



**QUADRENNIAL REPORT OF THE INTERNATIONAL ASSOCIATION OF
METEOROLOGY AND ATMOSPHERIC SCIENCES
for 2007-2010**
www.IAMAS.org

INTRODUCTION

IAMAS is the specialized association of the International Union of Geodesy and Geophysics (IUGG) which deals with all aspects of the gaseous envelope around the Earth and other planets. The main research work is carried out, coordinated and communicated in IAMAS's ten International Commissions (IC), which are in alphabetical order the ICs on *Atmospheric Chemistry and Global Pollution* (ICACGP), on *Atmospheric Electricity* (ICAE), on *Climate* (ICCL), on *Clouds and Precipitation* (ICCP), on *Dynamical Meteorology* (ICDM), on the *Middle Atmosphere* (ICMA), the *International Ozone Commission* (IOC), the ICs on *Planetary Atmospheres and their Evolution* (ICPAE), on *Polar Meteorology* (ICPM), and the *International Radiation Commission* (IRC). All ICs, and IAMAS as a whole, take a leading part within the global communication and discussion of latest research results in a wide range of scientific meetings that are open to all scientists.

ADMINISTRATION

The current IAMAS bureau was elected during the IUGG/IAMAS assembly in Perugia in 2007. The bureau members from 2007-2011 are:

Prof. Guoxiong **Wu**, President

Prof. Anne **Thompson**, Vice-President

Dr. Hans **Volkert**, Secretary General

Prof. Maria Assuncao Faus **Silva Dias**, Vice-Presid.

Prof. John **Turner**, Deputy Secretary General

During the IAMAS-IAPSO-IACS joint assembly in Montreal in 2009 (**MOCA-09**), IAMAS EC appointed Hugo Berbery as the financial auditor to monitor IAMAS finance. Hugo will continue to serve this position and report to the EC during IUGG/IAMAS 2011 in Melbourne.

The IAMAS bureau has been working in an open and cooperative fashion since its first day of election. The IAMAS SG Hans Volkert advocated a "Co-Co-Co" working motto, i.e. "communication, cooperation & continuity", which is welcomed and accepted by all the IAMAS officers. Besides communication by email, IAMAS bureau members have regular telephone conferences. In this way, the bureau members can quickly process commissions' request, provide

necessary support to science activities, and innovate policies, regulations and notice that can promote and coordinate international atmospheric and climate research. IAMAS' ten commissions also report to IAMAS bureau annually. Through their involvement in the international research, IAMAS/IUGG is well represented.

IAMAS bureau members also met in person to exchange ideas. President and SG took part in the IUGG EC meeting in 2008 in Karlsruhe and the IUGG EC meeting in Melbourne in October 2010 and the initial planning for the IUGG-Assembly there in June/July 2011. SG also visited the president's base in Beijing on his way back and met with past-president **MacCracken** there. The SG and his deputy also met in person dealing with plans for the website transfer and revision.

ACTIVITIES

Here a brief selection of activities is reported; the full compilation of commission reports will be posted on www.IAMAS.org/Reports.html.

IAMAS

IAMAS participated and organized two major assemblies from 2007-2010.

In 2007, IAMAS held 29 Joint symposia and 20 IAMAS-only symposia, at the 24th IUGG Assembly in Perugia, 2-13 July. IAMAS also convened two special evening Union symposia on "the different parts of the recent IPCC report" and on "The Effects of Aerosol Pollution on Precipitation". 1049 scientists had registered via the web, 636 of them arrived in Perugia, including 179 students. The IAMAS also proposed to IUGG two resolutions: "**the effect of aerosol pollution on precipitation**" and "**the urgency of addressing climate change**". Both were endorsed by IUGG.

In 2009, IAMAS had its assembly jointly organized with IAPSO and IACS (**MOCA**) in Montreal from 19-29 July. About two thirds of the 1400 registered participants came from IAMAS. They contributed to 20 (of 21) joint symposia and to 18 IAMAS-only symposia. The general opinion prevailed that the overall organisation by our Canadian hosts was excellent with a compact, but spacious venue and a carefully designed interlocking schedule comprising two well attended plenary sessions, up to 11 parallel sessions with IAMAS-contributions, and ample time for daily mid-afternoon discussion at posters. The local support by our Canadian colleagues was truly outstanding.

Some other IAMAS activities include:

- The SG joined an initiative of honorary members of IOC and IRC to highlight the catalyzing role of IAMAS commissions for advancing over decades international science programmes (cf. OHRING et al. 2009; <http://ams.allenpress.com/archive/1520-0477/90/11/pdf/1520-0477-90-11-1669.pdf>), with reference to IAMAS Publ. No. 1 about the IRC-development over 100 years.
- The China National Committee (CNC) for IAMAS/IUGG sponsored and organized an international workshop on "Asian Summer Monsoon and its Role on Global Stratosphere-Troposphere Exchange" in Lhasa, China, on 21-23 July 2010; cf. IUGG e-journal (Volume 11, No. 1).
- IAMAS liaisons to SCOR, SCAR and WCRP all participated in the scientific committee meetings of SCOR, SCAR and WCRP and IAMAS/IUGG is well represented in these organizations through their active involvement.

Highlights of IAMAS ten commission activities are:

ICACGP participated and organized symposia in IUGG 24th GA (2007), IGAC conference (2008), and IGBP Congress(2009), and organized the 12th Symposium of CACGP jointly with the 11th Science Conference of the International Global Atmosphere Chemistry (IGAC) Project in 2011. In Europe through the participation of iCACGP members in the EU ACCENT Network of Excellence, ACCENT support iCACGP and IGAC recommendations for students to attend international science meetings and related activities. ICACGP elected a new office in 2010.

ICAE organized its quadrennial international conference, 13th International Conference on Atmospheric Electricity, in China in 2007. ICAE has published 6 issues of its newsletters. The ICAE website has been re-located with its new address www.icae.jp .

The current office of **ICCL** was re-elected in 2007 for the period 2007-2011. Both President (Keith Alverson) and the Executive Secretary (Neil Holbrook) participated in the Global Oceans Conference 2010 (GOC2010) held at UNESCO in Paris from 3-7 May 2010 – this being the Fifth Global Conference on Oceans, Coasts, and Islands [www.globaloceans.org/]. Michael MacCracken, past president of IAMAS and of ICCL, was attended the awarding of the 2007 Nobel Peace Prize to the Intergovernmental Panel on Climate Change and to former US Vice President Al Gore in Oslo, Norway, Dec 10, 2007. He also attended many meetings with geo-engineering sessions.

About 400 scientists including 80 students attended the **ICCP** 2008 Cancun conference with support from the WMO (15000 CHF), IAMAS (\$5000) and from the IUGG (\$2000). The money was used to support 32 students and young scientists (16 women and 16 men).

The **ICDM** approved its first official set of bylaws during its meeting in Perugia in 2007. After the meeting, the bylaws were approved by the relevant governing bodies and are now in force. The ICDM was sole sponsor of five symposia in MOCA-09 in Montreal, sponsored two jointly with other IAMAS commissions, and was involved with three MOCA-09 joint symposia.

ICMA co-sponsored following activities from 2006-2010: the 37th COSPAR Scientific Assembly in 2008 and MOCA-09 in 2009; the 5th IAGA/ICMA/CAWSES Workshop on Long-Term Changes and Trends in the Atmosphere, in 2008; the 9th ICMA Workshop on Layered Phenomena in the Mesopause Region (LPMR) in Stockholm in 2009; the 6th IAGA/ICMA/CAWSES-II workshop “Long Term Changes and Trends in the Atmosphere” in 2010; ICMA opened its new webpage at the following new URL: <http://www.icma-iamas.org/>

IO3C signed a “Letter of Agreement” with WMO for the establishment of an ad hoc expert team that will assess ozone absorption cross sections used in atmospheric observations. An ozone theme meeting on ozone absorption cross-sections was jointly organized by WMO, IGACO-O3/UV, IO3C and the Network for Detection of Atmospheric Composition Changes (NDACC) at WMO Headquarters in 2009. Publication of the volume “Twenty years of ozone decline”, Springer, includes articles presented by leading scientists in the ozone field at the Symposium for the 20th Anniversary of the Montreal Protocol, jointly organized by the UNEP, IO3C, the Academy of Athens and the Mariolopoulos-Kanaginis Foundation, held in Athens in 2007. IO3C Members were strongly involved in the 2010 WMO Ozone Assessment, which was published on

January 2011. The Ozone Assessment is available at http://www.unep.ch/ozone/Assessment_Panels/SAP/index.shtml.

ICPAE has benefited from the extremely successful space missions such as CASSINI-HUYGENS, MARS EXPRESS, and VENUS EXPRESS. ICPAE sponsored two symposia at MOCA-09 and several other meetings from 2007-2010, namely: EGU 2010 (Vienna, Austria, 2-7 May), AOGS 2010 (Hyderabad, India, 5-9 July), COSPAR 2010 (Bremen, 18-25, July), EPSC 2010 (Rome, Italy, 20-25 Sept), DPS (3-8 October, Pasadena), AGU (13-17 Dec 2010). ICPAE co-sponsored the publication of the Planetary and Space Sciences Special issue and contributed to the special section of Journal of Geophysical Research (Planets) "Venus Express: Results of the Nominal Mission" (2009). ICPAE members played a leading role in putting together and editing of the special issue of Journal Geophysical Research "Venus Express: results of the nominal mission" that included more than 40 original papers and was published in 2010 as a book. Also, ICPAE members are participating in proposals and studies for future space missions to planetary objects from the space agencies (NASA, ESA), such as EJSM-Laplace, TSSM, TAE, Saturn Probes, EVE, etc.

ICPM sponsored two symposia at MOCA-09. The primary activity of ICPM in 2010, in conjunction with other organizations, was to organize the International Workshop on Antarctic Clouds (<http://polarmet.osu.edu/workshops/iwac/>) that was held at the Byrd Polar Research Center of The Ohio State University, July 15-16, 2010. The workshop presentations (online at the above website under Program) are being turned in a review manuscript for the Reviews of Geophysics. ICPM will endorse efforts to develop an Antarctic Reanalysis Project. It is hoped that ICPM can take a lead in coordinating such a project, especially the international data exchange component. It is hoped that in Melbourne 2011 an IUGG resolution supporting this project can be passed.

IRC elected 19 new members in regular elections held during December 2008. Early in 2009 the officers introduced a new IRC website (www.irc-iamas.org) which allows members to login and update their personal and working group information, as well as add items of news and events to share with the community. IRC sponsored 4 symposia at MOCA-09. At present the IRC is composed of 42 members from 18 countries. The Commission has eight active working groups and three associated groups. At the 2010 Annual Business Meeting held on 22 July 2010 in Bremen, Germany during COSPAR, IRC members voted to hold the 2012 International Radiation Symposium in Berlin, Germany, 5-12 Aug 2012. The IRC submitted five reviewer/author nominations for IPCC AR5. Other Meetings and Activities IRC members co-organized or participated in 2010 include: ITSC-17, 11th BSRN Scientific Review and Workshop, the 11th Biennial HITRAN Conference, AMS, 3rd Asia Pacific Radiation Symposium.

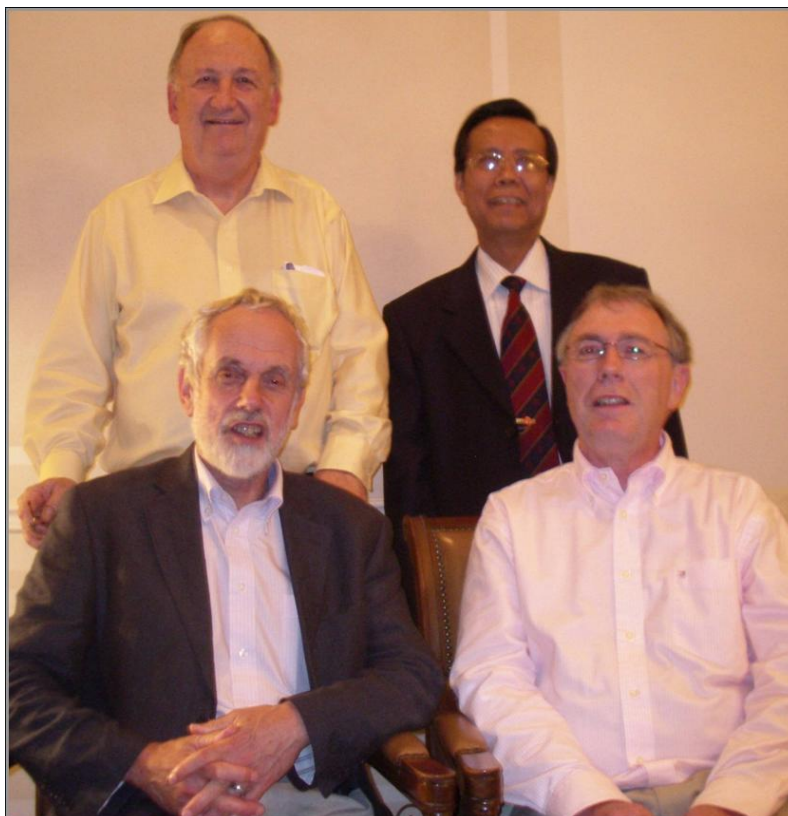
FUTURE ACTIVITIES

IAMAS set up a statutes revision committee and a nomination committee in 2009. Both committees have been working during the past one and a half year and will lead important discussions in the IAMAS EC meetings during IUGG2011. With a complete revision of the statutes and a newly elected bureau, IAMAS will embrace a new era of opportunities and challenges. IAMAS is also intending to set up an award to recognize the achievement of young scientists. The details will be discussed and hopefully approved at the EC meeting and then written into the revised IAMAS statutes and by-laws. The first award would be given at IAMAS-

IACS 2013 joint assembly in Davos, Switzerland (**DACA-13** in short). Many of IAMAS commissions will also organize workshops in between IUGG2011 and DACA-13.

Guoxiong WU,
President, IAMAS

Hans VOLKERT
Sec.-Gen., IAMAS



Four IAMAS presidents as a testimony of cooperation and continuity, 28 July 2009 during MOCA-09. From the left; seated: Brian **Hoskins** (UK, 1991-95), Huw **Davies** (CH, 1999-2003); standing: Michael **MacCracken** (USA, 2003-07), Guoxiong **Wu** (China, 2007-11).