

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

Tropical Cyclone Forecast Programme Report Dated 23rd November 2025

Time of Issue: 1300 UTC

Synoptic features (based on 0900 UTC analysis):

(A) Well Marked Low pressure area over Strait of Malacca and adjoining south Andaman Sea

Yesterday's low pressure area over Strait of Malacca and adjoining south Andaman Sea lay as a well marked low pressure area over the same region at 0300 UTC of today, the 23rd November, 2025. It is very likely to move west-northwestwards and intensify into a depression over southeast Bay of Bengal and adjoining south Andaman Sea on 24th November 2025. Continuing to move further west-northwestwards, it is very likely to intensify into a cyclonic storm over southeast Bay of Bengal during subsequent 48 hours.

(B) Likely formation of a low pressure area over Comorin and adjoining areas of southwest Bay of Bengal & Sri Lanka

An upper air cyclonic circulation lay over Comorin area and neighbourhood at 0830 hours IST of today, the 23rd November, 2025. Under its influence, a low-pressure area is likely to form over Comorin and adjoining areas of southwest Bay of Bengal & Sri Lanka around 25th November.

(C) Yesterday's upper air cyclonic circulation over southeast Arabian Sea persisted over the same region at 0300 UTC of today, the 23rd November.

Environmental Features based on 0600 UTC:

Environmental reatures based on 0000 orc.						
Parameter	Bay of Bengal (BoB)	Arabian Sea (AS)				
Sea Surface Temperature (SST) °C	Around 27-28°C over south Andaman Sea adjoining Malacca Strait and southeast Bay of Bengal (BoB. Around 30°C over central BoB and along & off Odisha and Andhra Pradesh coasts	ng southeast Arabian Sea and Lakshadweep area. Around 27°Cover rest of Arabian Sea.				
Tropical Cyclone Heat Potential (TCHP) kJ/cm ²	150-175 over south Andaman Sea 100-120 over southeast BoB. <=50 over westcentral BoB and along & off Odisha and Andhra Pradesh coasts	120-130 over southeast Arabian Sea.				
Cyclonic Relative - vorticity (X10 ⁻⁶ s ⁻¹)	 ▶ 70-80 over Comorin Area and adjoining southwest Sri Lanka extending upto 500 hPa level. ▶ 90-100 over Malacca Strait and adjoining extending upto 500 hPa level. 	30-40 over southeast adjoining southwest Arabian Sea Lakshadweep islands and Maldives area extending upto 500 hPa level.				

Low-Level convergence (X10-6 s-1)	 around 20 over Malacca Strait around 30 over Comorin and adjoining areas 	10-15 over southeast adjoining southwest Arabian Sea, Lakshadweep islands and Maldives area		
Upper-Level divergence (X10-6 s-1)	around 30 over Malacca Strait & adjoining south Andaman Sea and over Comorin Area and adjoining southwest Sri Lanka.	30-40 over southeast adjoining southwest Arabian Sea, Lakshadweep islands and Maldives area.		
Vertical Wind Shear (VWS knots) Low: 05-10 knots Moderate: 10-20 knots High: >20 knots	Deep layer vertical wind shear is Low over south BoB & south Andaman Sea and over Comorin Area.	Deep layer vertical wind shear is Low - Moderate over southeast, eastcentral Arabian sea and adjoining many parts of southwest & westcentral Arabian sea, Lakshadweep area and Comorin area. High over rest of Arabian Sea. Mid layer vertical wind shear is Moderate-High over north Arabian Sea & adjoining parts of eastcentral Arabian Sea. Low over rest of Arabian Sea and it is anticyclonic.		
Wind Shear Tendency (knots)	Decreasing over southeast Bay of Bengal along Strait of Malacca.	Decreasing over southeast Arabian sea, Comorin area		
Upper tropospheric Ridge	➤ Ridge is running along 10°N at 95°E.	A ridge is running along 10°N at 65°E.		

M.J.O. Index:

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.

Equatorial waves guidance:

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) to its north over south & adjoining central parts of BoB during 23^{rd} - 24^{th} November. These features indicate a favorable environment for cyclogenesis (development of depression) over southeast BoB around 24^{th} November. Model is also indicating a Kelvin Wave (KW) over northern parts of BoB, which is opposing the normal easterly flow over central parts of BoB. Similarly, during 25^{th} to 30^{th} , the model is indicating strong westerly wind anomaly (7-9 mps) alongwith prevalence of MJO, ERW, LW & KW over the southern parts of the North Indian Ocean (NIO) including south BoB and southeast Arabian Sea (AS) and easterly wind anomaly (5-7 mps) over north BoB. These features are favourable for further intensification of the system over southwest & westcentral BoB. Model is also indicating weakening of easterlies during 1^{st} to 3^{rd} December over northern parts of BoB, which may lead to weakening of system as it recurves northnortheastwards and reaches central & adjoining North BoB.

Thermodynamic features:

Well marked low pressure area over Malacca Strait & adjoining South Andaman Sea: The low level relative vorticity at 850 hPa is the same and is about 90-100 x 10⁻⁶ s⁻¹ over Malacca Strait. Vertically, the positive vorticity zone over Malacca Strait is extending upto 500hPa. Upper-level divergence has increased and is around 30x10⁻⁶ s⁻¹ over Malacca Strait and adjoining south Andaman Sea. Low-level convergence is the same (around 20x10⁻⁶ s⁻¹) over Malacca Strait. 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°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 west-northwestwards.

Upper air cyclonic circulation over Comorin Area: The low level relative vorticity at 850 hPa is about $70-80 \times 10^{-6}$ s⁻¹ over Comorin Area and adjoining southwest Sri Lanka. Vertically, the positive vorticity zone is extending upto 500hPa. Upper-level divergence is around 30×10^{-6} s⁻¹ over Comorin Area and adjoining southwest Sri Lanka. Low-level convergence is around 30×10^{-6} s⁻¹ lay over Comorin and adjoining areas. Mid-level vertical wind shear (VWS) of horizontal wind is low (5-10 kt) and cyclonic over the region.

Over the Bay of Bengal & Andaman Sea:

As per INSAT 3DS at 0600 UTC, vortex over Strait of Malacca adjoining South Andaman Sea & neighbourhood centered within half a degree of 5.0N/100.0E. Intensity T1.0. Associated scattered to broken low and medium clouds with embedded intense to very intense convection lay over south Andaman Sea, Strait of Malacca & neighbourhood (minimum CTT minus 70-90 degree Celsius).

Scattered to broken 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 moderate to intense convection lay over westcentral Bay of Bengal.

Over the Arabian Sea:

As per INSAT 3DS at 0600 UTC, As per INSAT 3DS at 0300 UTC, scattered to broken low and medium clouds with embedded moderate to intense convection lay over eastcentral & south Arabian Sea, Lakshadweep Islands, Maldives and Comorin area.

Outside India:

As per INSAT 3DS at 0600 UTC, scattered low and medium clouds with embedded moderate to intense convection over Sri Lanka, Palk Strait, Gulf of Mannar, Maldives, Tibet, China, Yellow Sea, Thailand, Gulf of Thailand, Cambodia, South Vietnam, Sumatra, Strait of Malacca, Malaysia, Borneo, south China sea, Java Islands & Sea, Celebes Islands & Sea, Philippines, Sulu Sea, North Madagascar, North Mozambique channel and over Indian Ocean between latitude 5.0°S to 15.0°S longitude 50.0°E to 120.0°E and latitude 20.0°S to 35.0°S longitude 50.0°E.

NWP Guidance for FDP Cyclone:

MODEL	Bay of Bengal (BoB)	Arabian Sea (AS)		
GUIDANCE				
IMD-GFS	Well marked low (WML) over Malacca Strait as on today. It will move west-northwestwards (WNW) and will intensify into depression on 25/12 UTC over south Andaman Sea. Moving in northwestwards (NW) and becoming cyclonic storm (CS) on 26/12 UTC over southeast BoB & adjoining south Andaman Sea. Model is indicated to move in the same direction while intensifying further till 01 December/00 UTC. It will then recurve northeastward (NE) till 03 December/00 UTC while weakening.	Model is indicating the upper air cyclonic circulation over southwest & adjoining southeast Arabian sea to will persist over the same region till 29 th and will become LPA over the same region on 30 th November.		
IMD-GEFS	Not available	Not available		
IMD-WRF	Not available	Not available		
BFS	Well marked low (WML) over Malacca Strait as on today. It will move WNW and will intensify into depression on 25/00 UTC over south Andaman Sea. Moving in the same direction and becoming cyclonic storm (CS) on 26/00 UTC over southeast BoB. Model is indicated to move in the same direction while intensifying further till 30/00 UTC. It will then recurve NE till 03 December/00 UTC while weakening.	Model is indicating an LPA over southeast Arabian Sea (6N/71E) on 26/00. It will persist over the same region and will become depression on 29/00 UTC. It will then move NE and approach the coast on 01 December/00 UTC.		
NCMRWF- NCUM(G)	Low pressure area (LPA) over Malacca Strait & adjoining south Andaman Sea on today. It will move west-northwestwards (WNW) and will intensify into depression on 28/00 UTC over southeast BoB. Moving in the same direction while slightly intensifying till 01 December/00 UTC. It will then recurve towards Bangladesh coast while weakening till 03 December/00 UTC.	/		
NCMRWF- NCUM(R)	LPA over Malacca Strait as on today, to move slowly WNW till 26/00 UTC.	Model is indicating the upper air cyclonic circulation over southeast Arabian sea to move WNW till 26/00 UTC.		
NEPS	LPA over Malacca Strait on today, to move WNW and will become depression over the southeast Arabian Sea on 27/00 UTC. The system is indicated to move then NW and intensify into a CS on 30/00 UTC over southeast BoB. It then recurve NE while weakening till 03 December/00 UTC.	No significant system is indicated during next 7 days.		

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ECMWF	LPA over Malacca Strait on today. It is indicated to move WNW and intensify into a depression over Malacca Strait on 24/12 UTC. It is indicated to move in WNW and become CS on 27/09 UTC over south Andaman Sea & adjoining southeast BoB, SCS on 29/00 UTC over southeast BoB. Moving then north wards till 29/00 UTC, it will move then southeastwards (SE) while weakening gradually till 30/18 UTC.	No significant system for the next 7 days.
NCEP-GFS	Another LPA over Comorin area and adjoining west Sri Lanka coast on 25/00 UTC. It will lie over the same region and will become depression on 26/03 UTC. It will then move along the coast initially and then in north-northeastwards while gradually intensifying upto SCS on 01 December/00 UTC over westcentral Arabian Sea. It will then moving in same direction while weaken gradually and lessmarked by 04 December/06 UTC. WML over Malacca Strait as of today, moving in WNW and will become depression on 24/12 UTC. CS on 25/12	No significant system for the next 7 days.
	UTC over southeast & adjoining south Andaman Sea. It will then move in NW while intensifying upto SCS till 01/18 UTC. It will then recurve and move towards West Bengal – Bangladesh coasts till 04 December/00 UTC while weakening slightly.	
EC-AIFS	Model is indicating an LPA over southwest BoB adjoining Sri Lanka coast on 25/06 UTC. It is indicated to move along Sri Lanka coast and intensify into a depression on 26/06 UTC. Thereafter, it is indicated to move slowly along Sri Lanka coast and will become CS on 27/12 UTC. It will then move north-northwestwards while gradually weakening and approach the north Tamil Nadu coast as a DD on 30/06 UTC. Weakening gradually thereafter and less marked by 02/00 UTC.	No significant system is indicated during next 7 days.

Summary:

(a) Bay of Bengal:

Most of the models (GFS & NCUM group) are indicating the well-marked low pressure area over Malacca Strait as on today the 23rd 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. There is consensus that the system over Malacca Strait is likely to intensify into a CS around 26th/27th November. 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, ECMWF is indicating development of depression over Malacca & adjoining south Andaman Sea around 24th with intensification, but movement over the same region and weakening over south Andaman Sea around 2nd December. ECMWF, EC-AIFS are also indicating the cyclonic circulation over Comorin Area to gradually move along the South Sri Lanka coast and emerge into southwest BoB around 27th, intensify further over southwest BoB. However, while moving northwards, it is weakening over the sea.

(b) Arabian Sea

Most of the numerical models are indicating the upper air cyclonic circulation over southeast Arabian Sea to move east-northeastwards slowly during next two to three days.

Inference:

Considering various large-scale environmental features, climatology and model guidance, it is inferred that,

- (a) Yesterday's low pressure area over Strait of Malacca and adjoining south Andaman Sea lay as a well marked low pressure area over the same region at 0300 UTC of today, the 23rd November, 2025. It is very likely to move west-northwestwards and intensify into a depression over southeast Bay of Bengal and adjoining south Andaman Sea on 24th November 2025. Continuing to move further west-northwestwards, it is very likely to intensify into a cyclonic storm over southeast Bay of Bengal during subsequent 48 hours.
 - (i) Confidence level in determination of location of well marked low pressure area: High
 - (ii) Confidence level in determination of intensity well marked 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
- (b) Under the influence of upper air cyclonic circulation over Comorin area and neighbourhood, a low-pressure area is likely to form over Comorin and adjoining areas of southwest Bay of Bengal & Sri Lanka around 25th November.
- (c) Yesterday's upper air cyclonic circulation over southeast Arabian Sea persisted over the same region at 0300 UTC of today, the 23rd November. It is likely to move east-northeastwards during next two to three days.

<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
LOW	MOD	HIGH	HIGH	-	-	-

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

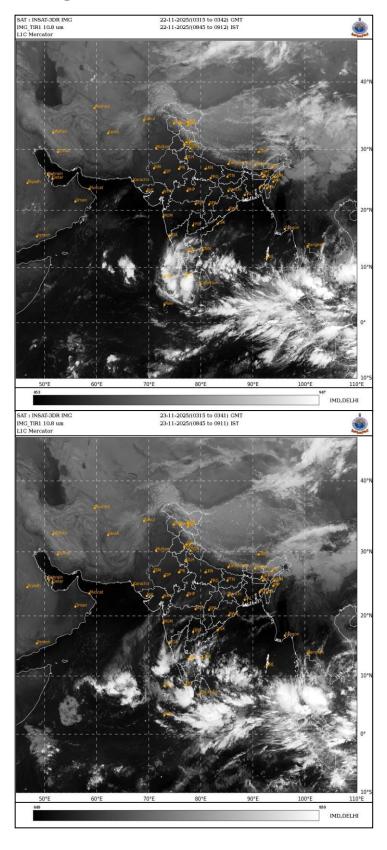
NIL	NIL	NIL	NIL	NIL	NIL	NIL
HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS
24	24-48	48-72	72-96	96-120	120-144	144-168

[&]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): Andaman & Nicobar Islands during 23rd to 25th November; Sri Lanka, Tamil Nadu and Kerala coasts during 23rd to 25th November.

INSAT 3DS imageries at 0300 UTC of $22^{nd}\ \&\ 23^{rd}$ November



Annexure

