



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 01.12.2024

SPECIAL TROPICAL WEATHER OUTLOOK FOR THE NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR THE NEXT 120 HOURS ISSUED AT 1500 UTC OF 01.12.2024 BASED ON 1200 UTC OF 01.12.2024.

SUB: DEEP DEPRESSION OVER NORTH COASTAL TAMIL NADU AND PUDUCHERRY [REMNANT OF CYCLONIC STORM “FENGAL”] WEAKENED INTO A DEPRESSION.

DEEP DEPRESSION [REMNANT OF CYCLONE STORM “FENGAL”] OVER NORTH COASTAL TAMIL NADU & PUDUCHERRY MOVED SLOWLY WEST-NORTHWESTWARDS DURING PAST 06 HOURS, WEAKENED INTO A DEPRESSION AND LAY CENTRED AT 1200 UTC OF THE 1ST DECEMBER 2024 OVER THE SAME REGION NEAR LATITUDE 12.1⁰N AND LONGITUDE 79.6⁰E, ABOUT 20 KM NORTH EAST OF VILLUPURAM (TAMILNADU, INDIA), 30 KM WEST-NORTHWEST OF PUDUCHERRY (43331), ABOUT 40 KM NORTH-NORTHWEST OF CUDDALORE (43329), AND 120 KM SOUTH-SOUTHWEST OF CHENNAI (43279).

IT IS LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA OVER NORTH INTERIOR TAMIL NADU DURING NEXT 12 HOURS.

THE SYSTEM IS BEING CONTINUOUSLY MONITORED BY THE DOPPLER WEATHER RADAR AT CHENNAI & KARAIKAL.

ESTIMATED CENTRAL PRESSURE IN ASSOCIATION WITH THE SYSTEM IS 998 HPA AND ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 25 KTS GUSTING TO 35 KTS. ROUGH SEA CONDITIONS IS LIKELY TO PREVAIL OVER SOUTHWEST BAY OF BENGAL AND ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL, AND ALONG & OFF TAMIL NADU-PUDUCHERRY COAST, GULF OF MANNAR, ALONG AND OFF SOUTH ANDHRA PRADESH AND NORTH SRI LANKA COASTS TILL 0000 UTC OF 02ND DECEMBER. IT WILL GRDUALY IMPROVES THEREAFTER.

AS PER LATEST SATELLITE IMAGERY, ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTH TAMILNADU AND ADJOINING RAYALSEEMA, SOUTH KERALA WITH MINIMUM CLOUD TOP TEMPERATURE AS MINUS 70-80°C AND MODERATE TO INTENSE CONVECTION OVER SOUTH COASTAL ANDHRA PRDESH, NORTH

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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RAYALSEEMA, SOUTH INTERIOR KARNATAKA, SOUTH TAMILNADU, NORTH KERALA AND ALSO OVER SOUTHWEST AND ADJOINING WEST CENTRAL BAY OF BENGAL OFF NORTH TAMILNADU COASTS ADJOINING SOUTH ANDHRA PRADESH COAST AND NEIGHBOURHOOD WITH MINIMUM CLOUD TOP TEMPERATURE AS MINUS 60-70°C.

CUDDALORE REPORTED MEAN SEA LEVEL PRESSURE (MSLP) OF 999 HPA, 24 HRS PRESSURE CHANGE OF (P24) OF -3.9 HPA. SYSTEM HAS FILLED UP IN PAST 3 HOURS AND MAXIMUM SUSTAINED WIND SPEED (MSW) OF 320⁰/ 9KT AT 0600 UTC OF 1ST DECEMBER.

CUDDALORE REPORTED MSLP OF 991 HPA, P24 OF -0.01 HPA AND MSW OF 230⁰/ 5KT AT 1200 UTC OF 1ST DECEMBER.

CHENNAI REPORTED MSLP OF 1001.6 HPA AND MSW OF 110⁰/04KT AT 1200 UTC OF 1ST DECEMBER.

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
01.12.24/1200	12.1/79.6	45-55 GUSTING TO 65	DEPRESSION
01.12.24/1800	12.1/79.4	40-50 GUSTING TO 60	DEPRESSION
02.12.24/0000	12.2/79.2	35-45 GUSTING TO 50	WELL MARKED LOW PRESSURE AREA

WIND WARNING:

- SOUTHWEST BAY OF BENGAL AND ALONG & OFF NORTH TAMIL NADU – PUDUCHERRY COASTS: SQUALLY WIND SPEED REACHING 45-55 KMPH GUSTING TO 65 KMPH IS PREVAILING. IT IS LIKELY TO DECREASE BECOMING SQUALLY WIND SPEED REACHING 40-50 KMPH GUSTING TO 60 KMPH FROM 0000 UTC OF 02ND DECEMBER AND DECREASE GRADUALLY THEREAFTER.
- ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL AND ALONG & OFF SOUTH ANDHRA PRADESH COAST: SQUALLY WIND SPEED REACHING 35-45 KMPH GUSTING TO 55 KMPH IS LIKELY TO PREVAIL OVER ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL TILL 0000UTC OF 2ND DECEMBER. IT IS LIKELY TO DECREASE THEREAFTER.
- ALONG & OFF SOUTH TAMIL NADU COAST AND GULF OF MANNAR: SQUALLY WIND SPEED REACHING 35-45 KMPH GUSTING TO 55 KMPH IS LIKELY TO PREVAIL TILL 12UTC OF 1ST DECEMBER AND GRADUALLY DECREASE THEREAFTER.

SEA CONDITION:

ROUGH SEA CONDITIONS IS LIKELY TO PREVAIL OVER SOUTHWEST BAY OF BENGAL ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL, AND ALONG & OFF NORTH TAMIL NADU-PUDUCHERRY COASTS, AND ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL, GULF OF MANNAR, ALONG & OFF SOUTH ANDHRA

PRADESH AND NORTH SRI LANKA COASTS TILL 0000 UTC OF 2ND DECEMBER. IT WILL GRADUALLY IMPROVE THEREAFTER.

FISHERMAN WARNING:

- TOTAL SUSPENSION OF FISHING OPERATIONS TILL 1ST DECEMBER OVER SOUTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL.
- FISHERMEN ARE ADVISED NOT VENTURE INTO SOUTHWEST BAY OF BENGAL ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL, GULF OF MANNAR AND ALONG & OFF TAMIL NADU-PUDUCHERRY, SOUTH ANDHRA PRADESH AND NORTH SRI LANKA COASTS TILL 1ST DECEMBER.

REMARKS:

THE SYSTEM IS MOSTLY OVER THE LAND. THE TOTAL PRECIPITABLE WATER IMAGERY IS INDICATING WARM MOIST AIR AROUND SYSTEM AREA. HOWEVER, COLD DRY AIR INCURSION FROM SOUTHWEST IS REACHING UPTO SOUTHEAST SECTOR.

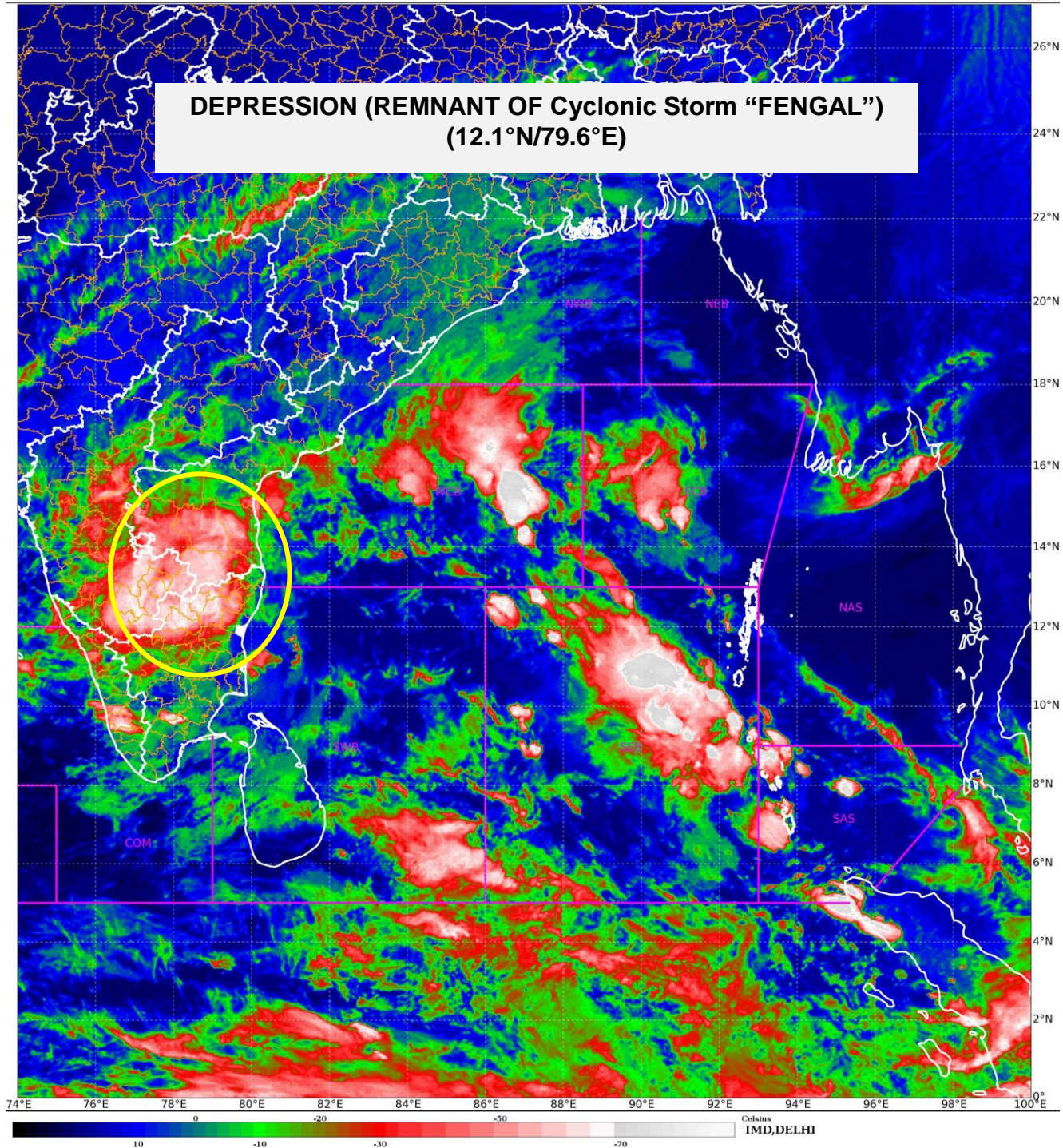
LOW LEVEL POSITIVE CYCLONIC VORTICITY AT 850 HPA LEVEL IS AROUND $100 \times 10^{-5} \text{ S}^{-1}$ OVER SOUTH OF THE SYSTEM AREA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. THE LOW LEVEL CONVERGENCE IS NOW $20 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTH WEST OF SYSTEM AREA. UPPER LEVEL DIVERGENCE IS REDUCED TO $10 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTHWEST OF SYSTEM AREA. VERTICAL WIND SHEAR IS MODERATE (10-15 KT) OVER THE SYSTEM AREA. THE EAST-NORTHEASTERLY WINDS PREVAILING OVER SYSTEM AREA ARE STEERING THE SYSTEM WEST-SOUTHWESTWARDS. THE SYSTEM HAS STARTED WEAKENING DUE TO LAND INTERACTIONS, DECREASE IN VARIOUS FEATURES LIKE LOW LEVEL VORTICITY.

THERE IS CONVERGENCE AMONG VARIOUS MODELS WITH RESPECT TO MOVEMENT OF THE DEPRESSION [REMNANT OF CYCLONIC STORM FENGAL]. IT IS INFERRED THAT THE DEPRESSION [REMNANT OF CYCLONIC STORM FENGAL] WILL MOVE WESTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA OVER NORTH TAMIL NADU DURING THE NEXT 12 HOURS.

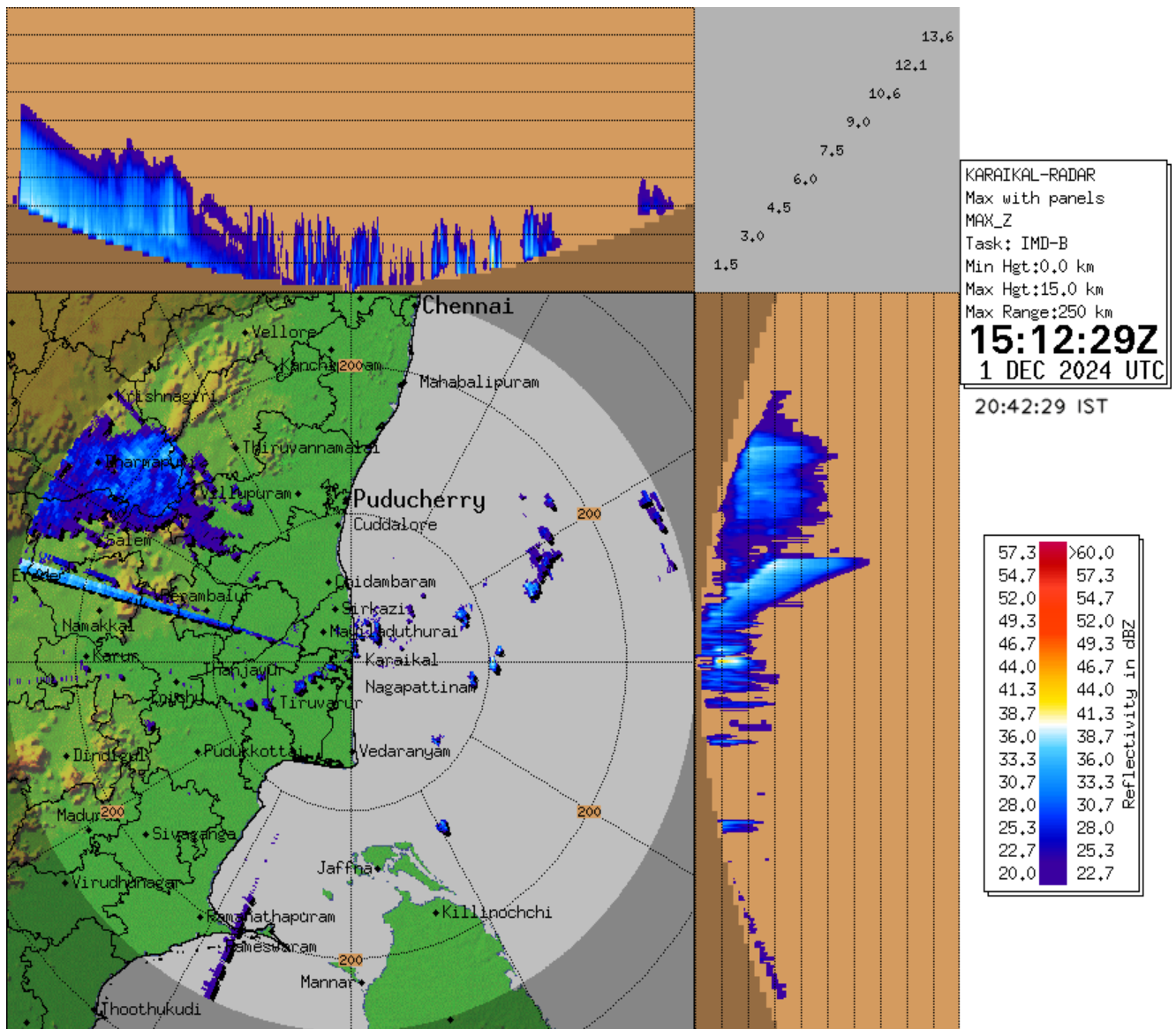
THE SYSTEM IS BEING CONTINUOUSLY MONITORED BY THE DOPPLER WEATHER RADAR AT CHENNAI & KARAIKAL.

THIS IS THE LAST UPDATE IN ASSOCIATION WITH THIS SYSTEM. HOWEVER, REGULAR TROPICAL WEATHER OUTLOOK WILL BE ISSUED TOMORROW BASED ON 0300 UTC OBSERVATIONS OF TOMORROW, THE 02ND DECEMBER, 2024.

(TRISANU BANIK)
SCIENTIST-D, RSMC, NEW DELHI



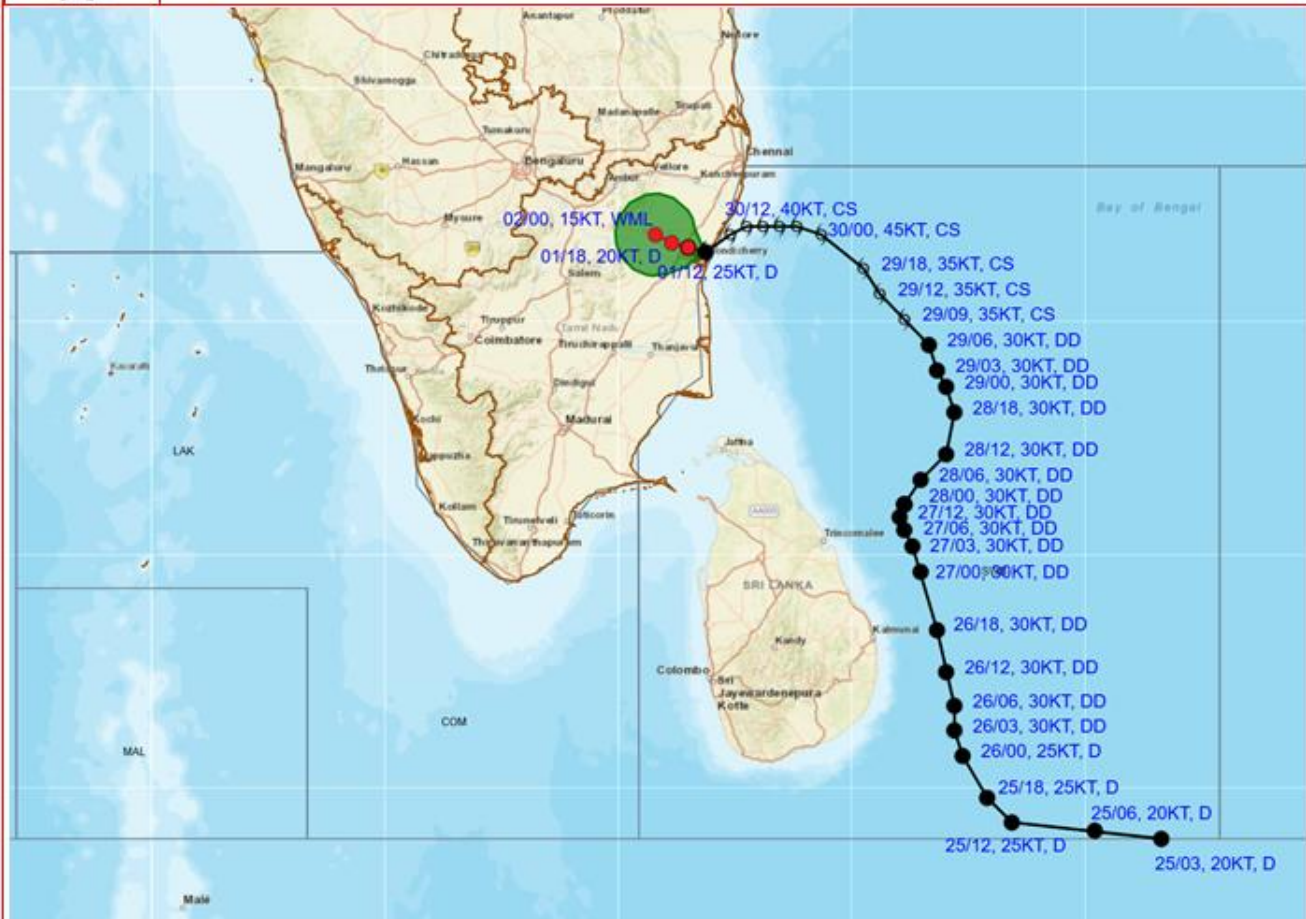
MAXIMUM REFLECTIVITY IMAGERY FROM DOPPLER WEATER RADAR, KARIKAL



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OBSERVED AND FORECAST TRACK ALONG WITH CONE OF UNCERTAINTY OF DEPRESSION (REMNANT OF CYCLONIC STORM "FENGAL") OVER NORTH COASTAL TAMIL NADU AND PUDUCHERRY BASED ON 1200 UTC (1730 HRS. IST) OF 01ST DECEMBER, 2024.



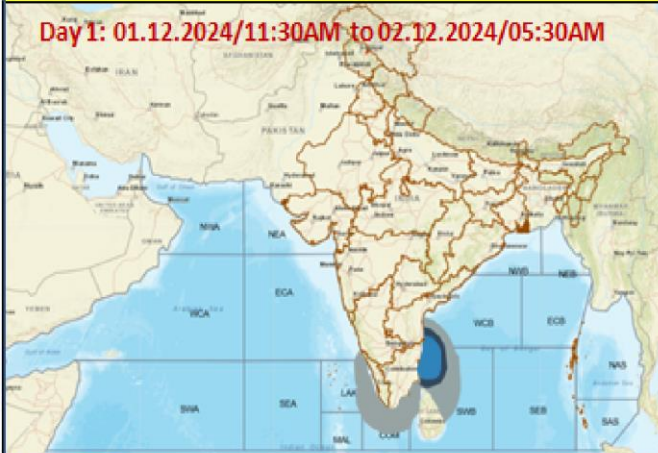
DATE/TIME : IN UTC
IST : UTC + 0530
KT : NAUTICAL MILE/HOUR = 1.85 KM/HOUR
LPA : LOW PRESSURE AREA
WML : WELL MARKED LOW PRESSURE AREA
D : DEPRESSION (17-27 KT)
DD : DEEP DEPRESSION (28-33 KT)
CS : CYCLONIC STORM (34-47 KT)
SCS : SEVERE CYCLONIC STORM (48-63 KT)
VSCS : VERY SEVERE CYCLONIC STORM (64-89 KT)
ECS : 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

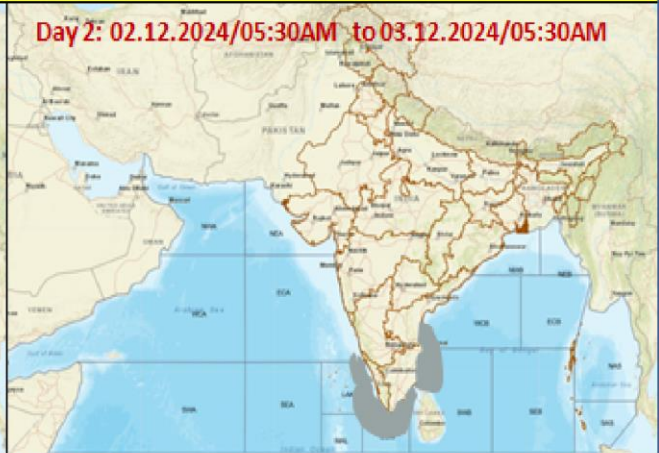
Forecast	DISTANCE (KM) AND DIRECTION FROM STATIONS			
Date and Time (UTC)	MAHABALIPURAM	MO PUDUCHERRY	CHENNAI/MINAMBAKKAM	CUDDALORE
01.12.24/1200	90, SW	30, WNW	120, SSW	40, NNW
01.12.24/1800	100, WSW	50, WNW	130, SW	50, NW
02.12.24/0000	120, WSW	70, WNW	140, SW	80, NW

Fishermen Warning Graphics

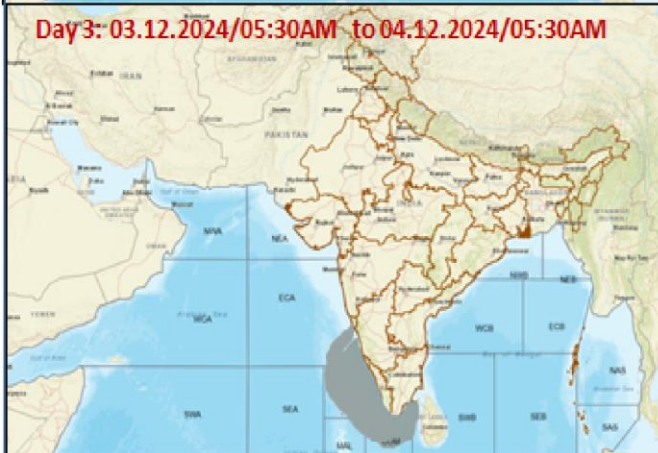
Day 1: 01.12.2024/11:30AM to 02.12.2024/05:30AM



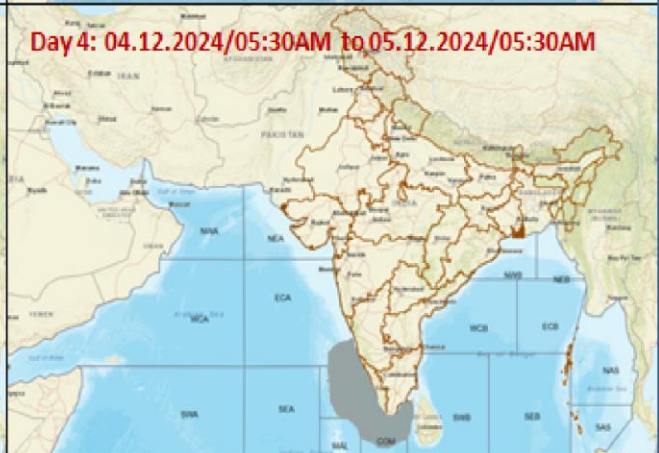
Day 2: 02.12.2024/05:30AM to 03.12.2024/05:30AM



Day 3: 03.12.2024/05:30AM to 04.12.2024/05:30AM



Day 4: 04.12.2024/05:30AM to 05.12.2024/05:30AM



Day 5: 05.12.2024/05:30AM to 06.12.2024/05:30AM



Squally Weather with wind speed 35-45 kmph gusting to 55 kmph

Squally wind with speed 45-55 kmph gusting to 65 kmph

Deep depression with wind speed 55-65 kmph gusting to 75 kmph

Fishermen are advised not to venture into the marked areas.