



The Index of Madden Julian Oscillation (MJO) currently lies in Phase 5 with amplitude more than 1. It is likely to move into Phase 6 with gradual reduction in amplitude during next 5 days. Thereafter, it will propagate further eastwards into Phase 8 across Phases 6 and 7 with amplitude remaining less than 1. Hence the Phase of MJO will support enhancement of convective activity over the north Indian Ocean (NIO) only during week 1.

A low pressure area formed over northwest Bay of Bengal (BoB) and neighbourhood on 22nd morning (0000 UTC). Southwest monsoon remained active over the Arabian Sea (AS) during past week and over the Bay of Bengal (BoB) during the past couple of days. The forecast wind & pressure pattern from numerical models suggest a likely continuation of the active monsoon conditions over both AS & BoB during week 1, followed by a gradual weakening during week 2.

Most of the numerical models including IMD GFS, NCEP GFS, GEFS, NCUM, ECMWF & NEPS are indicating development of a low pressure area over north BoB and neighbourhood during the end of week 1 and beginning of week 2. The models are not indicating further intensification of the system. Hence no cyclogenesis is expected over the north Indian Ocean during the forecast period. The cyclogenesis and evolution probability based on MME (CFSV2) is not indicating any potential zone for cyclogenesis, over the entire NIO during the forecast period.

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 very likely to develop over north BoB and neighbourhood during the end of week 1 and beginning of week 2.

Verification of forecast issued during last two weeks:

The forecast issued on 8th July for week 2 (16.07.2021- 22.07.2021) and the forecast issued on 15th July for week 1(16.07.2021- 22.07.2021) indicated no cyclogenesis over the north Indian Ocean during the period. The outlook issued on 15th July also forecast the likely formation of a low pressure area over northwest & adjoining westcentral BoB during the end of week 1 (16-22 July). A low pressure area formed over northwest Bay of Bengal and neighbourhood at 0000 UTC of 22nd July. Hence, no cyclogenesis (formation of depression) could be predicted correctly two weeks in advance. And the formation of a Low pressure area could be correctly predicted 1 week in advance.