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A study of 200 mb anticyclonic circulation centres over the Indian Ocean region*

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ABSTRACT

Synoptic and dynamic aspects of anticyclonic circulation centres at 200 mb over the Indian Ocean region were investigated for the summer of 1972 when the monsoon circulation was delayed and much weaker than normal. The study was based on daily wind field analyses of data obtained from conventional rawinsonde and aircraft observations. Vorticity and divergence values around the upper tropospheric anticyclones were computed in areas where the number of data were sufficiently dense. Comparisons of computational results were made with the distribution of convective clouds obtained from satellite brightness maps. Case studies for selected days as well composite averages were prepared for circulation centres of various synoptic scale sizes. Also, the origin of unstable waves in the upper tropospheric easterlies along the equatorward side of the Tibetan anticyclone was investigated.

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