Automatic realtime detection of global magnetic disturbances (e.g. sc/si) for the space weather forecast

Manabu Shinohara[1]; Takashi Kikuchi[1]; Kenro Nozaki[2]

[1] Communications Res. Lab.; [2] CRL

The CRL magnetometer network includes globally separated low latitude stations in Japan and Brazil. The longitudinal separation is about 180 degrees. Due to this global separation, we can identify magnetic disturbances as global or local phenomena. By using realtime data, we are trying to develop an automatic detection system of global magnetic disturbances for the space weather forecast.

As an practical example of the realtime detection system of global magnetic disturbances, we are now operating an automatic realtime detector for sc/si. When a sc/si is found, an alert message is automatically sent by e-mail. For example, two sc's were successfully identified by this system on June 18 and 20, 2003. The onset time and amplitudes of sc's were reported by e-mail soon.