

HF Waves signatures in the topside main ionospheric trough in vicinity of terminator.

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The HF waves measurements within frequency band 0.1-10 MHz performed on the board of APEX satellite in the topside ionosphere were used to study waves activity in main ionospheric trough region. It has been showed that in the vicinity of terminator we can detect the significant changes in the level of electrostatical noises as well as fluctuation of local plasma frequency and upper hybrid plasma frequency. It is discuss the physical mechanism of heating the ionospheric plasma inside main ionospheric trough. Furthermore is has been showed that gravity and term instability related to terminator position can drive the electromagnetic whistler waves in ionospheric trough at the topside ionosphere.