

INFORMATION E-MAIL FROM THE IAMAS BUREAU

April, 2014

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a) Report on the 1st Workshop of the IUGG Commission on Climatic and Environmental Change (CCEC)

The first workshop of CCEC brought together scientists from Australia, China, Denmark, France, Japan, Kenya, Luxembourg, Turkey, and the United States. They gathered at the Institute for Atmospheric Physics of the Chinese Academy of Sciences in Beijing from 11-12 April 2014 to discuss and examine the ways to strengthen multi-disciplinary research on climatic and environmental changes and to establish a strong link to Future Earth – a new interdisciplinary research program that is being established as a successor to the Earth System Science Partnership (<http://www.futureearth.info/>). Tom Beer and Jianping Li acted as Co-chairs of the Science Program Committee and Keith Alverson as its Secretary.

IAMAS was well represented at the workshop with the attendance of IAMAS President Athena Coustenis, Immediate Past President Guoxiong Wu and Past President Mike MacCracken. Jianping Li and Keith Alverson are current and former officers of ICCL of IAMAS, respectively. In fact, IAMAS was

the IUGG association that had originally proposed to establish CCEC.

The first day of the workshop concentrated on inter-disciplinary geophysical research activities. The second day concentrated on scientific activities that could be used to foster internal linkages between and within the geodetic and geophysical communities. Though these are relatively straightforward and obvious in relation to meteorology and atmospheric sciences through climate change; and in relation to the hydrological sciences through *Panta Rhei* (the IAHS Science Initiative 2013-2022 *Change in Hydrology and Society*, www.iahs.info/pantarhei), it was noted that disparate fields such as geodesy can have links to hydrology through the ability of satellites, such as GRACE, to accurately map the gravity field, and hence the total radial mass at a given point on the Earth's surface. Changes in the total liquid water content can thus be accurately deduced – though its partition into surface and ground water remains as a field of enquiry. The participants identified six areas of possible linkages:

Water Resources (IAHS/IAG)

East Asia and the Monsoon (IAMAS/IAHS)

Sea Level Rise (IAPSO/IACS)

Space Weather and Sustainability (IAGA / IAMAS)

Climate Extremes and Food (IAMAS/IAVCEI)

Urban Risks

More information is available at: <http://www.ccec-iugg.org/>



Invited participants of the CCEC workshop: Pingfan RAO (China, IUFoST), Makoto TANIGUCHI (Japan, IAHS), Serhat SENSOY (WMO), Tom BEER (Australia, Chair of CCEC), Keith ALVERSON (UNEP, SG of CCEC, also representing IAPSO), Athena COUSTENIS (France, IAMAS), Guoxiong WU (China, IAMAS), Tonie VAN DAM (Luxembourg, IAG; front row from left); Jun CHEN (China, ISPRS), Dan ROSBJERG (Denmark, IAHS), Michael MacCRACKEN (USA, IAMAS), Ian ALLISON (Australia, IACS), Eigil FRIIS-CHRISTENSEN (Denmark, IAGA), Jianping LI (China, Vice Chair of CCEC; back row from left).

b) IRC statement on Radiation Management for Climate Engineering

During DACA-13 in Davos last summer, the International Radiation Commission started to prepare a statement on Radiation Management for Climate Engineering. The idea was to compliment the statements of ICCP, IO3C, and IAMAS from the point of view of the radiation experts. The statement is now officially posted at the IRC website: <http://www.irc-iamas.org//calendar/news.php?id=69> and is also presented

below:

STATEMENT ON RADIATION MANAGEMENT FOR CLIMATE ENGINEERING

The International Radiation Commission (IRC) notes that the International Association of Meteorology and Atmospheric Sciences (IAMAS) as well as two of its commissions, the International Commission on Clouds and Precipitation (ICCP) and the International Ozone Commission (IO3C), have published statements of caution regarding Radiation Management for Climate Engineering. The IRC recognizes and fully endorses those statements. Based on the commission's specific focus on radiation processes, the IRC adds the recommendation:

It is well known that modifications of the Earth's incoming and outgoing radiative energy flows impact many other quantities coupled to radiation in the climate system, ultimately altering carbon, energy and water cycles. Thus it is generally invalid to consider changes to Earth's radiation balance in isolation. Ongoing research, assessed by the Intergovernmental Panel of Climate Change (IPCC), has highlighted that radiation management does not provide simple one-to-one offsets of anthropogenic influences but instead, benefits certain locations or seasons while harming others. Therefore, geo-engineering of the climate system should not be implemented without considering the risks of unintended side effects. A deeper understanding and quantification of the dominant processes and their impacts on the integrated system is required, including during the periods after radiation management is turned off. The IRC considers it necessary that a comprehensive assessment of all aspects is mature before radiation management is implemented.

Undersigning:

The members of the International Radiation Commission

March 2014

IRC is a commission of IAMAS

which is an association of IUGG

which is a member of the International Council for Science (ICSU).

c) Upcoming IAMAS Event: 9th Antarctic Meteorological Observing, Modeling and Forecasting Workshop

The 9th Antarctic Meteorological Observation, Modeling, and Forecasting Workshop (AMOMFW) will be held at the College of Charleston's School of Education Health and Human Performance Center. This workshop is endorsed by ICPM and organized annually by members of the AMOMFW international Planning Committee. This workshop brings together those with research and operational/logistical interests in Antarctic meteorology and forecasting and related disciplines. As in the past, the annual activities and status of the AMRC, AWS, and AMPS efforts will be addressed, and feedback and results from their user communities will be solicited. More broadly, this workshop is also a forum for current results and ideas in Antarctic meteorology, numerical weather prediction, and weather forecasting, from contributors around the world. More information can be found at <http://amrc.ssec.wisc.edu/meetings/meeting2014/> .

d) Other upcoming IAMAS Events:

For links to more meetings with relevance to IAMAS please see the IAMAS meetings page under www.IAMAS.org/meetings. Over the next few months there is the 5th HEPPA workshop under the auspices of ICMA, the regular quadrennial conferences of ICAE and ICACGP as well as the 1st World Weather Open Science Conference and the COSPAR assembly.