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Two nometers operating at 20 and 30 MHz were set up at the Antarctica base camp by the National Physical Laboratory and gave continuous records for about 40 days in Jan -Feb , 1983. The quality of the records was good and several interesting events of ionospheric-magnetospheric interests were noted. The analysis work is in progress.

As expected, the events noted were more prominent in 20 MHz records than in 30 MHz because of the higher ionospheric absorption at the lower frequency.

As many of the events noted were apparently linked with magnetic activity, they are being compared with magnetograms recorded at the Antarctica station by the Indian Institute of Geomagnetism Group.

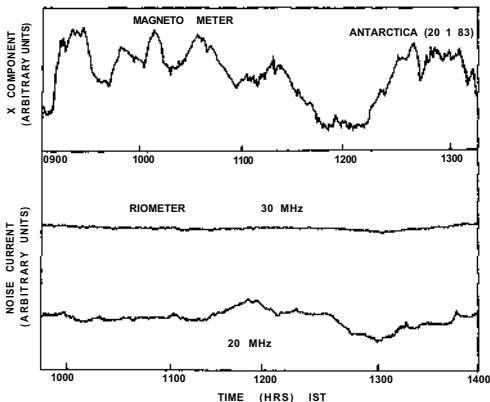


Fig 1 Magnetic field changes (X comp) and corresponding nometer records at Antarctica during magnetic sub storm (20 Jan 1983)

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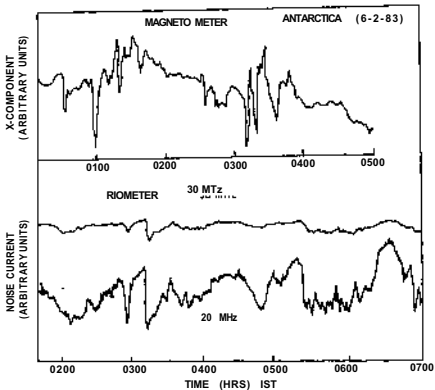


Fig. 2. Magnetic field changes (X-comp.) and corresponding riometer records at Antarctica (6 Feb, 1983) when an SC storm was in progress.

Magnetic storm changes in the magnetograms were followed by similar pattern on riometer records with time delays of about 1 hour (Fig. 1). The Indian Antarctic station being outside the auroral oval, gives interesting possibilities of interpretation of the mechanism of the delayed phenomena.

An interesting case is shown in Fig. 2 where similar patterns on magnetograms and riometer were observed for about 3 days, but with a time delay. An SC storm was in progress preceded by a 3 X-ray flare.

Detailed analysis of these phenomena are in progress and will be published in a regular journal.

The riometer records at 20 and 30 MHz were only for about 40 days and much less than required for obtaining Quiet Day sidereal time curve for computing normal diurnal absorption values. However, an attempt is being made to circumvent this from records at the two frequencies 20 and 30 MHz and assuming a frequency relation of the galactic radiation pattern.