

## Conjugate ionospheric disturbances affected by the 23 November 2003 solar eclipse

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A total eclipse of the Sun was observed in Antarctica on 23 November 2003. This astronomical event is a unique opportunity to examine how the solar eclipse affects the ionosphere, not only in the Southern Hemisphere but also in the conjugate Northern Hemisphere. We examined magnetometer data obtained at Syowa and Dome-Fuji in Antarctica and their conjugate observatories in Iceland, Scandinavia and Greenland together with the conjugate-pair SuperDARN HF radars. The magnetometer data showed that ionospheric disturbances occurred in both hemispheres at the time of the solar eclipse.