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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 01.12.2025
SPECIAL TROPICAL WEATHER OUTLOOK FOR THE NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR THE NEXT 168 HOURS ISSUED AT 0700 UTC OF 02.12.2025 BASED ON 0300 UTC OF 02.12.2025.

Sub: Depression (Remnant of Cyclonic Storm Ditwah) over the southwest Bay of Bengal and adjoining areas of Westcentral Bay of Bengal and North Tamil Nadu-Puducherry & South Andhra Pradesh coasts

The Depression (Remnant of Cyclonic Storm Ditwah) over southwest Bay of Bengal and adjoining areas of westcentral Bay of Bengal, North Tamil Nadu, Puducherry & South Andhra Pradesh coasts moved slowly south-southwestwards with the speed of 3 kmph during past 6 hours and lay centered at 0300 UTC of today, the 02nd December 2025 over the same region, near latitude 12.8°N and longitude 80.5°E, about 40 km east-southeast of Chennai (43279), 120 km northeast of Puducherry (43331), 140 km northeast of Cuddalore (43329) and 190 km south-southeast of Nellore (43245). The minimum distance of the Centre of the depression from north Tamil Nadu-Puducherry coasts is about 25km.

It is very likely to continue to move slowly southwestwards towards the north Tamil Nadu-Puducherry coasts and maintain its intensity of depression during next 12 hours. Thereafter, while moving towards the coast it is very likely to weaken into a Well-marked low-pressure area during subsequent12hours.

The system is being monitored by the Doppler Weather Radars (DWR) at Chennai and Sriharikota.

As per INSAT 3DR at 0300 UTC, the clouds are organized in shear pattern. The well defined low level cyclonic circulation (LLCC) as seen yesterday has been diffused today. The convective cloud mass associated with the LLCC is decreasing gradually, indicating weakening of the system. The intensity of the system is characterized as T1.5. The associated scattered to broken low and medium clouds with embedded intense to very intense convection lay over westcentral adjoining southwest Bay of Bengal, coastal Andhra Pradesh, North coastal Tamil Nadu. Though the minimum cloud top temperature (CTT) is minus 70-90 degree Celsius), the area of convection has decreased. Moderate to intense convection over east Odisha (minimum CTT as minus 50-70 degree Celsius)

The estimated central pressure is about 1004 hPa. The associated maximum sustained wind speed is about 25 knots gusting upto 35 knots.

Sea condition is very rough to rough over southwest & adjoining westcentral Bay of Bengal and along & off North Tamil Nadu-Puducherry & South Andhra Pradesh coasts.

REMARKS:

The guidance from various models indicates that the Madden Julian Oscillation (MJO) index is presently in phase 7 with amplitude more than 1 and is likely to continue in same phase during next 3 days. The sea surface temperature (SST) is around 28^0C over southwest Bay of Bengal and along & off Sri Lanka, Tamil Nadu & South Andhra Pradesh coast along the forecast track. The SST reduces to the north (North of 15^0N) being 27^0C.

The guidance from NCICS model indicates westerly wind anomaly (7-9 mps) along with prevalence of Equatorial Rossby Wave (ERW), low frequency background wave (LW) over the southern parts of the Bay of Bengal (BoB), south peninsular India & Comorin area and easterly wind anomaly (3-5 mps) to its north over southwest BoB off North Tamil Nadu-Andhra Pradesh coasts & central India on 2nd December. These features will support the depression to maintain its intensity till 1200 UTC of 2nd December. Thereafter, slight weakening of these features is indicated with prevalence of westerly wind anomaly (5-7 mps), ERW, LW over the southern parts of the Bay of Bengal (BoB) and easterly wind anomaly (3-5 mps) to its north over central parts of India on 3rd December. These features indicate feeble support from equatorial waves to maintain the intensity of the low pressure area while it moves southwestwards across South Peninsular India.

The Low level relative vorticity at 850 hPa has decreased and is about 70-80×10^{-6} s^{-1} over southwest Bay of Bengal to the southwest of system centre. Vertically the positive vorticity zone is extending up to 500 hPa. Upper-level divergence is around 10×10^{-6} s^{-1} over the system centre and is northeast-southwest oriented. Low-level convergence is around 10×10^{-6} s^{-1} over system centre. Mid layer shear is moderate to high (around 20-25 kts) and anti-cyclonic over the system area and to its south. The high wind shear to the north would further lead to shearing of convective clouds associated with the system and hence subsequent weakening.

System is currently in moderately favorable environment and hence would weaken during next 12 hours. The system is very close to Tamil Nadu coast and interacting with land, which will further lead to weakening of the system.

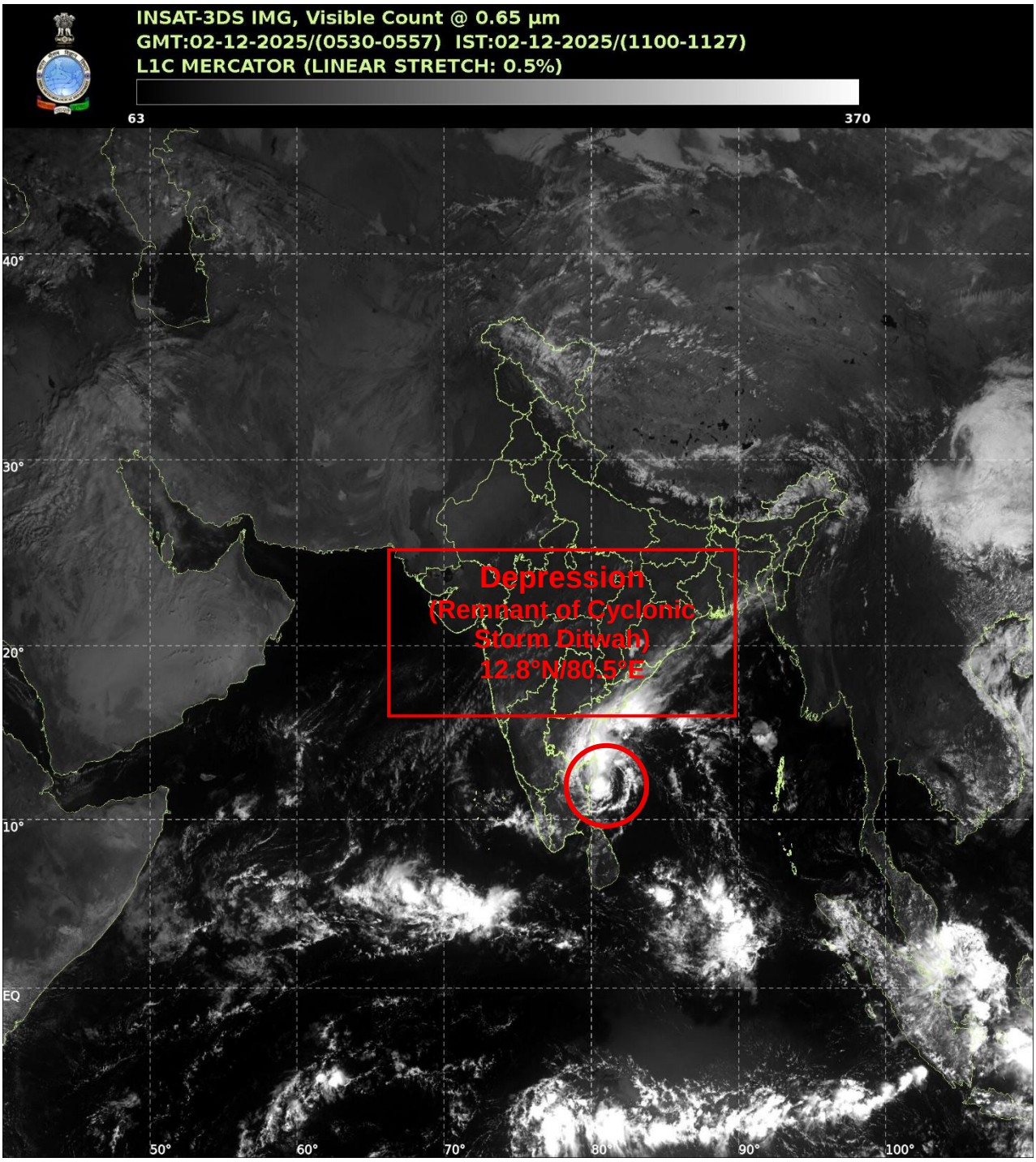
The system moved slowly nearly northwards till 1st December evening, and gradually recurved southwestwards from midnight of 1st December. The opposing forces due to westerly trough and the easterly flow, resulted in slow movement of system. As it was lying close to the ridge, it moved nearly northwards along the ridge. However, as the system remained almost practically stationary, close to coast, persistent rainfall led to lowering of SST. Further the system exhibited weakening due to land interactions, increase in cold dry air incursion, lack of warm moist air into the core region and increased vertical wind shear. Consequently, the depth of convection has reduced. Currently the system is steered southwestwards by the northeasterly winds in the mid-tropspheric levels.

There is good consensus among various models with respect to maintenance of intensity of the system as a depression during next 12 hours and also slow movement over southwest & adjoining Westcentral Bay of Bengal off Tamil Nadu coast. With respect to movement, ECMWF, IMD GFS and NCEP GFS are indicating movement in clockwise loop till 02/18 and west-southwestwards movement across Tamil Nadu-Puducherry-Kerala-southeast Arabian Sea thereafter with gradual weakening. NCUM is indicating west-southwestwards movement towards Tamil Nadu coast.

The forecast is based on the initial conditions and the consensus model guidance.

i) Confidence level in estimation of current location: High
ii) Confidence level in estimation of estimation of current intensity: High
iii) Confidence level in forecast track: Moderate
iv) Confidence level in forecast intensity: Moderate

Monica Sharma
Scientist-E



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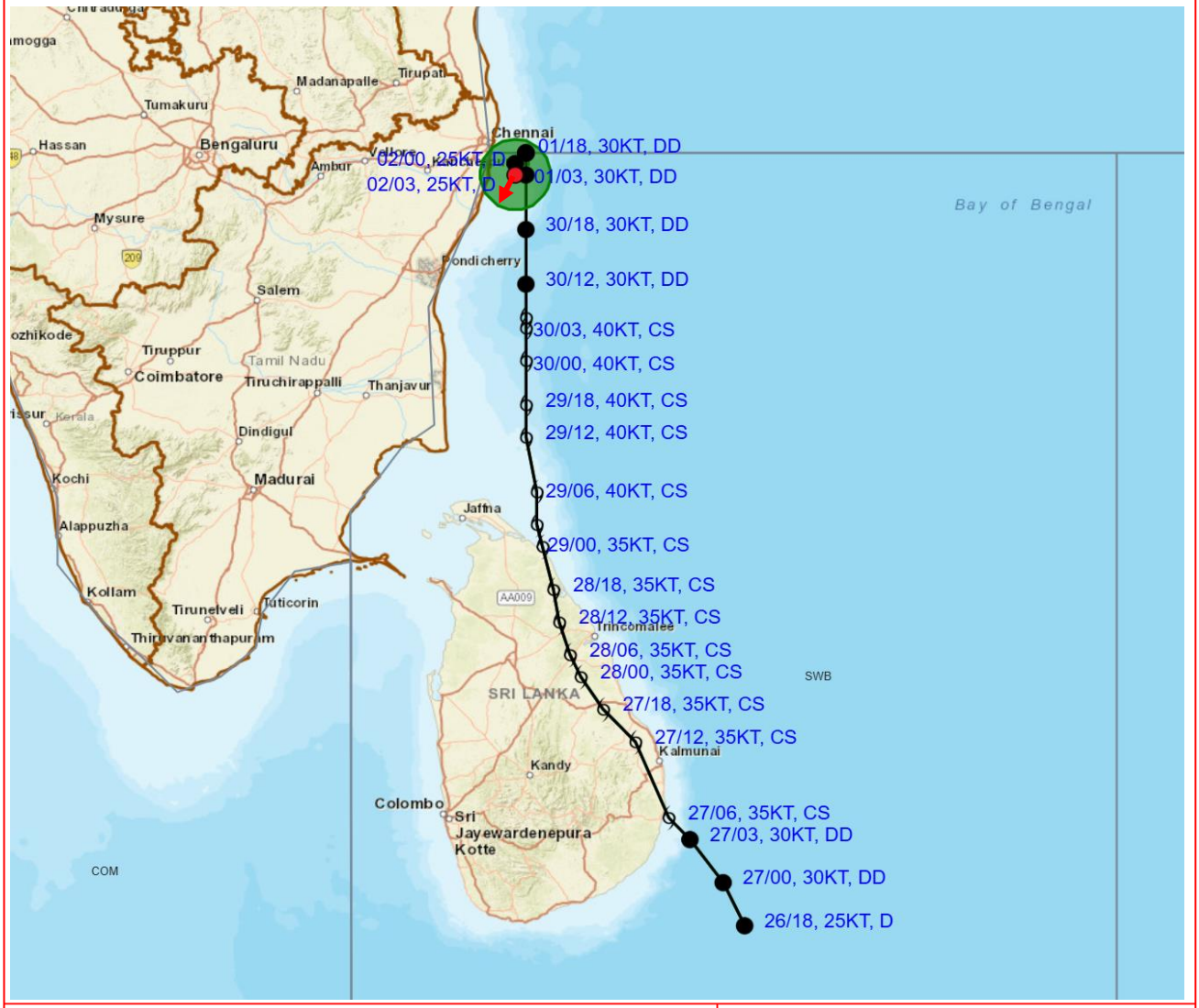
OBSERVED AND FORECAST TRACK OF DEPRESSION (REMNANT OF CYCLONIC STORM "DITWAH") OVER SOUTHWEST BAY OF BENGAL AND ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL, NORTH TAMILNADU, PUDUCHERRY & SOUTH ANDHRA PRADESH COASTS BASED ON 0300 UTC (0830 Hrs. IST) OF 2ND DECEMBER 2025



DATE/TIME IN UTC
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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

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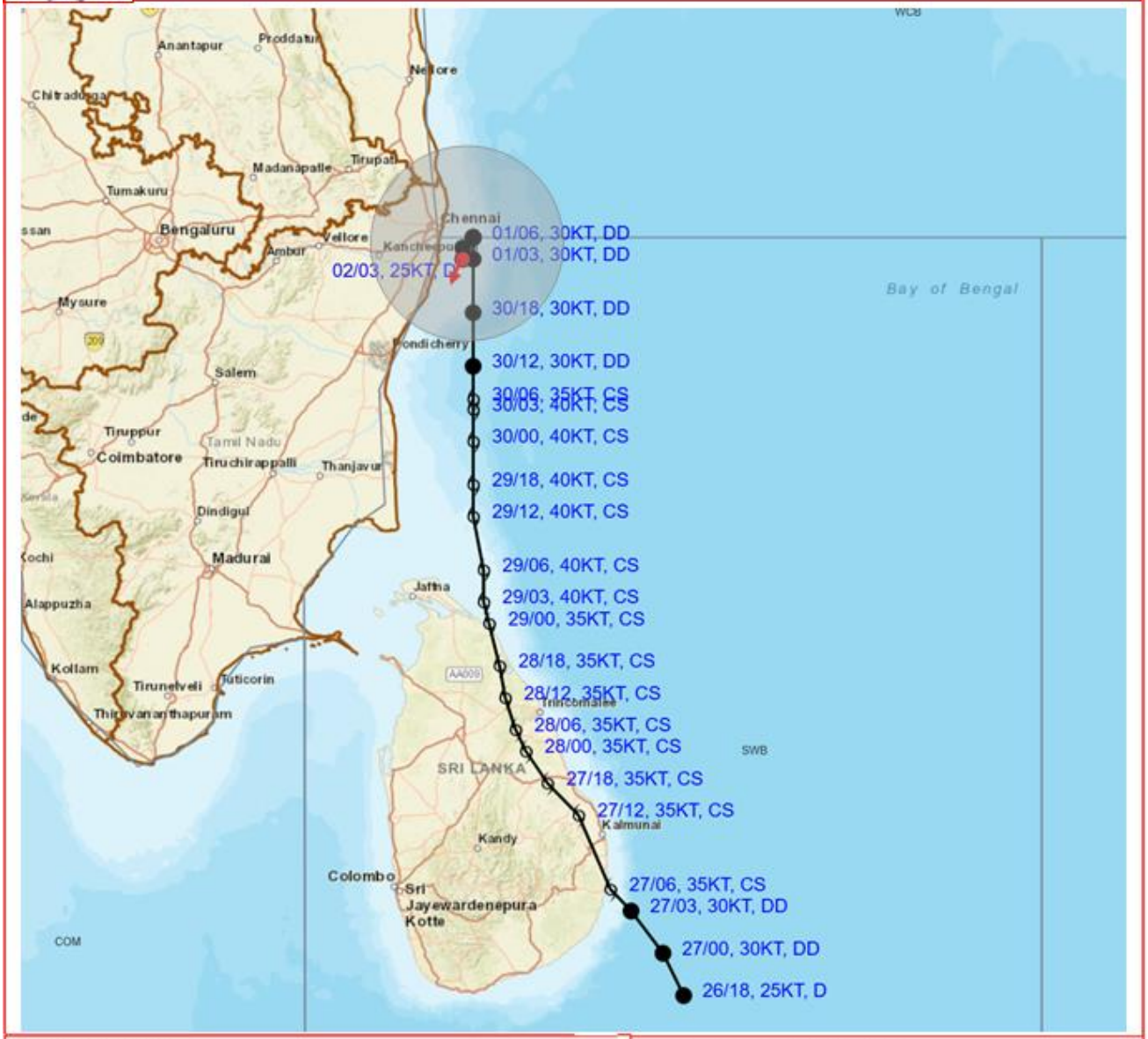
OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEPRESSION (REMNANT OF CYCLONIC STORM "DITWAH") OVER SOUTHWEST BAY OF BENGAL AND ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL, NORTH TAMILNADU, PUDUCHERRY & SOUTH ANDHRA PRADESH COASTS BASED ON 0300 UTC (0830 Hrs. IST) OF 2ND DECEMBER 2025



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- LESS THAN 34 KT
- 34-47 KT
- ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

AREA OF MAXIMUM SUSTAINED WIND SPEED:
- 25 KT (45-55 KMPH) I)
- 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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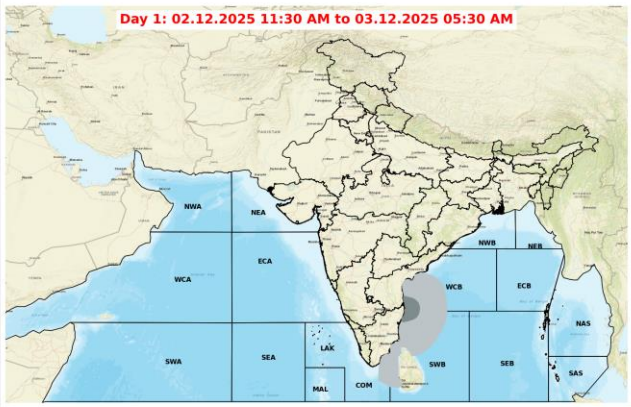
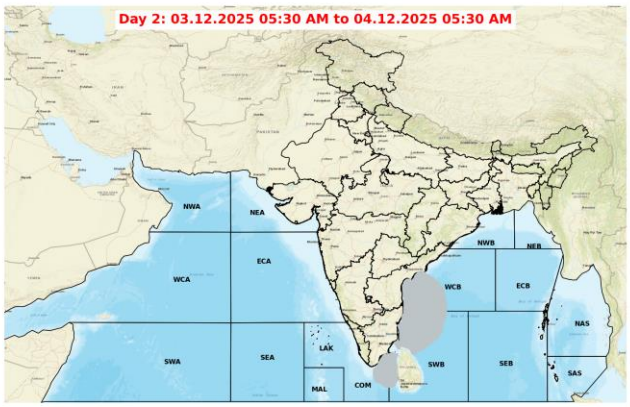
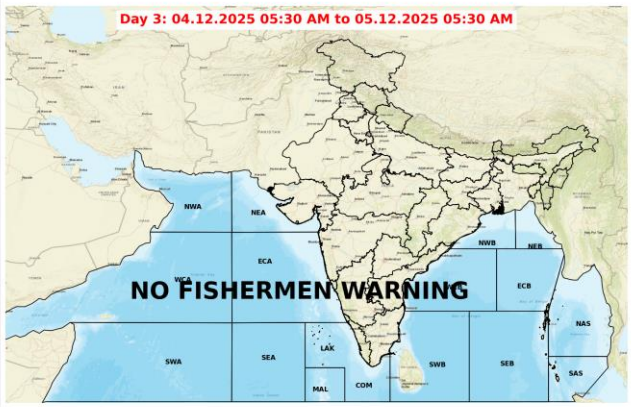
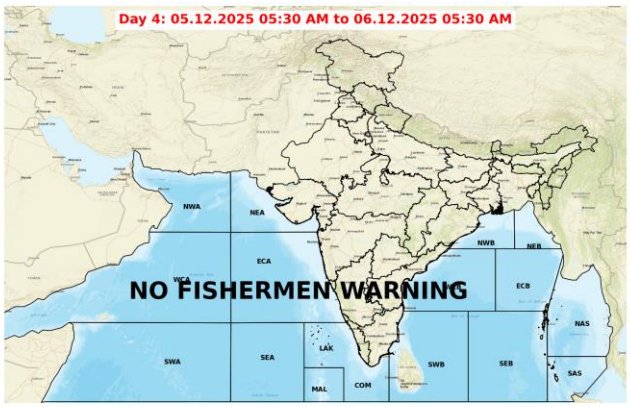
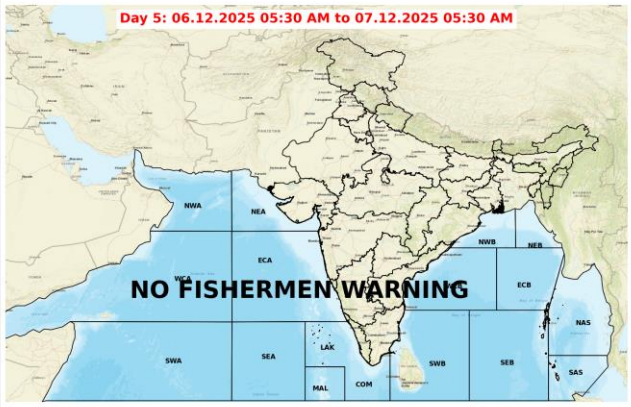
Fishermen Warning Graphics

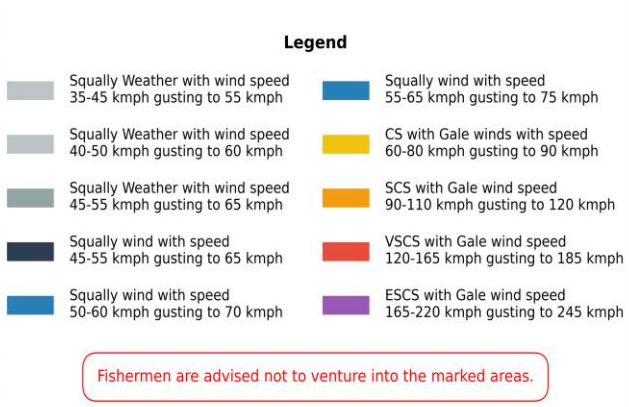












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