



**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 0400 UTC OF 03.03.2022 BASED ON 0000 UTC OF 03.03.2022.

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

THE WELL MARKED LOW PRESSURE AREA OVER CENTRAL PARTS OF SOUTH BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN MOVED WEST-NORTHWESTWARDS AND CONCENTRATED INTO A DEPRESSION AND LAY CENTERED AT 0000 UTC OF TODAY, THE 3RD MARCH 2022, OVER SOUTHWEST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN NEAR LATITUDE 5.3°N AND LONGITUDE 84.0°E, ABOUT 470 KM SOUTH-SOUTHEAST OF TRINCOMALEE (43418), 760 KM SOUTH-SOUTHEAST OF NAGAPATTINAM (43347) AND 870 KM SOUTH-SOUTHEAST OF PUDUCHERRY (43331) AND ABOUT 950 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
03.03.22/0000	5.3/84.0	40-50 GUSTING TO 60	DEPRESSION
03.03.22/1200	6.7/83.0	45-55 GUSTING TO 65	DEPRESSION
04.03.22/0000	8.1/82.2	50-60 GUSTING TO 70	DEEP DEPRESSION
04.03.22/1200	9.5/81.5	50-60 GUSTING TO 70	DEEP DEPRESSION
05.03.22/0000	10.9/80.7	50-60 GUSTING TO 70	DEEP 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 5.0N TO 12.0N LONG 80.0E TO 91.0E & SRILANKA. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEG C. CONVECTION IS MORE IN THE NORTHERN SECTOR OF THE SYSTEM.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 30 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.

A SHIP LOCATED NEAR LAT 6.0 DEG N/LONG 93.1 DEG E MSLP OF 1005.0 HPA AND WINDS OF 80 DEG/14 KTS. ANOTHER SHIP LOCATED NEAR LAT 5.3 DEG N/LONG 81.7 DEG E MSLP OF 1007.0 HPA AND WINDS OF 50 DEG/14 KTS.

REMARKS:

SEA SURFACE TEMPERATURE IS AROUND 28⁰C OVER SOUTH 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 OVER THE BOB DURING NEXT 2-3 DAYS. FEEBLE EASTERLIES (1-3 MPS) ARE LIKELY TO PREVAIL OVER SOUTHWEST BOB DURING NEXT 2-3 DAYS. NO OTHER EQUATORIAL WAVE IS LIKELY TO PREVAIL OVER THE REGION DURING NEXT 5 DAYS.

LOW LEVEL VORTICITY HAS INCREASED SIGNIFICANTLY DURING PAST 24 HOURS AND IS AROUND 150 X10⁻⁶ S⁻¹ TO THE NORTHEAST OF SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE IS SAME DURING PAST 24 HOURS AND IS AROUND 20 X10⁻⁵ S⁻¹ TO THE NORTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND 20 X10⁻⁵ S⁻¹ TO THE NORTHEAST OF SYSTEM CENTRE. WIND SHEAR IS MODERATE TO HIGH (25-30 KNOTS).

MOST OF THE NUMERICAL MODELS INCLUDING IMD GFS, ECMWF, GEFS, NCUM (G), 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 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 AND MOVE TOWARDS TAMILNADU COAST.

(A.K. DAS)
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RSMC NEW DELHI

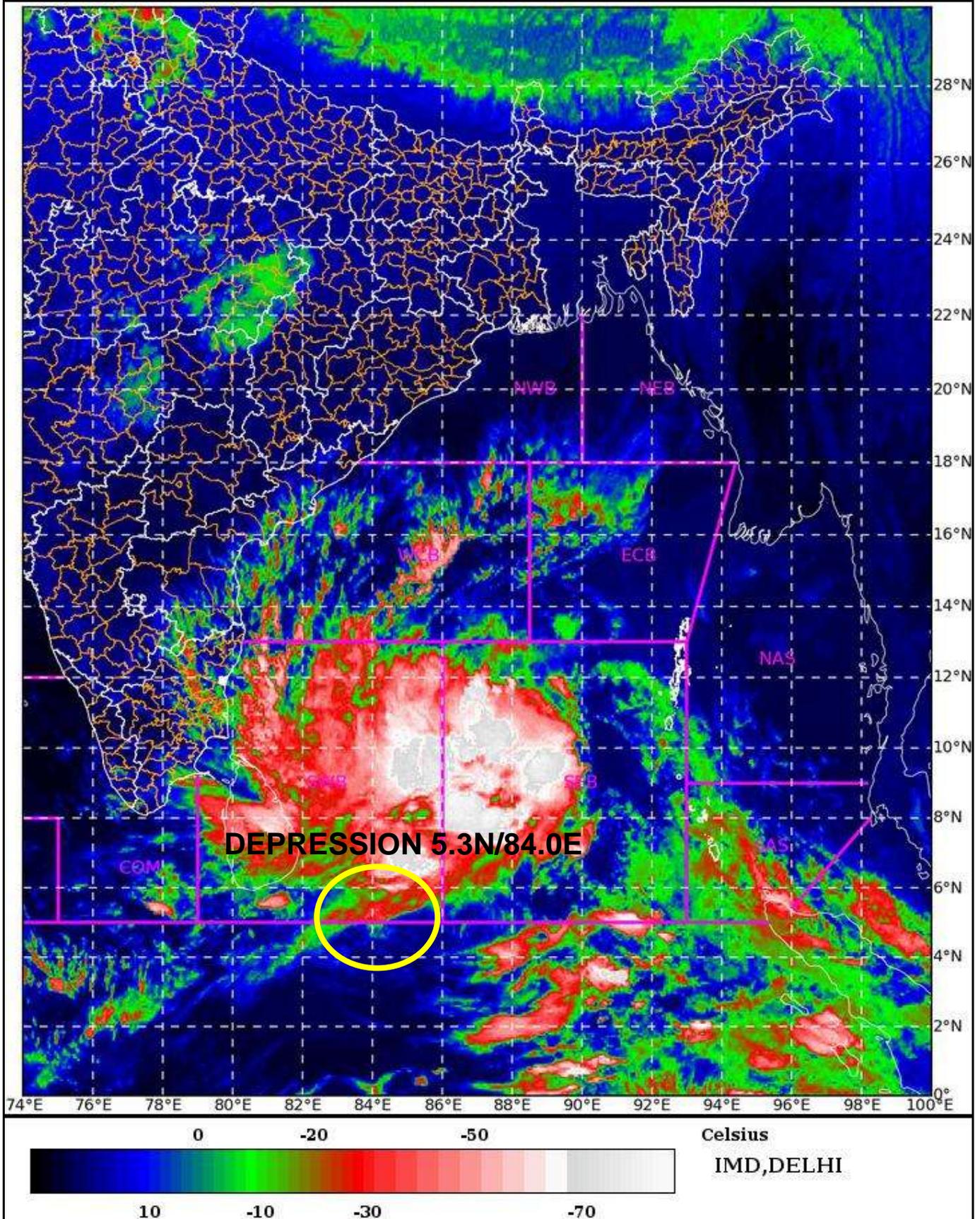
SAT : INSAT-3D IMG

03-03-2022/(0230 to 0257) GMT

IMG_TIR1_TEMP 10.8 um

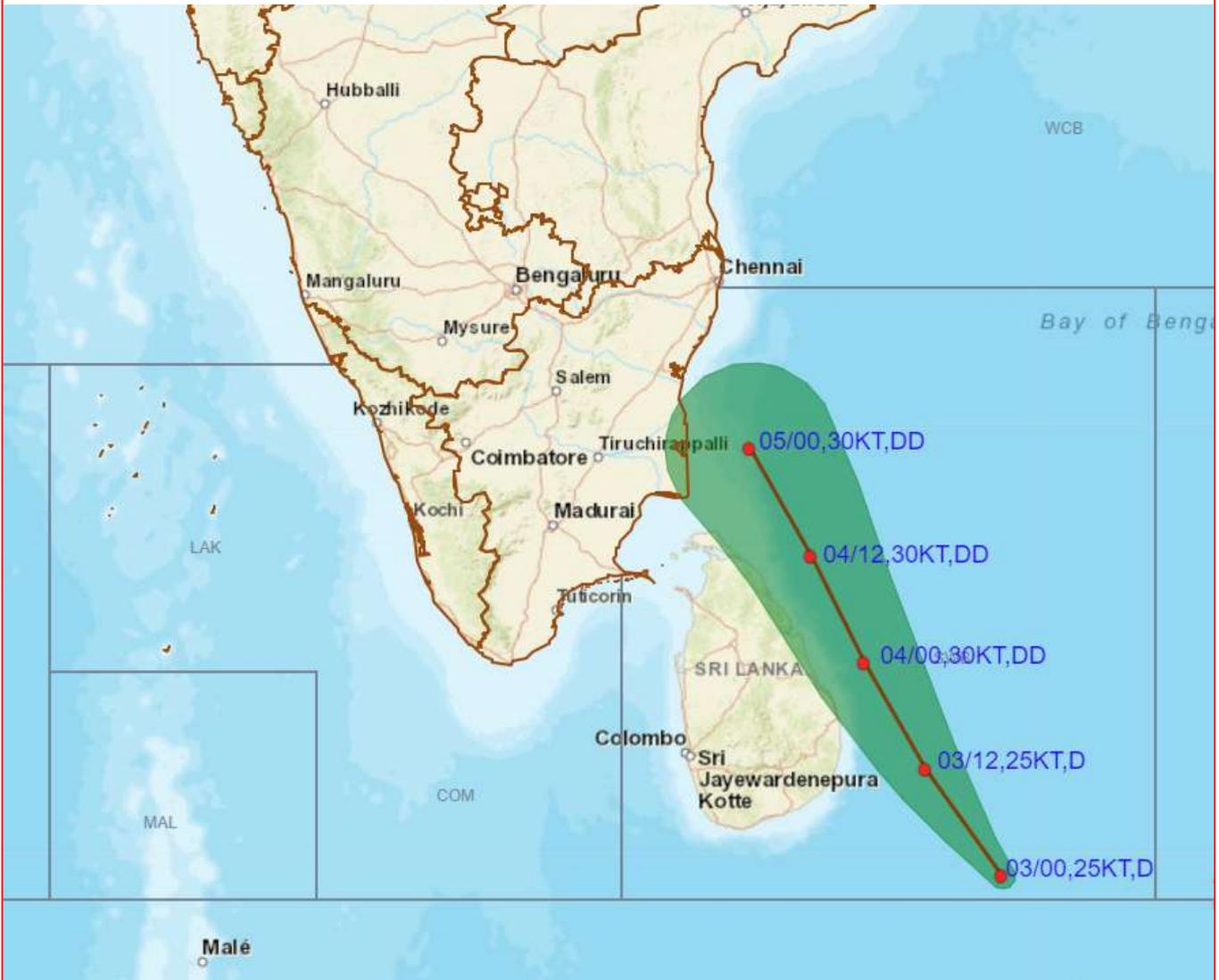
03-03-2022/(0800 to 0827) IST

L1C Mercator





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN BASED ON 0000 UTC OF 3RD MARCH, 2022

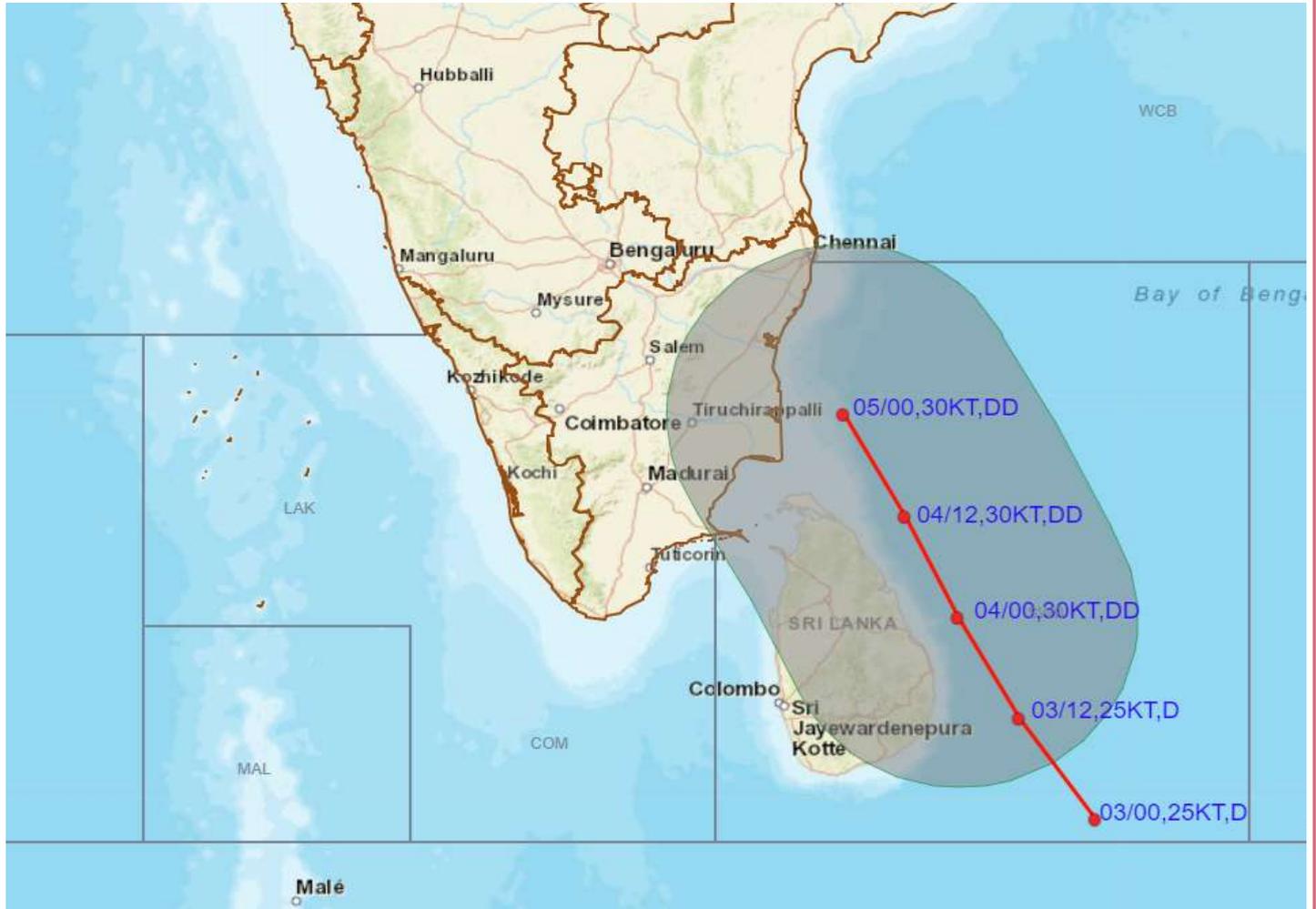


DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (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 AND ADJOINING EQUATORIAL INDIAN OCEAN BASED ON 0000 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)

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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