

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

Tropical Cyclone Forecast Programme Report Dated 22nd October 2025

Time of Issue: 1200 UTC

Synoptic features (based on 0300 UTC analysis):

- ➤ The Well marked Low Pressure area over southeast Arabian Sea concentrated into a Depression at 0000 UTC and persisted over the same region at 0300 UTC of today, the 22nd October 2025, over the same region, near latitude 8.9°N,67.4°E,about 630 km west-southwest of Aminidivi (Lakshadweep) and 1010 km southwest of Panjim (Goa). It is likely to move slowly nearly north-northwestwards during next 24 hours.
- ➤ The Well marked low pressure area over southwest Bay of Bengal off North Sri Lanka Coast lay over southwest Bay of Bengal off Tamil Nadu coast at 0300 UTC of today, the 22nd October2025. While moving northwestwards, there is a possibility for the intensification into a depression over southwest & adjoining westcentral Bay of Bengal off north Tamil Nadu & south Andhra Pradesh coasts during next 12 hours. Thereafter, it is likely to move across north Tamil Nadu, Puducherry & south Andhra Pradesh coasts during subsequent 12 hours.
- ➤ The upper air cyclonic circulation over south Andaman Sea & neighbourhood persisted over the same area and extended upto 5.8 km above mean sea level.

Environmental Features based on 0300 UTC:

Parameter	Bay of Bengal (BoB)	Arabian Sea (AS)			
Sea Surface Temperature (SST) °C	 ➢ Around 28-29°C over Andhra Pradesh coast and Odisha coast. ➢ 30-31°C over rest of the BoB. 	 Around 29 - 30°C over eastcentral & southeast Arabian Sea, Lakshadweep Island, Maldives, Comorin areas, along and off Kerala, south Karnataka coast, parts of northwest Arabian Sea. 26-27°C over rest of the Arabian Sea. 			
Tropical Cyclone Heat Potential (TCHP) kJ/cm2	 100-130 over northeast BoB, eastcentral BoB, south Andaman Sea and southern parts of south BoB. 50-80 over rest of BoB. 	 > 90-140 over southeast AS, Lakshadweep Islands, Maldives islands and Comorin area. 			
Cyclonic Relative - vorticity (X10 ⁻⁶ s ⁻¹)	▶60-70 over southwest BoB and along the coast of Tamil Nadu & south Andhra Pradesh coast and south Andaman Sea extending upto 500 hPa level.	➤ 50-60 over south AS, Lakshadweep, Maldives, Comorin areas extending upto 500 hPa.			

Low-Level convergence (X10-6 s-1)	 10-15 over Southeast BoB and adjoining south Andaman Sea. 5 over westcentral adjoining southwest BoB, 	 05-20 over southeast AS, Lakshadweep, Maldives areas, Comorin area and Kerala coast. 10-15 over eastcentral AS along Maharashtra coast. 			
Upper-Level divergence (X10-6 s-1)	 ➤ 10-20 over the Southwest BoB near north Tamil Nadu & south Andhra Pradesh coast. ➤ 10 over south Andaman Sea. 	10-20 over south AS, Lakshadweep, Maldives areas, Comorin area, Kerala coast.			
Vertical Wind Shear (VWS knots) Low: 05-10 knots Moderate: 10-20 knots High: >20 knots	 Low to moderate over central BoB and adjoining north & south BoB. High over rest of BoB. 				
Wind Shear Tendency (knots)	area, south Andaman	 Increasing over system area and along westcentral AS. Decreasing over rest of AS. 			
Upper tropospheric Ridge	Near 18 ⁰ N in association with anticyclonic circulation over south Myanmar coast	Near 17 ⁰ N.			

Over the BoB & Andaman Sea:

As per INSAT 3D imagery at 0300 UTC, vortex over southwest Bay of Bengal off north Tamil Nadu coast & neighbourhood centred within half a degree of 11.4°N and 80.5°E with intensity 1.0. Associated scattered to broken low and medium clouds with embedded intense to very intense convection lay over south Costal Andhra Pradesh, Rayelseema, south interior Karnataka, Kerala, Tamil Nadu, southwest and west central Bay of Bengal. The minimum cloud top temperature is minus 70 to 90 degree Celsius. Scattered to broken low and medium clouds with embedded intense to very intense convection lay over south & central Bay of Bengal and Andaman Sea.

Over the Arabian Sea:

As per INSAT 3D imagery at 0300 UTC, vortex over southeast Arabian Sea & neighbourhood centered within half a degree of 09.0°N/66.5° E with Intensity T1.5. Associated scattered to broken low and medium clouds with embedded intense to very intense convection lay over south & adjoining central Arabian Sea between latitude 5.0°N to 15.0° N and longitude 57.0° E to 71.0° E. The minimum cloud top temperature is minus 70 to 90 degree Celsius. Scattered to broken low and medium clouds with embedded intense to very intense convection lay over central & adjoining south Arabian Sea, Lakshadweep Islands, Maldives and Comorin area.

Outside India:

South Indian Ocean:

Vortex (CHENGE) over South Indian Ocean (AREA E60 ADJ D40) centered near 10.6°S/62.4°E. Intensity T4.0/4.0. Maximum sustained winds 64-89 kts. Associated scattered to broken Low/medium clouds with embedded intense to very intense convection over area between latitude 6.0S to 16.0S Longitude 58.0°E to 68.0°E.

South China Sea:

Vortex (FENGSHEN) over South China Sea (AREA F05) centered near 17.6°N/110.6°E. Intensity T3.5/3.5. Maximum sustained winds 48-63 kts. Associated scattered to broken Low/medium clouds with embedded intense to very intense convection over area between latitude 14.0°N to 24.0°N Longitude 106.0°E to 116.0°E & Gulf of Tonkin, Hainan, southeast China.

Scattered low/medium clouds with embedded moderate to intense convection over Sri Lanka, Palk Strait, Gulf of Mannar, Maldives, Tibet, China, south Myanmar, Thailand, Gulf of Thailand, Cambodia, Laos, Vietnam, Gulf of Tonkin, Hainan, Taiwan, East China Sea Sumatra, Strait of Malacca, Malaysia, Borneo, South China Sea, Java Islands & Sea, Celebes Islands & Sea, Philippines, Sulu Sea, and over Indian Ocean between latitude 5.0N to 20.0S Longitude 50.0E to 120.0E.

M.J.O. Index:

The guidance from ECMM model indicates that Madden Julian Oscillation (MJO) index is presently in phase 4 & likely to remain in same phase till 28th with amplitude more than 1. Thereafter, it is likely to move across phase 5 with amplitude becoming less than 1. Thus, MJO support towards enhancement of convective activity over the Arabian Sea would decrease gradually.

Equatorial waves guidance:

Guidance from NCICS model indicates enhanced cross equatorial flow on 22nd October onwards leading to westerly wind burst over southern parts of Arabian Sea and Bay of Bengal and adjoining equatorial Indian Ocean during 22nd to 26th October. The Model indicates prevalence of equatorial Rossby wave (ERW) Kelvin wave (KW), MJO, Low frequency Background wave (LW), enhanced westerly wind Anomaly (>9mps) over the region during 22nd to 26th October. The model is also indicating setting in of easterly winds anomaly (5-7 mps) over central and adjoining south Bay of Bengal during 21st to 26th October and over central parts of south & east Arabian Sea during 22nd – 23rd October. These features indicate a favourable environment for enhanced convective activity & cyclogenesis (formation of Depression) over Arabian Sea during 22nd – 23rd and over the Bay of Bengal during 22nd – 25th October.

NWP Guidance for FDP Cyclone:

MODEL GUIDANCE	Bay of Bengal (BoB)	Arabian Sea (AS)				
GUIDANCE						
IMD-GFS	WML over southwest BoB as of today 22/00	Model is not indicating any				
	UTC. Will move northwestwards towards	system.				
	north Tamil Nadu coast and then move	•				
	along the coast and less marked thereafter.					
IMD-GEFS	LPA over southwest BoB on 27/00 UTC.	WML over southeast				
	Will move northwestwards towards Andhra	Arabian Sea as of today				
	Pradesh coast and intensify inro depression 22/00 UTC. It will mo					
	on 28/00 UTC over westcentral BoB at	northeastwards and become				
	15 ⁰ N/81 ⁰ E. it will continue to move in the					

IMD-WRI	F	LPA over southwest BoB as of today 22/00 UTC and less marked thereafter.	depression over southeast and adjoining eastcentral AS at 12°N/69°E on 23/00 UTC. Then moving in same direction with same intensity till 29/00 UTC. LPA over southeast Arabian Sea as of today 22/00 UTC		
			will become less marked by 24/00 UTC.		
BFS		WML over southwest BoB as of today 22/00 UTC. Will move northwestwards and became less marked by 23/00 UTC while moving along the coast. Another LPA over southeast BoB at 10 ⁰ N/ 94 ⁰ E on 23/00 UTC and will move west-northwestwards. It will become depression on 25/00 UTC over southeast BoB at 10.1 ⁰ E/ 89 ⁰ E. Thereafter, it will move in the same direction till 27/00 UTC with intensity upto SCS. thereafter, it will move northwestwards towards Andhra Pradesh coast till 29/00 UTC.	WML over southeast Arabian Sea as of today 22/00 UTC. It will become depression over eastcentral AS at 15 ⁰ N / 69 E on 25/00 UTC. Thereafter, it will move northwestwards with gradual intensification upto CS/SCS till 31/00 UTC.		
NCMRV NCUM		LPA over southwest & adjoining westcentral BoB on 28/00 UTC. It will move northwestwards till 29 / 00 UTC and less marked thereafter.	LPA over westcentral Arabian Sea on 27/00 UTC and will have northwestwards movement towards Yemen coast till 29/00 UTC.		
NCMRV NCUM		LPA over southwest & adjoining westcentral BoB on 28/00 UTC. It will move northwestwards till 29 / 00 UTC and less marked thereafter.	NIL		
ECMV	WML over southwest BoB off Tamil Nadu coast as of today 22/00 UTC. It will move along the coast and less marked by 23/00 UTC. Fresh LPA will form over southwest BoB on 24/15 UTC and intensify into depression over the same region at 11.7°N/84.1°E on 25/12 UTC. Thereafter, moving northwestwards towards Andhra Pradesh coast with gradual intensification till 29/00 UTC.		WML/D over southeast Arabian Sea as of today 22/00 UTC. It will move west-northwestwards till 22/15 UTC without further intensification. It will then move northeastwards till 24/09 UTC without intensification. It will then move northwestwards with gradual intensification till 27/09 UTC weakening thereafter.		
NCEP-C	GFS	WML over southwest BoB on 22/12 UTC and less marked thereafter. Another LPA over southeast BoB on 23/06 UTC having west-northwestwards movement and intensify into a depression over southeast BoB at 11.10N/87.40E 24/06	Depression over southeast Arabian Sea as of today 22/15 UTC, It will move - northeastwards till 24 /12 UTC with same intensity. It		

	UTC. Thereafter, it will move northwestwards towards north Andhra Pradesh – south Odisha coast till 29/18 UTC with intensification upto CS/SCS.	will then move northwestwards with gradual intensification till 29/0600 UTC.
EC-AIFS	WML over southwest BoB as of today 22/00 UTC. It will move northwestwards till 22/06 UTC and less marked thereafter. Another LPA over westcentral and adjoining southwest BoB at 12.9° N/ 84.2° E on 24/12 UTC it will intensify into a depression over southwest & adjoining westcentral BoB at 11.4°N/83.8°E on 26/00 UTC. Thereafter, it will move northwestwards towards Andhra Pradesh coast till 28/18 UTC with intensification upto CS.	NIL

Summary:

(a) Bay of Bengal:

Most of the models are indicating existing well marked low pressure area over southwest Bay of Bengal off TamilNadu coast to move initially northwestwards and then along the coast and become less marked by 23/00 UTC. However, some models are also indicating its remnant to move across South Peninsular India and emerge into eastcentral Arabian Sea around 23rd October and merge with the depression over Arabian Sea.

Most of the models are also indicating development of a fresh low-pressure area over South Bay of Bengal (with IMD GEFS, ECMWF, ECAI, NCUM G over southwest BoB and NCEP GFS & BFS over southeast BoB) during 23rd to 28th October (with large variation in time of formation of low-pressure area. Considering guidance from all models, low pressure area is likely over central parts of south BoB (near 11.3N/ 86E) around 25/06 UTC. Models are also indicating intensification of this low-pressure area into a depression with large variations in time (between 25/00 to 28/00) and area of genesis over southwest BoB (IMD GEFS, ECMWF, ECAI) and some over southeast BoB (NCEP GFS & BFS).

(b) Arabian Sea

Most of the models are indicating movement of the depression over southeast Arabian Sea over central Arabian Sea during next 2-3 days. Models are also indicating emergence of existing well marked low pressure area over southwest Bay of Bengal to emerge into eastcentral Arabian Sea and merge with the depression over Arabian Sea.

Multiple interactions among various convectively coupled equatorial waves and the multiple cyclonic vortices over both the Arabian Sea & the Bay of Bengal and also over the South Indian Ocean, are leading to highly erratic guidance from various numerical models over the North Indian Ocean region.

Inference:

Considering various environmental features and model guidance, it is inferred that:

(a) the depression over southeast Arabian Sea is likely to move initially northwards and then move northeastwards over southeast Arabian Sea till 24th October.

- (b) the well-marked low pressure area over southwest Bay of Bengal off Tamil Nadu coast is likely to move northwestwards, across north Tamil Nadu, Puducherry & south Andhra Pradesh coasts next 24 hours.
- (c) A fresh low pressure area is likely to form over central parts of south & adjoining westcentral Bay of Bengal around 24th October. It is likely to intensify into a depression over southwest & adjoining westcentral Bay of Bengal around 26th October.
 - (i) Confidence level in forecast of formation of low pressure area: High
 - (ii) Confidence level in forecast of location of low pressure area: Moderate
 - (iii) Confidence level in forecast of intensification (formation of Depression): Moderate
 - (iv) Confidence level in forecast of location of Depression: Moderate

All the systems are under continuous watch and regular updates are issued in this regard.

<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	LOW	MOD	MOD	-

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

Ì	-	-	-	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): IOP for Kerala, Karnataka, South Tamil Nadu and west Sri Lanka coasts during 22nd to 24th October and Andaman Islands during 24th-25th October.

Warnings in association with system over Arabian Sea:

i. Wind warning:

- Squally weather Squally wind with speed reaching 45-55 gusting to 65 kmph is likely to prevail over Southeast and adjoining Eastcentral Arabian Sea till 24th October.
- ➤ Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph is very likely to prevail over Lakshadweep & Comorin Area and along & off Karnataka, Kerala and adjoining South Tamil Nadu coasts till 24th October.

ii. Sea condition:

- Sea condition is likely to be rough to very rough over Southeast and adjoining Eastcentral Arabian Sea till 24th October.
- Sea Condition is likely to be rough over Lakshadweep & Comorin Area and along & off Karnataka, Kerala and adjoining South Tamil Nadu coasts till 24th October.

iii. Fishermen warnings:

Fishermen are Fishermen are advised not to venture into Southeast & adjoining Eastcentral Arabian Sea, Lakshadweep & Comorin Area and along & off Karnataka, Kerala and adjoining South Tamil Nadu coasts till 24th October.

iv. Impact Expected and Action Suggested due to heavy rain and strong winds (Lakshadweep Islands & Kerala)

Impact expected:

- Breaking of tree branches. Strong wind and heavy rain may damage plantation, horticulture and standing crops.
- Minor damage to kutcha houses/walls, huts and roads due to strong winds and heavy rain.
- Road and rail traffic may be affected due to heavy rain.
- There could be localised flash floods, landslides, mudslides, landslips, water logging, inundation and flooding over low lying areas.
- Occasional reduction in visibility due to heavy rainfall.
- Surface & Helicopter services may be regulated.
- Small ships & country boats would be affected due to strong wind and heavy rain.

Action suggested:

- People are advised to keep a watch on the weather for worsening conditions and be ready to move to safer places accordingly.
- Take safe shelters; do not take shelter under trees, as there could be lightning.
- In case of expected lightning, unplug electrical/ electronic appliances, immediately, get out of water bodies and keep away from all the objects that conduct electricity.
- Tourism and recreational activities to be regulated.
- Surface transport and helicopter services to be regulated.

Warnings in association with expected system over Bay of Bengal:

i. Wind warning:

- Squally wind with speed reaching 40-50 kmph gusting to 60 kmph likely is prevailing over southwest Bay of Bengal and adjoining areas of central Bay of Bengal till 23rd October.
- > Squally wind with speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail along & off Tamil Nadu & south Andhra Pradesh coasts till 23rd October.

ii. Sea conditions:

- Sea condition is rough to very rough over southwest Bay of Bengal and adjoining areas of central Bay of Bengal till 23rd October.
- Sea condition is rough to very rough along & off Tamil Nadu & south Andhra Pradesh coasts till 23rd October.

iii. Fishermen Warning:

Fishermen are advised not to venture into Southwest and adjoining central Bay of Bengal till 23rd October.

iv. Impact Expected and Action Suggested due to heavy rain and strong winds (Tamil Nadu, Puducherry and Andhra Pradesh)

Impact expected:

- Breaking of tree branches. Strong wind and heavy rain may damage plantation, horticulture and standing crops.
- Minor damage to kutcha houses/walls, huts and roads due to strong winds and heavy rain.
- Road and rail traffic may be affected due to heavy rain.
- There could be localised flash floods, landslides, mudslides, landslips, water logging, inundation and flooding over low lying areas.
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- Tourism and recreational activities to be regulated.
- Surface transport and helicopter services to be regulated.

ANNEXURE























