India Meteorological Department
Ministry of Earth Sciences
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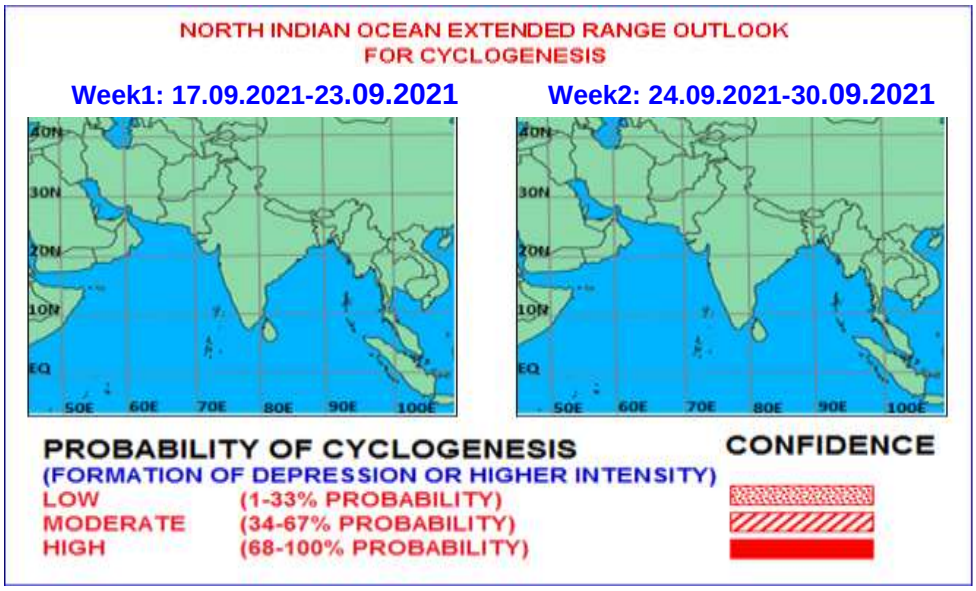

The Index of Madden Julian Oscillation (MJO) currently lies in Phase 3 with amplitude more than 1. It is likely to continue in same phase with amplitude gradually decreasing but remaining more than 1 during first half of week 1 and becoming less than 1 during later part of week 1. Thereafter, it will enter in phase 4 with amplitude becoming less than 1 during week 2. The MJO will thus support enhancement of convective activity over the north Indian Ocean during weeks 1 & 2.

Most of the numerical models including IMD GFS, NCEP-GFS, GEFS, NCUM, NEPS, ECMWF and MME ($CFSV_2$) are indicating likelihood of formation of a cyclonic circulation over north Bay of Bengal (BoB) during first half of week 1. It is likely to move west-northwestwards towards Odisha- West Bengal coast thereafter. Models are also indicating development of another cyclonic circulation over eastcentral BoB during later part of week 2 with west-northwestwards movement. However, none of the models is indicating any cyclogenesis over the region during the forecast period. Only the cyclogenesis potential derived from MME ($CFSV_2$), indicates about 40-50 % probability of cyclogensis over eastcentral and adjoining northeast BoB off Myanmar coast during 16th – 18th Sept. and about 30-40 % probability over northwest BoB during 28th – 30th September.

Considering the ongoing active phase of southwest monsoon, the extension of seasonal mean sea level trough upto west Pacific and the model guidance, it may be inferred that there would be formation of cyclonic circulations over the north Indian Ocean at regular intervels. As on today, a cyclonic circulation has formed over eastcentral BoB and adjoining Myanmar coast. It is likely to move towards northwest BoB off Odisha – West Bengal coasts during the first half of week 1 with subsequent west-northwestward movement across east & central India. There is also likelihood of development of another cyclonic circulation over east-central BoB during the beginning of week 2 with a near similar pattern of movement as the first one. However, the probability of cyclogenesis is NIL over the region during the forecast period.

Verification of forecast issued during last two weeks:

The forecast issued on 2nd September for week 2 (10.09.2021- 16.09.2021) indicated formation of low pressure area over central parts of the BoB during the first half of the week. The forecast issued on 9th September for week 1(10.09.2021- 16.09.2021) indicated high probability of the formation of a low pressure area over North & adjoining Central BoB around 11th September with moderate probability of cyclogenesis (formation of depression) around 13th September. A low pressure area formed over eastcentral and adjoining northeast BoB on 11th September, 2021. It concentrated into a depression over northwest BoB and adjoining Odisha coast at on 12th September. It moved west-northwestwards and weakened into a well marked low pressure area over northeast Madhya Pradesh & neighbourhood on 15th September, 2021. Hence, formation of low pressure area could be predicted correctly two weeks (9 days) in advance and cyclogenesis could be predicted correctly one week (3 days) in advance in the extended range outlook bulletin.

Next update: 23.09.2021