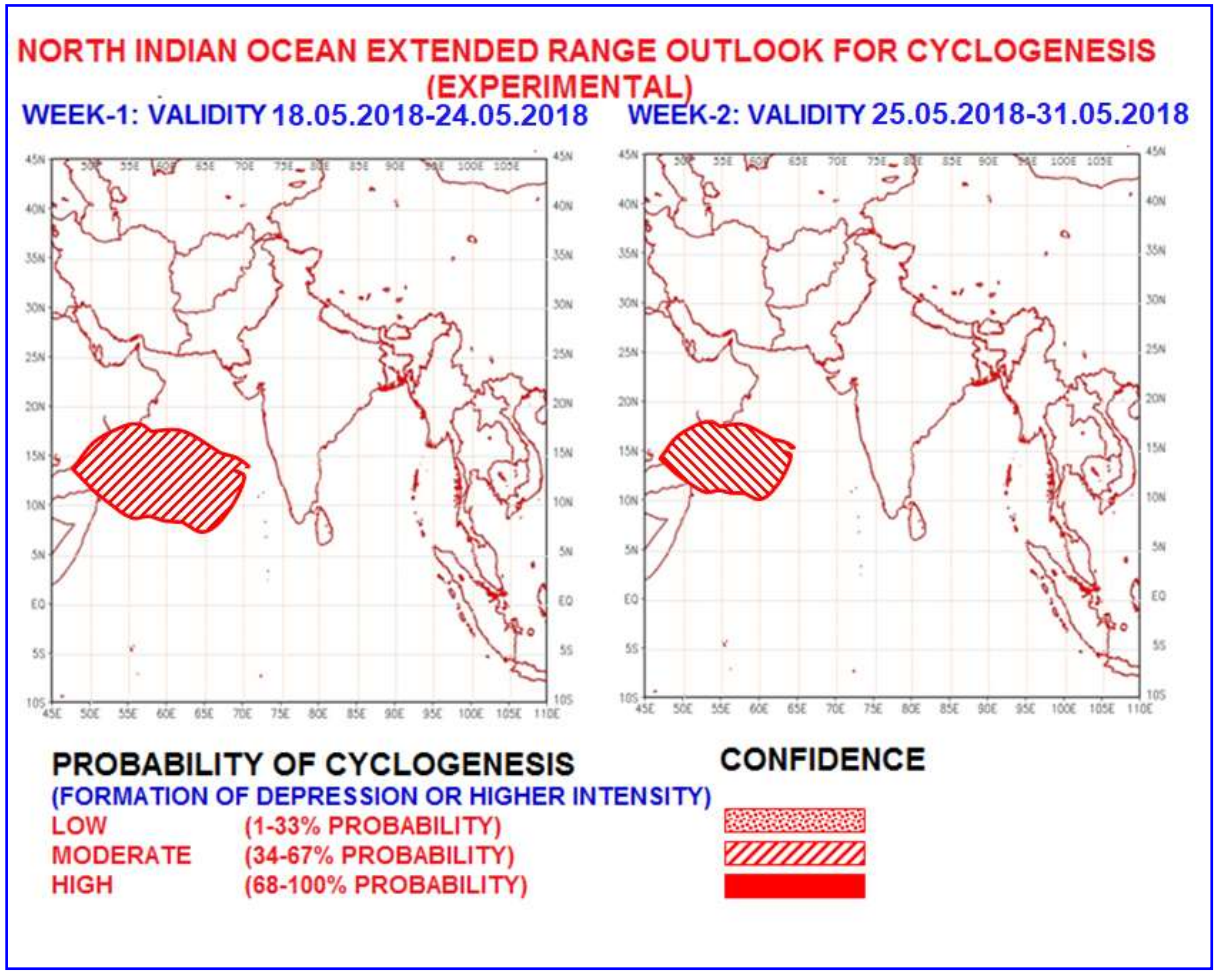
Issued on 17.05.2018



The Madden Julian Oscillation (MJO) is currently located in phase 1 with amplitude more than 1 on 17th May 2018. During week-1 it will move to phase 2 with amplitude more than 1. It will continue in phase 2 during week 2 with slightly decreasing amplitude but greater than 1 during first half and amplitude will become less than 1 during second half of the week. Hence, the MJO is favourable for convective activity over Arabian Sea during week 1 and first half of week 2. The convective activity over BoB region will remain suppressed. There is likelihood of persistence of neutral Indian Ocean Dipole (IOD) and weak La Nina conditions during week 1 & 2. Most of the models suggest cyclogenesis over Arabian Sea during week-1. ECMWF model suggests genesis over southeast Arabian Sea on 22nd and its gradual north-northwestward movement during next 3 days followed by west-northwestward movement from eastcentral Arabian Sea towards Oman coast. Unified Model and NCUM EPS suggest development of Depression around 23rd over central parts of south Arabian Sea and its northwestwards movement towards south Oman coast with gradual intensification. GFS model also suggests genesis over the same area with west-northwestwards movement towards Gulf of Aden and gradual intensification.

Hence there is a large scale consensus regarding genesis of depression, its intensification into a cyclonic storm and west-northwest/northwestwards movement during 22-27 May. No cyclogenesis is forecast for Bay of Bengal region. Cyclogenesis Probability based on Genesis Potential Index by IITM indicates 80-90% probability over southeast Arabian Sea during first half of week 1. However the probability decreases towards west as days progress.

The Genesis Potential Parameter (GPP) indicates development of potential cyclogenesis zone over southeast Arabian Sea on 20th with west-northwestward movement and intensification during week 1. It also suggests potential zone of cyclogenesis over southeast Bay of Bengal during 2nd half of week 1.

Considering all the above, there is High probability of cyclogeneis (formation of depression) during week 1 (22-24th May) over southeast Arabian Sea with gradual intensification into cyclonic storm and northwest/west-northwest movement towards Oman/Gulf of Aden. The area shown in week 2 is the potential area of movement of the system likely to form during week 1.

Verification of forecast issued during last two weeks:

Considering the forecast issued during previous weeks, cyclogenesis was predicted with LOW probability over south and adjoining central Arabian Sea towards end of week 1 (11-17May) based on the forecast issued on 10th May and probability NIL in week 2 (11-17 May) based on the forecast issued on 3rd May 2018. Cyclogenesis occurred over Gulf of Aden with formation of depression on 16th May. Hence cyclogenesis could be predicted 1 week in advance.

Next update: 24.05.2018