

AMERICAN METEOROLOGICAL SOCIETY
TIP SHEET
Headquarters
45 Beacon Street
Boston, MA 02108-3693

1120 G Street, N.W., Suite 800
Washington, DC 20005-6115

Contact(s):

Stephanie Kenitzer, AMS
(425) 432-2192
Kenitzer@dc.ametsoc.org



FOR IMMEDIATE RELEASE
17 July 2007

AMERICAN METEOROLOGICAL SOCIETY – JULY SCIENCE HIGHLIGHTS

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

Space Weather: An Evolving Science and Policy Issue. "What is space weather and how does it affect us on Earth and in space? What are the boundaries between space weather and weather at the Earth's surface? Why should we be concerned about space weather? Will the new generation of larger-capacity passenger planes have to be more concerned with space weather? These are the questions to be addressed at the next AMS Environmental Science Seminar, part of the Society's ongoing efforts to keep policymakers abreast of scientific advances and their relevance. The seminar will be Wednesday, July 18 from 12- 2p.m. EDT in the Rayburn House Office Building, Room 2253. For details see (<http://www.ametsoc.org/atmospolicy/EnvironmentalScienceSeminarSeries.html>)

Using Kinetic Energy to measure a tropical storms destructive power. The Hurricane Katrina disaster and recent studies examining hurricanes and global climate change have generated discussion on tropical cyclone intensity and its relevance to destructive potential. Climate scientists are trying to determine whether hurricanes are becoming more frequent or destructive with resulting impacts on increasingly vulnerable coastal populations. People who lived in areas affected by Hurricane Katrina are wondering how a storm weaker than Hurricane Camille at landfall, could have contributed to so much more destruction. While intensity provides a measure to compare the maximum sustained surface winds of different storms, it is a poor measure of the destructive potential of a storm since it does not account for storm size. In a paper in the April issue of the *Bulletin of the American Meteorological Society* authors Mark Powell and Timothy Reinhold broaden the scientific debate on how best to describe a hurricane's destructive potential. The authors suggest a metric relevant to the physical forces that contribute to damage, based on the size of the wind field and magnitude of the winds. According to them, this is a first step toward defining scales to help distinguish between potential wind and wave/surge impacts while retaining the concise range of the SS. For a copy of the paper see <http://ams.allenpress.com/archive/1520-0477/88/4/pdf/i1520-0477-88-4-513.pdf>

Climate Change Scenarios for New Zealand Rainfall. Scientists know that in terms of the effects of future climate change upon society, some of the most important parameters to estimate are associated with changing risks of extreme rainfall events, both floods and droughts. However,

such aspects of the climate system are hard to estimate well using general circulation models - in particular, for a small mountainous landmass such as New Zealand. A paper in the May issue of AMS' *Journal of Applied Meteorology and Climatology* describes a downscaling technique using broad-scale changes simulated by general circulation models to select past analogs of future climate. Such models are used to simulate long synthetic rainfall time series for comparison with the historical record. Results for three New Zealand sites show overall increases in rainfall with climate change, brought about largely by an increased frequency of rainfall events rather than an increase in rainfall intensity. There was little evidence for significant increases in high-intensity short-duration rainfalls at any site. For a copy of the paper, contact Stephanie Kenitzer.

Journal of Climate Special Issue on the Indian Ocean. The July issue of the *Journal of Climate* is all about the Indian Ocean. Check out the table of contents online at <http://ams.allenpress.com/perlserv/?request=get-toc&issn=1520-0442&volume=20&issue=13> and let Stephanie Kenitzer know if you are interested in any specific paper.

AMS Book *The Callendar Effect* is a Winner. The AMS' book *The Callendar Effect*, by James Fleming, has won the Gold award for books from the Society for National Association Publications (SNAP). *The Callendar Effect* is the untold story of the remarkable scientist who established the carbon dioxide theory of climate change. Guy Stewart Callendar discovered that global warming could be brought about by increases in the concentration of atmospheric carbon dioxide due to human activities, primarily through burning fossil fuels. He did this in 1938. The book is an introduction to one of Britain's leading engineers and his life and work through never-before-published original scientific correspondence, notebooks, family letters, and photographs. The SNAP annual competition recognizes and rewards the exemplary work of association publishers. The EXCEL program judges over 1,000 magazines, newsletters, scholarly journals, electronic publications and websites in the areas of editorial quality, design, general excellence, most improved and more. For details on the book see <http://www.ametsoc.org/pubs/books/bookdesc.html#CLDR>

Annual Meeting Planning. The AMS 88th Annual Meeting will be held January 20-24 in New Orleans. Many details are already online. See <http://www.ametsoc.org/meet/annual/> and make plans to join us for one of the nation's largest atmospheric science meetings.

With more than 12,000 members, the AMS (<http://www.ametsoc.org>) is the nation's leading professional society for those involved in the atmospheric and related sciences.

###