

Long-term variation of geomagnetic Sq field and its cause

*Masahiko Takeda¹

1. Data Analysis Center for Geomagnetism and Space Magnetism, Graduate School of Science, Kyoto University

Long-term variation of geomagnetic Sq field was used to study that of neutral pressure difference of the thermosphere (PD), considering high correlation between Ampere force by geomagnetic Sq currents and PD. It was shown that long term variation of PD can be explained almost only solar activity variation. Other factors such as electric conductivity and geomagnetic main field will be considered in the presentation.

Keywords: geomagnetic daily variation, long term variation, solar activity, pressure difference in the thermosphere, electric conductivity, geomagnetic main field strength