

Developments in the YOPP-SH OSU-NCAR Data Impact Study and SOP Data Acquisition

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The Ohio State University (OSU) and National Center for Atmospheric Research (NCAR) are engaged in a study to explore the impact of observations collected during the YOPP-SH Special Observing Period (SOP) on Antarctic numerical model forecasts. The study is using the Antarctic Mesoscale Prediction System (AMPS) framework running the WRF Model with which data addition experiments assimilating the extra international SOP soundings are performed. This talk will summarize the work performed to date and the efforts to acquire and process the SOP sounding data. Thus far, an ensemble-based data assimilation (DA) capability has been created with the Data Assimilation Research Testbed (DART), one of two DA approaches to be examined. Specific events to be simulated have been identified and are being analyzed. During the SOP NCAR collected atmospheric data from multiple sources and catalogued the Antarctic radiosonde reports on a web page made available to the community. Current work is on the assembly of a full set of sonde reports for the SOP and on developing a report text format for ease of distribution.