Accessing near real-time Antarctic meteorological data through an OGC Sensor Observation Service (SOS)

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We wish to highlight outputs of a project conceived from a science requirement to improve discovery and access to Antarctic meteorological data in near real-time. Given that the data was distributed in both spatial and temporal domains and is to be accessed across several science disciplines, the creation of an interoperable, OGC compliant web service was deemed the most appropriate approach.

We will demonstrate an implementation of the OGC SOS Interface Standard to discover, browse, and access Antarctic meteorological data-sets. A selection of programmatic (R, Perl) and web client interfaces utilizing open technologies (e.g. jQuery, Flot, openLayers) will be demonstrated. In addition we will show how high level abstractions can be constructed to allow the users flexible and straightforward access to SOS retrieved data.