



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 22.11.2022

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0300 UTC OF 22.11.2022 BASED ON 0000 UTC OF 22.11.2022.

SUB: DEPRESSION OVER WESTCENTRAL AND ADJOINING SOUTHWEST BAY OF BENGAL

THE DEPRESSION OVER SOUTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 6 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 0000UTC OF TODAY, THE 22ND NOVEMBER, 2022 OVER WESTCENTRAL AND ADJOINING SOUTHWEST BAY OF BENGAL, NEAR LATITUDE 13.1° N AND LONGITUDE 81.4° E, ABOUT 130 KM EAST-NORTHEAST OF CHENNAI(43279), 210 KM SOUTHEAST OF NELLORE(43245) AND 340 KM SOUTH-SOUTHEAST OF MACHILIPATNAM(43185).

CONTINUING TO MOVE WEST-NORTHWESTWARDS TOWARDS SOUTH ANDHRA PRADESH-NORTH TAMILNADU-PUDUCHERRY COASTS, IT IS LIKELY TO WEAKEN INTO A WELL-MARKED LOW PRESSURE AREA DURING NEXT 6 HOURS.

AS PER INSAT 3D IMAGERY, THE INTENSITY OF THE SYSTEM IS CHARACTERISED AS T1.0/1.5. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL AND ADJOINING SOUTHWEST BAY OF BENGAL BETWEEN LAT 13.5°N TO 16.0°N AND LONG 80.0°E TO 84.0°E & NORTHEAST TAMILNADU & SOUTH COASTAL ANDHRA PRADESH. MINIMUM CLOUD TOP TEMPERATURE IS -75°C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 1004 HPA. A SHIP LOCATED NEAR LAT 11.4°N AND LONG 83.23°E REPORTED WIND 260DEG/23 KNOTS.

REMARKS:

THE MADDEN JULIAN OSCILLATION INDEX (MJO) CURRENTLY LIES IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. HENCE MJO WOULD NOT SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER BAY OF BENGAL. THERE IS ALSO NO SUPPORT OF EQUATORIAL WAVES OVER THE REGION FOR FURTHER INTENSIFICATION OF THE SYSTEM. SEA SURFACE TEMPERATURE (SST) IS AROUND 28-29°C OVER SOUTHWEST BOB.

LOW LEVEL RELATIVE VORTICITY IS ABOUT $50 \times 10^{-6} \text{S}^{-1}$ AND LIES AROUND THE SYSTEM CENTER. VERTICALLY IT IS EXTENDING UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE IS $05 \times 10^{-5} \text{S}^{-1}$ AROUND SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS $10 \times 10^{-5} \text{S}^{-1}$ TO THE NORTH OF SYSTEM CENTRE. WIND SHEAR IS MODERATE TO HIGH (15-25 KNOTS) AROUND THE SYSTEM CENTER AND ALONG THE EXPECTED DIRECTION OF MOVEMENT. TOTAL PRECIPITABLE WATER IMAGERY AT 0000 UTC OF 22ND IS INDICATING DECREASE IN WARM MOIST AIR ADVECTION INTO THE CORE OF SYSTEM FROM NORTHEAST SECTOR. IT IS ALSO INDICATING DRY COLD AIR ADVECTION FROM SOUTHERN PENINSULAR REGION INTO

THE SOUTHWEST & ADJOINING SOUTHEAST SECTOR OF SYSTEM. IN VIEW OF LAND INTERACTIONS, MODERATE TO HIGH WIND SHEAR NEAR THE COAST AND DRY-COLD AIR ADVECTION INTO THE SYSTEM, IT IS LIKELY TO START WEAKENING DURING NEXT 6 HOURS.

UPPER TROPOSPHERIC RIDGE ROUGHLY RUNS ALONG 19°N OVER BAY OF BENGAL. HOWEVER, THE SYSTEM IS BEING SHEARED WEST-NORTHWESTERLY UNDER MID-TROPOSPHERIC EAST-SOUTHEASTERLY WINDS.

MOST OF THE MODELS ARE INDICATING THAT THE SYSTEM WOULD MOVE WEST-NORTHWESTWARDS TOWARDS SOUTH ANDHRA PRADESH-TAMIL NADU COASTS AND WEAKEN GRADUALLY DURING NEXT 6 HOURS.

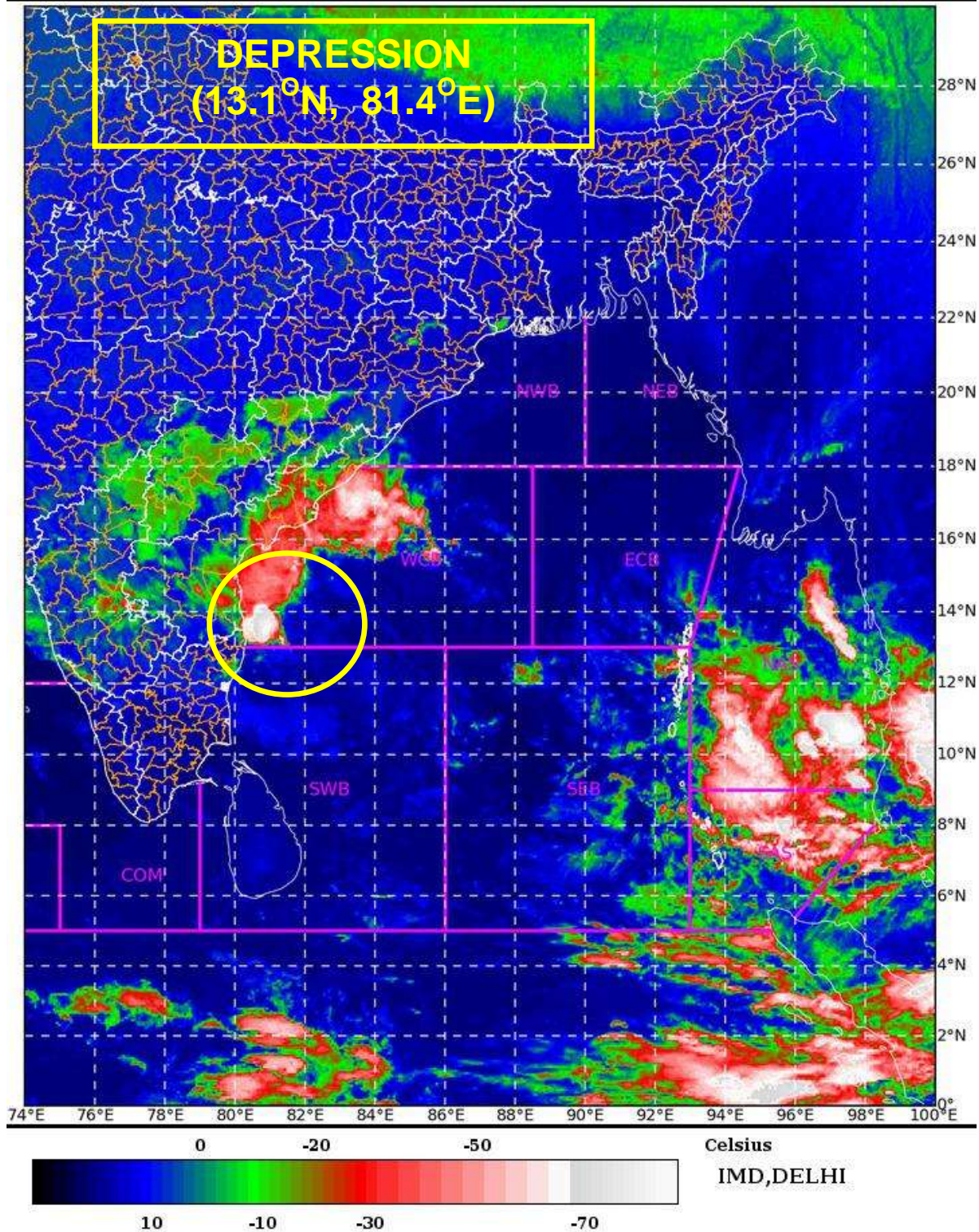
IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT CONTINUING TO MOVE WEST-NORTHWESTWARDS TOWARDS SOUTH ANDHRA PRADESH-NORTH TAMILNADU-PUDUCHERRY COASTS, THE SYSTEM IS LIKELY TO WEAKEN GRADUALLY INTO A WELL-MARKED LOW PRESSURE AREA DURING NEXT 6 HOURS.

(SHASHI KANT)
RSMC NEW DELHI

SAT : INSAT-3D IMG 22-11-2022/(0130 to 0156) GMT

IMG_TIR1_TEMP 10.8 um 22-11-2022/(0700 to 0726) IST

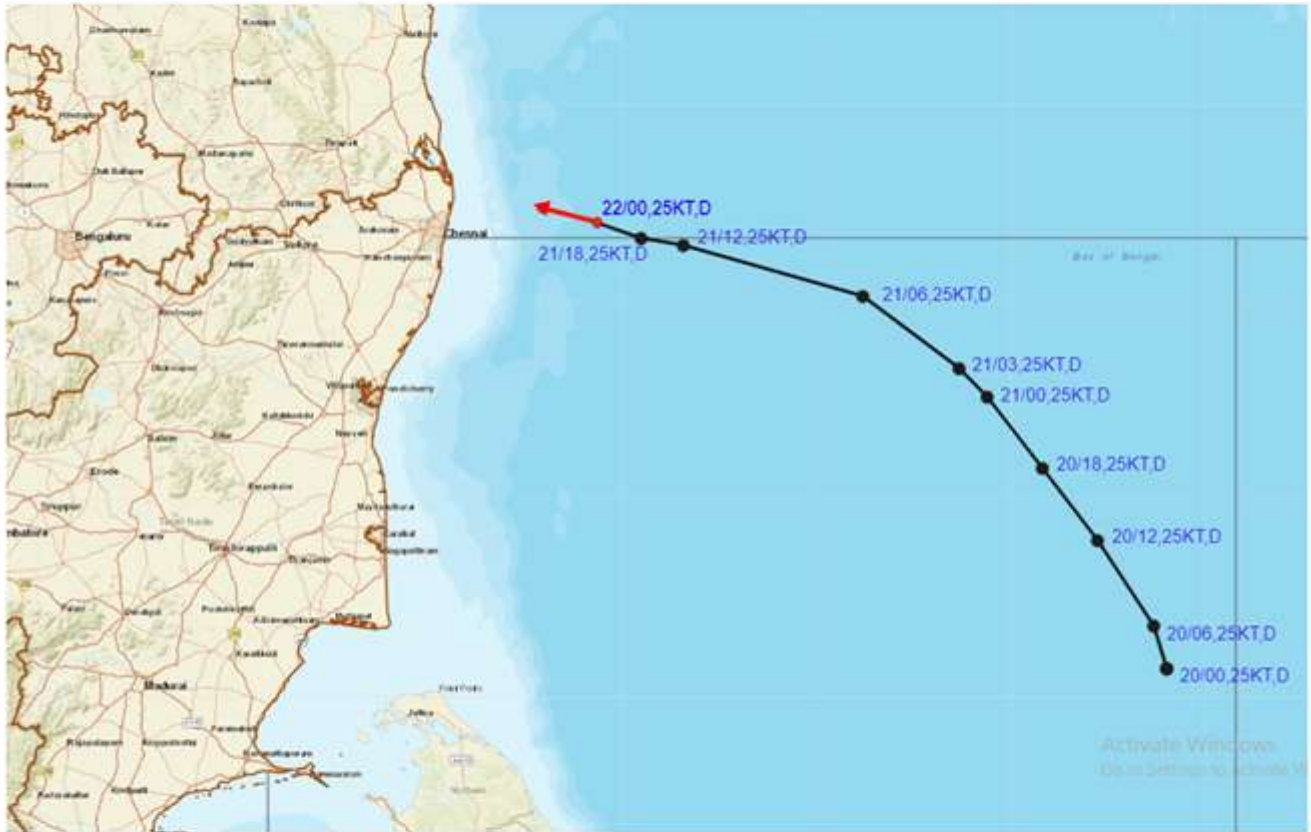
L1C Mercator



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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OBSERVED AND FORECAST TRACK OF DEPRESSION OVER WESTCENTRAL AND ADJOINING SOUTHWEST BAY OF BENGAL BASED ON 0000 UTC OF 22nd NOVEMBER, 2022



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 (120 KT)

- LESS THAN 34 KT
- ⊖ 34-47 KT
- ⊖ ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- ▲ CONE OF UNCERTAINTY

Fishermen warning graphics

