



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

**DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 20.11.2022**

**SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1930 UTC OF 20.11.2022 BASED ON 1800 UTC OF 20.11.2022.**

**SUB: DEPRESSION OVER SOUTHWEST BAY OF BENGAL**

THE DEPRESSION OVER SOUTHWEST BAY OF BENGAL MOVED NORTHWESTWARDS WITH A SPEED OF 12 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 1800 UTC OF TODAY, THE 20TH NOVEMBER, 2022 OVER THE SOUTHWEST BAY OF BENGAL, NEAR LATITUDE 11.4°N AND LONGITUDE 84.6°E, ABOUT 540 KM EAST-NORTHEAST OF JAFFNA (43404), 520 KM EAST OF KARAIKAL (43346) AND 510 KM EAST-SOUTHEAST OF CHENNAI (43279).

IT IS VERY LIKELY TO MAINTAIN ITS INTENSITY OF DEPRESSION AND MOVE SLOWLY NORTHWESTWARDS DURING NEXT 06 HOURS. THEREAFTER, IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA WHILE MOVING TOWARDS SOUTH ANDHRA PRADESH AND NORTH TAMILNADU-PUDUCHERRY COASTS DURING SUBSEQUENT 24 HOURS.

AS PER INSAT 3D IMAGERY, THE INTENSITY OF THE SYSTEM IS CHARACTERISED AS T.1.5. THE SYSTEM SHOWS SHEAR PATTERN WITH CONVECTIVE CLOUD SHEARED TO THE NORTHWEST OF SYSTEM CENTRE. IN ASSOCIATION WITH THE SYSTEM, ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL. MINIMUM CLOUD TOP TEMPERATURE IS -93°C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH OVER SOUTHWEST AND ADJOINING WEST CENTRAL & SOUTHEAST BAY OF BENGAL. THE ESTIMATED CENTRAL PRESSURE IS 1003 HPA.

**REMARKS:**

THE MADDEN JULIAN OSCILLATION INDEX (MJO) CURRENTLY LIES IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. THERE IS 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.

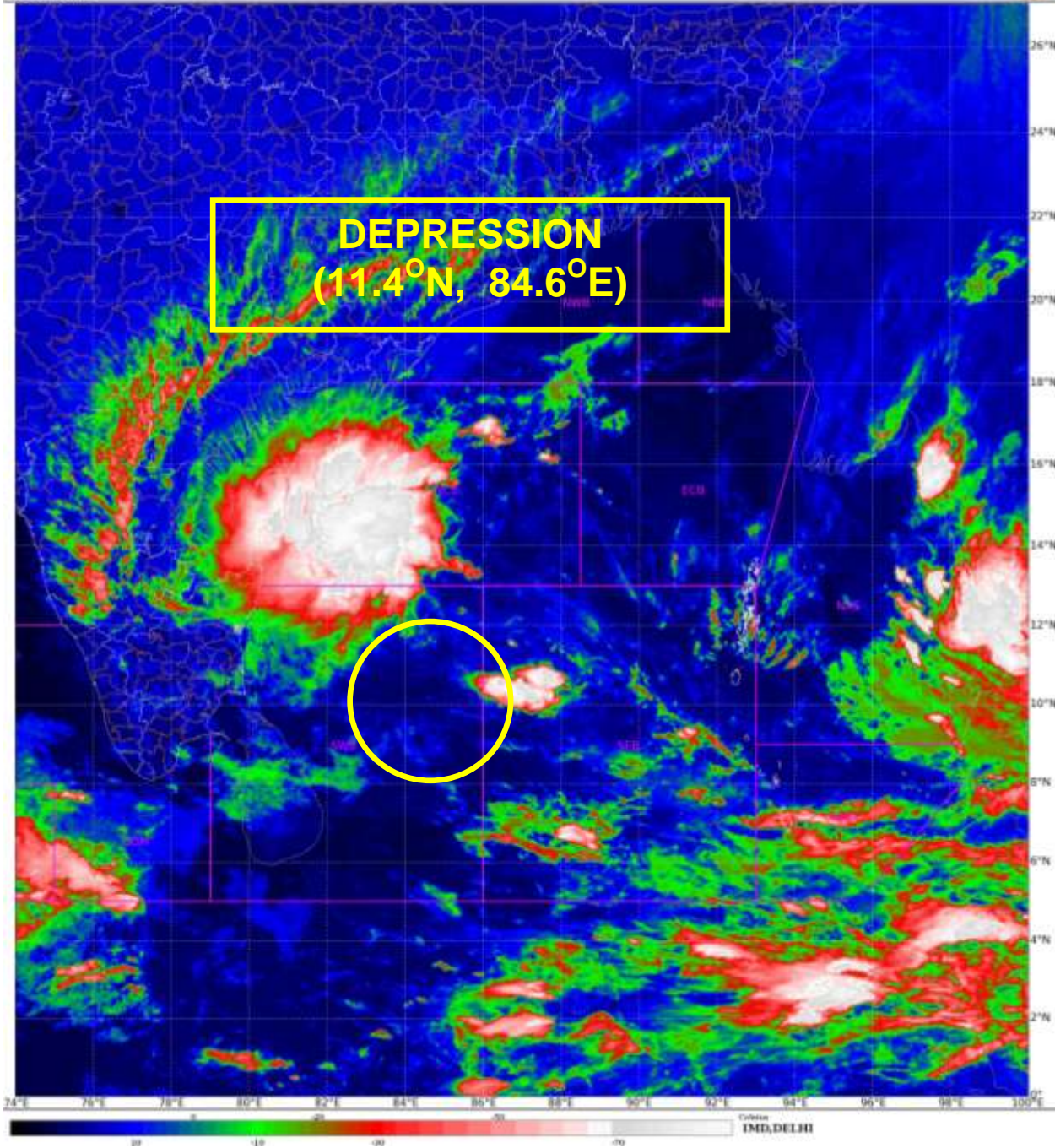
THE LOW LEVEL RELATIVE VORTICITY IS SOUTHEAST TO NORTHWEST ORIENTED. IT IS ABOUT  $100 \times 10^{-5} \text{S}^{-1}$  OVER THE SYSTEM CENTER. VERTICALLY IT IS EXTENDING UPTO 300 HPA LEVEL, TILTING SOUTHWESTWARDS WITH HEIGHT. LOW LEVEL CONVERGENCE HAS DECREASED AND IS AROUND  $20 \times 10^{-5} \text{S}^{-1}$  TO THE NORTHWEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND  $30 \times 10^{-5} \text{S}^{-1}$  TO THE NORTHWEST OF SYSTEM CENTRE. BOTH LOW LEVEL CONVERGENCE AND UPPER LEVEL DIVERGENCE ARE MOSTLY ALLIGNED OVER THE REGION. WIND SHEAR IS LOW (5-10 KNOTS) AROUND THE SYSTEM

CENTER AND IS MODERATE TO HIGH OF 15-20 KTS TOWARDS SOUTH ANDHRA PRADESH AND TAMILNADU-PUDUCHERRY COASTS. THERE IS WARM AIR ADVECTION TOWARDS THE SYSTEM CENTER AS EVIDENT FROM TOTAL PRECIPITABLE WATER IMAGERY. IT WOULD CONTINUE TILL 0000 UTC OF 22ND NOVEMBER AND DECREASE THEREAFTER. CONSIDERING ALL THIS, THE SYSTEM WOULD MAINTAIN ITS INTENSITY OF DEPRESSION TILL 0000 UTC OF 22ND NOVEMBER. THEREAFTER IT IS LIKELY TO WEAKEN GRADUALLY WHILE MOVING TOWARDS THE COAST DUE TO LAND INEFFECTIVE AND COLD & DRY AIR INCURSION FROM SOUTH PENINSULAR INDIA.

UPPER TROPOSPHERIC RIDGE ROUGHLY RUNS ALONG 17°N OVER BAY OF BENGAL AND THE SYSTEM IS UNDER MID-TROPOSPHERIC SOUTHEASTERLY WINDS WHICH WOULD STEER THE SYSTEM TOWARDS NORTHWEST TILL 0000 UTC OF 22ND NOVEMBER. THEREAFTER THE SOUTHEASTERLY STEERING WINDS ARE LIKELY TO CHANGE TO EASTERLY/EAST-SOUTHEASTERLY LEADING TO WESTWARD TO WEST-NORTHWESTWARD MOVEMENT OF THE SYSTEM.

MOST OF THE MODELS ARE INDICATING, NO FURTHER INTENSIFICATION OF THE SYSTEM. THE MODELS ARE ALSO INDICATING GRADUAL NORTHWESTWARD MOVEMENT TILL 0000 UTC OF 22<sup>ND</sup> NOVEMBER. IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT IT IS VERY LIKELY TO MAINTAIN ITS INTENSITY OF DEPRESSION AND MOVE SLOWLY NORTHWESTWARDS TILL 0000 UTC OF 21<sup>ST</sup> NOVEMBER. THEREAFTER, IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA WHILE MOVING TOWARDS SOUTH ANDHRA PRADESH AND NORTH TAMILNADU-PUDUCHERRY COASTS DURING SUBSEQUENT 24 HOURS.

(KRISHNA MISHRA)  
RSMC NEW DELHI



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%  
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins



# OBSERVED AND FORECAST TRACK OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 1800 UTC OF 20TH 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 ( $\geq 120$  KT)

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

## Fishermen warning graphics



	Squally weather with wind speed 40-45 kmph gusting to 55 kmph
	Squally wind speed with wind speed 45-55 kmph gusting to 65 kmph

Fishermen are advised not to venture into the marked areas.

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