



The Index of Madden Julian Oscillation (MJO) currently lies in Phase 4 with amplitude close to 1. It is likely to move into Phase 5 with amplitude slightly greater than 1 from the beginning of Week 1, propagate further eastwards and enter Phase 6 with gradual reduction in amplitude during the later half of week 2. Hence the phase of MJO is likely to favour enhancement of convective activity over the north Indian Ocean (NIO) during Week 1 & also in major part of Week 2.

The southwest monsoon had revived over the NIO since the beginning of last week. Active convection and strong winds (20-25 knots) prevailed over major parts of the region in association with the monsoon revival and formation of 2 low pressure areas at both ends of the seasonal trough.

Most of the numerical models including IMD GFS, NCEP GFS, GEFS, NCUM, ECMWF & NEPS are indicating formation of a low pressure area over northwest & adjoining west-central Bay of Bengal (BoB) towards the end of Week 1. However, only ECMWF-EPS and NCEP GFS are indicating it's intensification into depression at the beginning of Week 2. The genesis potential parameter (GPP) based on MME (CFSV2) is not indicating any potential zone for cyclogenesis, other than a 30-40 % probability over northeast Arabian Sea off south Gujarat coast during Week 1.

**Considering all the above, it may be concluded that no cyclogenesis is likely over the north Indian Ocean during the forecast period. However, a low pressure area is likely to form over northwest & adjoining west-central BoB off south Odisha coast towards the end of Week 1.**

**Verification of forecast issued during last two weeks:**

The forecast issued on 1<sup>st</sup> July for week 2 (09.07.2021- 15.07.2021) and the forecast issued on 8<sup>th</sup> July for week 1(09.07.2021- 15.07.2021) indicated no cyclogenesis over the north Indian Ocean during the period. But it mentioned about the likely formation of a low pressure area over west-central & adjoining northwest BoB during the middle of week 1 in both the forecast Bulletins and a low pressure area formed over west-central BoB on 11<sup>th</sup> July. Hence, no cyclogenesis (formation of depression) as well as the formation of a Low pressure area during the period could be correctly predicted 2 weeks in advance.