



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

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 03.03.2022**

**SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 2100 UTC OF 03.03.2022 BASED ON 1800 UTC OF 03.03.2022.**

**DEPRESSION OVER SOUTHWEST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN**

THE DEPRESSION OVER SOUTHWEST BAY OF BENGAL MOVED NORTH-NORTHWESTWARDS WITH A SPEED OF ABOUT 13 KMPH DURING LAST 06 HOURS AND LAY CENTERED AT 1800 UTC OF YESTERDAY, THE 3<sup>RD</sup> MARCH 2022, OVER THE SAME REGION NEAR LATITUDE 7.8°N AND LONGITUDE 83.1°E, ABOUT 220 KM EAST-SOUTHEAST OF TRINCOMALEE (43418), 490 KM EAST-SOUTHEAST OF NAGAPPATTINAM (43347), 590 KM SOUTH-SOUTHEAST OF PUDUCHERRY (43331) AND ABOUT 650 KM SOUTH-SOUTHEAST OF CHENNAI (43279).

IT IS LIKELY TO INTENSIFY FURTHER INTO A DEEP DEPRESSION DURING NEXT 12 HOURS. IT IS LIKELY TO MOVE NORTHWESTWARDS ALONG AND OFF EAST COAST OF SRI LANKA TOWARDS NORTH TAMIL NADU COAST DURING NEXT 48 HOURS.

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
03.03.22/1800	7.8/83.1	45-55 GUSTING TO 65	DEPRESSION
04.03.22/0600	9.3/82.7	50-60 GUSTING TO 70	DEEP DEPRESSION
04.03.22/1800	10.5/82.0	50-60 GUSTING TO 70	DEEP DEPRESSION
05.03.22/0600	11.6/81.4	45-55 GUSTING TO 65	DEPRESSION
05.03.22/1800	12.4/81.0	40-50 GUSTING TO 60	DEPRESSION

THE INTENSITY OF THE SYSTEM IS T1.5. ASSOCIATED BROKEN LOW/MED CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER AREA BET LAT 7.0DEG N & 14.0 DEG N AND LONG 82.0 DEG E TO 88.0E & SRILANKA. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 90 DEG C. CONVECTION IS MORE IN THE NORTHERN SECTOR OF THE SYSTEM.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH OVER SOUTHWEST BAY OF BENGAL & ADJOINING EQUATORIAL INDIAN OCEAN. THE ESTIMATED CENTRAL PRESSURE IS 1004 HPA.

**REMARKS:**

SEA SURFACE TEMPERATURE IS AROUND 28-29<sup>0</sup>C OVER SOUTHWEST AND WESTCENTRAL BOB. TROPICAL CYCLONE HEAT POTENTIAL IS AROUND 60-80 KJ/CM<sup>2</sup> OVER THE SAME REGION. THE MADDEN JULIAN INDEX (MJO) CURRENTLY LIES IN PHASE 5 WITH AMPLITUDE LESS THAN 1. IT IS LIKELY TO CONTINUE IN THE SAME PHASE FOR THE NEXT 2-3 DAYS WITH AMPLITUDE REMAINING LESS THAN 1. THE PHASE OF MJO IS CONDUCIVE FOR ENHANCED CONVECTION DURING NEXT 2-3 DAYS.

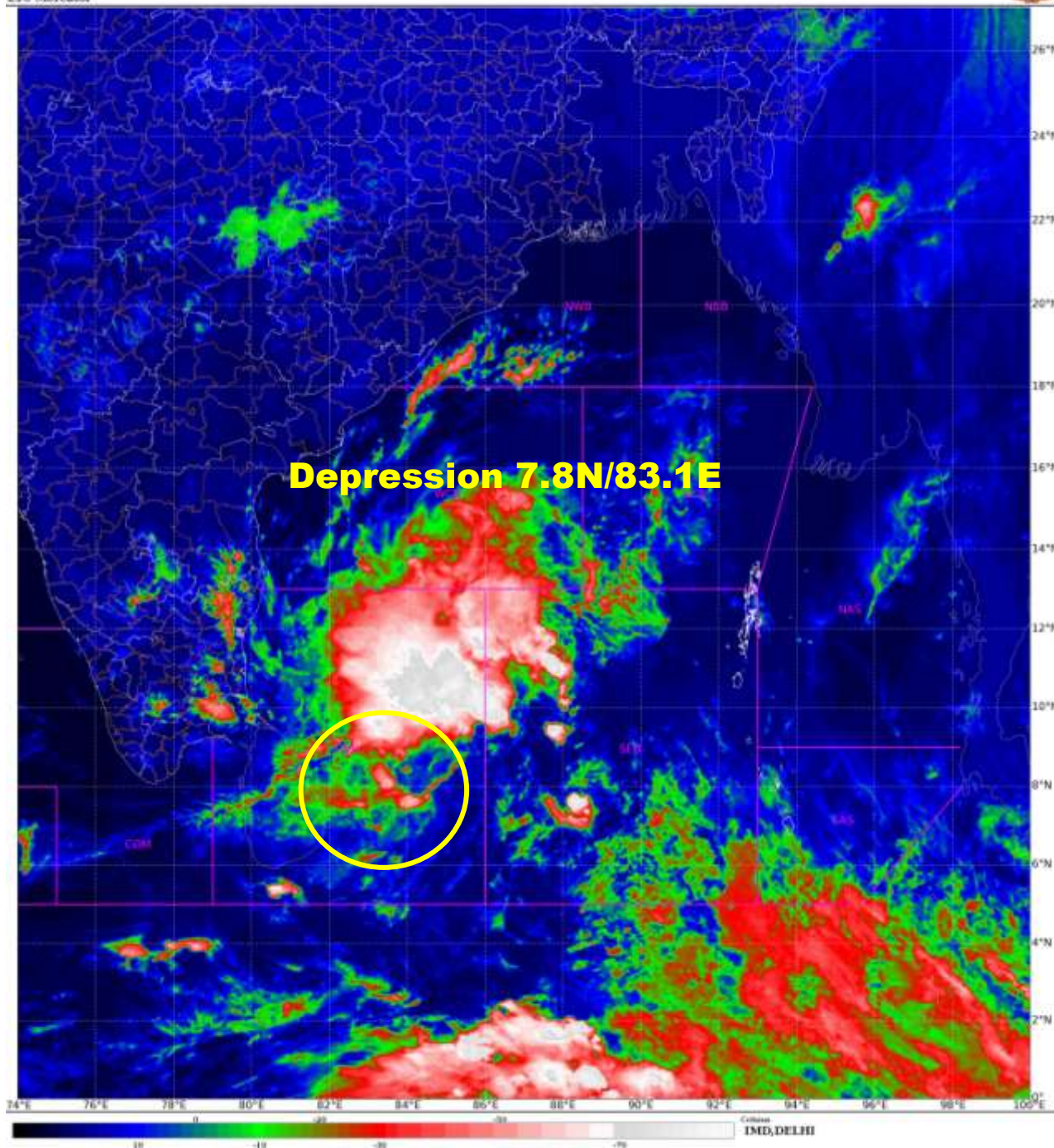
LOW LEVEL VORTICITY IS AROUND  $100 \times 10^{-6} \text{ S}^{-1}$  AND LIES AROUND THE SYSTEM CENTRE. VERTICALLY, IT IS EXTENDING UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE IS AROUND  $30 \times 10^{-5} \text{ S}^{-1}$  TO THE NORTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE HAS INCREASED AND IS AROUND  $40 \times 10^{-5} \text{ S}^{-1}$  TO THE NORTHEAST OF SYSTEM CENTRE. WIND SHEAR HAS REDUCED BUT IS STILL MODERATE TO HIGH (15-25 KNOTS) AROUND THE SYSTEM CENTRE AND WOULD INCREASE TOWARDS TAMILNADU COAST.

MOST OF THE NUMERICAL MODELS INCLUDING IMD GFS, ECMWF, GEFS, NCUM (G), IMDMME, NCUM (R) AND ECMWF ENSEMBLE ARE INDICATING SLIGHT INTENSIFICATION OF THE SYSTEM DURING NEXT 24 HOURS. HOWEVER, MODELS ARE UNANIMOUS W.R.T. MOVEMENT TOWARDS NORTH TAMILNADU COAST DURING NEXT 48 HOURS.

IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT THE DEPRESSION OVER SOUTHWEST BOB IS LIKELY TO INTENSIFY MARGINALLY DURING NEXT 24 HOURS INTO A DEEP DEPRESSION AND MOVE NORTHWESTWARDS OFF EAST COAST OF SRILANKA TOWARDS NORTH TAMILNADU COAST.

THE NEXT BULLETIN WILL BE ISSUED AT 0300 UTC OF 04<sup>TH</sup> MARCH, 2022.

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## OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 1800 UTC OF 3RD MARCH, 2022

STATIONS	DISTANCE (KM) AND DIRECTION FROM STATIONS		
	03.03.22/2330	04.03.00/2330	05.03.22/2330
TRINCOMALEE	223, ESE	237, NNE	430, NNW
NAGAPATTINAM	490, ESE	244, ESE	220, NE
PUDUCHERRY	578, SSE	286, SE	143, NE
CHENNAI	651, SSE	334, SE	104, SE



**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



## OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 1800 UTC OF 3RD MARCH, 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
- AREA OF MAXIMUM SUSTAINED WIND SPEED:
- 28-33 KT (52-61 KMPH)
- 34-49 KT (62-91 KMPH)
- 50-63 KT (92-117 KMPH)
- ≥ 64 KT (≥118 KMPH)

### IMPACT OVER THE SEA

MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations