

# REAL-TIME AND ARCHIVED ANTARCTIC METEOROLOGICAL DATA VIA A SYNERGY OF INTERACTIVE PROCESSING TOOLS

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<http://motherlode.ucar.edu/repository/entry/show/RAMADDA/Projects/Antarctic+IDD>

## 1. ABSTRACT

Over the last four years real-time numerical weather prediction, satellite and observational data have been distributed across the Antarctic Internet Data Distribution (Antarctic-IDD) system, a data-sharing network based on Unidata's Local Data Manager (LDM) software (Lazzara et al., 2006). The distribution of data through the Antarctic-IDD has proven to be a successful way to easily distribute the real-time data.

Recently, collaboration among United States Antarctic Program (USAP) and Unidata Program Center personnel has resulted in the establishment of a UCAR-based facility that provides programmatic and human-interactive access to the rich datasets available in the Antarctic-IDD. This effort employs the Unidata-developed Repository for Archiving, Managing and Accessing Diverse Data (RAMADDA), Thematic Real-time Environmental Distributed Data Services (THREDDS) Data Server (TDS) and Man computer Interactive Data Access System (McIDAS) Abstract Data Distribution Environment (ADDE) server technologies. Transparent, programmatic access to the data served by RAMADDA, THREDDS and ADDE is freely available through a variety of data analysis and visualization applications including the Unidata Integrated Data Viewer (IDV) and University of Wisconsin (UW) Space Science and Engineering Center's (SSEC) next generation McIDAS, McIDAS-V.

Users can now access, analyze, and visualize real-time Antarctic numerical model, satellite and observational data from their local machine without any additional resources than having IDV or McIDAS-V installed and an Internet network connection. Future plans include establishment of real-time and archive RAMADDA/TDS

server capability at the SSEC that will be jointly managed by the AMRC and SSEC Data Center and will provide free and open access to Antarctic meteorological datasets and information.

## 2. ACKNOWLEDGEMENTS

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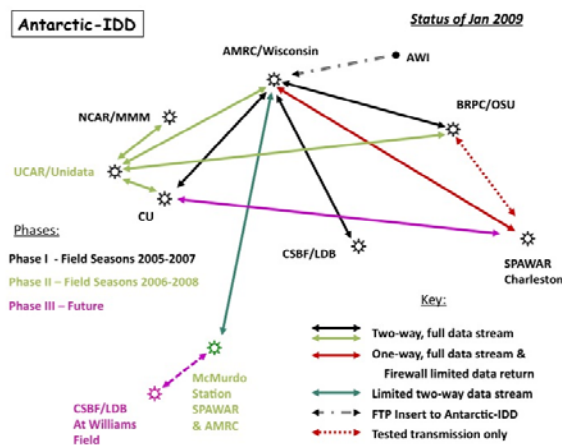


Figure 1. Status of the Antarctic-IDD as of January 2009

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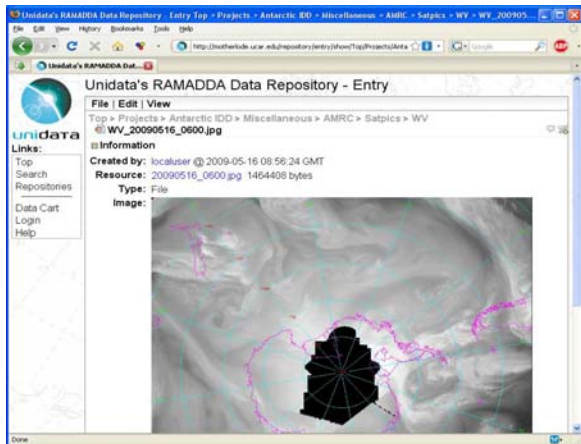


Figure 2. A sample AMRC Antarctic composite water vapor image seen via the RAMADDA Data Repository.

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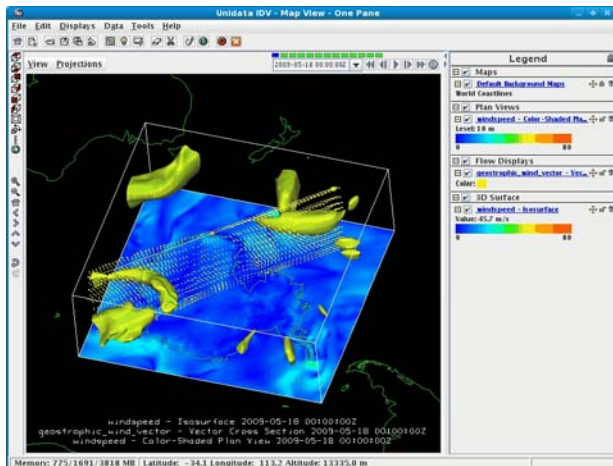


Figure 3. A display of AMPS numerical model output rendered in IDV with data severed from the Unidata RAMADDA server.

### 3. REFERENCES

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