



The Index of Madden Julian Oscillation (MJO) currently lies in Phase 3 with amplitude less than 1. It is likely to meander in Phase 3 with amplitude <1 during week 1. It could start its eastward propagation with gradual increase in amplitude from the beginning of week 2 and enter in Phase 4 towards the end of week 2. Hence the phase of MJO would favor the convective activity and hence the formation of low pressure systems over North Indian Ocean (NIO) during weeks 1 & 2.

Most of the numerical models including IMD GFS, GEFS, NCUM, NEPS, NCEP-GFS and MME (CFSV₂) are not indicating any cyclogenesis over NIO during their respective forecast periods. However, majority of them like IMD GFS, GEFS, NCUM, NEPS & ECMWF are indicating development of a low pressure area over north & adjoining central Bay of Bengal (BoB) around 06th September while ECMWF EPS is indicating likely formation of a Depression over west-central BoB around 06th September with 'High' probability ($>60\%$). Further, the models like ECMWF, NCEP-GFS & NCUM are also indicating the formation of another Low pressure area over central & adjoining north BoB around 11th September. There is wide variation in location predicted by individual models in the case of both the Low pressure systems mentioned above. However, there is concurrence in the period of formation and their movement towards north Andhra Pradesh – south Odisha coasts. Also majority of the models indicate the likelihood of the Low pressure area expected around 06th September to become a Well Marked Low before moving inland.

Considering all the above, it may be concluded that there is a 'low' probability of the Low pressure area which is likely to form around 6th September to concentrate into a Depression over northwest & adjoining west-central BoB during the subsequent 24 hours. Formation of another Low pressure area in quick succession over central parts of the BoB is also likely during the first half of Week 2.

Verification of forecast issued during last two weeks:

The forecast issued on 19th August for week 2 (27.08.2021- 02.09.2021) and the forecast issued on 26th August for week 1(27.08.2021- 02.09.2021) indicated no cyclogenesis over the north Indian Ocean. Also in both the forecasts, a Low Pressure Area formation was predicted over northwest & adjoining west-central BoB during the first half of Week 1. A low pressure area was formed over northwest adjoining westcentral Bay of Bengal off north Andhra Pradesh - south Odisha coasts at 0000 UTC of 28th August. Hence no cyclogenesis could be predicted correctly two weeks in advance as well as the likely formation of the Low pressure area could be predicted one week ahead.