

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

# Tropical Cyclone Forecast Programme Report Dated 06<sup>th</sup> December 2025

Time of Issue: 1030 UTC

### Synoptic features (based on 0900 UTC analysis):

The upper air cyclonic circulation lay over south Kerala coast & neighborhood.

### **Environmental Features based on 0600 UTC:**

Parameter	Bay of Bengal (BoB)	Arabian Sea (AS)			
Sea Surface Temperature (SST) °C	<ul> <li>28°C over south adjoining central BoB.</li> <li>25°C over north BoB.</li> </ul>	➤ Around 28-29°C over southeast adjoining eastcentral Arabian Sea, Maldives and Lakshadweep area.  ➤ Around 26°C-27°C over rest of Arabian Sea.			
Tropical Cyclone Heat Potential (TCHP) kJ/cm²	<ul> <li>125-150 over eastern parts of southeast BoB, Andaman Sea,</li> <li>About 100-120 over some parts of south, eastcentral and northeast BoB.</li> <li>About 50 over northwest BoB, Comorin area, Gulf of Mannar,</li> </ul>	➤ 120-130 over southeast Arabian Sea, Lakshadweep area and Maldives area.			
Cyclonic Relative - vorticity (X10 <sup>-</sup> <sup>6</sup> s <sup>-1</sup> )	<ul> <li>25-35 over Andaman Sea and along Tamil Nadu &amp; Sri Lanka coast</li> </ul>	> 10-20 over Maldives area.			
Low-Level convergence (X10-6 s-1)	➤ 5 over south Andaman Sea.	<ul> <li>5-10 over eastcentral</li> <li>AS adjoining</li> <li>Karnataka coast and</li> <li>Lakshadweep &amp;</li> <li>Maldives area.</li> </ul>			
Upper-Level divergence (X10-6 s-1)	>	> 10 over entire east AS.			
Vertical Wind Shear (VWS knots) Low: 05-10 knots Moderate: 10- 20 knots High: >20 knots	<ul> <li>Low- moderate &amp; anti-cyclonic over the south BoB and Andaman Sea.</li> <li>High over rest of BoB.</li> </ul>	➤ High over entire AS.			
Wind Shear Tendency (knots)	<ul><li>Decreasing over south of southwest BoB</li></ul>	<ul><li>Decreasing over Lakshadweep and Maldives area.</li></ul>			

Upper	➤ Ridge is running along 08°N at 82°E	-
tropospheric		
Ridge		
GPP (Not		
Available)		

#### 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 7<sup>th</sup> December onwards, the easterly wind anomalies are likely to strengthen (5-7 mps) gradually over the south and adjoining central BoB till 14<sup>th</sup> 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 16<sup>th</sup> 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 & isolated moderate to intense convection lay over westcentral & north Bay of Bengal.

#### Over the Arabian Sea:

As per INSAT 3DS at 0600 UTC, scattered low and medium clouds with embedded intense to very intense convection lay over southeast Arabian Sea and moderate to intense convection lay over west and northeast Arabian Sea.

#### **Outside India**

As per INSAT 3DS at 0600 UTC, scattered low & medium clouds with embedded moderate to intense convection over Sri Lanka, Palk Strait, Gulf of Mannar, 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 17.0°S longitude 45.0°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	Bay of Bengal (BoB)	Arabian Sea (AS)		
GUIDANCE				
IMD-GFS	<ul> <li>The trough in easterly wave is running along 15°N at 88°E on 7<sup>th</sup> Dec, an embedded upper air cyclonic circulation over southeast BoB &amp; adjoining Equatorial Indian Ocean on 7<sup>th</sup> Dec. The wave is reaching along 10°N at 79°E on 9<sup>th</sup> December.</li> <li>The easterly wave is likely to be active with development of a trough along 14°N at 91°E on 13<sup>th</sup> Dec, reaching along 15°N at 84°E on 15<sup>th</sup> December.</li> </ul>	No significant system during next seven days.		
IMD-GEFS	Not available	Not available		
IMD-WRF	Not available	Not available		
NCMRWF- NCUM(G)	<ul> <li>➢ An upper air cyclonic circulation over Bangladesh as on today, 6th December, persist over the same region till 7<sup>th</sup> December.</li> <li>➢ The trough in easterly wave is running along 15°N at 88°E on 7<sup>th</sup> Dec, an embedded upper air cyclonic circulation over southeast BoB &amp; adjoining Equatorial Indian Ocean on 7<sup>th</sup> Dec. The wave is reaching along 10°N at 79°E on 9<sup>th</sup> December.</li> <li>➢ The easterly wave is likely to be active with development of a trough along 14°N at 92°E on 13<sup>th</sup> Dec, reaching along 12°N at 79°E on 16<sup>th</sup> December.</li> <li>The easterly wave is likely to be active with development of a trough along 11°N at 91°E on 6<sup>th</sup> December, embedded upper air cyclonic circulation over southeast BoB &amp; adjoining EIO</li> </ul>	circulation over southeast AS & adjoining Equatorial Indian Ocean on 11 <sup>th</sup> Dec, less marked by 12 <sup>th</sup> Dec.  No significant system is		
	circulation over southeast BoB & adjoining EIO on 7 <sup>th</sup> December. The wave is reaching along 11°N at 79°E on 9 <sup>th</sup> December.			
NCMRWF-	The easterly wave is likely to be active with	No significant system during		
NCUM(R)	development of a trough along 14°N at 91°E on 6 <sup>th</sup> December, reaching along 14°N at 84°E on 7 <sup>th</sup> December.	next three days.		
NEPS	The easterly wave is likely to be active with development of a trough along 10°N at 86°E on 7 <sup>th</sup> December, reaching along 10°N at 78°E on 9 <sup>th</sup> 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 at 89°E on 7 <sup>th</sup> December, reaching along 10°N at 84°E on 9 <sup>th</sup> December.	No significant system is indicated during next 7 days.		

	The easterly wave is likely to be active with development of a trough along 11°N/86°E on 8 <sup>th</sup> December & embedded upper air cyclonic circulation over southeast BoB on 8 <sup>th</sup> December. This easterly wave is reaching along 10.8°N at 84°E on 8 <sup>th</sup> December.	significant system.		
EC-AIFS	No significant system	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 Southeast BoB & adjoining Andaman Sea around 7<sup>th</sup> December which is likely to propagate westwards and reach over southwest BoB off North Sri Lanka and adjoining Tamil Nadu coasts by around 9<sup>th</sup>/10<sup>th</sup> December.

Models like IMD-GFS, NCEP-GFS, NCUM (G) are also indicating the formation of an upper air cyclonic circulation over the southeast BoB around 7<sup>th</sup> 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 low probability of an active easterly wave passing through southeast Bay of Bengal around 7<sup>th</sup>/8<sup>th</sup> December, reaching Tamil Nadu coast around 9<sup>th</sup>/10<sup>th</sup> December.
- (b) There is also a low probability of an upper air cyclonic circulation over southeast BoB during on 7<sup>th</sup> December.

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

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

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

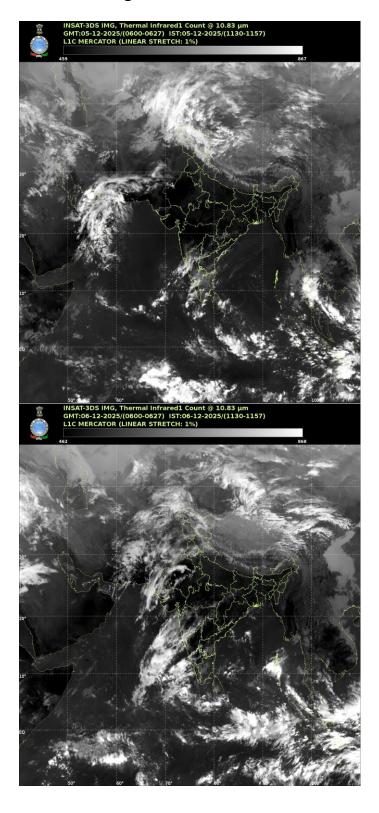
NIL	NIL	NIL	NIL	NIL	NIL	NIL
HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS
24	24-48	48-72	72-96	96-120	120-144	144-168

<sup>&</sup>quot;- "indicates genesis has already occurred.

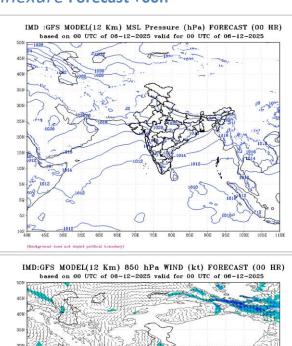
Probability is indicated as NIL for 0%, LOW for 1-33%, MOD for 34-67% and High for 68-100%. Every 24 hrs forecast ends at the 0300 UTC of date.

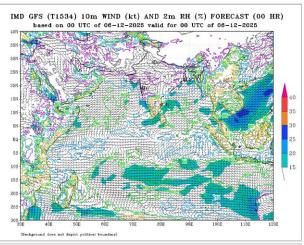
Intense Observation Period (IOP): Nil

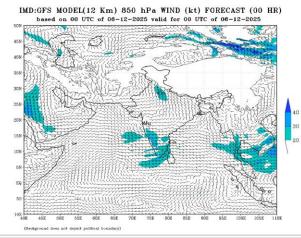
# INSAT 3DS imageries at 0600 UTC of 5<sup>th</sup> & 6<sup>th</sup> December

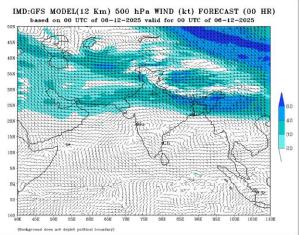


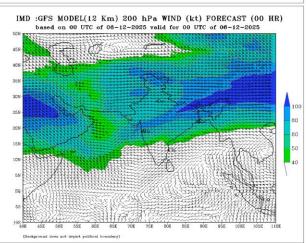
#### Annexure Forecast +00h

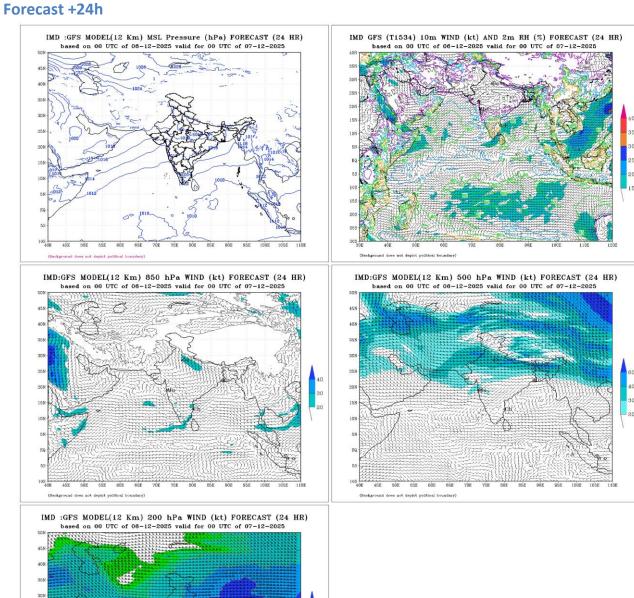


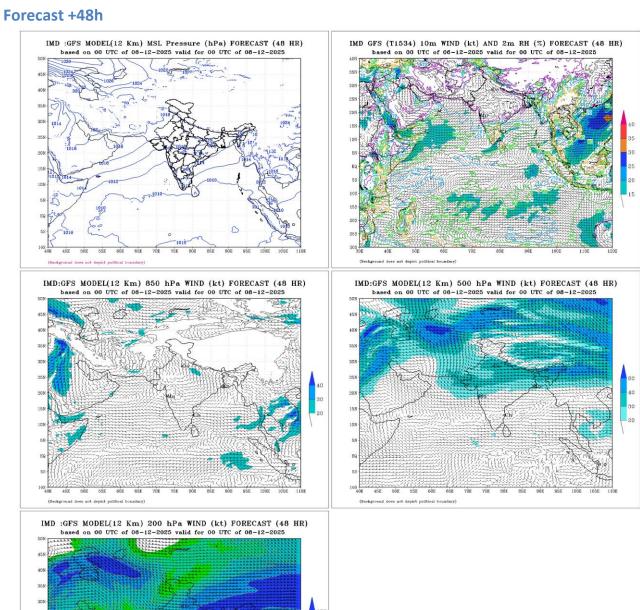


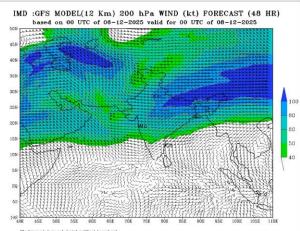


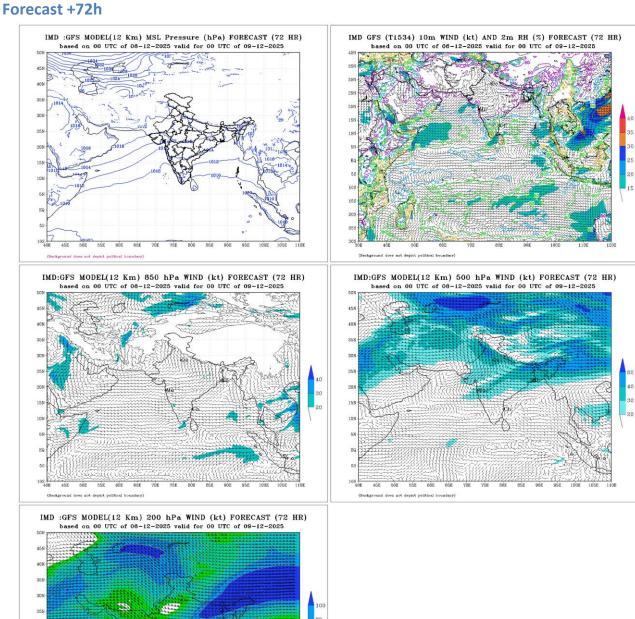




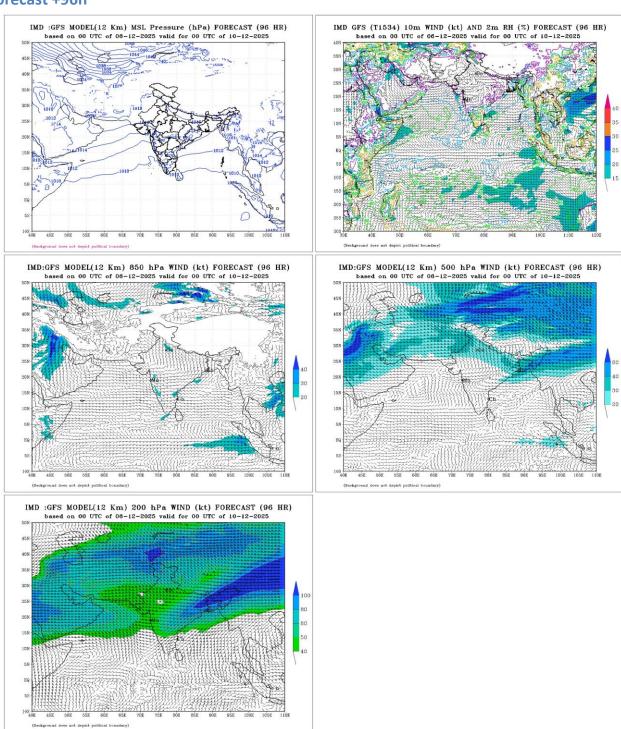


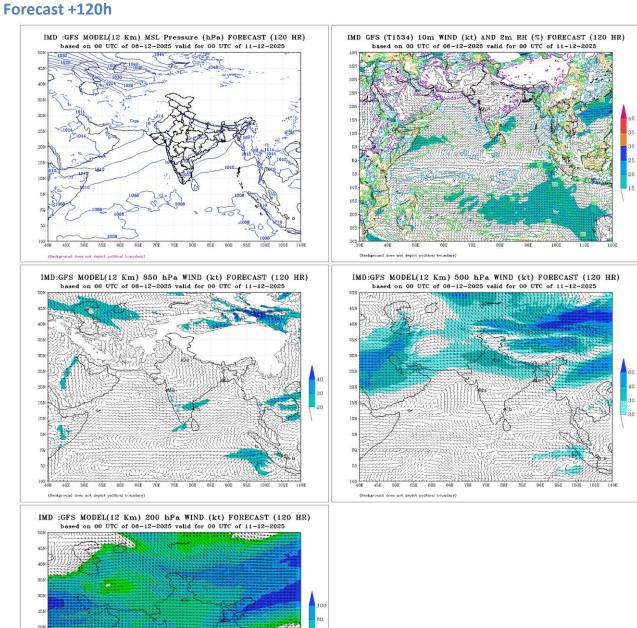


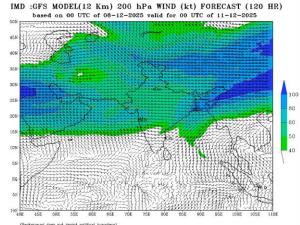




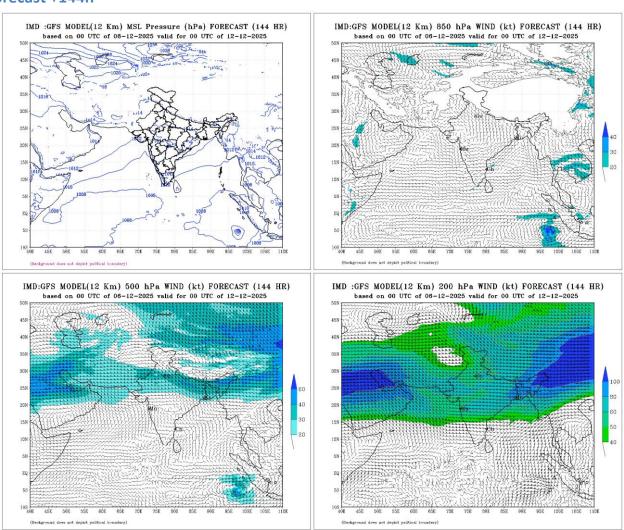
#### Forecast +96h







#### Forecast +144h



#### Forecast +168h

