





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

**DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 22.11.2025** 

TROPICAL WEATHER OUTLOOK FOR THE NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR THE NEXT 168 HOURS ISSUED AT 0600 UTC OF 22.11.2025 BASED ON 0300 UTC OF 22.11.2025.

#### **BAY OF BENGAL:**

Under the influence of yesterday's upper air cyclonic circulation over central parts of Strait of Malacca, a Low Pressure area formed over Strait of Malacca and adjoining South Andaman Sea at 0300 UTC of today, the 22<sup>nd</sup> November 2025. It is very likely to move west-northwestwards and intensify into a depression over southeast Bay of Bengal around 24<sup>th</sup> November 2025. Continuing to move west-northwestwards, it is very likely to intensify further over southwest Bay of Bengal during subsequent 48 hours.

As per INSAT 3DS at 0300 UTC, scattered low and medium clouds with embedded intense to very intense convection lay over south Bay of Bengal and south Andaman Sea. Scattered low and medium clouds with embedded isolate moderate to intense convection lay over westcentral Bay of Bengal and north Andaman Sea. Scattered low and medium clouds with embedded weak convection lay over eastcentral Bay of Bengal.

The estimated central pressure is about 1010 hPa. The associated maximum sustained wind speed is about 10-15 knots gusting to 25 knots. Sea condition is moderate over Malacca straight and adjoining south Andaman Sea.

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

| 24    | 24-48 | 48-72 | 72-96 | 96-120 | 120-144 | 144-168 |
|-------|-------|-------|-------|--------|---------|---------|
| HOURS | HOURS | HOURS | HOURS | HOURS  | HOURS   | HOURS   |
| NIL   | NIL   | LOW   | MOD   | HIGH   | -       |         |

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

### **ARABIAN SEA:**

Yesterday's upper air cyclonic circulation lay over southeast Arabian Sea persisted over same region and extended upto 3.1 km above mean sea level at 0300 UTC of today, the 22<sup>nd</sup> November.

A fresh upper air cyclonic circulation lay over Comorin area and adjoining Equatorial Indian Ocean, extending upto 1.5 km above mean sea level at 0300 UTC of today, the 22<sup>nd</sup> November

As per INSAT 3DS at 0300 UTC, scattered low and medium clouds with embedded moderate to intense convection lay over southeast adjoining central Arabian Sea and Comorin area.

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

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

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

#### **REMARKS:**

The guidance from various models indicates that the Madden Julian Oscillation (MJO) index is presently in phase 6 with amplitude more than 1. Most of the models suggest that the MJO index is likely to remain in phase 6 with a slow eastward propagation and increasing amplitude during the next six days. The sea surface temperature is around 28°C over south Andaman Sea adjoining Malacca Strait and southeast Bay of Bengal (BoB). It is higher around 30°C over central BoB and along & off Odisha and Andhra Pradesh coasts. Ocean thermal energy is 150-175 KJ/cm² over south Andaman Sea and 100-120 KJ/cm² over southeast BoB. However, it is less than 50 KJ/cm² over westcentral BoB and along & off Odisha and Andhra Pradesh coasts.

The guidance from NCICS model indicates westerly wind anomaly (5-7 mps) alongwith prevalence of MJO, Equatorial Rossby wave (ERW), low frequency background wave (LW) over the southern parts of the North Indian Ocean (NIO) including south BoB and southeast Arabian Sea (AS) and easterly wind anomaly (3-5 mps) over central parts of BoB during  $22^{nd}$  -  $24^{th}$  November. These features indicate a favorable environment for cyclogenesis (development of depression) over southeast BoB around  $24^{th}$  November. During  $25^{th}$ - $26^{th}$  November, the model is indicating prevalence of westerly wind anomaly (5-7 mps) alongwith MJO, ERW, LW over south BoB and prevalence of easterly wind anomaly (1-3 mps) over northern parts of BoB. Thus, during  $25^{th}$ - $26^{th}$  November, the equatorial waves may support further intensification of system over the southwest & Westcentral BoB. Model is also indicating weakening of easterlies during  $30^{th}$  November to  $2^{nd}$  December over northern parts of BoB, which may lead to weakening of system as it recurves north-northeastwards and reaches central & adjoining North BoB.

Considering various thermo-dynamical features, low level relative vorticity at 850 hPa is about  $90\text{-}100 \times 10^{\text{-}6} \text{ s}^{\text{-}1}$  over Malacca Strait and another positive vorticity zone ( $50\text{-}60\times10^{\text{-}6} \text{ s}^{\text{-}1}$ ) is seen over south Andaman Sea. Vertically, the positive vorticity zone over Malacca Strait is extending upto 500hPa. Upper-level divergence around  $20\times10^{\text{-}6} \text{ s}^{\text{-}1}$  lay over Malacca Strait and another zone of  $20\times10^{\text{-}6} \text{ s}^{\text{-}1}$  over south Andaman Sea. Low-level convergence around  $20\times10^{\text{-}6} \text{ s}^{\text{-}1}$  lay over Malacca Strait and another zone of  $15\times10^{\text{-}6} \text{ s}^{\text{-}1}$  over south Andaman Sea. Mid-level vertical wind shear (VWS) of horizontal wind is low (5-10 kt) and cyclonic over entire south Bay & south Andaman Sea. Upper tropospheric ridge runs along  $10^{\circ}\text{N}$  over the BoB. The system is lying to the south of ridge. East-southeasterly winds prevailing to the south of ridge are steering the system nearly westwards.

Most of the models are indicating an LPA over Malacca Strait as on today the 22nd November 2025. Models are also indicating its west-northwestward movement and intensification into a depression during 24th/25th November over south Andaman Sea & adjoining southeast Bay of Bengal. Models are also indicating initial west-northwestward movement till 27th November towards southwest Bay, followed by north-northwestwards movement till 30th November, as it is expected to be closer to the south of ridge and gradual northeastwards re-curvature thereafter towards northeast Bay, as it crosses the ridge. However, there is variation among various models with respect to point and time of recurvature. Models are also indicating slight weakening of the system before landfall as diagnosed in the previous paragraph.

In view of above, the low pressure area over Strait of Malacca and adjoining South Andaman Sea is very likely to move west-northwestwards and intensify into a depression over southeast Bay of Bengal around 24th November 2025. Continuing to move west-northwestwards, it is very likely to intensify further over southwest Bay of Bengal during subsequent 48 hours.

- (i) Confidence level in determination of location of low pressure area: High
- (ii) Confidence level in determination of intensity low pressure area: High
- (iii) Confidence level in forecast of intensification (formation of Depression): High
- (iv) Confidence level in forecast of location of Depression: Moderate

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