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## AMERICAN METEOROLOGICAL SOCIETY – AUGUST SCIENCE HIGHLIGHTS

Following are story ideas and tips about upcoming AMS meetings, papers in our nine peer-reviewed journals, and other happenings in the atmospheric and related sciences community.

**Using Satellites to Detect Storm Damage Tracks.** The continental United States experiences hundreds of hail and tornadic storms every year. On average tornadic storms alone are responsible for $420 million in damage and 70 deaths annually. While the National Weather Service has long conducted surveys of damage caused by these storms, a study by scientists at NASA Marshall Space Flight Center and the University of Alabama shows that using satellite imagery can give an even more comprehensive picture of the location of tornado ground damage tracks and an estimation of the tornado intensity. The authors studied three distinct tornadoes using Earth Observing System satellite imagery and found that damage tracks from intense storms may be more evident using this imagery. The study was published in the AMS June 2006 issue of *Weather and Forecasting.* The abstract is available online at http://ams.allenpress.com/amsonline/?request=get-abstract&doi=10.1175%2FWAF923.1 For a PDF file of the paper, contact Stephanie Kenitzer.

**HIAPER – The Next Generation Research Aircraft.** After more than two decades of work, a new environmental research tool is now in the skies. The modified Gulfstream V business jet called the High-Performance Instrumented Airborne Platform for Environmental Research (HIAPER) can cruise at nearly 51,000 feet with nearly 8,000 lbs of scientific payload to collect countless amounts of data about the atmosphere and surface that will ultimately lead to better weather and climate predictions. For a complete look at the aircraft and the wealth of new geophysical research opportunities

in the areas of atmospheric chemistry, climate forcing, weather system structure and evolution, the carbon and water vapor cycles, and ecosystem processes see the paper in the July issue of the *Bulletin of the American Meteorological Society* at http://ams.allenpress.com/amsonline/?request=get-toc&issn=1520-0477&volume=87&issue=7

**Thirty Years of Flying into Storms.** This year marks the 30th anniversary marks of the acquisition and use of the two NOAA P-3 aircraft for hurricane research and operations and much has been learned over that time. Scientists have been observing tropical cyclones with reconnaissance and research aircraft since 1943. However it was not until the mid-1970s that the National Oceanic and Atmospheric Administration purchased two customized WP-3D (P-3) aircraft with the sole purpose to observe tropical cyclone structure and dynamics, participate in possible modification experiments, and monitor of the storms formation, all with the goal of improving the forecasts and mitigating damage and loss of life. Today, the P-3s are among the premier meteorological research aircraft in the world. A paper in the August issue of the *Bulletin of the American Meteorological Society* takes a look back at some of the research conducted with the planes and the results. For a PDF of the paper, contact Stephanie Kenitzer.

**Location, location, location.** Scientists agree that changing the instrumentation, location, or observing practices at in situ weather stations may add biases into the data. During the last few decades, a great deal of effort has gone into developing methods to adjust the station temperature time series to account for artificial changes or inconsistencies in the climate record. Reviews of homogeneity testing and adjustment techniques indicate that many approaches successfully remove artificial discontinuities. But, can these approaches compensate for problems caused by poor siting and particularly changes to siting? A paper in the August issue of the *Bulletin of the American Meteorological Society* provides an analysis of a small subset of U.S. Historical Climatology Network and does not find a time-dependent bias caused by current poor station siting. For a copy of the paper contact Stephanie Kenitzer.

**On the Meeting Front --** The 12th Conference on Mountain Meteorology is scheduled for August 28 through September 1 in at the historic La Fonda Hotel in Santa Fe, New Mexico. The scientific sessions will focus on the influence of the mountains on the atmosphere on a wide range of spatial and temporal scales including forecasting mountain weather, the role of mountains in climate and climate change, mountain waves and wakes, topographically trapped disturbances, air quality, dispersion in mountainous regions and much more. The program is online at http://www.ametsoc.org/MEET/fainst/SantaFe2006.html

The 23rd Conference on Severe Local Storms will be held November 6-10 at The Adam's Mark Hotel in St. Louis, MO. Preliminary details are online at http://www.ametsoc.org/meet/fainst/23SLS.html

The 87th Annual Meeting of the AMS will take place January 14-18, 2007 in San Antonio. Many details are already online. Press registration will open in September. Abstracts will also be posted in early Fall. See http://www.ametsoc.org/meet/annual/index.html

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