



QBO and SAO effects in gravity wave activity derived from SABER temperatures

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The SABER temperature data set now continuously covers a time period of more than four years. Temperature data are available from the tropopause to the lower thermosphere. This makes SABER temperatures well suited for an investigation of quasi-biennial oscillation (QBO) and semiannual oscillation (SAO) effects in stratospheric and mesospheric waves. Gravity wave activity derived from SABER residual temperatures is analyzed over the whole period of available SABER data with special focus on variations related to the QBO and SAO. Variations of gravity wave activity related to the QBO are found in the tropics as well as in the extratropics. In the tropics the results obtained for the SABER gravity wave activity are compared to gravity wave activity variations seen in temperatures from the GPS radio occultation instrument CHAMP.