

Long-term observation of neutral wind and temperature in the midlatitude thermosphere using an imaging Fabry-Perot interferometer.

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We are developing ground-based optical instruments to study physical process of gravity waves in the mesosphere and the thermosphere. The instruments are set at the Shigaraki MU observatory (34.9N, 136.1E) Kyoto University, Japan. The imaging Fabry-Perot interferometer (FPI), one of our system, measures neutral wind and temperature through the airglow emission at wavelengths of 630.0 nm (altitude:200-300km) and 557.7 nm (96km). The FPI has been operated automatically since June 1999 at the Shigaraki observatory, Japan.

In this presentation we analyze 630.0 nm datasets of the FPI for a period from June 1999 to May 2000, and discuss seasonal variation of the wind and temperature in the mid-latitude thermosphere.

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