WITH RESPECT TO TRACK, AS ECMWF & NCUM MODELS ARE SUGGESTING MORE NORTHWARD COMPONENT AS COMPARED TO GFS GROUP OF MODELS. AS A RESULT THERE IS DIFFERENCE IN MODEL GUIDANCE FOR LANDFALL POINT. THE FINAL TRACK FORECAST IS BASED ON THE MULTI MODEL CONSENSUS FORECAST.

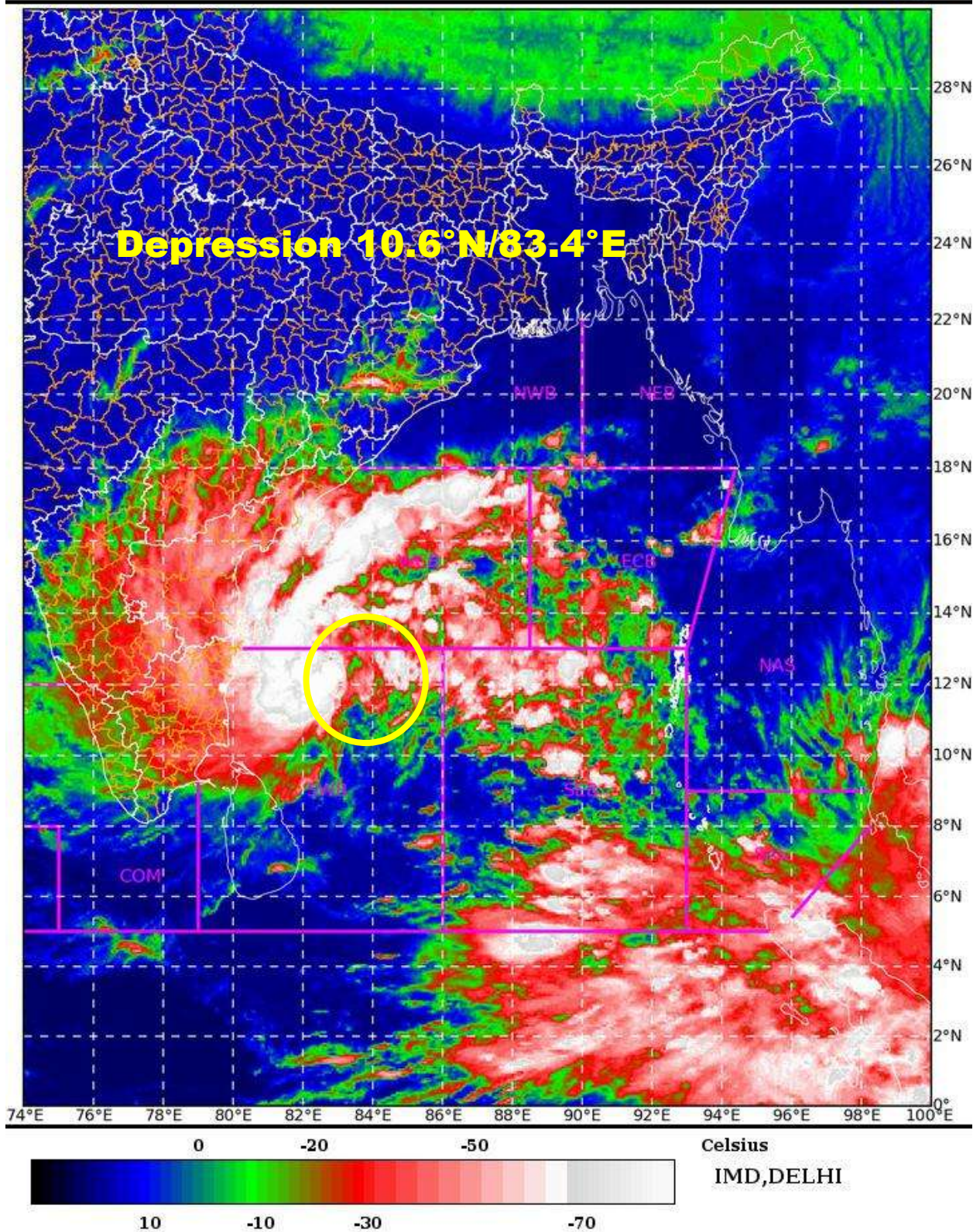
HENCE, THE DEPRESSION OVER SOUTHWEST BOB WOULD MOVE WEST-NORTHWESTWARDS AND CROSS NORTH TAMIL NADU & ADJOINING SOUTH ANDHRA PRADESH COASTS BETWEEN KARAİKAL (43346) & SRIHARIKOTA (ANDHRA PRADESH, INDIA) CLOSE TO THE NORTH OF PUDUCHERRY (43331) BY THE EVENING (1200 UTC) OF 11TH NOVEMBER 2021.

(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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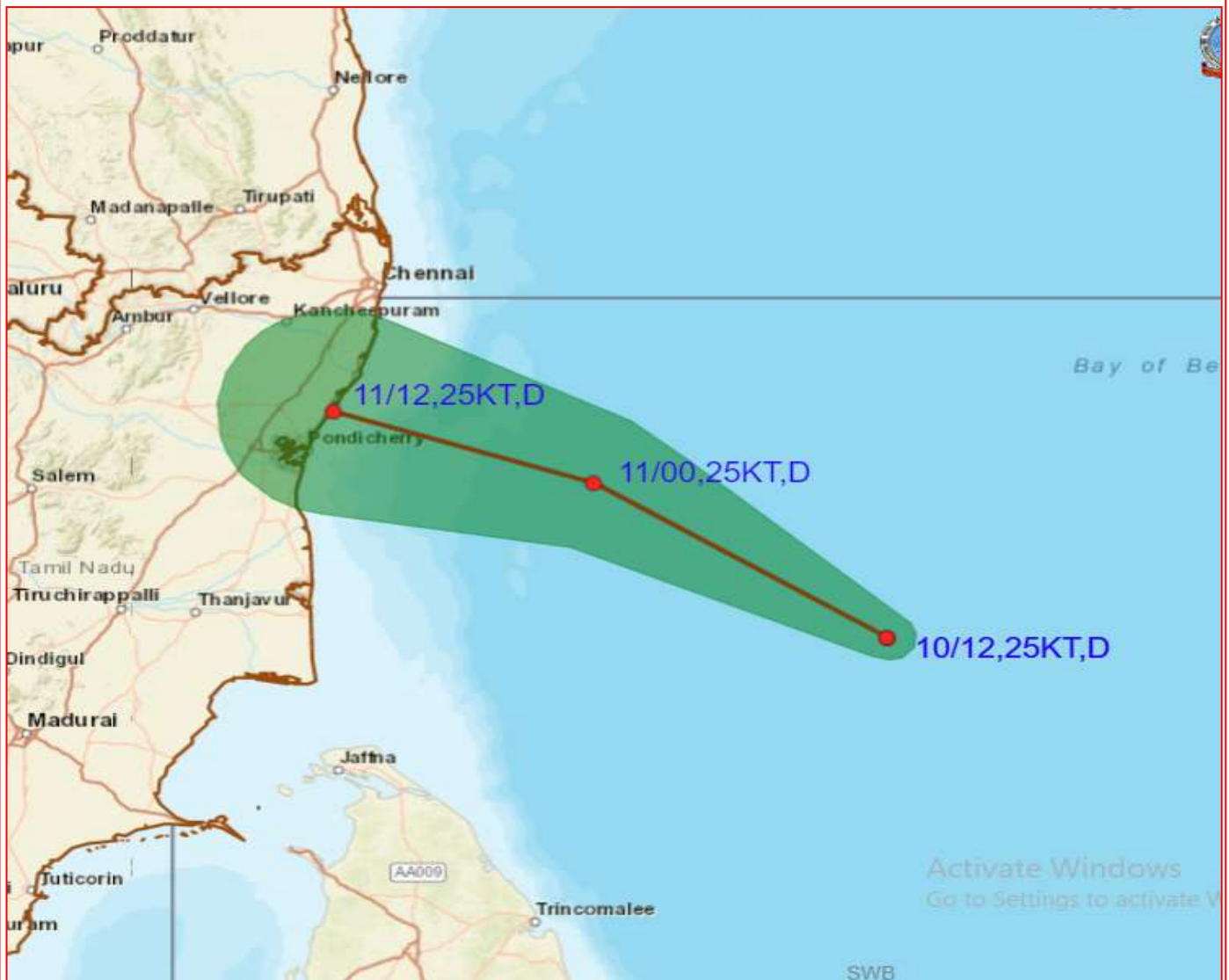
SAT : INSAT-3D IMG 10-11-2021/(1230 to 1256) GMT
IMG_TIR1_TEMP 10.8 um 10-11-2021/(1800 to 1826) IST
L1C Mercator



PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%
This is a guidance Bulletin for the WMO/ESCAP Panel Member countries., Please visit respective National websites for Country specific Bulletins



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 1200 UTC OF 10TH 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 (≥ 20 KT)

 LESS THAN 34 KT

 34-47 KT

 ≥ 48 KT

 OBSERVED TRACK

 FORECAST TRACK

 CONE OF UNCERTAINTY