



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 04.03.2022

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 04.03.2022 BASED ON 0000 UTC OF 04.03.2022.

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 0000 UTC OF TODAY, THE 04TH MARCH 2022, OVER THE SAME REGION NEAR LATITUDE 8.5°N AND LONGITUDE 83.0°E, ABOUT 190 KM EAST OF TRINCOMALEE (43418), 430 KM EAST-SOUTHEAST OF NAGAPPATTINAM (43347), 520 KM SOUTHEAST OF PUDUCHERRY (43331) AND ABOUT 580 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 NORTH-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
04.03.22/0000	8.5/83.0	45-55 GUSTING TO 65	DEPRESSION
04.03.22/1200	9.9/82.5	50-60 GUSTING TO 70	DEEP DEPRESSION
05.03.22/0000	10.5/82.1	50-60 GUSTING TO 70	DEEP DEPRESSION
05.03.22/1200	10.9/81.6	50-60 GUSTING TO 70	DEEP DEPRESSION
06.03.22/0000	11.3/81.0	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 6.5° N & 14.5° N AND LONG 81.5°E TO 88.5°E & 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 28-29⁰C OVER SOUTHWEST AND WESTCENTRAL BOB. TROPICAL CYCLONE HEAT POTENTIAL IS AROUND 60-80 KJ/CM² 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 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 $20 \times 10^{-5} \text{ S}^{-1}$ OVER THE SYSTEM CENTRE. UPPER LEVEL DIVERGENCE HAS DECREASED AND IS AROUND $20 \times 10^{-5} \text{ S}^{-1}$ TO THE NORTHEAST OF SYSTEM CENTRE. WIND SHEAR IS MODERATE TO HIGH (15-25 KNOTS) AROUND THE SYSTEM CENTRE AND INCREASES TOWARDS TAMILNADU COAST.

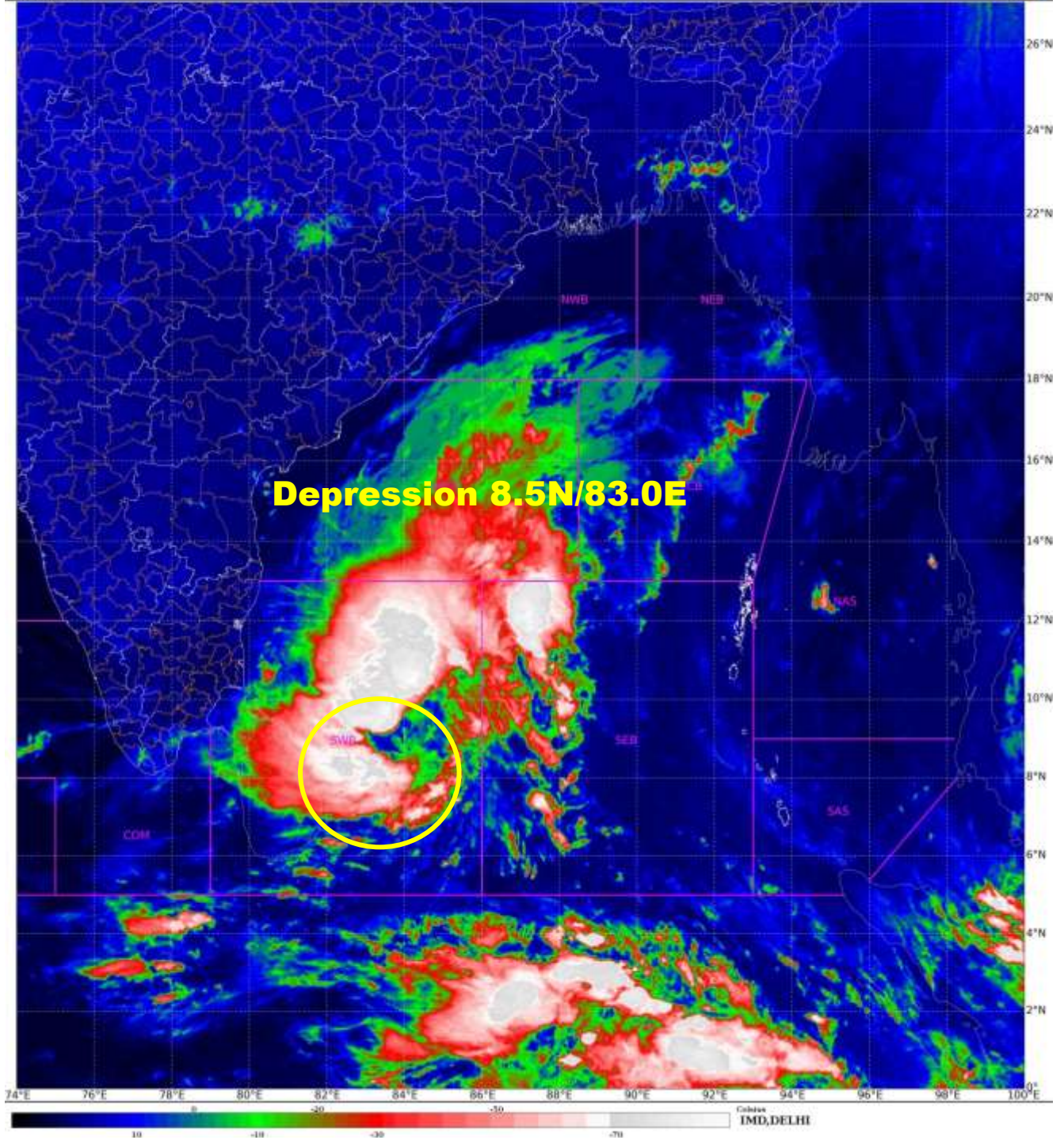
A BUOY LOCATED AT 13.3°N/83.9°E HAS WIND DIRECTION/SPEED 70°/19KTS, MSLP 1010 HPA AND SST 27.5°C. A SHIP LOCATED AT 5.3°N/84.5°E HAS WIND DIRECTION/SPEED 230°/19KTS, MSLP 1007 HPA AND SST 28.6°C.

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 12 HOURS. HOWEVER, MODELS ARE UNANIMOUS IN MOVEMENT OF THE SYSTEM 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 12 HOURS INTO A DEEP DEPRESSION AND MOVE NORTHWESTWARDS OFF EAST COAST OF SRILANKA TOWARDS NORTH TAMILNADU COAST.

THE NEXT BULLETIN WILL BE ISSUED AT 0600 UTC OF TODAY, THE 04TH MARCH, 2022.

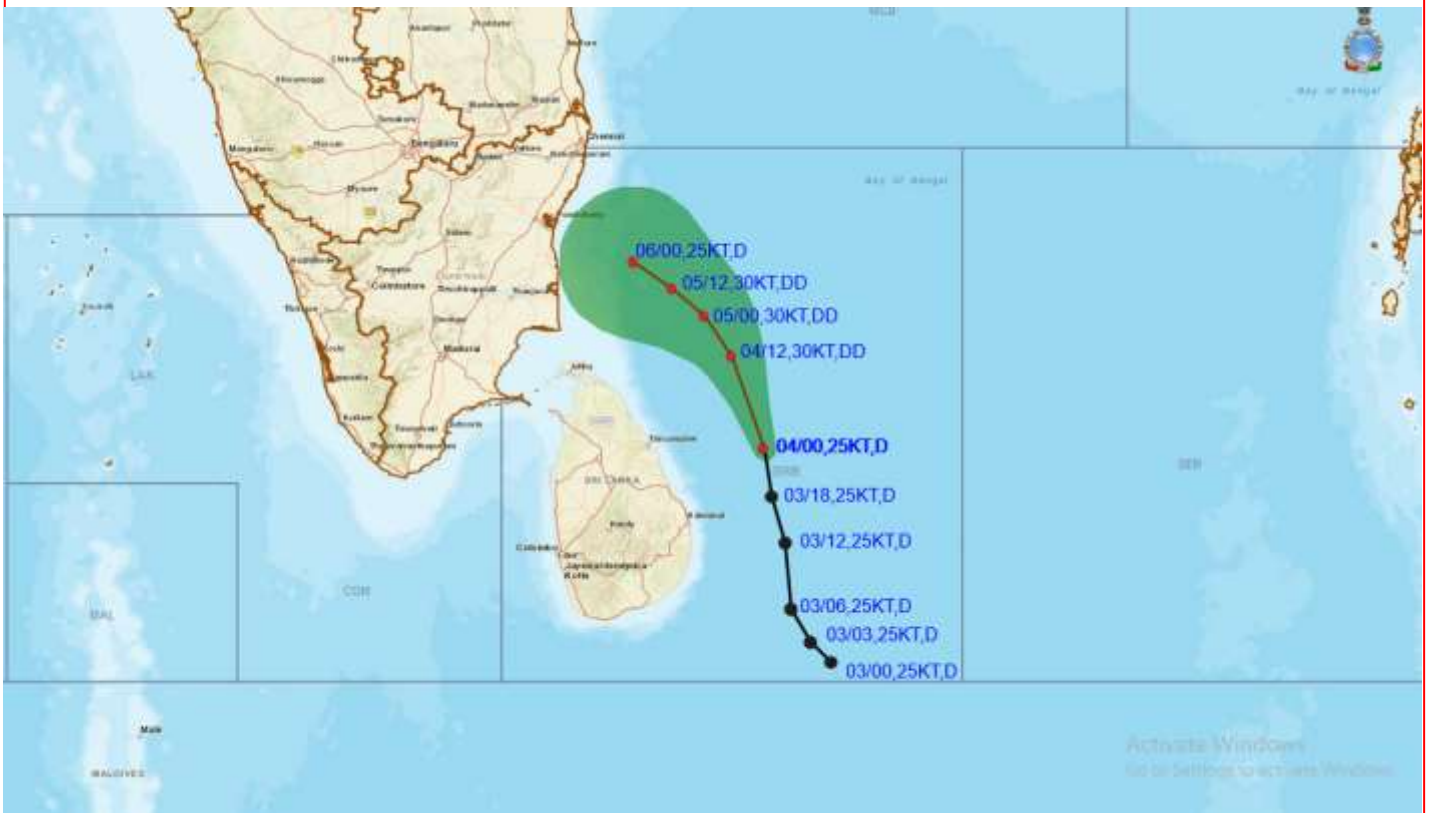
(RK JENAMANI)
SCIENTIST-F
RSMC NEW DELHI





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 0000 UTC OF 4th MARCH, 2022

STATIONS	DISTANCE (KM) AND DIRECTION FROM STATIONS		
	04.03.22/0000	05.03.22/0000	06.03.22/0000
TRINCOMALEE	198, E	241, NNE	309, NNW
NAGAPATTINAM	434, ESE	255, ESE	143, NNE
PUDUCHERRY	514, SE	296, ESE	148, ESE
CHENNAI	579, SSE	341, SSE	204, SSE

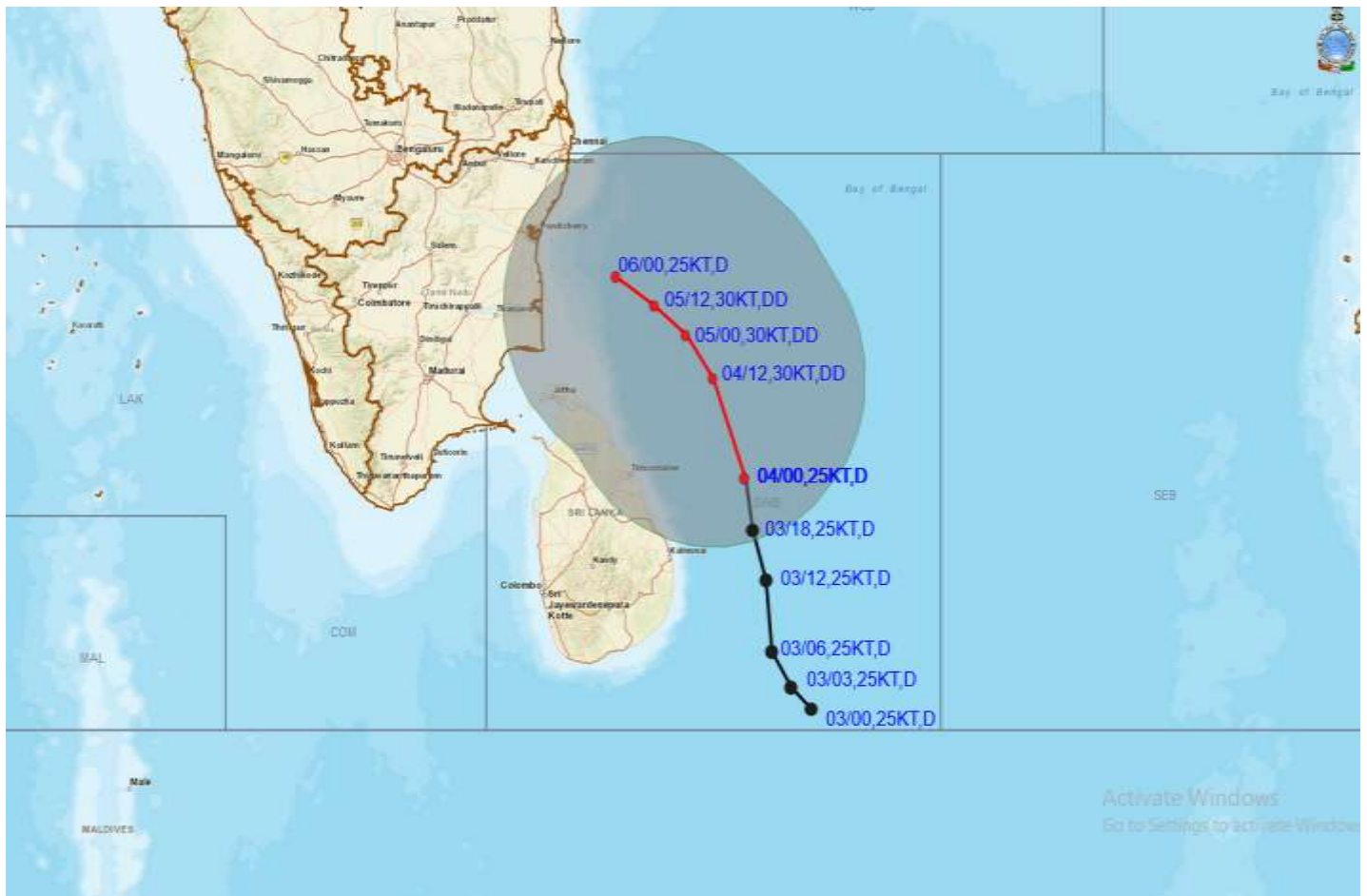


DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119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



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 0000 UTC OF 4th 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