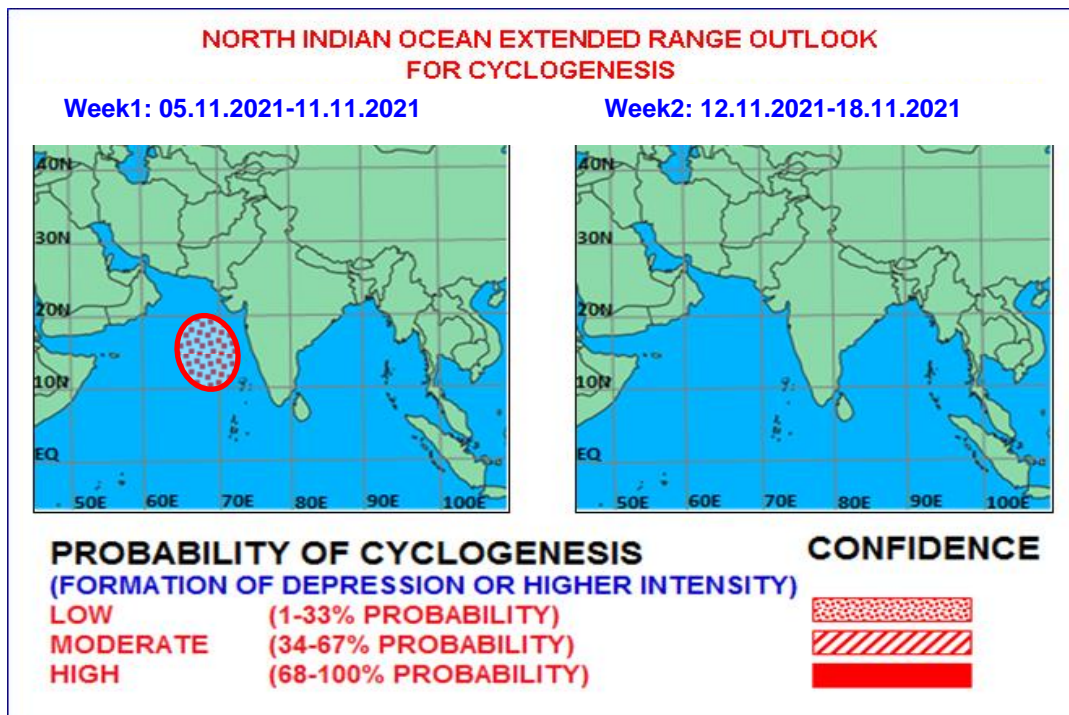




Issued on 04.11.2021



The Madden Julian Oscillation (MJO) index currently lies in Phase 3 with amplitude less than 1. It is likely to propagate further eastwards, enter Phase 4 by 5<sup>th</sup> November. It will continue in same phase for subsequent 4 days. Thereafter, it will move further eastwards and enter phase 5 with amplitude less than 1 towards the end of week 1. It will remain in phase 5 during most part of week 2. Thus, MJO phase is conducive for enhancement of convective activity and hence cyclogenesis over the north Indian Ocean during major part of the forecast period.

The low pressure area that developed over central Bay of Bengal (BoB) on 27<sup>th</sup> October moved westwards and lay over Southeast Arabian Sea (AS) & adjoining Lakshadweep area as on 4<sup>th</sup> November.

Most of the numerical models including IMD GFS, GEFS and ECMWF are not indicating any cyclogenesis over the North Indian Ocean (NIO) during their respective forecast periods. However, NCUM and its ensemble (NEPS) are showing likely formation of a Depression over east-central AS, out of the present Low Pressure Area mentioned above around 7<sup>th</sup> November, its further intensification into a Cyclonic Storm during the subsequent 48 hours, initial west-northwestward movement towards Oman coast (10<sup>th</sup> – 12<sup>th</sup> November) followed by northeastward re-curved towards Makran coast & weakening during 13<sup>th</sup> – 14<sup>th</sup> November. IMD GPP index is also indicating a significant zone for cyclogenesis over east-central AS, mainly on 6<sup>th</sup> & 7<sup>th</sup> November over east-central AS. NCEP GFS is indicating likely formation of a Depression over southwest BoB and adjoining north Sri Lanka around 11<sup>th</sup> November, its further intensification and movement towards north Tamil Nadu coast during the subsequent 24 hours, followed by weakening.

In view of the above, a 'Low' probability for cyclogenesis is assigned over the east-central Arabian Sea during Week-1. The indication is that the present Low Pressure Area located over southeast Arabian Sea & adjoining Lakshadweep area is likely to move north-northwestwards and become more marked over east-central AS during next 48 hours. The chances of its further intensification into a Depression during the subsequent period is demarcated with 'Low' probability. Also another Low Pressure area is likely to form over southeast BoB and move west-northwestwards with marginal intensification during 9<sup>th</sup> – 12<sup>th</sup> November 2021.

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

The forecast issued on 21<sup>st</sup> October for week 2 (29.10.2021-04.11.2021) indicated no cyclogenesis during the week 2. The forecast issued on 28<sup>th</sup> October for week 1 (29.10.2021-04.11.2021) indicated that the low pressure area over southwest BoB off Sri Lanka coast would move westwards for next 3-4 days across Gulf of Mannar & Comorin area and emerge into southeast AS around 2<sup>nd</sup> November. A low pressure area formed over central Bay of Bengal on 27<sup>th</sup> October, moved westwards across Gulf of Mannar & Comorin area and emerged into southeast AS on 1<sup>st</sup> November.

On 3<sup>rd</sup> November, it lay over southeast AS and adjoining Lakshadweep area. Thus, the likely emergence of low pressure area into southeast AS was correctly picked one week in advance.

**Next update: 11.11.2021**