

## The Daytime and Nighttime Mapped Whistler Plasmapause Observed by DEMETER

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This paper investigates the plasmapause positions in the ionosphere by measurement of the whistler count probed by DEMETER (Detection of Electro-Magnetic Emissions Transmitted from Earthquake Regions) satellite in the daytime at 1030 LT (local time) and the nighttime at 2230 LT during 2005-2010. The whistler finds the plasmapause position which can be clearly allocated in both daytime and nighttime. We examine the nighttime/daytime plasmapause in various longitudes, solar activities, seasons, and geomagnetic actives. Results show that the daytime plasmapause appears in the equatorward side of the nighttime one. Both the daytime and nighttime plasmapause are sensitive to solar activity, which move equatorward from the low to high solar activity in the study period. The seasonal variation of the plasmapause are rather random and insignificant. During magnetic disturbed condition, the plasmapause tend to move equatorward.

Keywords: Plasmapause position, Whistler, DEMETER satellite