
Space Weather Data Services at Sodankylä Geophysical Observatory

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Sodankylä Geophysical Observatory (SGO) is located in Finland 120 km north of the Arctic Circle. SGO, which celebrates its 100th anniversary this year, has some of the longest time series of geospace observations in existence; geomagnetic observations since 1914 and ionosoundings since 1957. For the first 48 years, SGO ionograms were stored on 35 mm film and scaled manually. Since 2005 a new digital chirp ionosonde is used but ionospheric parameters are still read manually.

As part of the ESPAS project, SGO is committed to improve the online availability of these unique datasets. ESPAS data services at SGO will to a large extent be based on the MADRIGAL database, which is the de facto standard for incoherent scatter radar data. The SGO MADRIGAL service is deployed in collaboration between SGO and the radar groups at Millstone Hill and EISCAT. In this way ESPAS benefits from developments in the incoherent scatter radar community.
