



Coupling between the neutral upper atmosphere, ionosphere and inner magnetosphere

P. Bencze (1), E. Illés-Almár (2), J. Verő (1)

(1) Geodetic and Geophysical Research Institute, Hungarian Academy of Sciences, Hungary
(bencze@ggki.hu / Phone: +36-99-508 376)

(2) Konkoly Observatory, Hungarian Academy of Sciences, Hungary (illés@konkoly.hu /
Phone: +36-1-3974 908)

It has been found that the neutral density in the thermosphere of the Northern Hemisphere is larger than that in the Southern Hemisphere. The so called December anomaly in the F region of the ionosphere means larger electron density in the winter months and similar winter anomaly is indicated by the FLR type (Pc 3, 4) geomagnetic pulsations. As the characteristics of these pulsations depend on plasmaspheric electron density, furthermore, electron density is function of the neutral upper atmosphere (composition, temperature), a common coupling process between these regions of the Earth's outer regions is studied. Results of these investigations are presented.