

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

### Tropical Cyclone Forecast Programme Report Dated 16<sup>th</sup> November 2025

Time of Issue: 1300 UTC

### Synoptic features (based on 1200 UTC analysis):

- ➤ Yesterday's Low-Pressure area over Southwest Bay of Bengal off Sri Lanka coast persisted over the same region at 0300 UTC of today, the 16th November 2025. The associated upper air cyclonic circulation extended upto 5.8 km above mean sea level tilting southwestwards with height. It is likely to move slowly west-northwestwards during the next 24 hours.
- ➤ Yesterday's cyclonic circulation over Southeast Arabian Sea and adjoining South Kerala coast at 0.9 km above mean sea level persisted over the same region at 0300 UTC of today, the 16th November 2025.

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

Parameter	Bay of Bengal (BoB)	Arabian Sea (AS)  Around 28-29°C over eastern Arabian Sea.  Around 27°C over rest AS			
Sea Surface Temperature (SST) °C	Around 28 - 30°C over entire BoB.				
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> )	<ul> <li>30-40 over southwest BoB and adjoining southeast Sri Lanka. and extending upto 500hPa.</li> <li>30-40 over south Andaman Sea and extending upto 700 hPa.</li> </ul>	> 10-20 over southeast and Comorin Area.			
Low-Level convergence (X10-6 s-1)	<ul> <li>05-10 over southwest Bay of Bengal and adjoining south Sri Lanka.</li> <li>05 over westcentral Bay of Bengal.</li> <li>05 over south Andaman Sea and adjoining east equatorial Indian Ocean</li> </ul>	5 over southeast Arabian Sea along & off Karnataka coast.			
Upper-Level divergence (X10-6 s-1)	<ul> <li>05-10 over southwest Bay of Bengal and adjoining Sri Lanka.</li> <li>05 over eastcentral Bay of Bengal.</li> <li>05-10 over south</li> </ul>	No significant zone			

	Andaman Sea and adjoining east equatorial Indian ocean.	
Vertical Wind Shear (VWS knots) Low: 05-10 knots Moderate: 10-20 knots High: >20 knots	Deep layer vertical wind shear is Low- Moderate over central & south BoB and high over north and adjoining central BoB.  Mid layer vertical wind shear is Low-moderate over entire BoB and cyclonic.	Deep layer vertical wind shear is Low - Moderate over south, Arabian Sea, Lakshadweep islands & Comorin area and high over rest of Arabian Sea. Mid layer vertical wind shear is Low - Moderate over entire Arabian Sea and it is cyclonic.
Wind Shear Tendency (knots)	Decreasing over central and adjoining south BoB, Sri Lanka, Tamil Nadu coast and adjoining sea area.	Decreasing over western parts of AS.
Upper tropospheric Ridge	Ridge is running along 16°N in association with anticyclonic circulation over Eastcentral BoB near (16°N/90°E).	A ridge is running along 10°N.
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 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 17th. 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 17<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 17<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 existing low-pressure area over southwest Bay of Bengal off Sri Lanka coast to persist during next 24 hours. With the expected west-northwestward movement, it will interact with land surface and also will experience increasing wind shear. Hence it is not likely to intensify further. The upper level wind based on satellite suggests initial westward movement and then the northwestward movement under the influence of the ridge lying to the north of the system centre. There is a trough in mid-tropospheric westerlies along 85 deg. E to the north of 25 deg. N which is preventing

westwards movement and hence the LPA will move slowly initial westward movement and then the northwestward. Considering low level vorticity, it is oriented from east-southeast to west-northwest towards Sri Lanka coast. The relative vorticity is increasing with height and extends upto 500 hPa level. It is maximum at 500 hPa level. The lower level convergence and upper level divergence have decreased in past 24 hours.

Favorable features like low to moderate clockwise wind shear and positive vorticity and low level convergence & upper level divergence and favourable equatorial waves are likely to support the LPA to maintain its intensity during next 24 hours.

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

As per INSAT 3DS at 0600 UTC, scattered low and medium clouds with embedded intense to very intense convection lay over southwest and central Bay of Bengal. Scattered low and medium clouds with embedded isolated weak to moderate convection lay over southeast Bay of Bengal and Andaman Sea.

The convective cloud mass in association with the LPA is over southwest Bay of Bengal off Sri Lanka coast and neighbourhood. Associated scattered to broken low and medium clouds with embedded intense to very intense convection lay over southwest and central Bay of Bengal, Sri Lanka, Palk Strait, and northeast Tamil Nadu (minimum CTT minus 70–90°C).

### Over the Arabian Sea:

As per INSAT 3DS at 0600 UTC, scattered low and medium clouds with embedded moderate to intense convection lay over the northern parts of south Arabian Sea.

### Outside India:

As per INSAT 3DS at 0600 UTC, Scattered low and medium clouds with embedded moderate to intense convection lay over Sri Lanka, Palk Strait, Gulf of Mannar, south Maldives, Tibet, China, Gulf of Thailand, Cambodia, Laos, Vietnam, Sumatra, Strait of Malacca, Malaysia, Borneo, South China Sea, Java Islands and Sea, Celebes Islands and Sea, Philippines, Sulu Sea, north Madagascar, Mozambique Channel, and over the Indian Ocean between latitudes 5.0°N to 10.0°S and longitudes 55.0°E to 110.0°.

### NWP Guidance for FDP Cyclone:

MODEL GUIDANCE	Bay of Bengal (BoB)	Arabian Sea (AS)
IMD-GFS	<ul> <li>Model is not capturing existing LPA over southwest BoB off Sri Lanka coast. It is indicating an east-west trough over southwest BoB on 16/00 to move westwards towards south AS across Comorin Area by 20/00. It is indicated to become less marked thereafter.</li> <li>Model is indicating increase in easterlies over the Andaman Sea &amp; eastcentral BoB during 16th-18th and development of a fresh cyclonic circulation over southeast BoB on 19/00. It is indicated to move westwards and consolidate into an LPA over southwest BoB on 20/00, with slow</li> </ul>	Emergence of the LPA over BoB into southeast Arabian Sea on 25/00 UTC. It is indicated to move westwards with no further intensification till 26/00 UTC.

	westwards movement towards	
	southeast AS till 24/00.	
	Model is also indicating emergence of a	
	fresh cyclonic circulation over South	
	Andaman Sea on 25/00. It is indicated	
	to move westwards and intensify rapidly	
IMD-GEFS	over southeast BoB on 26/00.  Not available	Not available
		Not available  Not available
IMD-WRF	Not available	
BFS	➤ Model is not capturing existing LPA	The model is indicating the
	over southwest BoB off Sri Lanka	remnant of system over BoB
	coast. It is indicating an east-west	which crossed near Tondi
	trough over southwest BoB on 16/00 to move westwards reaching southeast	(Tamil Nadu) on 22/00 to move
	AS across Comorin Area by 19/00. It is	across south Tamil Nadu &
	indicated to move westwards and	Kerala and emerge into
	become less marked on 21/00.	southeast AS on 23/00. It is
	<ul> <li>Model is indicating increase in</li> </ul>	indicated to move west-
	easterlies over the Andaman Sea &	northwestwards with further
	eastcentral BoB during 16th-18th and	
	development of a fresh cyclonic	intensification towards central
	circulation over southeast BoB on	AS till 26/00.
	19/00. It is indicated to move	
	westwards and consolidate into an	
	depression over southwest BoB on	
	20/00, with westwards movement	
	across North Sri Lanka and crossing	
	over South Tamil Nadu near Tondi on	
	22/00.	
	Model is also indicating emergence of a	
	fresh cyclonic circulation over South	
	Andaman Sea on 22/12. It is indicated	
	to move westwards and intensify into a	
	depression over South Andaman Sea	
	on 23/00. It is indicated to move	
	westwards with further intensification till	
	26/00. Another depression is also	
	indicated over South Andaman Sea on 26/00.	
	<ul><li>The guidance is not consistent.</li></ul>	
NCMRWF-	<ul> <li>Model is not capturing existing LPA</li> </ul>	Emergence of the cyclonic
NCUM(G)	over southwest BoB off Sri Lanka	circulation over BoB into
1100111(0)	coast. It is indicating a cyclonic	Comorin area on 20th .
	circulation over southwest BoB on	Comonii area on zour.
	16/00. To move westwards towards	
	southeast AS till 19/00.	
	A fresh cyclonic circulation is seen over	
	central part of south BoB on 19/00. It is	
	indicated to move westwards towards	
	Srilanka till 22/00 and thereafter it is	
	indicated to move north-westwards	
	towards north Tamilnadu, crossing near	
	Chennai as a Well-Marked Low-	
	Pressure Area on 25/00.Threafter it is	
	indicated to move slowly northwards	

	along the coast till 26/00.	
NCMRWF- NCUM(R)	<ul> <li>A cyclonic circulation over southwest BoB on 16/00 to move slowly westwards towards Comorin area.</li> <li>A fresh cyclonic circulation over central parts of south BoB on 19/00 UTC.</li> </ul>	No significant system is indicated during next 3 days.
NEPS	<ul> <li>A cyclonic circulation over southwest BoB off Srilanka on 16/00 .lt is indicated to consolidate into a LPA on 17/00 and gradually move westwards.</li> <li>Another LPA is indicated over central parts of south BoB on 20/00, it is indicated to intensify into a depression on 22/00 over southwest BoB. It is indicated to move north-westwards with intensification towards Tamilnadu coast till 24/00.Thereafter it is indicated to move slowly north-eastwards and cross South Andhra -north Tamilnadu coast on 26/00.</li> </ul>	No significant system is indicated during next 7 days.
ECMWF	Existing LPA over southwest BoB off Sri Lanka is not captured by the model. It is seen as an upper air cyclonic circulation over southwest BoB upper air cyclonic circulation over southwest BoB off south Sri Lanka coast on 16/00 with gradual west-northwestwards movement and emergence into southeast AS by 22/12.  Formation of an LPA over southeast BoB & adjoining south Andaman Sea on 23/12. To move nearly westwards, intensify into a depression over southeast & adjoining southwest BoB on 24/12. To move initially west-northwestwards towards southwest BoB till 26/00 and then northwestwards towards Andhra Pradesh coast with gradual intensification.	Emergence of upper air cyclonic circulation into AS on 22/12, becoming less marked on 23/00.
NCEP-GFS		No significant system is indicated during next 7 days.
EC-AIFS	Existing LPA over southwest BoB off south Sri Lanka coast to move slowly westwards and	Emergence of LPA over southeast AS on 19/00.

emerge into southeast AS by 19/00.	Becoming	less	marked	on
	20/00.			
Another LPA is indicated over southwest BoB				
off South Sri Lanka on 25/12, becoming				
depression over same region on 27/00 with				
slow northwards movement over southwest				
BoB along Sri Lanka coast till 30/12.				

### Summary:

### (a) Bay of Bengal:

Most of the numerical models indicate the prevalence of existing LPA over southwest BoB off Sri Lanka coast to move west-northwestwards during next 24 hours. Further, the models are also indicating the emergence of a fresh cyclonic circulation into South Andaman Sea around 18th/19th November. However, there is large variation among various models wrt area of formation/ time of formation of LPA/depression & their further intensification and movement. Thus, the BoB region is under continuous watch for any significant development around 24th November.

### (a) Arabian Sea

Most of the models are indicating no significant system over the Arabian Sea during next 7 days. However, some models are indicating existing LPA or its remnant to emerge into southeast AS around 18th November.

### Inference:

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

- **a.** the existing low pressure area over southwest Bay of Bengal off Sri Lanka coast is likely to move nearly west-northwestwards during the next 24 hours.
- **b.** another upper air cyclonic circulation is likely to emerge over the South Andaman Sea & adjoining southeast BoB around 19th November. Under its influence, a low-pressure area is likely to form over the southeast Bay of Bengal around 21<sup>st</sup> November and there is also low probability of it's further intensification into a depression over the same region around 23<sup>rd</sup> November.

## <u>Probability of cyclogenesis (formation of depression and above intensity systems)</u> 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	NIL	NIL	NIL

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

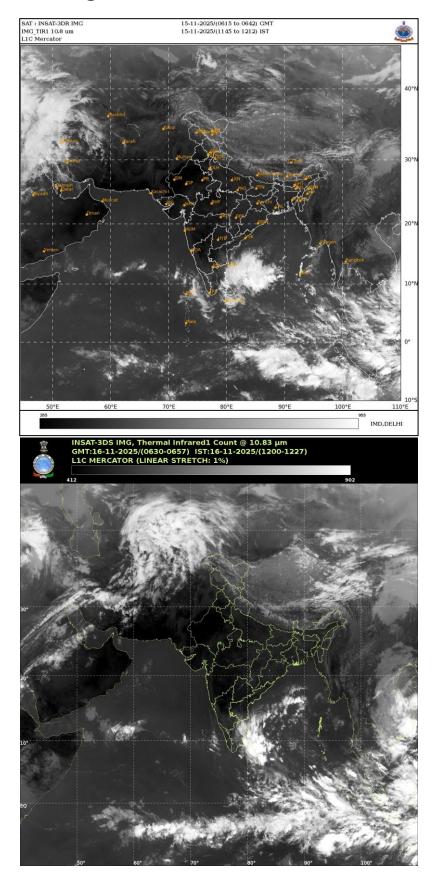
24	24-48	48-72	72-96	96-120	120-144	144-168
HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS
NIL	NIL	NIL	NIL	NIL	NIL	NIL

<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.

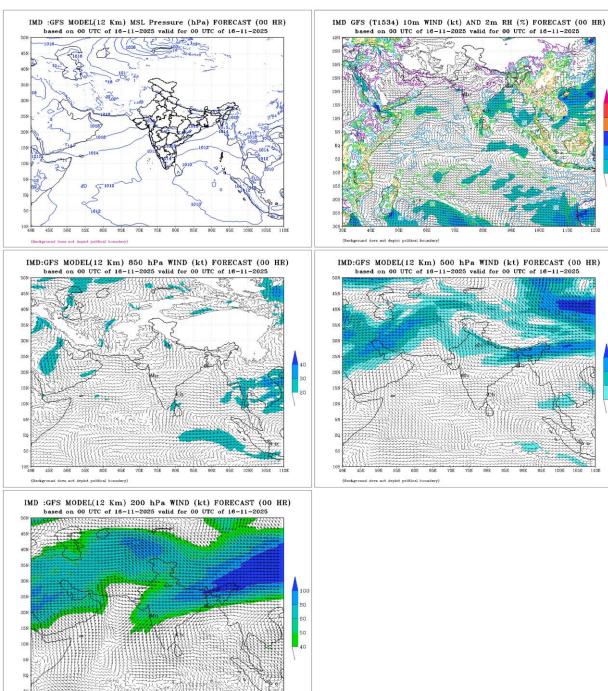
**Intense Observation Period (IOP):** Sri Lanka, Tamil Nadu for 15<sup>th</sup>; Sri Lanka, Tamil Nadu & south Andhra Pradesh for 16<sup>th</sup> November.

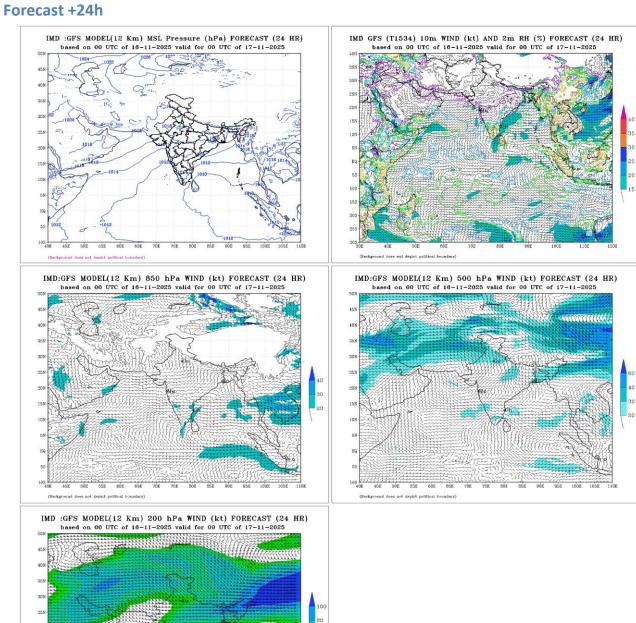
## INSAT 3DS imageries at 0600 UTC of 15<sup>th</sup> & 16<sup>th</sup> November



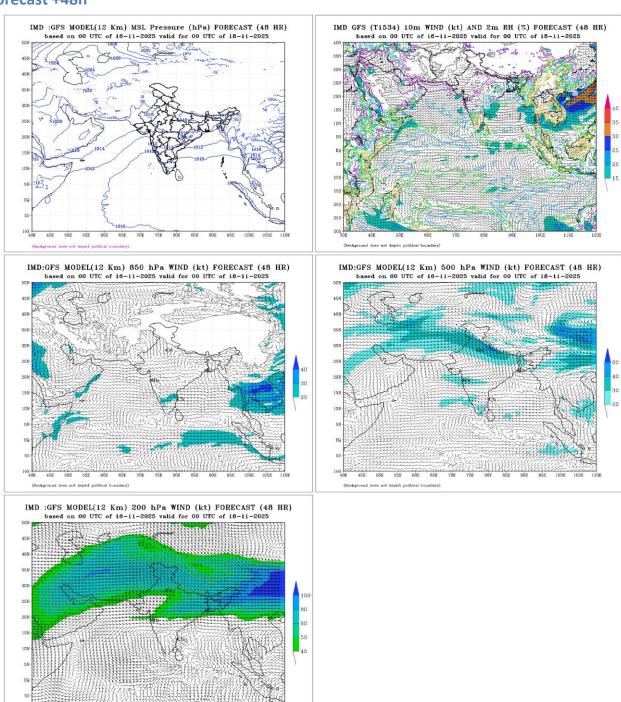
### **Annexure**

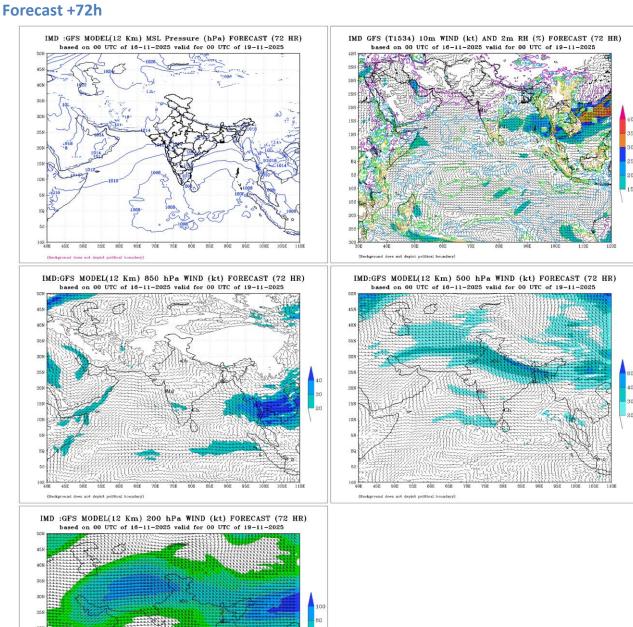
### Forecast +00h



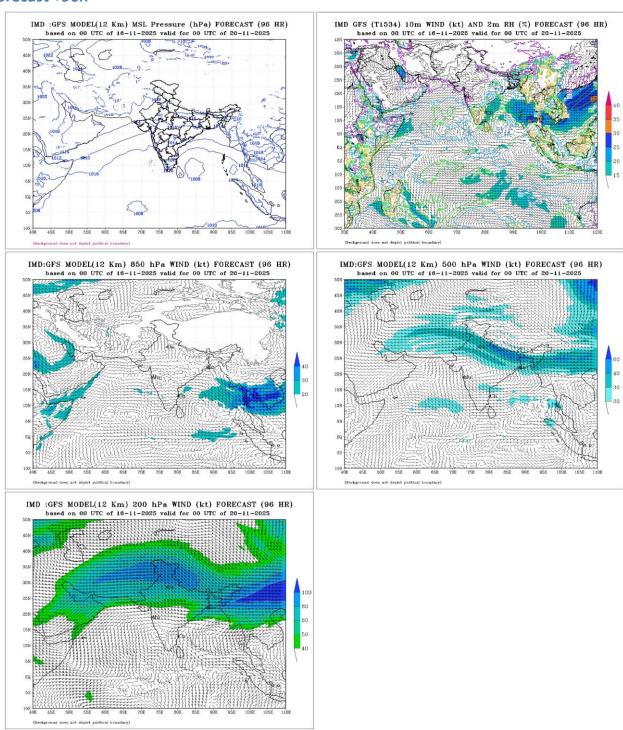


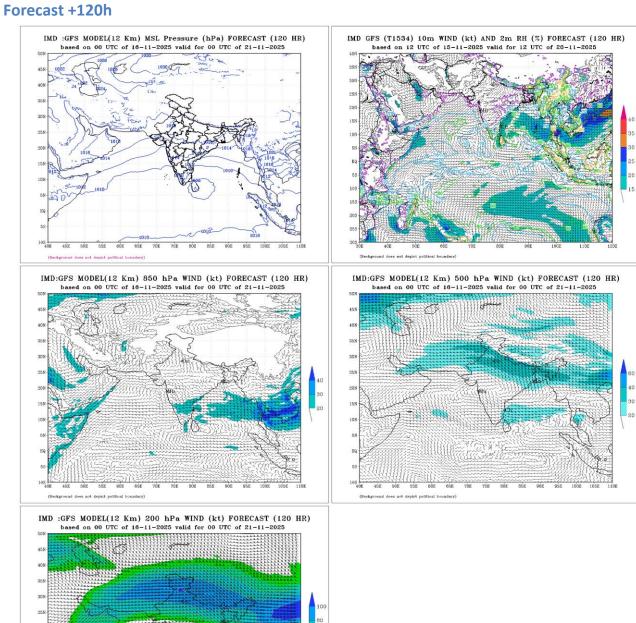
### Forecast +48h



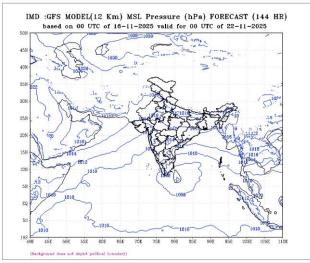


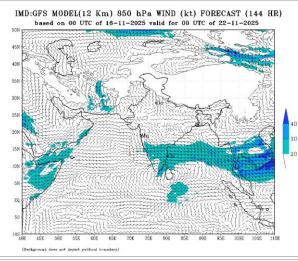
### Forecast +96h

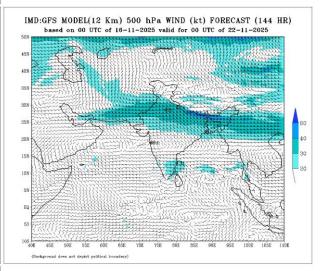


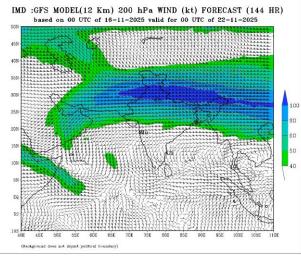


### Forecast +144h









### Forecast +168h

