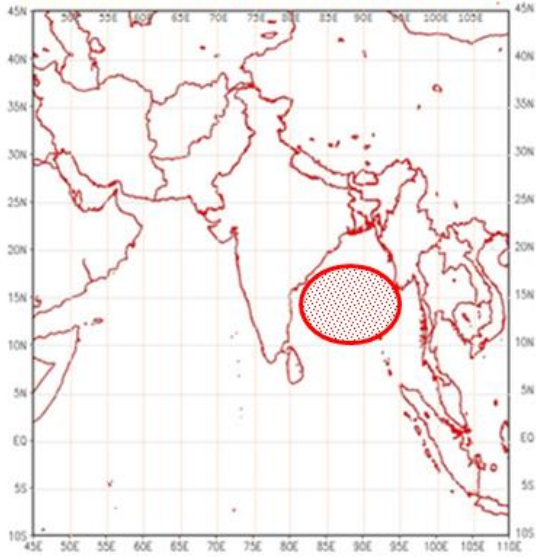
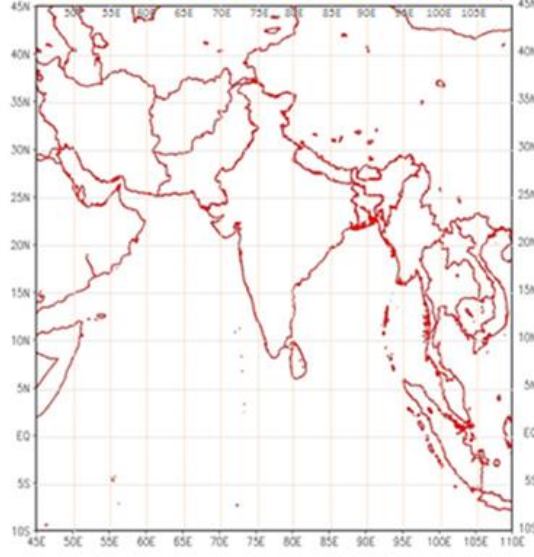


NORTH INDIAN OCEAN EXTENDED RANGE OUTLOOK FOR CYCLOGENESIS

WEEK 1: 19.10.2018-25.10.2018



WEEK 2: 26.10.2018-01.11.2018



**PROBABILITY OF CYCLOGENESIS
(FORMATION OF DEPRESSION OR HIGHER INTENSITY)**

- LOW** (1-33% PROBABILITY)
- MODERATE** (34-67% PROBABILITY)
- HIGH** (68-100% PROBABILITY)

CONFIDENCE



The Madden Julian Oscillation (MJO) index is currently in phase 2 with amplitude less than 1. It will continue in same phase for one day with amplitude less than 1. It will then remain in phase 1 for next two to three days and in phase 8 thereafter. Amplitude will be greater than 1 in phase 8. Thus MJO will not be favourable for cyclogenesis over the North Indian Ocean during next two weeks.

Majority of numerical models including ECMWF, NCMRWF Unified Model (NCUM), NCMRWF Ensemble Prediction System (NEPS), IMD Global Forecast System (GFS), NCEP GFS, Global Ensemble Forecasting System (GEFS) suggest formation of a Low Pressure Area over Southeast Bay of Bengal around 23rd October. A few models like ECMWF suggest further intensification. The genesis potential parameter index based on IMD GFS Model & IITM CFS Model do not indicate cyclogenesis over Bay of Bengal and Arabian Sea during next two weeks.

Considering all the above there is low probability of cyclogenesis over the Bay of Bengal during week 1 and no probability during week 2. No cyclogenesis is likely during week-1 and week-2 over the Arabian Sea.

Verification of forecast issued during last two weeks:

The forecast issued on 4th October for week 2 (12-18th October) for Arabian Sea predicted that the system would cross Oman coast and weaken thereafter. There is also possibility of north-northeastward recurvature of the system from coastal Oman to Iran and Pakistan across Gulf of Oman and Makran coast. However, the VSCS Luban crossed Yemen and adjoining Oman coasts around 0600 UTC of 14th and thereafter moved northwestwards and weakened at 0300 UTC of 15th over Yemen and adjoining Saudi Arabia. Thus, movement towards Oman-Yemen coast was predicted correctly two weeks in advance. However, recurvature as predicted was not realised. For Bay of Bengal System, it was predicted that the system would cross Odisha coast as a deep depression/cyclonic storm around 12th night with northeastward recurvature thereafter. The VSCS Titli crossed Andhra Pradesh and adjoining Odisha coasts in the early hours of 11th October. Thus movement towards Odisha coast was correctly predicted alongwith its recurvature towards northeast. However landfall occurred earlier then the forecast time. Also the intensity at the time of landfall was underestimated.

The forecast issued on 11th October for week 1 (12-18th October) predicted northwestwards movement of VSCS Luban towards Saudi Arabia across Yemen and northeastward recurvature of VSCS Titli towards Bangladesh across Gangetic West Bengal and no fresh cyclogenesis in the region. All the predictions were correct. Luban weakened over Yemen and adjoining Saudi Arabia moving northwestwards on 15th and Titli weakened over Gangetic West Bengal and adjoining Bangladesh & north BoB on 13th.