

**AMERICAN METEOROLOGICAL SOCIETY
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**FOR IMMEDIATE
RELEASE**

11 September 2006

**AMERICAN METEOROLOGICAL SOCIETY – SEPTEMBER 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.

Is Lightning A Danger to Stadiums? Large outdoor stadiums face a significant vulnerability to lightning. To date, there have been few casualties in the United States from direct lightning strikes to a stadium or from the mass movement of spectators when lightning threatens. However, if stadium managers do not develop action plans for lightning safety, venues are overlooking an opportunity to prevent a potential disaster while the costs of intervention remain substantially low. A paper in the September *Bulletin of the American Meteorological Society*, by Joel Gratz and Erik Noble with the Center for Science and Technology Policy Research, CIRES, University of Colorado, outlines the dangers of lightning in large outdoor stadiums and the keys to a lightning action plan. A great local angle - does your local stadium have a plan? For a copy of the paper, contact Stephanie Kenitzer.

Natural Cloud Seeding and Lake Effect Snows. Scientists have a good understanding of most of the atmospheric factors that play a role in the development of intense lake-effect snowstorms over the Great Lakes. But every now and then, lake-effect processes and large-scale cyclones team up to produce even more intense snowfalls. Unfortunately scientists didn't have much insight into these double hitters until early December 1997 when it just happened that airborne radar and ground observations captured data from both these systems. They learned that the nearby cyclone altered the lake-effect snowstorms in several ways. The departing cyclone was seeding a growing lake-effect snowstorm over Lake Michigan. The details on the observations and following analysis, by J. J. Schroeder, University of Illinois,

and colleagues, were published in the July issue of the AMS' *Monthly Weather Review*. For a copy contact Stephanie Kenitzer.

Using Microwave Imagery to Predict Hurricane Intensity. University of Alabama and NOAA scientists have developed an enhanced statistical hurricane intensity prediction scheme (SHIPS) using new predictors derived from microwave imagery to improve tropical cyclone intensity change forecasts in the Atlantic. How does it work? In essence, the microwave version of SHIPS, a numerical model called SHIPS-MI, uses microwave brightness temperature data for its analysis. Brightness temperatures from passing microwave instruments are sensitive to the intensity of liquid precipitation of tropical cyclones. And the intensity of the liquid precipitation is used as an estimator of the inner-core diabatic heating, a key factor influencing intensity change. Analysis of the SHIPS-MI forecasts show a 2-8% improvement in performance for the Atlantic and North Pacific tropical cyclone intensity forecasts out to 72 hours when compared to the model without the microwave data. The paper by Thomas Jones et al appeared in the AMS August issue of *Weather and Forecasting*. For a copy contact Stephanie Kenitzer.

On the Meeting Front -- The 23rd Conference on Severe Local Storms will be held November 6-10 at The Adam's Mark Hotel in St. Louis, MO. The complete program is online at <http://www.ametsoc.org/meet/fainst/23SLS.html> Media are invited to attend the meeting, attend the scientific sessions and interview the experts. For more information or to register, contact Stephanie Kenitzer

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 shortly. Abstracts will also be posted in early fall. See <http://www.ametsoc.org/meet/annual/index.html>

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