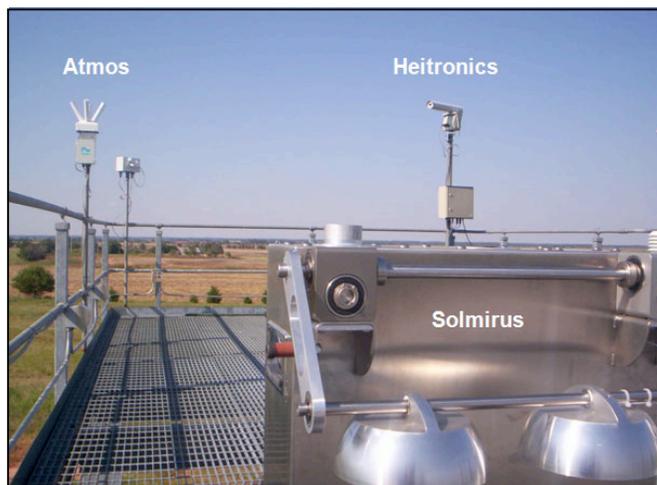


Study Compares Commercial Infrared Sky Imagers

During the Infrared Sky Imager Intercomparison Study, August 28 to October 5, 2007, scientists evaluated four infrared imaging instruments installed at the ARM Climate Research Facility (ACRF) Southern Great Plains (SGP) site. The principal objectives were to compare measurements of cloud fraction from different types of commercially available infrared sky imagers and to compare the daytime values with data from the Total Sky Imager (TSI) at the SGP site.

Most of the data from the participating instruments have now been processed. Preliminary results were presented at the ARM Cloud Properties Working Group Meeting in mid November. Complete results are being shared in a poster at the American Geophysical Union Meeting in San Francisco in December.

In 2004, the ARM Radiative Processes Working Group requested the addition of an infrared sky imaging system to the ACRF measurement suite to gather nighttime cloud data. For this purpose, an All-Sky Thermal Infrared Camera from Blue Sky Imaging, Ltd., (BSI) was purchased and deployed at the SGP Guest Instrument Facility in October 2005.



Three of the four instruments used in the sky imager intercomparison on the Guest Instrument Facility platform at the SGP site: Solmirus All Sky Infrared Visible Analyzer (foreground), Heitronics Nubiscope (top right), and Atmos Cloud Infrared Radiometer-4 (far left) (ARM photo).

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Technical Contact: Brad W. Orr
Phone: 630-252-8665
Email: brad.orr@anl.gov
Editor: Donna J. Holdridge
Contributor: Lynne Roeder
Website: <http://www.arm.gov>

Subsequent experience showed that daytime images from the BSI instrument compared favorably with TSI images from the site, but derived cloud amounts from the BSI instrument were significantly lower than the TSI values when the sky was more than 50% cloudy. This discrepancy led to a search for alternatives to the BSI instrument and to the present study.

Alternatives compared with the BSI instrument in the 2007 study were a Heitronics Nubiscope from Germany, an Atmos Cloud Infrared Radiometer-4 (CIR-4) from France, and a Solmirus All Sky Infrared Visible Analyzer from the United States. To accommodate these instruments, ACRF operations staff added three computers to the SGP network and established the required remote access. Data from the Heitronics, Atmos, and BSI instruments were processed in November; data transfer from the Solmirus instrument was delayed, and data processing continued into December.

New Computer Network Manager Joins SGP Staff



Colleagues at the SGP site welcomed Keith Richardson as he began his tenure as the new computer network manager. Keith came to the SGP from a position with the state of Oklahoma, where he was a network and telecommunications manager. His background includes experience with UNIX and Windows system management, network management, and software and hardware troubleshooting.

Keith's initial task will be to learn the system architectures at the SGP, with an emphasis on data transfer from remote sites. In the future, his responsibilities will expand to include the entire suite of ACRF sites worldwide.

SGP Icon "Munchkin" Remembered

Eulogy by Dan Rusk, SGP Site Operations Manager

It is with great sadness that we note the passing of our good friend Munchkin on December 12, 2007. Munchkin has been with us since 1993. He has been a fine and loyal friend, guardian, and companion on long shifts and a part of the ARM family. He personally greeted hundreds of visitors over the years, always with a friendly wag of his tail. He made a great impression on many people, as evidenced by the number of telephone conversations that began or ended with a question about his health.



Munchkin on patrol (ARM photo).



Munchkin keeping warm in a fashionable new sweater, hand-knitted for him by Lucia Liljegren, wife of former SGP Site Manager Jim Liljegren (ARM photo).

Munchkin kept coyotes at bay for many years and held back the terrors of the night. He greeted our cars each morning and was always happy to see his people. His face was often the first one visitors saw when arriving at the SGP, and he literally is known worldwide. His impromptu visits to our desks always lifted spirits. He was everything a good dog should be and took care of his people. His physical presence will be greatly missed, but he rests in our hearts forever.