



**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 1500 UTC OF 03.03.2022 BASED ON 1200 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 19 KMPH DURING LAST 06 HOURS AND LAY CENTERED AT 1200UTC OF TODAY, THE 3RD MARCH 2022, OVER THE SAME REGION NEAR LATITUDE 7.1°N AND LONGITUDE 83.2°E, ABOUT 270 KM SOUTH-SOUTHEAST OF TRINCOMALEE (43418), 610 KM SOUTH-SOUTHEAST OF NAGAPPATTINAM (43347), 650 KM SOUTH-SOUTHEAST OF PUDUCHERRY (43331) AND ABOUT 730 KM SOUTH-SOUTHEAST OF CHENNAI(43279).

IT IS LIKELY TO INTENSIFY FURTHER INTO A DEEP DEPRESSION DURING NEXT 24 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 |
|-----------------|------------------------------|---|----------------------------------|
| 03.03.22/1200 | 7.1/83.2 | 45-55 GUSTING TO 65 | DEPRESSION |
| 04.03.22/0000 | 8.6/82.5 | 50-60 GUSTING TO 70 | DEEP DEPRESSION |
| 04.03.22/1200 | 9.9/81.9 | 50-60 GUSTING TO 70 | DEEP DEPRESSION |
| 05.03.22/0000 | 11.2/81.3 | 45-55 GUSTING TO 65 | DEPRESSION |
| 05.03.22/1200 | 12.0/81.0 | 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 6.0DEG N & 14.0 DEG N AND LONG 80.0 DEG E TO 90.0E & 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 28-29⁰C 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 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.

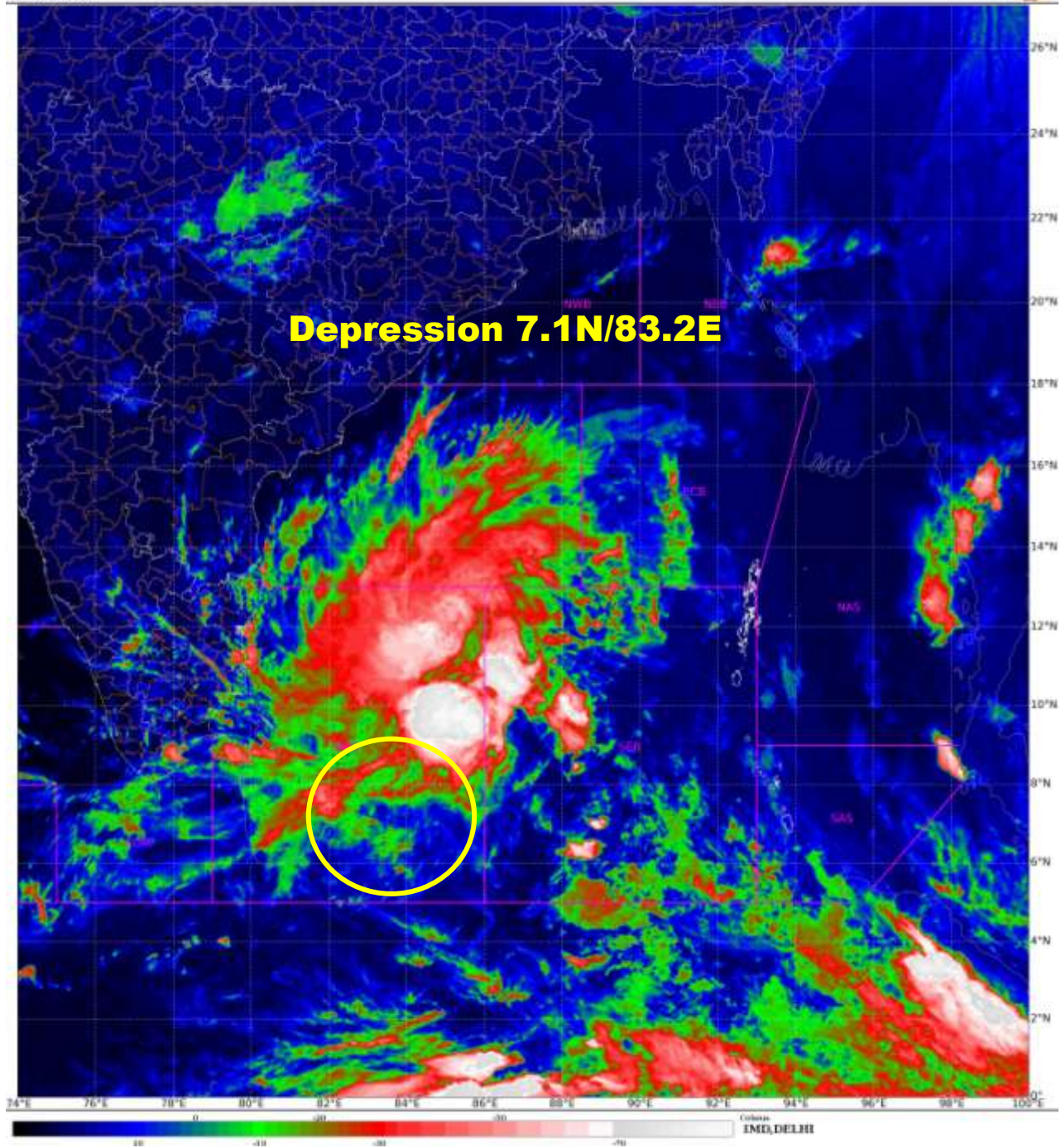
LOW LEVEL VORTICITY IS AROUND $100 \times 10^{-6} \text{ S}^{-1}$ AND LIES AROUND THE SYSTEM CENTRE. VERTICALLY, IT IS EXTENDING UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE IS SAME DURING PAST 24 HOURS AND IS AROUND $10 \times 10^{-5} \text{ S}^{-1}$ TO THE NORTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE HAS INCREASED AND IS AROUND $40 \times 10^{-5} \text{ S}^{-1}$ TO THE NORTHEAST OF SYSTEM CENTRE. WIND SHEAR IS MODERATE TO HIGH (25-30 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.

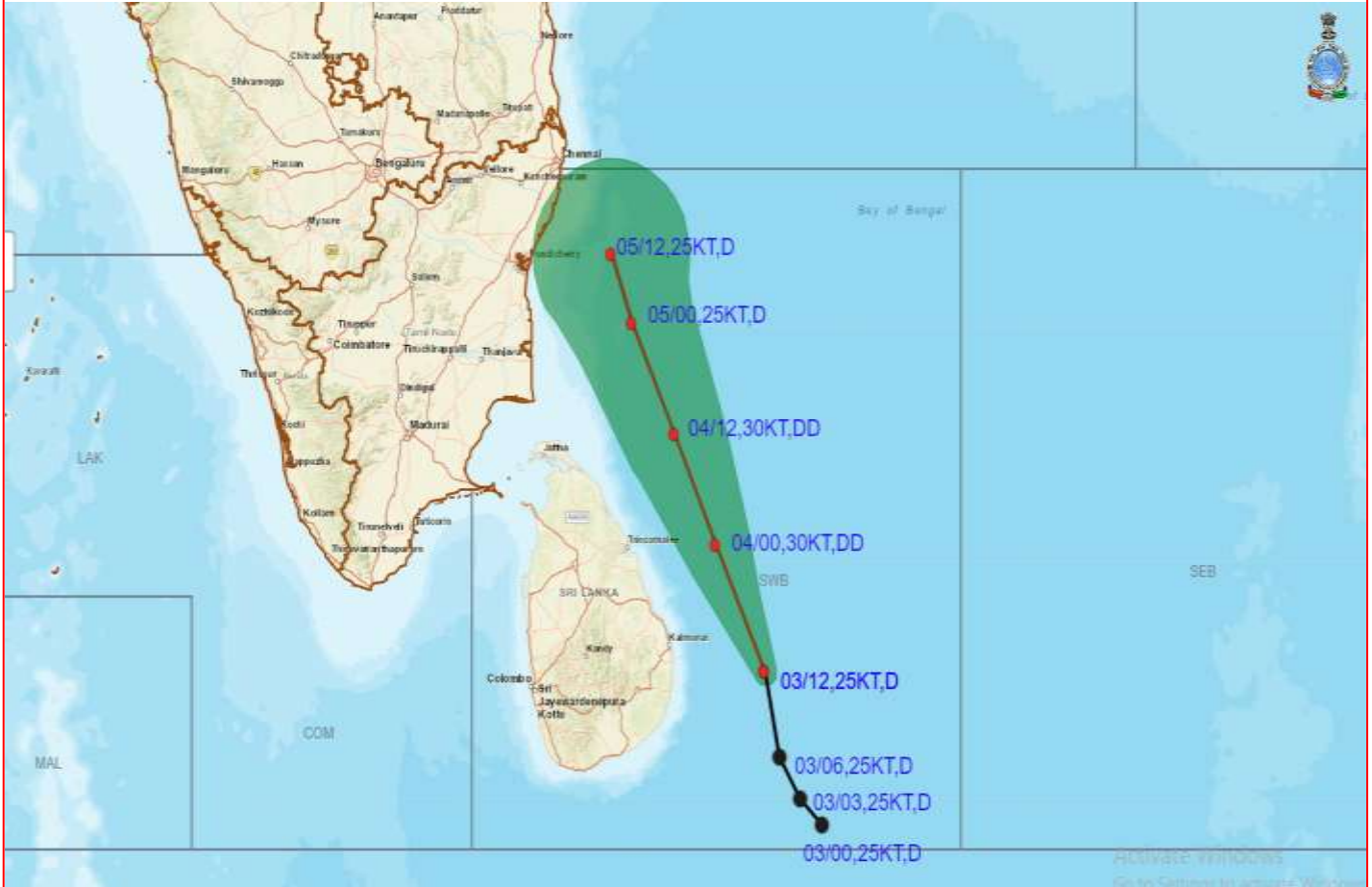
THE NEXT BULLETIN WILL BE ISSUED AT 2100 UTC OF 3rd MARCH, 2022.

(RK JENAMANI)
SCIENTIST-F
RSMC NEW DELHI





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 1200 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 (\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 1200 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 |