DISCUSSION TOPIC: ANTARCTIC OBSERVATIONAL METEOROLOGICAL DATA

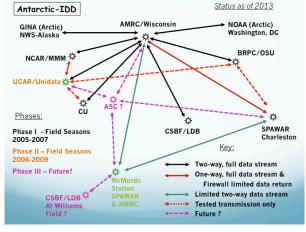Matthew A. Lazzara[*,1]
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1. OVERVIEW

Over the past decade or so, Antarctic observational meteorological data have seen some remarkable progress. There has been an increase in Antarctic observations, in quality and quantity. Improved means of sharing the observations have been employed (e.g. Antarctic-IDD, figure 1). New satellite observations are available and products, such as Atmospheric Motion Vectors (satellite winds or AMVs) from them have had application in real-time numerical models (e.g. Antarctic Mesoscale Prediction System (AMPS), figure 2).

However, there are still many challenges before the community with regard to observational meteorological data. Already in the past few years, some minor capabilities have been lost. In other respects, some observational assets have reached a limit in their design capability. Other datasets are at risk for no longer being available in the near future. While data and metadata are on a path to parody with peer-reviewed publications, they have become increasingly important for science investigations. Thus, some important

changes are being considered to keep pace with best practices and emerging standards The automatic weather station (AWS) observational collection may be the first AMRC data collection to delve into this arena with a new data gateway coming soon.

This discussion topic will review both Antarctic observational meteorological data processing as well as outline an example set of challenges. The group discussion will challenge the audience to voice what they feel the community wants to see with regard to observational meteorological data as it relates to data services, centers and types. Further, how can a framework be clearly communicated and be supported? The audience will be polled for input on these and other associated matters.

2. ACKNOWLEDGEMENTS

Figure 1. After eight years of operation, the Antarctic-Internet Data Distribution system has a proven track record of reliably distributing a variety of Antarctic datasets to the research and operational communities.

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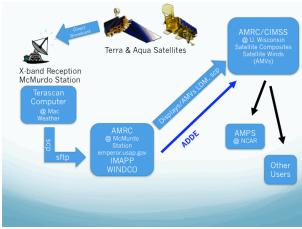Email: mattl@ssec.wisc.edu

Figure 2. McMurdo Station captures direct broadcast from the Aqua and Terra satellite. The International MODIS/AIRS Processing Package and other software on AMRC systems creates sample displays and AMVs that are relayed on for use in numerical models such as NCAR's AMPS and other global modeling systems.