

熱帯成層圏界面領域におけるハドレー型子午面循環と半年周期振動

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Stratopause Hadley circulation and semiannual oscillation around the tropical stratopause

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Stratopause Hadley circulation (S-Hadley) is a thermally-driven Hadley-type circulation in the tropical upper stratosphere and lower mesosphere. Its driver is meridional gradient of ozone heating in the solstitial seasons. It is well known that S-Hadley is closely related to stratopause semiannual oscillation (SAO) around the tropical stratopause through the absolute angular momentum transport. Their relationship has been studied in 2D General Circulation Model and using satellite observations. Recently several kinds of meteorological reanalysis data have been available for climate and atmospheric science studies. In this study, we investigate the relationship between S-Hadley and SAO using the latest reanalysis datasets. This study is performed as a part of the SPARC Reanalysis Intercomparison Project (S-RIP), which is a coordinated activity to compare all reanalysis datasets.