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PEM32-14 Room:201A Time:May 23 14:30-14:45

Study of the lower thermospheric wind in the polar cap using EISCAT data obtained in 2 solar cycles

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We will report results of the lower Thermospheric wind in the polar region by using EISCAT data. We have analyzed wind data obtained for 25 years from November 1986 to February 2012 by the EISCAT UHF radar at Tromsoe (69.6 deg N, 19.2 deg E) and for about 13 years from July 1998 to February 2012 by the EISCAT Svalbard radar (ESR) at Longyearbyen (78.2 deg N, 16.0 deg E). The data of about 300 days are analyzed, and mean winds and tides were derived. We also derived quasi-two day wave (Q2DW) for consecutive datasets (at least 8 days long). By using the data sets, we investigated the lower Thermospheric wind dynamics in the polar region. In particular, special attentions are paid to seasonal variation, solar activity dependence, geomagnetic activity dependence, and latitudinal difference of those between Tromsoe and Longyearbyen.

Keywords: EISCAT radar, tidal wave, quasi two wave, latitudinal variation