Southern Great Plains Newsletter

May 2004
ANL/ER/NL-04-05

ARM Launches Newly-Designed Website

The recent designation of the ARM Program's infrastructure as a national user facility was an opportunity to redesign and update the ARM website. Developed nearly 10 years ago, the website could no longer keep pace with ARM's rapid growth. Over the past few months, the ARM website development team has spent countless hours on a challenging task. They restructured the navigation and streamlined the content, making the site easier to use and maintain. The website now covers both ARM science and ARM Climate Research Facility elements.

Please visit the new ARM website at http://www.arm.gov.

ACRF Southern Great Plains Newsletter is published by Argonne National Laboratory, an Office of Science laboratory operated by The University of Chicago under contract W-31-109-Eng-38 with the U.S. Department of Energy.

Technical Contact: James C. Liljegren
Phone: 630-252-9540
Email: jcliljegren@anl.gov
Editor: Donna J. Holdridge

Satellite Communications Replace T1 Lines

The vast amounts of data collected daily by SGP site instruments must be transmitted rapidly and reliably from remote measurement locations to the central facility computers. For years, the transfer has been made via high-speed T1 telephone lines (usually fiber optic) at a rate up to 1.5 megabits per second. T1 lines are fast and reliable, but they can be quite costly. Recently, the removal of an instrument from each SGP boundary facility greatly reduced the demand for dedicated, high-capacity data transmission lines. Communications specialists found a cost-effective way to replace the T1 data lines with satellite internet service. Although data transfer with this new service is slower than with T1 lines, the speed is adequate for the purpose. Satellite internet equipment installed at the SGP boundary facilities in mid April is now being tested to ensure that it is operating correctly. When the installations are proven to be robust, the T1 lines will be disconnected, and data transfers will be made by satellite communications. The SGP site will realize substantial savings by switching to the satellite-based internet link.

The new satellite internet installation at an SGP boundary facility (ACRF photo).

Upgrade Coming for Balloon-Borne Sounding Systems

The Vaisala RS90 radiosondes launched daily with weather balloons at the SGP site will soon be phased out of production. Vaisala will instead supply newer-model RS92 radiosondes. The upgrade to the new model took place in July 2002 at the SGP central facility. With the change to the RS92 model throughout the SGP site, the existing ground stations that collect data from the RS90 will be upgraded to be compatible with the model RS92 radiosondes.

Pictured at right; Technician Mary Green releases a weather balloon and radiosonde at the SGP site (ACRF photo).

To provide more research capability for the global scientific community, the scientific infrastructure and data archive established through the Department of Energy's Atmospheric Radiation Measurement (ARM) Program are now being made available for use by scientists worldwide through the ARM Climate Research Facility.