NEAR REAL-TIME GEOMAGNETIC DATA FROM AN AUSTRALIAN REGION SPACE WEATHER NETWORK: DATA ACQUISITION TO SERVICE DELIVERY

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The Australian Space Forecast Center (ASFC) at IPS Radio and Space Services, an organisation within the Australian Government, is the delivery point for space weather information and services to the Australian region and beyond. IPS operates a network of observatories (IPSNET) from Antarctica to equatorial regions that provide solar, geomagnetic, and ionospheric data in near real-time. Most products derived from geomagnetic data are automated and require relatively reliable and robust systems. This paper discusses some of the challenges of providing near real-time geomagnetic products and services and describes the systems developed at IPS to address these challenges. Aspects from data acquisition and LAN hardware at IPSNET field stations through to software operating in the ASFC for differentiating between space weather phenomena and man-made noise will be presented.

Geomagnetic, network

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