Wave properties of Pc 3 and Pc 5 ULF signals observed by GEOTAIL near the dayside magneopause

Tohru Sakurai [1], Takuya Kitagawa [2], Yutaka Tonegawa [3], Toshifumi Mukai [4], Susumu Kokubun [5], Koichiro Tsuruda [4]

[1] Dept. of Aero- and Astronautics, School of Engineering, Tokai Univ., [2] Aeronautics and Astronautics,Tokai Univ, [3] Dep. Aero. & Astro., Tokai Univ., [4] ISAS, [5] STEL, Nagoya Univ.

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The results are summarized as follows; 1) Pc 3 signals were mainly observed with focusing to near noon, but with an extent of about 4 hours in both sides of local time in the pre-and post-noon hour. 2) The Pc 3 signals were frequently observed as a signal with the magnetic field more than with the electric field, suggesting that Pc 3 signals observed were mainly as a higher harmonic signal. While, Pc 5 signals were observed near both flanks, and there was a clear asymmetry in wave property, i.e., pure transverse electric field oscillations in the morning side flank and compressional magnetic field oscillations in the evening side flank, suggesting that a background plasma property in both flanks might be different, which controls each Pc 5 generation.