

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

Tropical Cyclone Forecast Programme Report Dated 21st October 2025

Time of Issue: 1200 UTC

Synoptic features (based on 0300 UTC analysis):

- ➤ The low pressure area over southwest Bay of Bengal became a Well-marked low pressure area over the same region at 0830 hrs IST of today, the 21st October 2025 and the associated cyclonic circulation extends upto 7.6 km above mean sea level. It is likely to move westnorthwestwards and intensify into a depression over southwest & adjoining Westcentral Bay of Bengal off north Tamil Nadu & south Andhra Pradesh coasts by afternoon of tomorrow, the 22nd October 2025. Thereafter, it is likely to continue to move west-northwestwards towards north Tamil Nadu, Puducherry & south Andhra Pradesh coasts and intensify further during subsequent 24 hours.
- ➤ The Well marked Low Pressure area over southeast Arabian Sea persisted over the same region at 0830 hrs IST of today, 21st October 2025 and the associated cyclonic circulation extends upto 5.8 km above mean sea level. It is likely to move slowly westwards and intensify into a depression during next 24 hours.
- An upper air cyclonic circulation lay over south Andaman Sea & neighbourhood and extends upto 5.8 km above mean sea level.
- ➤ The upper air cyclonic circulation over southeast Arabian Sea off Kerala coast extending upto 1.5 km above mean sea level has become less marked.

Environmental Features based on 0300 UTC:

Environmental reatures based on 0300 OTC.						
Parameter	Bay of Bengal (BoB)	Arabian Sea (AS)				
Sea Surface Temperature (SST) °C	 ➢ Around 30-31°C over northeast, eastcentral BoB and along & off south Andhra Pradesh-Tamil Nadu cosats. ➢ 28-30°C over rest of the BoB. 	 ➢ Around 28 - 30°C over eastcentral Arabian Sea, Lakshadweep Island, Maldives, Comorin areas, along and off Kerala, south Karnataka coast, parts of northwest Arabian Sea. ➢ 26-28°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. 50-90 over rest of BoB. 	> 90-140 over southeast AS, Lakshadweep Islands,				
Cyclonic Relative - vorticity (X10 ⁻⁶ s ⁻¹)	➤ 60-70 over southwest adjoining southeast BoB along & off Sri Lanka coast and south Andaman Sea extending upto 500 hPa level.	➤ 50-60 over southeast AS, Lakshadweep, Maldives, Comorin areas and some parts of westcentral AS extending upto 500 hPa.				

Low-Level convergence (X10-6 s-1)	 ▶ 05-10 over Southeast BoB and adjoining south Andaman Sea. ▶ 05-10 over southwest BoB and adjoining Tamil Nadu-Sri Lanka coast. 	05-20 over southeast AS, Lakshadweep, Maldives areas, Comorin area and Kerala coast.		
Upper-Level divergence (X10-6 s-1)	 ▶ 05-20 over the Southwest BoB, Sri Lanka, Tamil Nadu coasts and adjoining Equatorial Indian Ocean ▶ 5 over Andaman Sea. 	 05-10 X 10⁻⁶ s⁻¹ over Lakshadweep, Maldives areas, Comorin area, Kerala coast and adjoining southeast AS. 05-20 X 10⁻⁶ s⁻¹ over eastcentral AS and adjoining sea area. 		
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) Upper tropospheric Ridge	 Decreasing over system area, north Andaman Sea and adjoining eastcentral BoB. 	 Decreasing over system area and along expected path. Increasing over rest of AS. At 15° N. 		

Over the BoB & Andaman Sea:

As per INSAT 3D imagery at 0300 UTC, Associated scattered to broken low and medium clouds with embedded intense to very intense convection lay over south Bay of Bengal, Tamil Nadu, Kerala, south Rayalaseema, south interior Karnataka, Palk strait, Gulf of Mannar and Sri Lanka (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 & westcentral Bay of Bengal and Andaman Sea. Scattered low and medium clouds with embedded isolated moderate to intense convection lay over the eastcentral & north Bay of Bengal.

Over the Arabian Sea:

As per INSAT 3D imagery at 0300 UTC, vortex over southeast Arabian Sea & neighbourhood centered within half a degree of 10.0° N/67.0° E with Intensity T1.0. 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 14.0° 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 southeast & adjoining southwest Arabian Sea, eastcentral & westcentral Arabian Sea, Lakshadweep Islands, Maldives and Comorin area. The multi-satellite estimates of wind speed indicate stronger winds in southwest sector.

Outside India:

South Indian Ocean:

Vortex (CHENGE) over South Indian Ocean (AREA E60 ADJ D40) centered near 9.9S/65.6E. 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 4.0S to 15.0S Longitude 59.0E to 69.0E.

South China Sea:

Vortex (FENGSHEN) over South China Sea (AREA F05) centered near 17.1N/111.9E. Intensity T3.0/3.0. Maximum sustained winds 34-47 kts. Associated scattered to broken Low/medium clouds with embedded intense to very intense convection over area between latitude 17.0N to 22.0N Longitude 110.0E to 120.0E. Philippines and Taiwan. Scattered low/medium clouds with embedded moderate to intense convection over Sri Lanka Palk Strait, Gulf of Mannar, Maldives, Tibet, China, Yellow Sea, East China Sea, Taiwan, Myanmar, Thailand, Gulf of Thailand, Cambodia, Laos, Vietnam, Sumatra, Strait of Malacca, Malaysia, Borneo, South China Sea, Java Islands & Sea, Celebes Islands & Sea, Philippines, Sulu Sea, Madagascar 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 entering into 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, however, it would continue to support over the Bay of Bengal.

Equatorial waves guidance:

Guidance from NCICS model indicates enhanced cross equatorial flow on 21st October onwards leading to westerly wind burst over southern parts of Arabian Sea and Bay of Bengal and adjoining equatorial Indian Ocean during 21st 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 21stth 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 25th October. It is indicating easterly wind anomaly (5-7 mps) during 21st to 23rd October over central Arabian Sea & central Bay of Bengal. These features indicate a favourable environment for cyclogenesis (formation of Depression) over Arabian Sea during 21st-22nd and over the Bay of Bengal during 22nd-25th October.

NWP Guidance for FDP Cyclone:

MODEL GUIDANCE	Bay of Bengal (BoB)	Arabian Sea (AS)			
IMD-GFS	LPA over southwest BoB as of today 21/00 UTC. Will move northwestwards towards north Tamil Nadu and south Andhra Pradesh coasts, lay close to the coast as LPA on 23/00 UTC. Another LPA over southeast BoB on 24/00 UTC having west-northwestwards movement towards north Andhra Pradesh coast till 29/00 UTC with gradual	northeastwards and become depression over eastcentral AS on 24/00 UTC. Then moving northwestwards with gradual intensification till 29/00 UTC.			

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		intensification.			
	IMD-GEFS	LPA over southwest BoB as of today 21/00 UTC. Will move northwestwards towards north Tamil Nadu and south Andhra Pradesh coasts, lay close to the coast as LPA on 23/00 UTC. Less marked thereafter. Another LPA over southeast BoB on 25/00 UTC having westnorthwestwards movement and becoming WML/Depression over southwest and adjoining westcentral BoB on 26/00 UTC. It will continue its movement towards north Andhra Pradesh coast till 29 th October.	LPA over southeast Arabian Sea as of today 21/00 UTC. It will move northeastwards and become depression over eastcentral AS on 24/00 UTC. Then moving northwestwards with gradual intensification till 29/00 UTC.		
	IMD-WRF	LPA over southwest BoB as of today 21/00 UTC. Will move north-northwestwards and intensify into depression on 22/00 UTC over southwest BoB. Then moving along the coast and cross south AP coast on 23/00 UTC as WML. Less marked thereafter.	today 21/00 UTC. It will move north- northeastwards and become depression over southeast & adjoining eastcentral AS on 23/00 UTC. Moving then northeastwards with gradual		
	BFS	LPA over southwest BoB as of today 21/00 UTC. Will move northwestwards towards north Tamil Nadu and south Andhra Pradesh coasts, lay close to the coast as LPA on 23/00 UTC. Another LPA over southeast BoB on 24/00 UTC having westnorthwestwards movement towards north Andhra Pradesh coast till 29/00 UTC with gradual intensification.	LPA over southeast Arabian Sea as of today 21/00 UTC. It will move northeastwards and become depression over westcentral & adjoiing eastcentral AS on 24/00 UTC. Then moving northwestwards with gradual intensification till 29/00 UTC.		
NCUM(G) 2		22/00 UTC. Will move west- northwestwards and less marked thereafter.	22/00 0 TO and look marked therearen.		
	NCMRWF- NCUM(R)	LPA over southwest BoB on 22/00 UTC. Will move west-northwestwards and less marked thereafter.	22/00 UTC and less marked thereafter.		
NEPS LPA over southwest BoB as of today 21/00 UTC. Will move northwestwards till 23/00 UTC					

	without intensification and less marked thereafter.	22/00 UTC. Moving then northeastward till 29/00 UTC with gradual intensification.			
ECMWF	LPA over southwest BoB as of today 21/00 UTC. It will move north-northwestwards and becoming depression on 22/09 UTC over southwest and adjoining westcentral BoB. Moving in the same direction towards south Andhra Pradesh-North Tamil Nadu coasts with slight weakening till 23/12 UTC. Thereafter it will over along the coast as WML till 24/23 UTC.	LPA over southeast Arabian Sea as of today 21/00 UTC. It will move northwestwards and becoming depression over southeast AS on 22/15 UTC. Moving then northeastwards without intensification till 27/00 UTC. LPA over southeast Arabian Sea as of today 21/00 UTC. It will move northnortheastwards and becoming depression over southeast AS on 22/12 UTC. Moving then west-northwestwards with gradual intensification upto deep depression over westcentral AS or 27/12 UTC.			
NCEP-GFS	LPA over southwest BoB on 22/00 UTC. It will move along the coast till 22/12 UTC and less marked thereafter. Another LPA over 23/00 UTC over south Andaman Sea and adjoining southeast BoB, having west-northwestwards movement towards north Andhra Pradesh coast till 29/00 UTC with gradual intensification.				
EC-AIFS	LPA over southwest BoB as of today 21/00 UTC. It will become depression on 22/00 UTC over southwest adjoining westcentral BoB. It will move along the coast as a depression till 24/18 UTC thereafter gradual weakening. Another LPA over southeast BoB and adoiing south Andaman Sea on 26/00 UTC, having west-northwestwards movement towards north Andhra Pradesh coast till 29/00 UTC with gradual intensification.	LPA over southeast Arabian Sea as of today 21/00 UTC. It will move west-northwestwards and becoming depression over southeast adjoining southwest AS on 22/06 UTC. It will lay over same region till 23/18 UTC and then move north-northeastwards with gradual intensification till 29/00 UTC.			

Summary:

(a) Bay of Bengal:

Most of the numerical models (NCEP, ECMWF, ECAI, IMD GFS, GEFS, BFS) are indicating low pressure area over southwest BoB on 21st October (except NCUM group on 22nd Oct). Models (ECMWF, ECAI, WRF) are indicating its intensification into depression over southwest BoB around 22nd/ 0300 UTC October. These models are indicating the system to move north-northwestwards and cross North Tamil Nadu-South Andhra Pradesh coasts as a depression around 24/00. Other models are also showing north-northwestwards along the coast, but as a low pressure area only during 21st-22nd October.

Many of the models are also indicating another low pressure area over southeast BoB around 23rd October (NCEP, ECAI, IMD GFS, GEFS, BFS). These models are

indicating further intensification of the system into a depression over central parts of south & adjoining westcentral BoB around 25th Oct with further intensification and movement towards North Andhra Pradesh coast.

(b) Arabian Sea

Most of the models (IMD-GFS, GEFS, BFS, WRF, NCEP GFS, ECMWF, ECAI) are indicating well marked low pressure area over southeast Arabian Sea. These models are also indicating intensification of system into a depression during 22/06-24/00 (average 23/12 UTC). However, against earlier runs, models are now not indicating northeastwards recrvature of the system. However, there is variation in time and point of recurvature. ECMWF, ECAI and NCEP GFS are indicating west-northwestwards movement till 22/00 and northeastwards movement thereafter. IMD GFS is indicating north-northeastwards movement from 21/00 onwards.

Inference:

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

(a) The Well-marked low-pressure area over southeast Arabian Sea is likely to move nearly westwards and intensify into a depression during next 24 hours. Hence, moderate to high
probability is assigned to cyclogenesis (formation of depression) during 21st to 22nd October.

- (i) Confidence level in forecast of intensification (formation of Depression): High
- (ii) Confidence level in forecast of location of Depression: High
- (b) A low pressure area formed over southwest Bay of Bengal at 0000 UTC and became a Well marked low pressure area over the same region at 0300 UTC of today, the 21st October 2025. It is likely to move west-northwestwards and intensify into a depression over southwest & adjoining Westcentral Bay of Bengal off north Tamil Nadu & south Andhra Pradesh coasts by 0900 UTC of tomorrow, the 22nd October 2025. Thereafter, it is likely to continue to move west-northwestwards towards north Tamil Nadu, Puducherry & south Andhra Pradesh coasts and intensify further during subsequent 24 hours.
 - (i) Confidence level in forecast of intensification (formation of Depression): High
 - (ii) Confidence level in forecast of location of Depression: Moderate
 - (c) There is also likelihood of formation of a fresh low pressure area over southeast Bay of Bengal around 23rd October with low probability of its further intensification into depression over central parts of south Bay of Bengal & adjoining westcentral Bay of Bengal around 25th October.

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

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

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

<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
MOD	HIGH	-	-	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): IOP for Kerala, Karnataka, Tamil Nadu, South Andhra Pradesh and Sri Lanka coasts during 21st to 23rd October and Andaman Islands during 23rd-25th October.

Warnings in association with system over Arabian Sea:

i. Wind warning:

Squally weather with wind speed reaching 35-45 gusting to 55 kmph is likely to prevail over Southeast and adjoining Southwest & Eastcentral Arabian Sea, Lakshadweep & Comorin Area and along & off Karnataka, Kerala and adjoining South Tamil Nadu coasts till 24th October. It is likely to increase becoming squally wind with speed reaching 40-50 kmph gusting to 60 kmph over Southeast and adjoining Southwest & Eastcentral Arabian Sea from evening of today, the 21st October, over central parts of south Arabian Sea and adjoining central Arabian Sea on 22nd & 23rd October.

ii. Sea condition:

Sea condition is moderate to rough over Southeast and adjoining southwest & Eastcentral Arabian Sea, Lakshadweep & Comorin Area and along & off Karnataka, Kerala and adjoining South Tamil Nadu coasts. It would become rough to very rough over Southeast & adjoining southwest & Eastcentral Arabian Sea from evening of today, the 21st October, over central parts of south Arabian Sea and adjoining central Arabian Sea on 22nd & 23rd October.

iii. Fishermen warnings:

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 21st October and over central parts of south Arabian Sea and adjoining central Arabian Sea during 22nd to 23rd October 2025.

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 southeast & central Bay of Bengal. It is likely to increase becoming 50-60 kmph gusting to 70 kmph over Southwest and adjoining Westcentral Bay of Bengal during 22nd to 24th October.
- ➤ Squally wind with speed reaching 35-45 kmph gusting to 55 kmph is prevailing along & off Tamil Nadu & south Andhra Pradesh coasts. It is likely to increase becoming 40-50 kmph gusting to 60 kmph on 22nd and 50-60 kmph gusting to 70 kmph during 23rd to 24th October.
- Squally weather with wind speed reaching 35-45 gusting to 55 kmph is likely to prevail over Andaman Sea and remaining parts of South Bay of Bengal till 25th October.

ii. Sea conditions:

- Sea condition is rough over southwest Bay of Bengal and adjoining areas of southeast & central Bay of Bengal and likely to become rough to very rough thereafter till 24th October.
- ➤ Sea condition is rough along & off Tamil Nadu & south Andhra Pradesh coasts and thereafter likely to become rough to very rough till 23rd October.
- Sea condition is likely to be moderate to rough over Andaman Sea and remaining parts of South Bay of Bengal during till 25th October.

iii. Fishermen Warning:

Fishermen are advised not to venture into South and adjoining central Bay of Bengal till 24th October. Those fishermen out at sea should return to coast.

iv. Impact Expected and Action Suggested due to heavy rain and strong winds (Tamil Nadu 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.
- 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.

ANNEXURE

























