

December 14, 2015 | By Annie Reisewitz

AWARE: The Most Comprehensive Meteorological Study of Antarctica Ever Undertaken

A dearth of meteorological studies in Antarctica has hampered climate models and predictions of climate change; project beginning now aims to change that

The ARM West Antarctic Radiation Experiment (AWARE) is a long-overdue effort to collect fundamental data in a challenging and remote region where changes in climate have worldwide implications. AWARE principal investigators from Scripps Institution of Oceanography at UC San Diego and Brookhaven National Laboratory, and the Atmospheric Radiation Measurement (ARM) Climate Research Facility technical director, will discuss the field campaign, which launched in November, at a special workshop at the AGU Fall Meeting: **5 p.m. Wednesday, Dec. 16 at the Fall Meeting Press Conference Room (Room 3000, Moscone West).**



AWARE team members at the ARM Mobile Facility, Antarctica

Antarctica contains 90 percent of the ice on Earth and could raise sea levels worldwide if it were to melt. Using satellite data, scientists recently discovered rapid changes in the West Antarctic region, yet there has been no substantial atmospheric science or climatological fieldwork there since the 1950s. Atmospheric data are needed to improve Earth system models to predict how

the climate in the region will continue to change.

“Characterizing the remote environment is an essential part of predicting how climate will change, and few places are as remote as the West Antarctic Ice Sheet,” said Scripps Institution of Oceanography atmospheric chemist Lynn Russell, who joins Scripps Oceanography researcher Dan Lubin as a co-principal investigator of AWARE.

Over 14 months, AWARE scientists and technical experts are using a suite of cutting-edge instruments to collect and analyze detailed atmospheric and cloud data in the region. The never-before-collected data from AWARE will be globally beneficial and will be vital in creating the first well-calibrated measurements of this kind acquired from Antarctica.

Workshop participants will include Russell; Andy Vogelmann, an atmospheric scientist from Brookhaven National Laboratory and a former Scripps researcher; and Jim Mather, Technical Director at the U.S. Department of Energy ARM Climate Research Facility.

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