Solar activity dependence of the lower thermospheric wind based on EISCAT data

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The EISCAT UHF radar has been in operation for two decades in northern Scandinavia, and has provided us with important physical parameters in the polar ionosphere. By using an updated EISCAT database we have examined solar activity dependence of the lower thermospheric wind. We base our analysis on data obtained by two different observational modes: i.e., CP1 and CP2. In the CP-1 mode the line of sight of the combined transmitter and receiver antenna is fixed along the magnetic field line, while in the CP-2 mode the line of sight of the antenna is pointed into four consecutive positions with a dwell time of about 1 min in each position, resulting in a full cycle time of the antenna of 6 min. We will report how the lower thermospheric wind varies in both season and solar activity.