

## The Temperature of the upper thermosphere at the King Sejong station in the Antarctic

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We measured the terrestrial night airglow of OI 6300Å in the upper thermosphere using a ground-based Fabry-Perot interferometer at the King Sejong station, Antarctic from March through September, 1997. The observing site is located in a high latitude geographically(62.22° S, 301.25° E) but in a mid-latitude geomagnetically(50.65° S, 7.51° E). It is therefore subject to an unusual combination of solar and geomagnetic activity. Nighttime thermospheric temperatures are determined by a computation of the Doppler broadening of the atomic oxygen emission (6300Å) emitted in the narrow region near the F2-layer, ~250 km. The thermosphere is generally under the influence of solar EUV and UV radiation and geomagnetic disturbance. We analyzed the observed temperatures in relation to F10.7 and Kp indices to examine the influence of the solar and the geomagnetic activity on the high-latitude thermosphere. The VSH(Vector Spherical Harmonics) and MSIS (Mass-Spectrometer-Incoherent-Scatter)-86 models are used for the comparison with our measurements.