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ISSUE 4

Newsletter



JANUARY 2007

President's Message

The 2007 IUGG General Assembly is fast approaching, with **abstracts due in by the end of February**. See <http://www.iugg2007perugia.it/> for details about the many exciting sessions and plans for the meeting.

In addition to all the exciting scientific aspects of the upcoming meeting, these quadrennial assemblies are also when the official business of IAMAS is conducted; that is, when IAMAS holds its General Assembly as well. Of particular importance is the election of the officers of IAMAS, for it is their collective responsibility to lead in the operation of IAMAS for the ensuing four years. In addition, many of the commissions will hold their elections at the upcoming meeting, so there are significant opportunities to participate.

The process of electing new officers starts well before the General Assembly. The first step is the nomination of candidates, and the call for nominations of officers has been issued. In 2007, Roland List will be concluding 12 years as Secretary General and I will be concluding my 4 years as President. Neither of us is eligible for reelection, so new leadership will

need to be elected. It seems timely, therefore, to provide an overview of our responsibilities and activities.

The Secretary General is basically responsible for expediting a number of IAMAS tasks, the most important of which are the management of the Association's resources (most of our resources go to helping scientists from low income nations attend the scientific assemblies), making the arrangements for the Ordinary General Assemblies (that is, our business meetings at the IUGG assemblies) and Extraordinary General Assemblies (if necessary), and leading in the organization of the Scientific Assemblies, including, most recently, the scientific symposia coincident with the

IUGG assemblies (the last one being in Sapporo) and the special scientific assemblies that are held between general assemblies (the last one being in Beijing). There is a bit more, but these tasks are the major ones and are very demanding. Because of the great benefit of experience in such efforts, the term for Secretary General is eight years, with reelection possible for an additional four years.

The major responsibility of the President is promoting the objectives of the Association; that is, briefly, to promote study of the atmosphere, facilitate international cooperation, stimulate scientific presentations, and promote education and public awareness. This includes a wide variety of activities, from helping promote interdisciplinary science to making sure the tough questions are being asked and giving talks at schools (and even having a band play in our honor at the Beijing school we visited). Officially, the President is responsible for chairing the meeting of the IAMAS General Assembly and leading the Bureau of IAMAS (which consists of the elected officers of IAMAS) and the Executive Committee (which encompasses the Bureau and the Commission Presidents). Because the Bureau is responsible for directing and coordinating all scientific



and related activities of the Association, this role involves ensuring agreement on the various activities of the Association.

What is not described in detail in the IAMAS Statutes, yet is one of the President's most important responsibilities, is representing IAMAS to other organizations. First, the IAMAS President is the Association's official representative on the Executive Committee of IUGG; this involves a couple of meetings and relatively frequent involvement by email (e.g., review of planning documents, etc.). Second, the IAMAS President, or a selected representative, is, by IUGG designation, an *ex officio* member of the Executive Committee of the

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President's Message (contd.)

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Scientific Committee on Oceanic Research (SCOR), serving as the one atmospheric scientist for an entity charged by ICSU with coordinating all international ocean research; this responsibility involves an annual meeting and serving as liaison to one or more of the groups SCOR works with (my responsibilities have included, for example, liaison with the Joint Scientific Committee of the World Climate Research Programme and the steering committee of an ICSU-sponsored workshop on implications for society of potential asteroid and comet impacts, etc., both of which involved attending meetings as well). I have also worked to build IAMAS linkages with IPCC (and separately serve as the review editor of the North American chapter of IPCC Working Group II). While the Secretary General and other IAMAS scientists also serve as liaisons to various

groups this is a major role of the President—and for me has proven very interesting and informative.

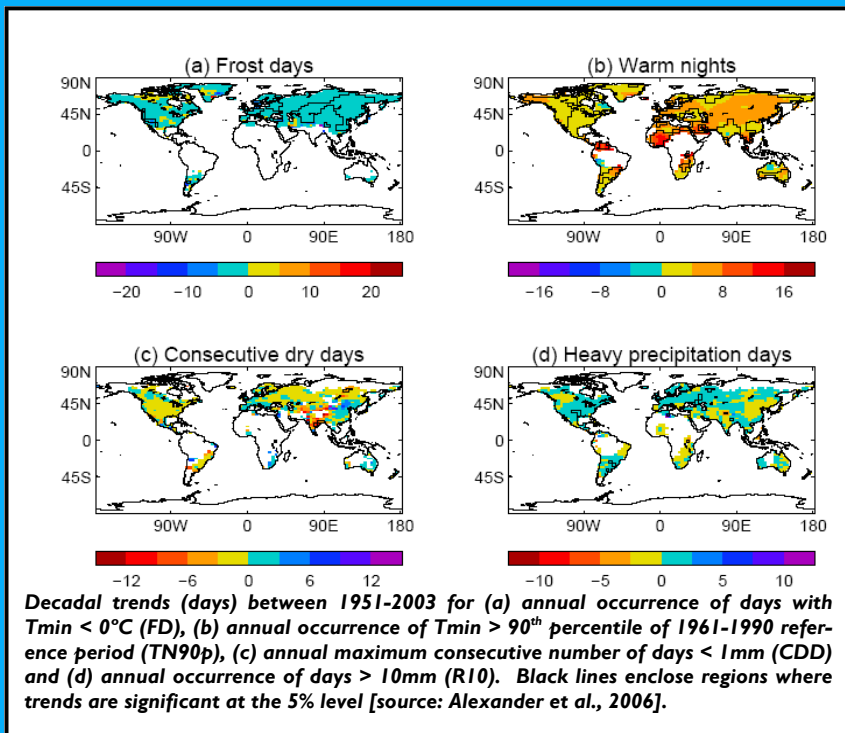
Unlike governmental bodies, the activities of IAMAS and its commissions are all carried out by volunteers. While these roles do indeed involve some work, there are many opportunities to meet with colleagues from around the world and such service can be intellectually stimulating and rewarding, especially with atmospheric sciences being of growing international importance. I would thus urge all who are interested to become involved at some level in IAMAS and its commissions, making new friends, visiting lots of interesting places, and contributing to the scientific advancement of our field.

Mike MacCracken
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IAMAS Symposium on Extreme Weather and Climate Events: Past Occurrences and Future Likelihoods, Perugia, Italy, July 2007

The vulnerability of communities to climate variability and change is likely to depend more on changes in the intensity and frequency of extreme weather and climate events than on changes in the mean climate. This is the case because extremes usually have strong impacts on human activities and a small change in the mean condition can cause a large change in the likelihood of an extreme. This 2-day symposium invites papers that document past occurrences and future projections of extreme weather and climate events, especially as a result of changes in the climate and other factors. Papers reporting on observed changes, comparisons with model-simulated changes, projections of future extremes, physical processes leading to extremes, quantification of uncertainties and policy relevant considerations are invited.

The programme will be structured along the following sub-categories of extremes: Global, Mid-latitudes, Tropics, Polar, Uncertainty and Policy. Confirmed invited speakers include Francis Zwiers (CCCma), Gabi Hegerl (Duke



University), Neville Nicholls (Monash University), Tom Knutson (GFDL), Mark Serreze (CIRES), Linda Mearns (NCAR) and Roger Pulwarty (CIRES/CDC).

Alexander, L.V. and coauthors. 2006. Global observed changes in daily climate extremes of temperature and precipitation. *J. Geophys. Res.- Atmospheres*, 111, D05109, doi:10.1029/2005JD006290.

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Featured Commission: The International Commission on Polar Meteorology (ICPM) and the International Polar Year (IPY)

The International Commission on Polar Meteorology (ICPM; <http://www.antarctica.ac.uk/met/ICPM/>) is a focus for research into the meteorology and climatology of the Arctic and Antarctic. It is one of the ten commissions of the International Association of Meteorology and Atmospheric Sciences (IAMAS), which is in turn part of the International Union of Geodesy and Geophysics (IUGG). ICPM has two primary functions:

- to further scientific work into the meteorology and climatology of the polar regions by maintaining liaison between active research workers and other organizations, such as the Scientific Committee on Antarctic Research (SCAR), the World Meteorological Organization (WMO) etc.
- to organize symposia on topical subjects at the biannual meetings of IAMAS.

The International Polar Year (IPY: <http://www.ipy.org>) March 2007-March 2009 will be an intense, internationally coordinated campaign of research that will initiate a new era in polar science. IPY 2007-2008 will include research in both polar regions and recognize the strong links these regions have with the rest of the globe. It will involve a wide range of re-

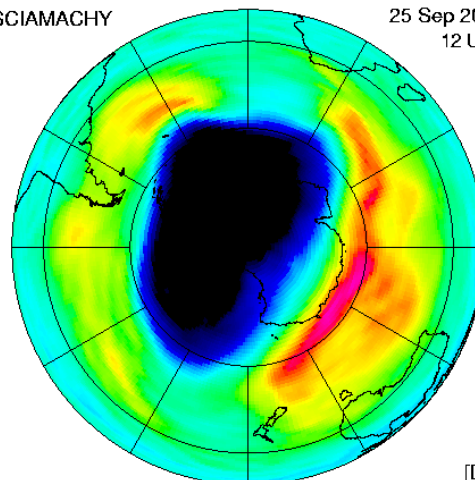


Routine launch of a radiosonde at Halley research station in Antarctica

(British Antarctic Survey)

KNMI / ESA
SCIAMACHY

Assimilated total ozone
25 Sep 2006
12 UTC



[DU]
150 175 200 225 250 275 300 325 350 375 400 425 450 475 500

The 2006 ozone hole was the most serious on record exceeding that of 2000. Not only was it the largest in area (matching 2000) but had the record mass deficit, meaning there was less ozone above Antarctica than previously measured.

(www.theozonehole.com)

search disciplines, including the social sciences, but the emphasis will be interdisciplinary in approach and truly international in participation. It aims to educate and involve the public, and to help train the next generation of engineers, scientists, and leaders.

At the upcoming IUGG meeting in Perugia, Italy in July 2007 (<http://www.iugg2007-perugia.it>), ICPM has organized joint IAMAS symposia on "Clouds and Radiation and Air-Sea-Ice Interactions" (JSM008) and "High Latitude Modes of Climate Variability" (JSM018). It is co-sponsoring the joint IAMAS symposium on "Assessing & Exploiting Re-analysis Data Sets" (JSM020) and the joint International Association of Hydrological Sciences symposium on "Interactions Between Snow, Vegetation, and the Atmosphere" (JWH001). These symposia contribute to the following major IPY scientific themes: to determine the present environmental status of the polar regions; to quantify, and understand, the past and present environments in the polar regions as well as to improve projections of future change; and to advance understanding on all scales of the links and interactions between polar regions and the rest of the globe, and of the processes controlling these.

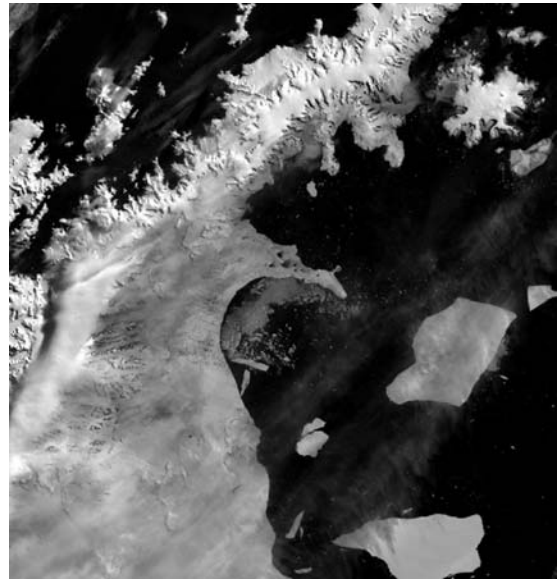
ICPM is also active in co-sponsoring other meetings (often in conjunction with SCAR and the World Climate Research Programme's (WCRP) Climate and Cryosphere Project) that contribute to the scientific goals of IPY.

The ICPM and IPY (contd.)

Recently a Workshop on Climate Change in the Polar Regions was held at the University of Alaska-Fairbanks in December 2005, and a Workshop on High Latitude Reanalysis held at the British Antarctic Survey in April 2006 (http://ipo.npolar.no/reports/archive/reanalWS_apr2006.pdf). Both these workshops have resulted in review articles.

ICPM is actively endorsing IPY research projects, including Antarctic Climate and Atmospheric Circulation (ACSquared, No. 180) that aims to investigate Antarctic atmospheric processes and their links with lower latitudes; and the WMO-WCRP THORPEX research program (No. 410) that intends to accelerate improvements in the prediction and understanding of high-impact weather on the 1 to 14-day time-scale involving the Arctic and Antarctic. ICPM is closely linked with the SCAR-IPY "Antarctica in the Global Climate System" program (<http://www.scar.org/researchgroups/physicalscience/agcs/>) that has a climate emphasis over a wide range of time scales.

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The break-up of the Larsen-B Ice Shelf, on the eastern side of the Antarctic Peninsula, in February 2002, as captured by the MODIS sensor on NASA's TERRA satellite. This event has recently been linked directly to anthropogenic forcing of the Southern hemisphere atmospheric circulation.

(NASA)

Forthcoming meetings of interest to IAMAS members

European Geosciences Union Assembly: 15-20th April 2007, Vienna, Austria.
(<http://meetings.copernicus.org/egu2007/>)

Ninth Conference on Polar Meteorology and Oceanography: 28th-May-1st June 2007, St. John's, Newfoundland and Labrador, Canada. (<http://www.cmos2007.ca/>)

International Union of Geodesy and Geophysics XXIV 2007: 2-13th July 2007, Perugia, Italy.
(<http://www.irpi.cnr.it/iugg/lugg2007.htm>)

American Meteorological Society 88th Annual Meeting: 20-24th January 2008, New Orleans, USA. (<http://www.ametsoc.org/>)

International Radiation Commission Quadrennial Meeting: (dates to be confirmed), Foz do Iguaçu, Brazil. (<http://www.irc-iamas.org/>)

IAMAS/IAPSO Joint Assembly: 20-29th July 2009, Montreal, Canada.

The IAMAS newsletter

The newsletter editor welcomes short reports from the individual IAMAS Commissions at any time.

Furthermore, as the next newsletter will be published prior to the forthcoming IUGG General Assembly in July 2007, convenors are invited to 'trail' their symposia in the newsletter, in a similar format to that for the IAMAS Sym-

posium on Extreme Weather and Climate Events: Past Occurrences and Future Likelihood on page 2.

In addition, I would also welcome a 'featured commission' piece similar to that kindly supplied by the ICPM for this issue.

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