

Ministry of Earth Sciences India Meteorological Department Cyclone Warning Division, New Delhi

Tropical Cyclone Forecast Programme Report Dated 05th December 2025

Time of Issue: 1400 UTC

Synoptic features (based on 0900 UTC analysis):

Yesterday's upper air cyclonic circulation over Southeast Arabian Sea and adjoining Lakshadweep Islands became less marked at 0300 UTC of today, the 05th December 2025.

Environmental Features based on 0600 UTC:

Parameter	Bay of Bengal (BoB)	Arabian Sea (AS)			
Sea Surface Temperature (SST) ºC	 28°C over entire BoB The SST reduces to the north (North of 15°N) being 27°C, along & off Sri Lanka, Tamil Nadu & Andhra Pradesh coast 	 Around 28-29°C over southeast Arabian Sea, Maldives and Lakshadweep area. Around 27°C over rest of Arabian Sea. 			
Tropical Cyclone Heat Potential (TCHP) kJ/cm ²	 125-150 over eastern parts of southeast BoB, Andaman Sea, About 125 over some parts of south, eastcentral and northeast BoB. About 50 over northwest BoB, Comorin area, Gulf of Mannar, 	➤ 120-130 over southeast Arabian Sea, Lakshadweep area and Maldives area.			
Cyclonic Relative - vorticity (X10 ⁻ ⁶ s ⁻¹)	> 20-30 Andamn Sea and Tamil Nadu coast	> 30-40 Lakshadweep and Maldives area.			
Low-Level convergence (X10-6 s-1)	> 05 over south BoB	> 10 over southeast AS			
Upper-Level divergence (X10-6 s-1)	> 05-10 over south of southwest BoB	 10 over Comorin area, NW AS adjoining Oman coast 5 over eastcentral AS 			
Vertical Wind Shear (VWS knots) Low: 05-10 knots Moderate: 10- 20 knots High: >20 knots	Deep layer vertical wind shear is low-moderate & anti-cyclonic over the south and adjoinijng eascentral BoB and Andaman Sea.	 Deep layer vertical wind shear is low to moderate over southwest AS and adjoining Equatorial Indian Ocean 			
Wind Shear Tendency (knots)	 Decreasing over south adjoining central BoB and over northwest BoB 	Decreasing over north AS			
Upper tropospheric Ridge	➤ Ridge is running along 08°N at 82°E	-			

M.J.O. Index:

The guidance from various models indicates that the Madden Julian Oscillation (MJO) index is presently in phase 8 with amplitude more than 1 and is likely to continue in same phase during the next 7 days.

Equatorial waves guidance:

The guidance from NCICS model indicates weak easterly wind anomaly (1-3 mps) is likely to prevail over south and central parts of Bay of Bengal (BoB) during next 3 days. During the same period weak westerly is indicated over south & central Arabian Sea (AS) with Equatorial Rossby Wave (ERW) over southeast AS & adjoining areas of Comorin and southwest BoB. From 7th December onwards, the easterly wind anomalies are likely to strengthen (5-7 mps) gradually over the south and adjoining central BoB till 14th December. Thereafter, the easterly wind anomaly is likely to weaken slightly over the region. The ERW is likely to appear again over southeast BoB from 16th onwards. The low-frequency background wave (LW) over the southern parts of the BoB and adjoining southeast AS. A very weak Kelvin Wave is likely to propagate across central parts of AS, peninsular India and central BoB during 6th to 14th December. As the wind anomalies over the south and adjoining central BoB are predominantly easterly, the prevalence of normal seasonal easterly waves over the south BoB and adjoining areas of peninsular India is expected during the forecast period.

Satellite based cloud observations

Over Bay of Bengal & Andaman Sea:

As per INSAT 3DS at 0600 UTC, Scattered low and medium clouds with embedded moderate to intense convection lay over southwest Bay of Bengal and Andaman Sea.

Over the Arabian Sea:

As per INSAT 3DS at 0600 UTC, Scattered low and medium clouds with embedded moderate to intense convection lay over northwest, westcentral & southeast Arabian Sea, Lakshadweep Islands and Comorin area. Scattered low and medium clouds with embedded isolated weak to moderate convection lay over southwest Arabian Sea.

Outside India

As per INSAT 3DS at 0600 UTC, scattered low & medium clouds with embedded moderate to intense convection over Sri Lanka, Maldives area, Pakistan, Tibet, China, South Thailand, Gulf of Thailand, Cambodia, Sumatra, Strait of Malacca, Malaysia, Borneo, south China Sea, Java Islands & Sea, Celebes Islands & Sea, Philippines, Sulu Sea, Madagascar, Mozambique channel and over Indian Ocean between latitude 5.0°N to 15.0°S longitude 50.0°E to 110.0°E between latitude 15.0°N to 35.0°S longitude 40.0°E to 70.0°E.

NWP Guidance for FDP Cyclone:

MODEL GUIDANCE	Bay of Bengal (BoB)	Arabian Sea (AS)
IMD-GFS	 Model is also indicating an upper air cyclonic circulation over southeast BoB and adjoining Indonesia during 9th to 11th Dec, moving towards southeast BoB till 13th and becoming less marked thereafter. Feeble easterly wave with trough along 10°N/86°E on 6th December, reaching along 10°N/72°E on 8th December without any intensification. 	next 10 days

IMD-GEFS	Not available	Not available			
IMD-WRF	Not available	Not available			
BFS	 An upper air cyclonic circulation over Bangladesh on 6th Dec. An upper air cyclonic circulation over southeast BoB & adjoining Equatorial Indian Ocean on 9th & 10th Dec. 	No significant system			
NCMRWF- NCUM(G)	 An upper air cyclonic circulation over southeast BoB & adjoining Equatorial Indian Ocean on 10th & 11th Dec. and less marked therefater. Feeble easterly wave is active with over south BoB during 6th-9th December. 	No significant system			
NCMRWF- NCUM(R)	The easterly wave is likely to be active with development of a trough along 9°N/93°E on 6 th December, reaching along 12°N/86°E on 7 th December.	 No significant system is indicated during next 7 days. 			
NEPS	➤ The easterly wave is likely to be active with development of a trough along 11°N/86°E on 7 th December, reaching along 10°N/82°E on 9 th December and move westwards along 10°N/78°E on 10 th December.	No significant system is indicated during next 7 days.			
ECMWF	The easterly wave is likely to be active with development of a trough along 12°N/88°E on 7 th December, reaching along 12.8°N/82°E on 9 th December	No significant system is indicated during next 7 days.			
NCEP-GFS	The easterly wave is likely to be active with development of a trough along 11°N/86°E on 8 th December, reaching along 10.2°N/78°E on 11 th December	Model is not indicating any significant system.			
EC-AIFS	No significant suystem	No significant system is indicated during next 7 days.			

Summary of models guidance:

Bay of Bengal:

Most of the models indicate the signature of easterly waves over South Andaman Sea around 8th/9th December which is likely to propagate westwards and reach over southwest BoB off North Sri Lanka and adjoining Tamil Nadu coasts by around 11th/12th December.

Some models are also indicating the formation of an upper air cyclonic circulation over the southeast BoB around 9^{th} December.

Arabian Sea:

No significant system is indicated

Inference:

Considering various large-scale environmental features, climatology and model guidance, it is inferred that there is no probability of cyclogenesis during next 7 days. However, there is likelihood of following:

- (a) There is a probability of a feeble easterly wave passing through south Bay of Bengal (BoB) during 8th to10th December.
- (b) There is also a low probability of an upper air cyclonic circulation over southeast BoB and adjoining Andaman Sea during 8th to 10th December.

<u>Probability of cyclogenesis (formation of depression and above intensity systems) over the Bay of Bengal during next 168 hours:</u>

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	

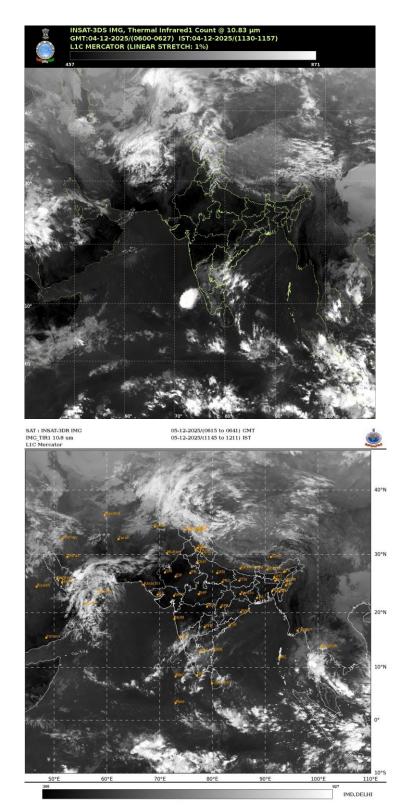
<u>Probability of cyclogenesis (formation of depression and above intensity systems) over the Arabian Sea during next 168 hours:</u>

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

[&]quot;- "indicates genesis has already occurred. Probability is indicated as NIL for 0%, LOW for 1-33%, MOD for 34-67% and High for 68-100%. Every 24 hrs forecast ends at the 0300 UTC of date.

Intense Observation Period (IOP): Nil

INSAT 3DS imageries at 0600 UTC of 4th & 5th December



Annexure

