

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

## **Tropical Cyclone Forecast Programme Report Dated 19<sup>th</sup> November 2025**

Time of Issue: 1530 UTC

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

- ➤ The Low-Pressure area over Comorin area & neighborhood lay over Lakshadweep Islands & adjoining Maldives area at 0900 UTC of today, the 19th November 2025. It is likely to move slowly west-northwestwards during next 24 hours.
- ➤ A low Pressure area is likely to form over Southeast Bay of Bengal around 22nd November 2025. Thereafter, it is very likely to move west-northwestwards and intensify into depression over central parts of south Bay of Bengal around 24th November 2025. Thereafter, it will very likely to continue to move west-northwestwards and intensify further over southwest Bay of Bengal during subsequent 48 hours.

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

Parameter	Bay of Bengal (BoB)	Arabian Sea (AS)			
Sea Surface Temperature (SST) °C	Around 29 - 30°C over entire BoB.	Around 28-29°C over eastern Arabian Sea. Around 27°C over rest Arabian Sea.			
Tropical Cyclone Heat Potential (TCHP) kJ/cm <sup>2</sup>	<ul> <li>150-175 over south south Andaman Sea and southeast BoB.</li> <li>100-120 over eastcentral, adjoining northeast BoB and over north Andaman Sea.</li> </ul>	120-130 over southeast Arabian Sea.			
Cyclonic Relative - vorticity (X10 <sup>-6</sup> s <sup>-1</sup> )	30-40 over westcentral and adjoining south BoB and south Andaman Sea extending upto 700 hPa level.	40-50 over southeast Arabian Sea, Lakshadweep islands and Maldives area extending upto 500 hPa level.			
Low-Level convergence (X10-6 s-1)	10-20 over Andaman Sea and adjoining Bay of Bengal.	<ul> <li>05-10 over Lakshadweep islands area and along &amp; off Kerala coast.</li> </ul>			
Upper-Level divergence (X10-6 s-1)	<ul> <li>05-10 over Andaman Sea and adjoining eastcentral &amp; southeast Bay of Bengal.</li> </ul>	<ul> <li>05-10 over southeast         Arabian Sea and         Lakshadweep island area.     </li> </ul>			
Vertical Wind Shear (VWS knots) Low: 05-10 knots Moderate: 10-20 knots High: >20 knots	Deep layer vertical wind shear is High over north & adjoining many parts of central Bay of Bengal, southern parts of south BoB and North Andaman sea. Low-Moderate over	Deep layer vertical wind shear is Low - Moderate over southeast & adjoining many parts of southwest, eastcentral & adjoining some parts of westcentral Arabian Sea, Lakshadweep islands and high			

	rest of BoB.  Mid layer vertical wind shear is Low over Central & adjoining south BoB and south Andaman Sea. Low-Moderate over rest of BoB.	over rest of Arabian Sea.  Mid layer vertical wind shear is high over northwest, western parts of southwest AS and some parts of southeast Arabian sea adjoining Lakshadweep Area. Low-Moderate over entire Arabian Sea and it is		
Wind Shear Tendency (knots)	Increasing over south BoB and Andaman sea. Decreasing over eastcentral BoB.	anticyclonic. Increasing over Comorin Area and Sri Lanka. Decreasing over Lakshadweep Island area and some southern parts of southeast AS.		
Upper tropospheric Ridge	Ridge is running along 12°N at 98°E.	A ridge is running along 13°N at 69°E.		
GPP	Not available	Not available		

### M.J.O. Index:

Madden Julian Oscillation (MJO) index is presently in phase 6 with amplitude greater than 1 in the phase diagram. It will be in the same phase with increasing amplitude during next seven days. MJO is not likely to support convective activity over the North Indian Ocean region.

### **Equatorial waves guidance:**

The tropical monitoring guidance from the NCICS indicates westerly wind anomaly (3-5 mps) over the southern parts of the North Indian Ocean (NIO), including the south Arabian Sea (AS) and south Bay of Bengal (BoB) adjacent to the North Equatorial Indian Ocean (NEIO) during next seven days. A comparatively weaker westerly wind anomaly is likely to prevail over the central parts of AS, southern peninsular India and the central parts of BoB till 18th. The easterly wind anomaly (1-3 mps) is likely over the northern parts of AS and BoB till 20<sup>th</sup> November. The easterly wind anomaly is likely to appear gradually over central BoB and adjacent parts of south BoB, whereas the westerly wind anomaly strengthened (5-7 mps) over south & central AS and the southern part of BoB adjacent to NEIO during the 18<sup>th</sup> to 20<sup>th</sup> November. The Equatorial Rossby Wave (ERW) is likely to be moving westwards across peninsular India and then central AS till 18<sup>th</sup>. During 18<sup>th</sup> to 20<sup>th</sup>, another spell of ERW is likely to propagate across the south BoB and adjoining NEIO. Thus, equatorial waves are likely to support the cyclonic circulation over southwest BoB to maintain its intensity or become a low till 18<sup>th</sup> November. During 18th to 20th, conditions are favourable for development of a cyclonic circulation over south Andaman Sea.

Regional dynamical features are supporting the yesterday's low-pressure area over Comorin area and neighborhood to persist and emerging into southeast Arabian Sea. The relative vorticity is increasing with height and extends upto 500 hPa level, maximum at this level. The lower level convergence and upper level divergence are positive but decreased over the region during past 24 hr.

Favorable features like low to moderate wind shear, positive vorticity up to mid-tropospheric level, positive low level convergence, upper level divergence and favorable equatorial waves are supporting the system to maintain its intensity during next 24 hours.

### Over the Bay of Bengal & Andaman Sea:

As per INSAT 3DS at 0900 UTC, scattered to broken low and medium clouds with embedded moderate to intense convection over central & south Bay of Bengal and Andaman Sea. Scattered low and medium clouds with embedded isolated weak to moderate convection lay over north Bay of Bengal.

The convective cloud mass in association with the LPA is over Lakshadweep islands adjoining Maldives area & neighbourhood. Associated scattered to broken low and medium clouds with embedded moderate to intense convection lay over southeast Arabian Sea, Lakshadweep islands area & Maldives area (minimum CTT minus 50-70°C).

### Over the Arabian Sea:

As per INSAT 3DS at 0900 UTC, scattered to broken low and medium clouds with embedded moderate to intense convection over southeast Arabian Sea, Lakshadweep islands area, Maldives & Comorin area. Scattered low and medium clouds with embedded isolated weak to moderate convection lay over central & southwest Arabian Sea.

#### **Outside India:**

As per INSAT 3DS at 0900 UTC, scattered low and medium clouds with embedded moderate to intense convection over Maldives, Tibet, China, Yellow sea, east China sea, Taiwan, Myanmar, Thailand, Gulf of Thailand, Cambodia, Laos, Vietnam, gulf of Tonkin, Hainan, 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 latitude 15.0°S longitude 60.0°E to 120.0°E and between latitude 20.0°S to 35.0°S longitude 40.0°E to 90.0°E.

### **NWP Guidance for FDP Cyclone:**

MODEL	Bay of Bengal (BoB)	Arabian Sea (AS)		
<b>GUIDANCE</b>	, , ,	, ,		
IMD-GFS	Model is indicating a fresh upper air cyclonic circulation over south Andaman Sea on 20/00 UTC. It will become low pressure area (LPA) over south Andaman Sea and adjoining southeast BoB on 21/00 UTC moving west-northwestward and intensify into depression on 22/00 UTC over southeast Bay of Bengal. Moving in the same direction and reaching its peak intensity over southwest BoB on 26/00 UTC. It will move towards north Andhra Pradesh coast and reach the coast on 27/00 UTC.	Model is indicating the upper air cyclonic circulation over Lakshadweep islands and neighbourhood as of today. It is indicated to move west-northwestwards till 24/00 UTC. Thereafter it will move west-southwestwards and less marked by 27/00 UTC.		
IMD-GEFS	Not available	Not available		
IMD-WRF	Not available	Not available		
BFS	Model is indicating a fresh upper air cyclonic circulation over south Andaman Sea on 20/00 UTC. It will become LPA over south Andaman Sea and adjoining southeast BoB on 21/00 UTC moving west-northwestward and intensify into depression on 22/00 UTC over southeast Bay of Bengal. Moving in the same direction and reaching its peak intensity over southwest BoB on 26/00 UTC. It will move towards north Andhra Pradesh coast till 28/00 UTC. Thereafter it will recurve north-northeastwards and reach the south Odisha-North Andhra Pradesh coasts on 29/00 UTC.	Model is indicating the upper air cyclonic circulation over Lakshadweep islands and neighbourhood as of today. It is indicated to move west-northwestwards till 24/00 UTC. Thereafter it will move west-southwestwards and less marked by 27/00 UTC.		
NCMRWF- NCUM(G)	An upper air cyclonic circulation over southeast BoB on 24/00 UTC and LPA on	Model is indicating the upper air cyclonic circulation over		

25/00 UTC over southeast & adjoining southwest BoB moving in the west-northwestwards direction and becoming depression over southwest BoB on 26/00 UTC. Reaching the coast near Nagapatnam coast, Tamil Nadu on 28/18 UTC.  An upper air cyclonic circulation over south Andaman sea and adjoining southeast BoB on 21/00 UTC. Having nearly westward movement till 22/00 UTC.	Lakshadweep islands and neighbourhood on 20/00 UTC. It is indicated to move west-northwestwards till 28/00 UTC with intensification.  Model is indicating the upper air cyclonic circulation over Lakshadweep islands and neighbourhood on 20/00 UTC. It is indicated to move west-northwestwards till 22/00 UTC with intensification.
LPA over southwest adjoining southeast BoB on 27/00 UTC. Having west-northwestward movement towards north Tamil Nadu-south Andhra Pradesh coasts till 29/00 UTC.  An upper air cyclonic circulation over south Andaman Sea on 21/00 UTC, to move west-northwestwards and become LPA over southeast on 22/06 UTC. Moving in the same direction and intensify into depression on 24/06 UTC over southwest BoB. Thereafter, it will continue to move in the northwestwards direction, reaching its peak intensity on 27/00 UTC. It will move in the same direction and will reach Andhra Pradesh coast near 15.5N/80.3F.	No significant system is indicated during next 7 days.  Model is indicating the upper air cyclonic circulation over southeast AS on 20/15 UTC. Continue to move west-northwestwards direction till 23/00 UTC without further intensification.
An upper air cyclonic circulation over south Andaman sea on 20/00 UTC, to move west-northwestwards and become LPA over southeast BoB on 21/06 UTC, moving in the same direction and becoming depression over southeast BoB on 23/12 UTC. It will move then northwestwards towards while intensifying and reach the Andhra Pradesh coast near 16.8N/82.3E.  Model is indicating an LPA over southwest BoB & adjoining south Sri Lanka coast on 25/06 UTC. It will move north-northwestwards and become depression on 27/06 UTC over	Model is indicating LPA southeast AS on 20/12 UTC moving west-northwestwards and less marked by 24/06 UTC.  No significant system is indicated during next 7 days.
	southwest BoB moving in the west- northwestwards direction and becoming depression over southwest BoB on 26/00 UTC. Reaching the coast near Nagapatnam coast, Tamil Nadu on 28/18 UTC.  An upper air cyclonic circulation over south Andaman sea and adjoining southeast BoB on 21/00 UTC. Having nearly westward movement till 22/00 UTC.  LPA over southwest adjoining southeast BoB on 27/00 UTC. Having west-northwestward movement towards north Tamil Nadu-south Andhra Pradesh coasts till 29/00 UTC.  An upper air cyclonic circulation over south Andaman Sea on 21/00 UTC, to move west- northwestwards and become LPA over southeast on 22/06 UTC. Moving in the same direction and intensify into depression on 24/06 UTC over southwest BoB. Thereafter, it will continue to move in the northwestwards direction, reaching its peak intensity on 27/00 UTC. It will move in the same direction and will reach Andhra Pradesh coast near 15.5N/80.3E.  An upper air cyclonic circulation over south Andaman sea on 20/00 UTC, to move west- northwestwards and become LPA over southeast BoB on 21/06 UTC, moving in the same direction and becoming depression over southeast BoB on 23/12 UTC. It will move then northwestwards towards while intensifying and reach the Andhra Pradesh coast near 16.8N/82.3E.  Model is indicating an LPA over southwest BoB & adjoining south Sri Lanka coast on 25/06 UTC. It will move north-northwestwards

### **Summary:**

### (a) Bay of Bengal:

Most of the models are indicating a fresh cyclonic circulation over Southeast Bay of Bengal & adjoining Andaman Sea around 20<sup>th</sup> November. Models are also indicating that it will move west-northwestwards and becomes low pressure area over southeast Bay of Bengal around 21<sup>st</sup> November. It will continue to move in the same direction and intensify into depression around 24<sup>th</sup> November over southwest Bay of Bengal. Models are also indicating and its further intensification and movement towards south Andhra Pradesh coast.

### (a) Arabian Sea

Most of the numerical models are indicating an upper air cyclonic circulation over Lakshadweep area and neighborhood as of today. It is indicated to move west-northwestwards slowly during next few days.

#### Inference:

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

The Low-Pressure area lay over Lakshadweep and adjoining Maldives areas. It is likely to move slowly west-northwestwards during the next 24 hours.

A fresh low-pressure area is likely to form over southeast Bay of Bengal around 22<sup>nd</sup> November. Thereafter, it is very likely to move west-northwestwards and intensify into depression around 24<sup>th</sup> November over central part of south Bay of Bengal. Thereafter it is very likely to move west-northwestwards and intensify further during subsequent 48 hours over southwest Bay of Bengal.

- (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): High
- (iv) Confidence level in forecast of location of Depression: Moderate

## Probability of cyclogenesis (formation of depression and above intensity 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
NIL	NIL	NIL	NIL	LOW	MOD	

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

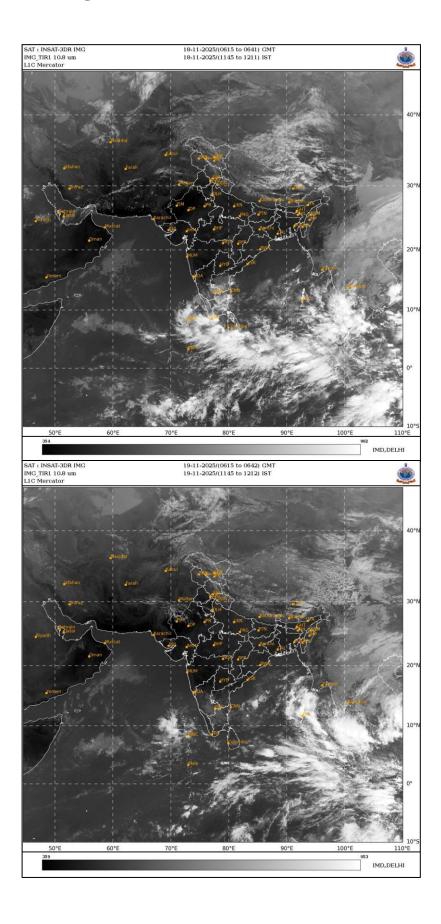
24	24-48	48-72	72-96	96-120	120-144	144-168
HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS
NIL	NIL	NIL	NIL	NIL	NIL	NIL

<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.

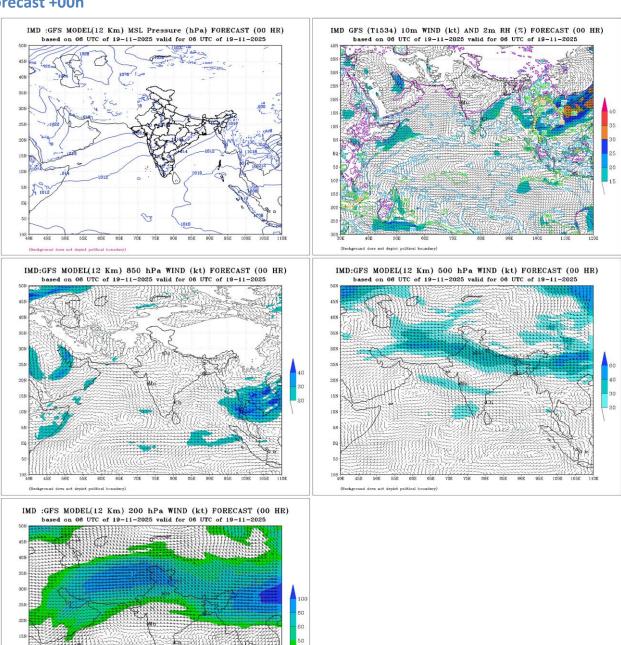
Intense Observation Period (IOP): Lakshadweep & Maldives Islands.

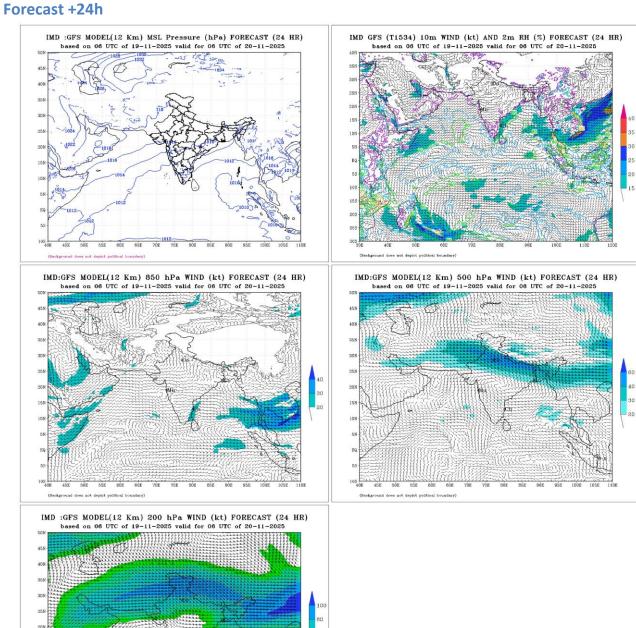
### INSAT 3DS imageries at 0600 UTC of 18<sup>th</sup> & 19<sup>th</sup> November

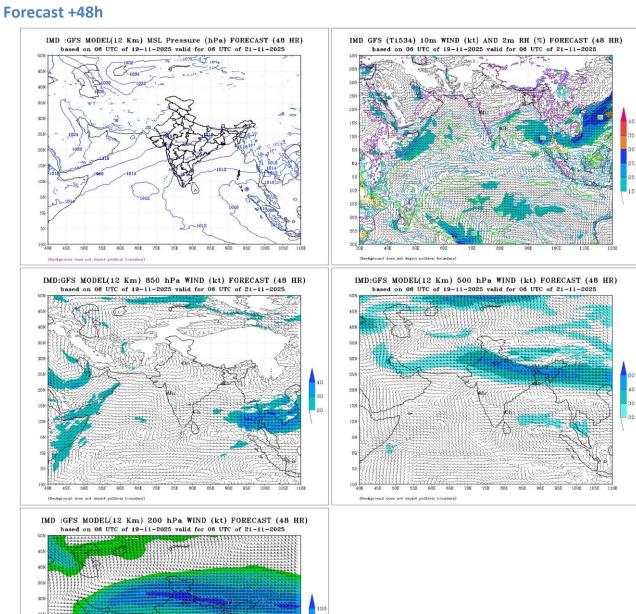


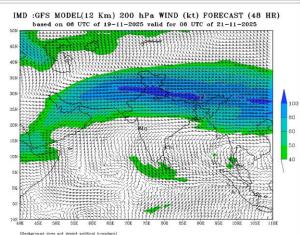
### **Annexure**

### Forecast +00h

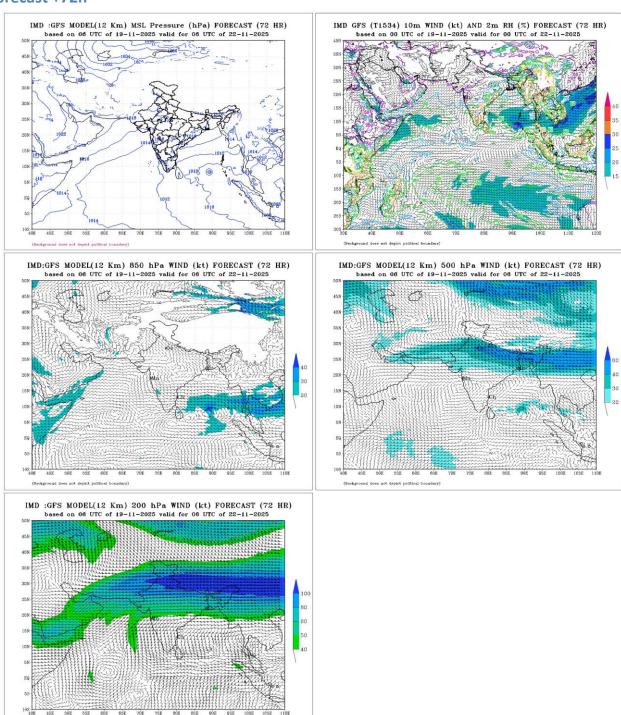




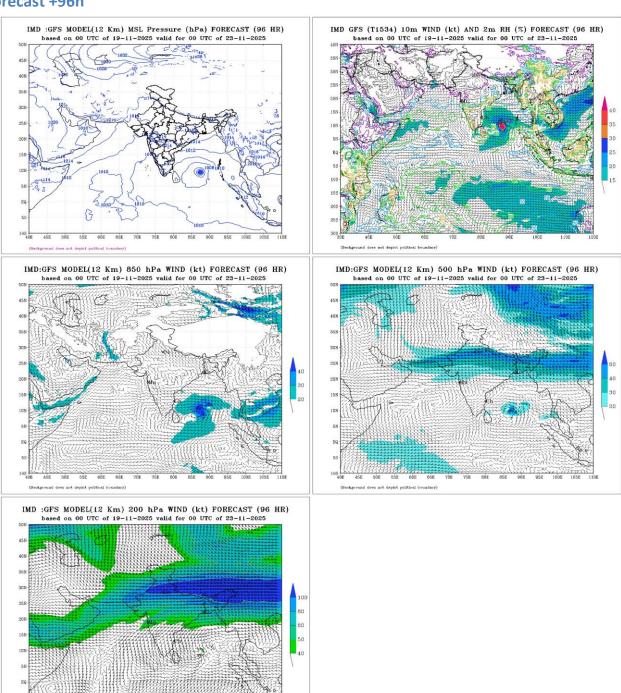




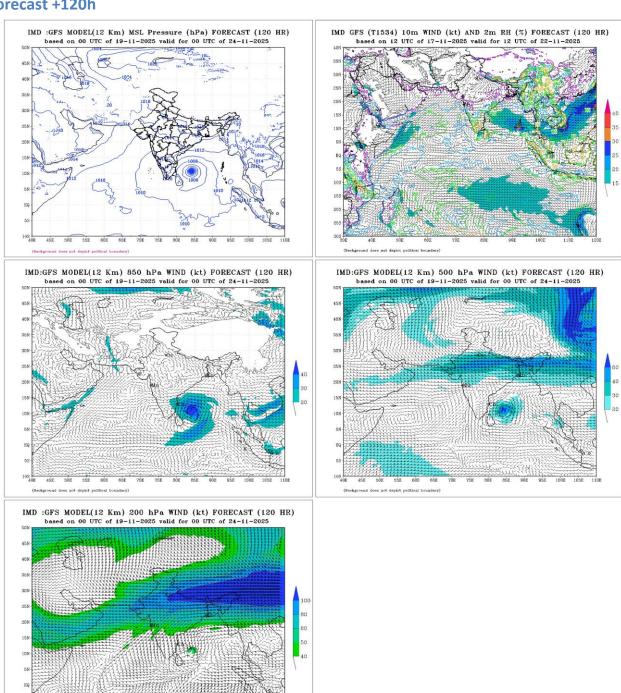
### Forecast +72h



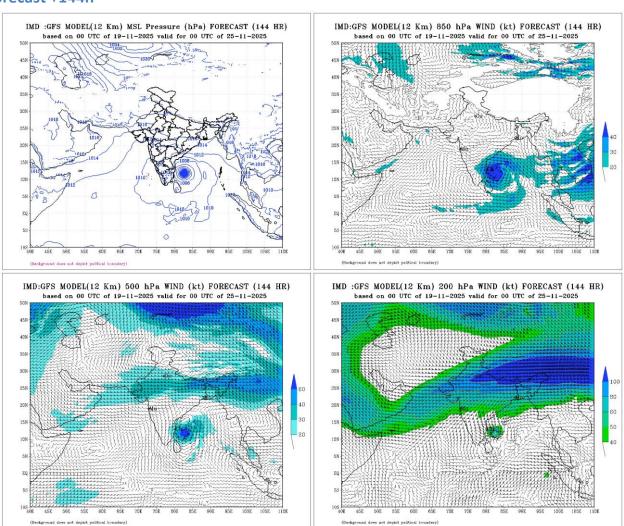
### Forecast +96h



### Forecast +120h



### Forecast +144h



### Forecast +168h

