



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 24.05.2025

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 168 HOURS ISSUED AT 0730 UTC OF 24.05.2025 BASED ON 0300 UTC OF 24.05.2025.

ARABIAN SEA:

Sub: Depression over Eastcentral Arabian Sea and adjoining south Konkan coast

The depression over eastcentral Arabian Sea and adjoining south Konkan coast lay centered at 0300 UTC of today, the 24th May 2025 over the same region close to South Konkan coast, near latitude 17.2° N & longitude 73.2° E, about 30 km north-northwest of Ratnagiri (43110) and 70 km south of Dapoli (Maharashtra, India).

It is likely to move nearly eastwards and cross south Konkan coast between Ratnagiri and Dapoli as a depression around 0600 UTC of today, the 24th May 2025.

As per INSAT 3D (S) imagery at 0300 UTC, the system is centered over eastcentral Arabian Sea off Konkan coast near latitude 17.2°N/73.0°E. The associated intensity of the system is T1.5. The clouds are organized in shear pattern. Associated scattered to broken low and medium clouds with embedded intense to very intense convection lay over southeast, Eastcentral & adjoining Northeast Arabian Sea and along & off Konkan, Goa, Karnataka and South Gujarat coasts and Lakshadweep area. The cloud top temperature (CTT) is -60°C to -90°C. Scattered low and medium clouds with embedded moderate to intense convection lay over Gulf of Cambay and Maldives area.

The associated estimated central pressure is 998 hPa and the associated maximum sustained wind speed is 25 kt gusting to 35 kt.

BAY OF BENGAL:

A low-pressure area is likely to form over westcentral and adjoining north Bay of Bengal around 27th May, 2025. It is likely to become more marked during subsequent 2 days.

Scattered low and medium clouds with embedded intense to very intense convection lay over central & south Bay of Bengal & Andaman Sea. Scattered low and medium clouds with embedded moderate to intense convection lay over north Bay of Bengal

***PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 168 HRS:**

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS	120-144 HOURS	144-168 HOURS
NIL	NIL	NIL	NIL	LOW	LOW	-

***NOTE: EVERY 24HR FORECAST IS VALID UPTO 0300 UTC (0830 IST) OF NEXT DAY**

“-“Not applicable

Remarks:

As the system is moving slowly and interacting with the land surface, due to its proximity to the coast, it is unlikely to intensify further. With the supportive favorable environment like low to moderate mid-level vertical wind shear, strong surge in advancing monsoon current and both poleward & equatorward outflow and warm sea surface temperature (30-32°C), the system intensified into a depression over eastcentral Arabian Sea. The outflow would support upper level divergence. The positive low level vorticity is $70-80 \times 10^{-5} \text{s}^{-1}$ at 850 hPa level and vertically extending upto 500 hPa. The low level convergence is $20 \times 10^{-5} \text{s}^{-1}$ and upper level divergence is $30 \times 10^{-5} \text{s}^{-1}$ to the southwest of system. In contrast to various predictions by models in past about its north northwestwards movement, the system is moving eastwards. It is attributed to the fact that the system did not intensify and thus vertically extended upto mid tropospheric levels. The system is being steered eastwards under the influence of westerly winds in lower and middle tropospheric levels. The composite wind analysis of various levels also indicates westerly trough passing to the north of the system area. As a result of all these, the depression is supporting the advance of monsoon over south peninsular India. It would also support both advance of monsoon over the Arabian Sea & Bay of Bengal and more parts of north peninsular India and adjoining central India during next 3 to 5 days.

Over the Bay of Bengal, the conditions are favourable for development of low pressure area with warm sea surface temperature (30-32°C), favourable Madden Julian Oscillation (phase 4&5 during next 7 days), strong westerly wind anomaly (5-7 mps) over the south Bay of Bengal and low to moderate vertical wind shear over north and adjoining central Bay of Bengal.

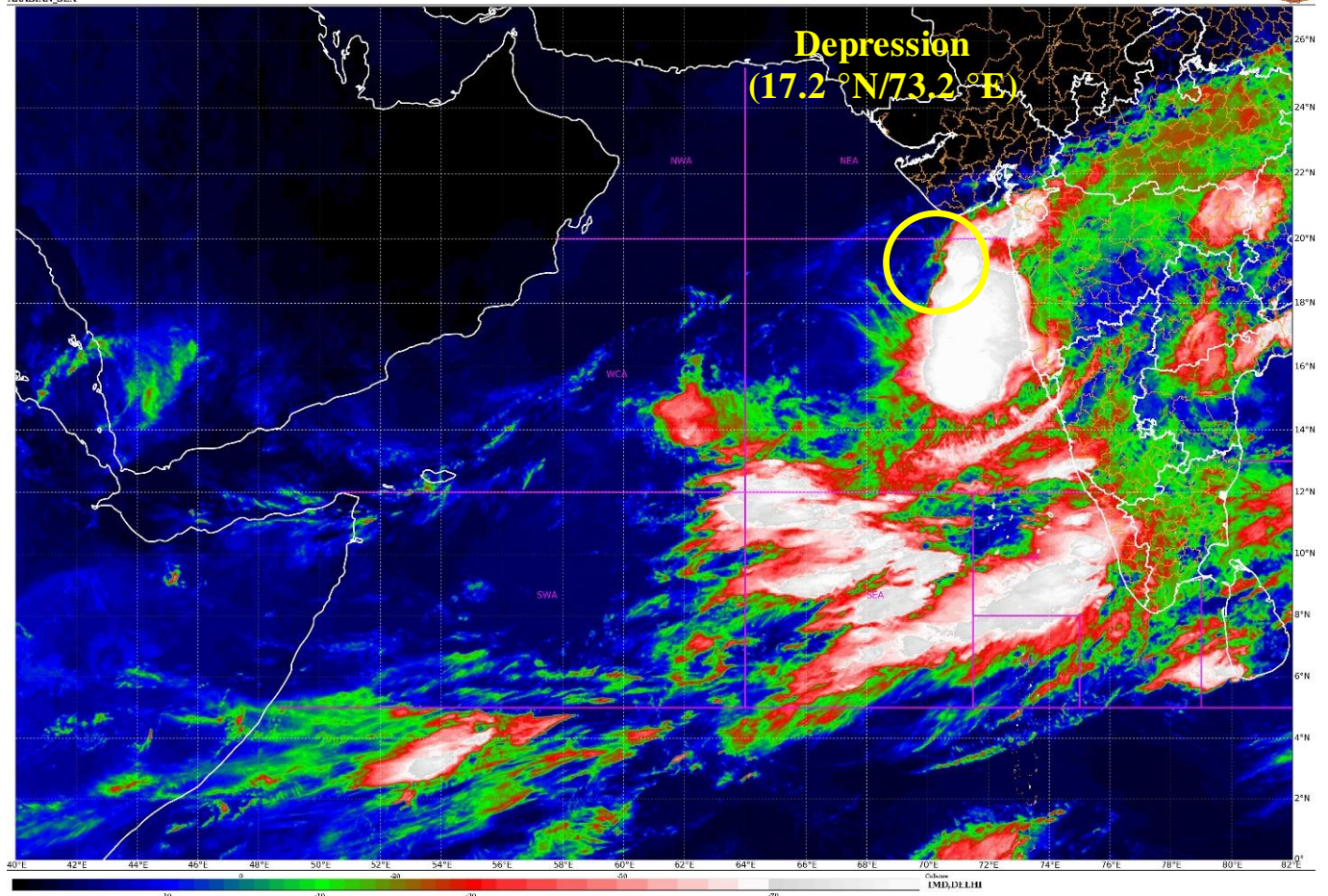
Some of the models are suggesting that, after landfall the existing depression over eastcentral Arabian Sea would move across Maharashtra, Telangana & Andhra Pradesh and emerge into westcentral & northwest Bay of Bengal around 27th May. It would lead to the formation of low pressure area over same region. Gradually it is predicted to move north northwestwards and may lead to enhancement of monsoon current over the Bay of Bengal.

THE NEXT BULLETIN WILL BE ISSUED AT 0900 UTC BASED ON 0600 UTC OF 24TH MAY, 2025.

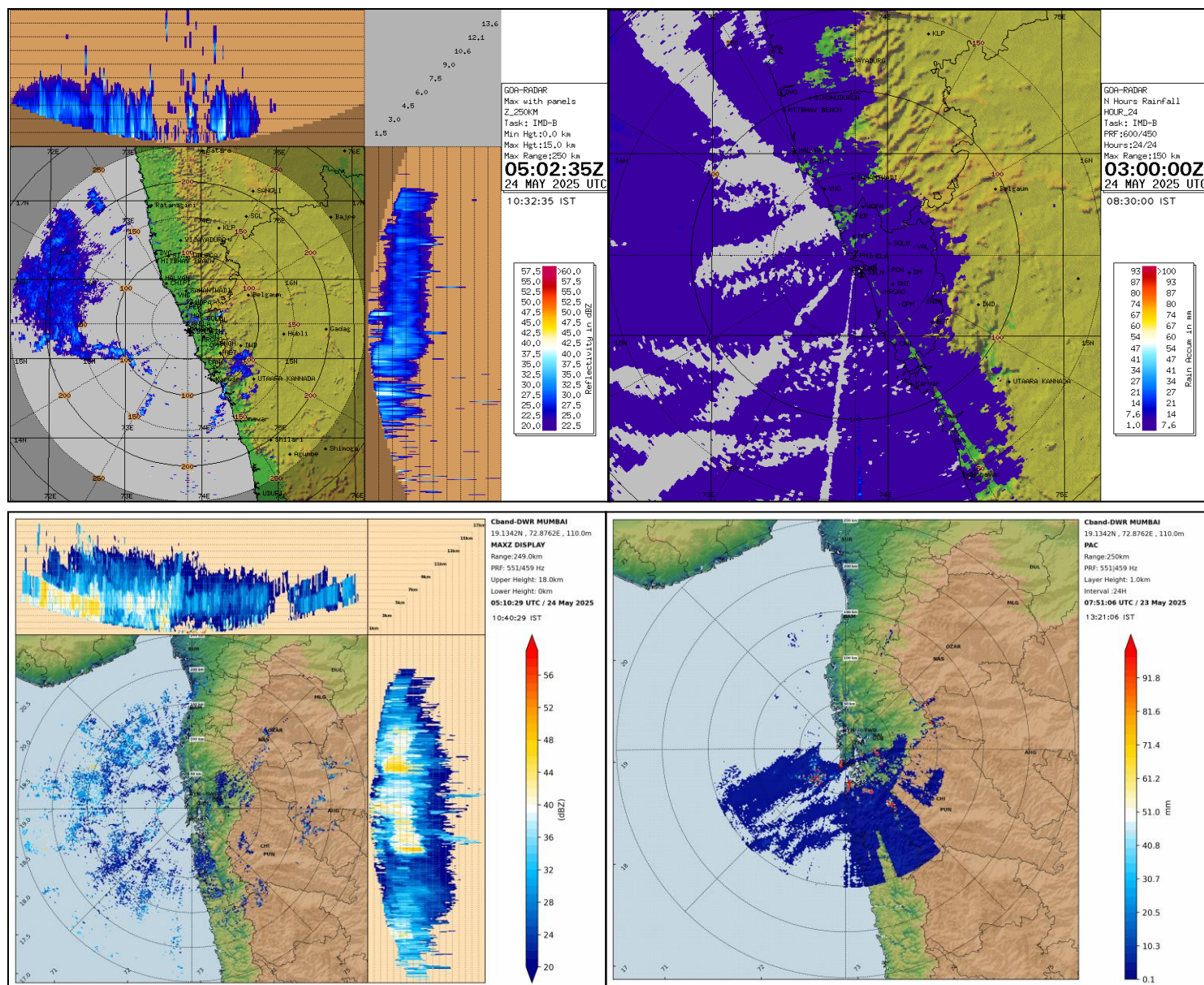
(Monica Sharma)
Sc.D, RSMC, NEW DELHI

SAT : INSAT-3DR IMG
 IMG_101_1EMP 10.8 um
 ARABIAN SEA

24-05-2025/(0345 to 0412) GMT
 24-05-2025/(0915 to 0942) IST



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%
 This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins

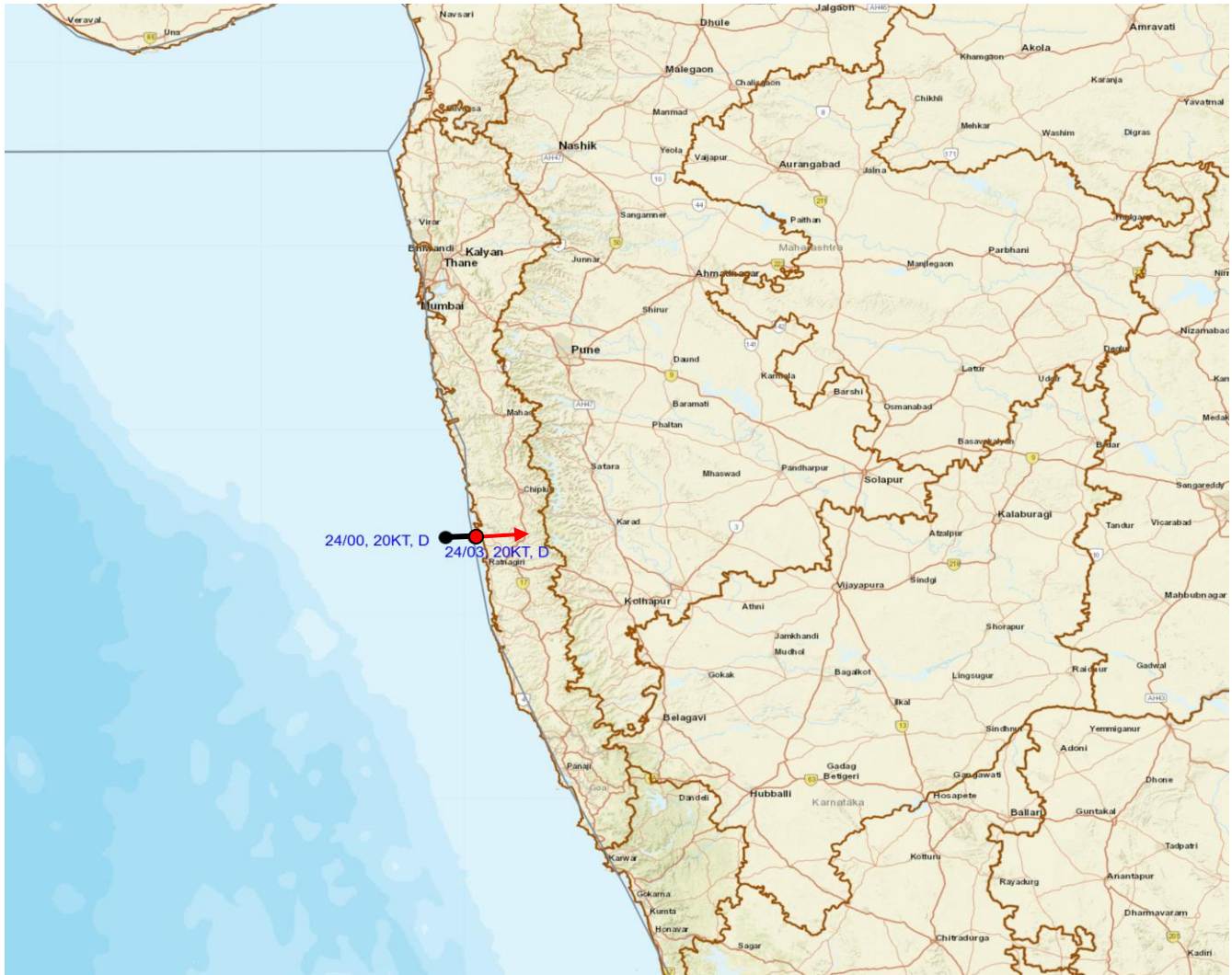


Composite radar images from IMD's Doppler Weather Radar (DWR) at Mumbai depict convective activity and rainfall intensity over the Konkan coast and adjoining Western Ghats on 22–24 May 2025. The panels include vertical cross-sections, CAPPI (Constant Altitude Plan Position Indicator) reflectivity plots, and accumulated rainfall estimates. Notably, strong reflectivity cores and vertical cloud development suggest deep convection, potentially linked to pre-monsoon thunderstorm activity. Observations show elevated rainfall rates and organized convective bands indicating significant atmospheric instability over the region.

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 PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION): NIL: 0%, LOW: 1-33%, MODERATE: 34-66% AND HIGH: 67-100%
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OBSERVED AND FORECAST TRACK OF DEPRESSION OVER EASTCENTRAL ARABIAN SEA AND ADJOINING SOUTH KONKAN COAST BASED ON 0300 UTC (0830 IST) OF 24th MAY, 2025



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

Fishermen Warning Graphics

