



The Madden Julian Oscillation (MJO) index currently lies in Phase 7 with amplitude close to 1. It is likely to continue in same phase during next 2 weeks. Thus, MJO phase is not conducive for enhancement of convective activity and hence cyclogenesis over the Bay of Bengal (BoB) and the Arabian Sea (AS) during the entire forecast period. Based on CFS forecast, over the BoB, large scale waves like Equatorial Rossby (ERW) Waves, Kelvin waves (KW) and MJO are unfavourable alongwith absence of westerly winds during next 2 weeks. However, the easterly winds show strengthening from week 1 to week 2 over southeast BoB and adjoining eastcentral BoB and Andaman Sea. Considering the AS region, strong westerlies (3-5 mps) embedded with ERW are likely to prevail over eastern part of Western Equatorial Indian Ocean (EIO) to the south of India & Sri Lanka latitude during 1st half of week 1. During later part of week 1, similar conditions are likely to prevail over the same region with strengthening of westerlies (5-7 mps). Therefore, though unlikely to lead to cyclogenesis, possible development of a low pressure area/cyclonic circulation over the region during 2nd half of week 1 needs to be watched.

The forecast fields of various numerical models including IMD GFS, IMD GPP, NCEP GFS, GEFS, NCUM, NEPS, ECMWF, ECMWF ensemble and CFSV₂, are not indicating any cyclogenesis over the north Indian Ocean including the BoB and the AS during next two weeks. However, IMD GFS and NCEP GFS are also indicating development of a cyclonic circulation over EIO to the south of India & Sri Lanka during 2nd half of week 1.

In view of the above broad scale features and model guidance, no cyclogenesis is likely over the north Indian Ocean during the ensuing 2 weeks. However, possible genesis of a low pressure area/cyclonic circulation over the Western Equatorial Indian Ocean to the south of India & Sri Lanka latitude during 2nd half of week 1 needs to be watched.

Verification of forecast issued during last two weeks:

The forecast issued on 16th December for week 2 (24.12.2021-30.12.2021) and 23rd December for week 1 (24.12.2021-30.12.2021) indicated no cyclogenesis over the region during the forecast period. Hence non-occurrence of cyclogenesis was correctly captured in the two weeks forecast.