Solar-Wind Control of Intense ELF/VLF Chorus

**ELF/VLF** chorus is by far the most intense plasma wave that permeates the magnetospheric regions between the plasmapause and the magnetopause and has long been believed to be the driver of intense particle precipitation in these regions, including pulsating aurora and the morningside discrete aurora.

- Simultaneous observations of the effect on four AGO sites indicates that the solar wind control takes place in a wide region.

- Simultaneous turn-off of riometer absorption confirms that much of the precipitation in this region is indeed driven by chorus.

**Conclusion:** This finding is crucially important in understanding the generation mechanisms of this most intense plasma wave form, which is now also known to occur on other magnetized planets, such as Jupiter, Saturn, Uranus and Neptune.

*The WIND Satellite*

- The new AGO result indicates that chorus wave emission is controlled (literally turned ON/OFF) by the dynamic pressure exerted on the magnetospheric boundary by the solar wind.