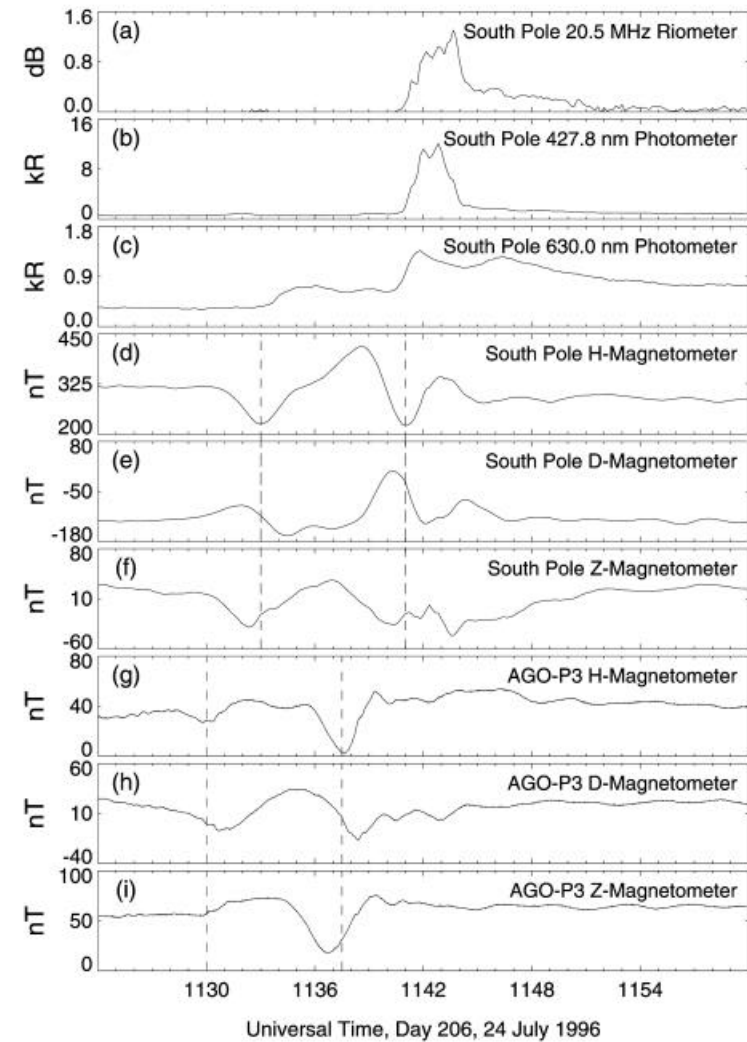
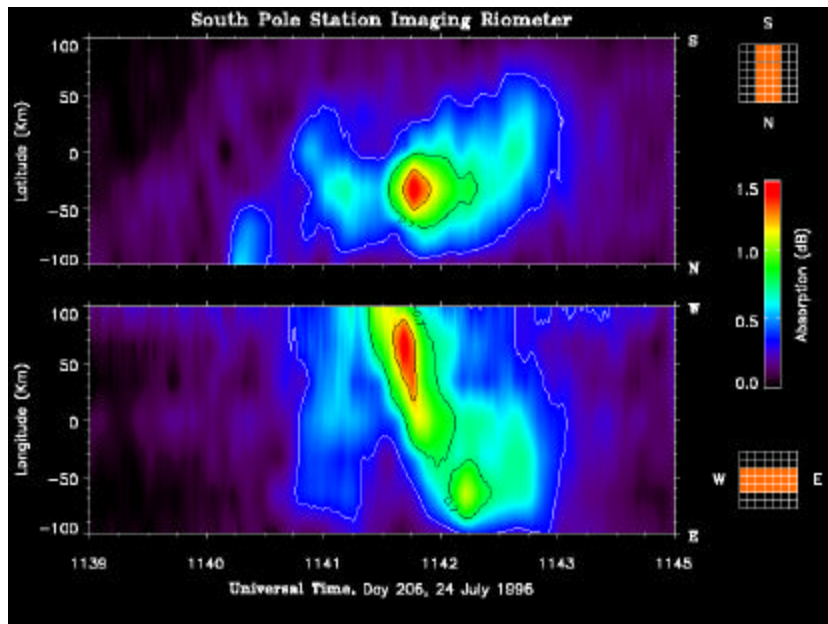




## Ionospheric Vortices Induced by Magnetopause Deformation



On July 24, 1996, the spacecraft INTERBALL-1 was witness to a large deformation of the dayside magnetopause. Previous work has suggested that the deformation was due to some hot flow anomaly in the solar wind. Using data from several Antarctic stations (AGO-P3 and South Pole), the southern hemisphere ionospheric response to the deformation was characterized. The event produced convection vortices in the southern hemisphere as well as in the northern hemisphere; however, the southern vortices moved at much slower speeds than their northern counterparts. The observed localized electron precipitation produced enhanced ionospheric conductivity in association with the traveling convection vortices. See *Geophys. Res. Lett.* Vol. 26, No. 4, p. 517.



Magnetometer data from AGO-P3 and South Pole and riometer and photometer data from Pole for the magnetic impulse/TCV event of July 24, 1996.