



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 06.12.2022

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0800 UTC OF 06.12.2022 BASED ON 0300 UTC OF 06.12.2022.

BAY OF BENGAL:

THE LOW PRESSURE AREA OVER SOUTH ANDAMAN SEA AND NEIGHBOURHOOD LIES AS A WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL AT 0300 UTC OF TODAY, THE 6TH DEC 2022. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER SOUTHEAST BAY OF BENGAL BY 06TH DECEMBER EVENING. THEREAFTER, IT IS LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS, INTENSIFY FURTHER GRADUALLY INTO A CYCLONIC STORM BY 7TH DECEMBER EVENING AND REACH SOUTHWEST BAY OF BENGAL NEAR NORTH TAMIL NADU-PUDUCHERRY & ADJOINING SOUTH ANDHRA PRADESH COASTS BY 08TH DECEMBER MORNING. IT WILL CONTINUE TO MOVE WEST-NORTHWESTWARDS TOWARDS NORTH TAMIL NADU-PUDUCHERRY & ADJOINING SOUTH ANDHRA PRADESH COASTS DURING SUBSEQUENT 2 DAYS

AS PER INSAT 3D IMAGERY, ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH AND ADJOINING CENTRAL BAY OF BENGAL AND ANDAMAN & NICOBAR ISLANDS. CONVECTION HAS INCREASED DURING LAST 6 HRS .MINIMUM CLOUD TOP TEMPERATURE (CTT) -93⁰C.

FORECAST TRACK AND INTENSITY ARE GIVEN BELOW

DATE/TIME(UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
06.12.22/0300	8.0/89.8	25-35 GUSTING TO 45	WELL MARKED LOW PRESSURE AREA
06.12.22/1200	8.5/88.3	40-50 GUSTING TO 60	DEPRESSION
07.12.22/0000	8.9/86.5	50-60 GUSTING TO 70	DEEP DEPRESSION
07.12.22/1200	9.4/85.2	60-70 GUSTING TO 80	CYCLONIC STORM
08.12.22/0000	10.1/84.0	70-80 GUSTING TO 90	CYCLONIC STORM
08.12.22/1200	10.8/82.8	80-90 GUSTING TO 100	CYCLONIC STORM
09.12.22/0000	11.5/81.6	80-90 GUSTING TO 100	CYCLONIC STORM
09.12.22/1200	12.3/80.5	70-80 GUSTING TO 90	CYCLONIC STORM
10.12.22/0000	13.0/79.8	65-75 GUSTING TO 85	CYCLONIC STORM

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%
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ARABIAN SEA:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER SOUTH ARABIAN SEA AND COMORIN AREA.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 120 HRS:

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS
NIL	NIL	NIL	NIL	NIL

REMARKS:

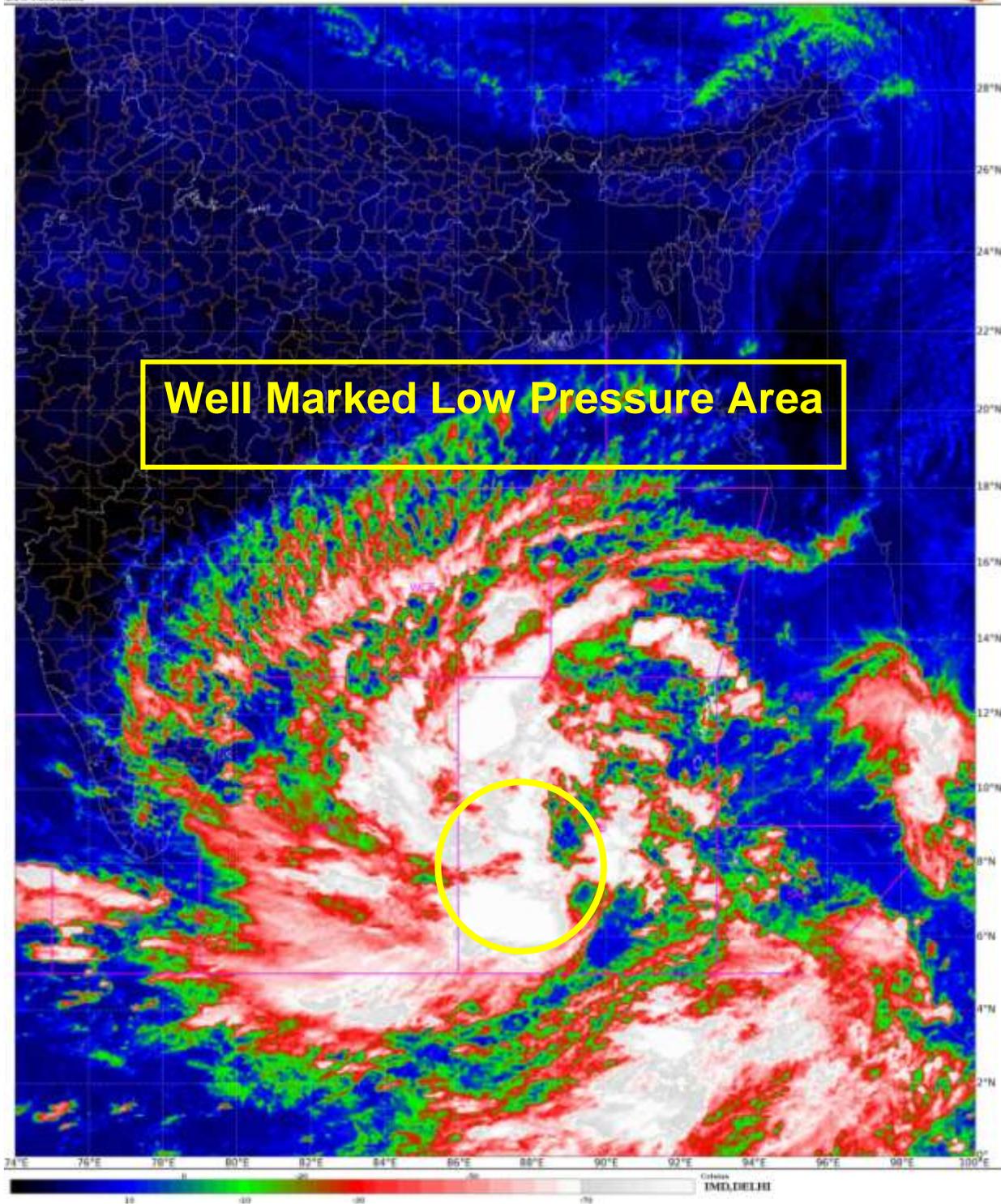
THE MADDEN JULIAN OSCILLATION (MJO) INDEX CURRENTLY LIES IN PHASE 2 WITH AMPLITUDE LESS THAN 1. IT WILL CONTINUE IN SAME PHASE FOR NEXT 2 DAYS AND THEN MOVE TO PHASE 3 FROM 7TH AND REMAIN THERE TILL 9TH DECEMBER. MJO INDEX IS THUS CONDUCIVE FOR ENHANCEMENT OF CONVECTIVE ACTIVITY OVER BAY OF BENGAL. SEA SURFACE TEMPERATURE (SST) IS AROUND 28-29⁰C OVER ANDAMAN SEA AND INCREASE TO 29⁰C OVER SOUTHEAST AND ADJOINING PARTS CENTRAL BOB, SOUTHWEST BOB AND OFF TAMILNADU AND SRI LANKA COAST. THUS ,CONDUCIVE FOR FURTHER INTENSIFICATION OF THE SYSTEM. ALSO THE OCEAN HEAT CONTENT (OHC) IS 90-110 KJ/CM² OVER SOUTHEAST BOB AND ADJOINING SOUTH ANDAMAN SEA AND LESS THAN 50 KJ/CM² OVER WESTCENTRAL AND SOUTHWEST BOB ALONG EAST COAST OF INDIA.

LOW LEVEL VORTICITY HAS INCREASED AND IS AROUND $100 \times 10^{-6} \text{ S}^{-1}$ OVER SOUTHEAST BAY OF BENGAL. LOW LEVEL CONVERGENCE AND UPPER LEVEL DIVERGENCE IS AROUND $30 \times 10^{-5} \text{ S}^{-1}$ OVER SOUTHEAST BAY OF BENGAL.

WIND SHEAR IS LOW (5-10 KNOTS) OVER SOUTHEAST BAY OF BENGAL AND MODERATE (10-20 KNOTS) ALONG THE EXPECTED TRACK. THERE EXISTS A UPPER TROPOSPHERIC RIDGE ALONG 14.0°N OVER THE BOB. UNDER THE INFLUENCE OF EAST SOUTHEASTERLY STEERING WINDS AT MIDDLE TROPOSPHERIC LEVEL, THE WELL MARKED LOW PRESSURE AREA IS PRESENTLY STEERED IN THE DIRECTION OF WEST-NORTHWESTWARDS .

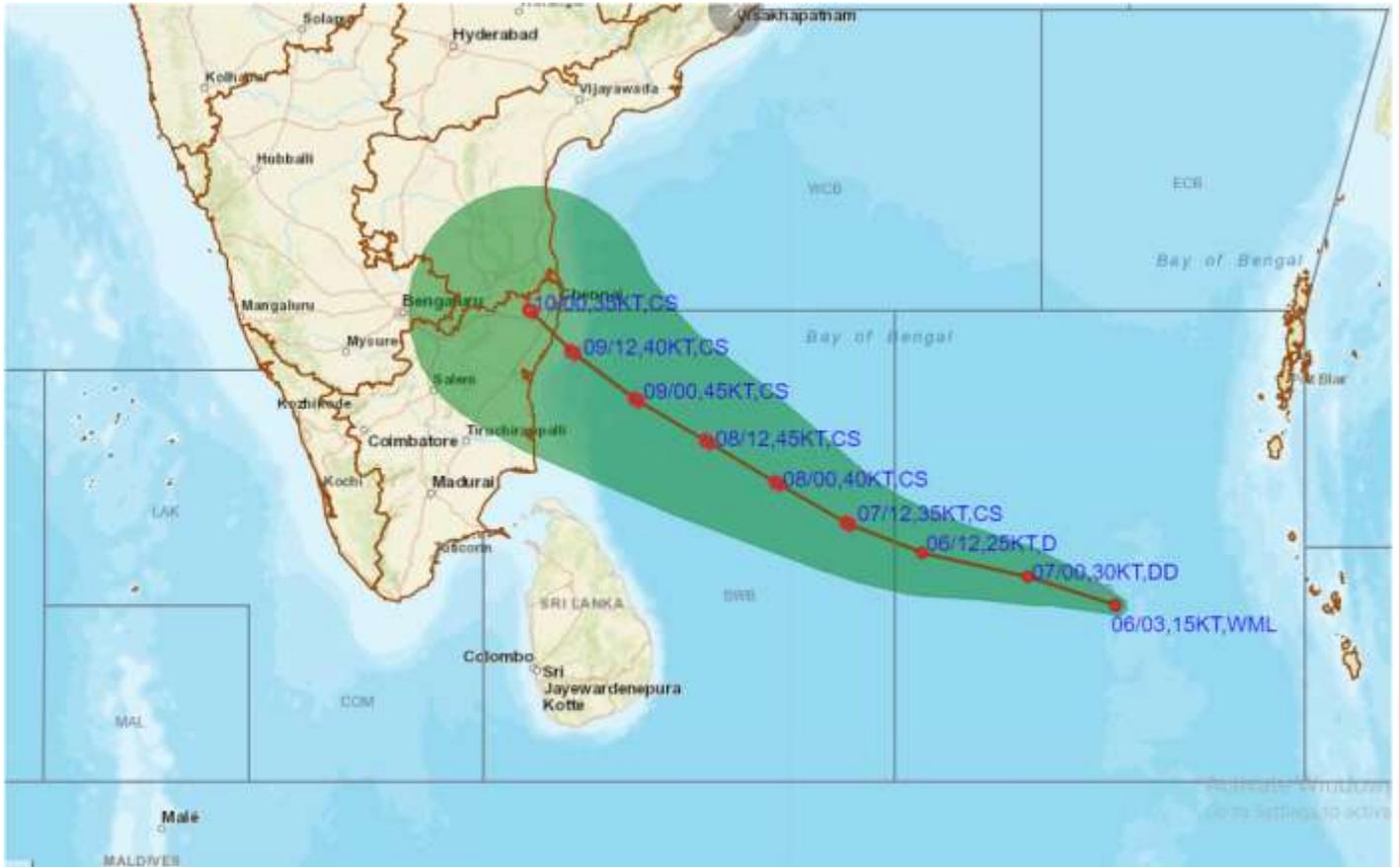
MOST OF THE MODELS ARE INDICATING DEVELOPMENT OF DEPRESSION OVER SOUTHEAST BOB BY EVENING OF 6TH DECEMBER . MODELS ARE ALSO INDICATING THAT THE SYSTEM WOULD MOVE WEST-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER SOUTHEAST BAY OF BENGAL BY 06TH DECEMBER EVENING. THEREAFTER, IT IS LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS, INTENSIFY FURTHER GRADUALLY INTO A CYCLONIC STORM AND REACH SOUTHWEST BAY OF BENGAL NEAR NORTH TAMIL NADU-PUDUCHERRY & ADJOINING SOUTH ANDHRA PRADESH COASTS BY 08TH DECEMBER MORNING.

IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT THE WEL MARKED LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL IS LIKELY TO MOVE MOVE WEST-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER SOUTHEAST BAY OF BENGAL BY 06TH DECEMBER EVENING. THEREAFTER, IT IS LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS, INTENSIFY FURTHER GRADUALLY INTO A CYCLONIC STORM BY 7TH DECEMBER EVENING AND REACH SOUTHWEST BAY OF BENGAL NEAR NORTH TAMIL NADU-PUDUCHERRY & ADJOINING SOUTH ANDHRA PRADESH COASTS BY 08TH DECEMBER MORNING. IT WILL CONTINUE TO MOVE WEST-NORTHWESTWARDS TOWARDS NORTH TAMIL NADU-PUDUCHERRY & ADJOINING SOUTH ANDHRA PRADESH COASTS DURING SUBSEQUENT 2 DAYS.





OBSERVED AND FORECAST TRACK OF WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL BASED ON 0300 UTC OF 06th DECEMBER, 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

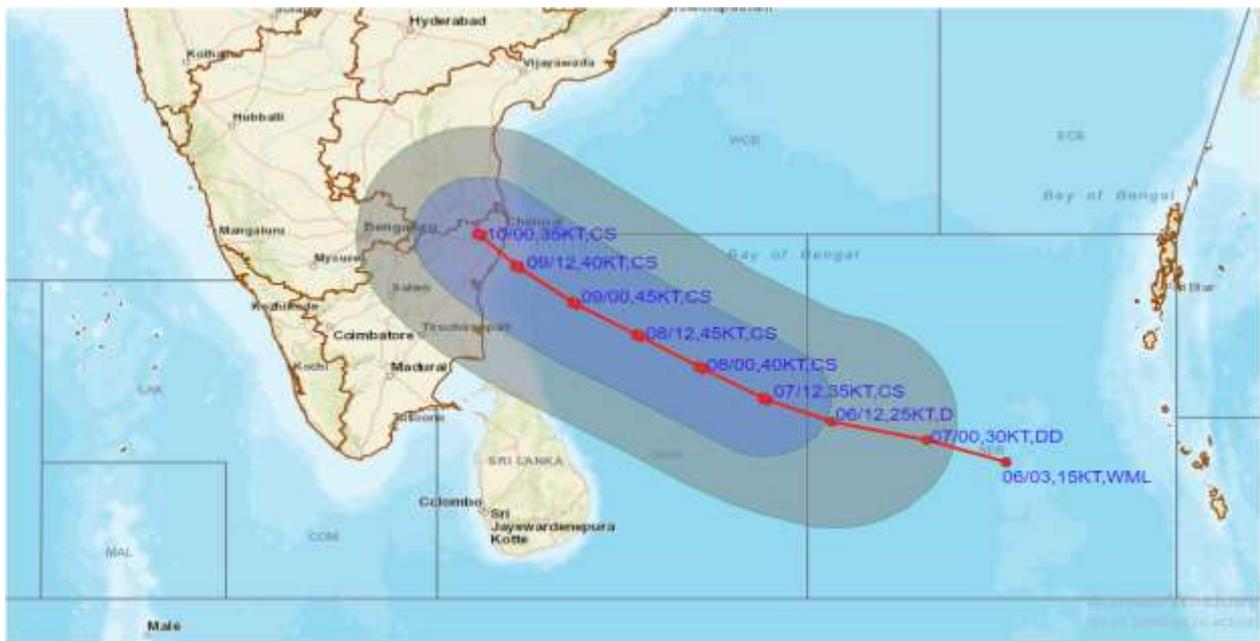
OBSERVED TRACK

FORECAST TRACK

CONE OF UNCERTAINTY



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL BASED ON 0300 UTC OF 06th DECEMBER, 2022.



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IST=UTC + 0530

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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 (≥20 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

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