No.10

INFORMATION E-MAIL FROM THE IAMAS BUREAU

IUGG IAMAS International Association of Meteorology and Atmospheric Sciences

May 2018

Content:

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IAMAS Bureau Meeting 2018 in Cambridge, UK

The British Antarctic Survey, in Cambridge, UK

IAMAS Bureau Members

From Left:

Steven Ackerman, Deputy Secretary General
John Turner, President
Joyce Penner, Vice President
Athena Coustenis, Past President
Laura G. Klenner, Vice President
Teruyuki Nakajima, Secretary General

The IAMAS Bureau Meeting was held over 5-6 April 2018 at the British Antarctic Survey, Cambridge, UK, hosted by the IAMAS President John Turner.

The Bureau discussed a number of important issues relating to the management of IAMAS, including finances, the IAMAS website and possible revisions of the statutes. The plans for future activities such as the IUGG 2019 assembly and the 2019 officer elections were also considered. There was an extended discussion about the possible future direction of our association and the production of an IAMAS Strategic Plan that would consider developments over the next few years. It was envisioned that the plan would consider possible new commissions, outreach via social media and other means, links with other organizations, improving the regional presence of IAMAS and engagement with early career scientists. A draft of the plan will be prepared over the coming months and then circulated around the IAMAS community for comment and input, with the hope that it can be approved at the 2019 General Assembly.

The XXVII IUGG General Assembly (IUGG2019) in Montreal, Canada

The 27th General Assembly of the International Union of Geodesy and Geophysics (IUGG) will take place from 8 to 18 July 2019 in Montréal, Québec, Canada.

This is a special opportunity for participants from Canada and from around the world to come together and share their science and culture.

2019 marks the 100th anniversary of IUGG; we will look back on the accomplishments of the previous century of Earth and space science research, and forward to the next century of scientific advancement. You can join scientific activities, including special public lectures, keynote Union lectures and a wide variety of themed sessions.

On 8 April 2018 the Scientific Programme Committee (SPC) meeting was held in Vienna, Austria. The SPC discussed the scope and co-conveners of Union and Inter-Association Symposia as well as the schedule of the Union Symposia and Union Lecturers.

The Scientific Programme will be composed of Union, Inter-Association, and single Association symposia, workshops, panels and special events.

Below is a list of confirmed Union Symposia.

U01	Future Earth, Climate and Sustainability
U02	Disaster Risk Science
U03	Mathematics and Observations in Earth Science
U04	Data Science, Big Data and Analytics in Geodesy and Geophysics
U05	New Discoveries in Earth's Deep Interior
U06	New Discoveries in Planetary Sciences
U07	Centennial of International Cooperation in Earth Sciences
U08	Earth and Space Observations
U09	Early Career Scientists' Symposium

The Scientific Programme also comprises nine keynote Union lectures, to be given during the second morning session on three days of the Assembly.

The website is now online and will be updated regularly.

http://iugg2019montreal.com/

Please check the latest information at the website and important deadlines below.

IMPORTANT DEADLINES

October 1 2018

- ✧ Online registration begins
- ✧ Abstract submission begins
- ✧ The online housing tool opens
- ✧ Travel grant applications open

February 18 2019

- ✧ Abstract submission closes
- ✧ Travel grant applications closes

March 30 2019

- ✧ Abstract acceptance sent to participants

April 5 2019

- ✧ Early-bird registration closes

May 31 2019

- ✧ Complete scientific programme details published

The venue of IUGG2019: Palais des Congrès

Call for Nominations for the PAUL J. CRUTZEN AWARD FOR EARLY CAREER SCIENTISTS

The international Commission on Atmospheric Chemistry and Global Pollution (iCACGP also abbreviated CACGP) is one of the Commissions in IAMAS (International Association of Meteorology and Atmospheric Sciences).

IAMAS is one of the associations within IUGG (International Union of Geodesy and Geophysics) which is one of the scientific unions of the non-governmental ICSU (International Council for Science).

iCACGP facilitates atmospheric chemistry research that contributes to solving the societal issues of air quality, human/ecosystem health, food production and water quality. This is achieved through an enhanced understanding of the fundamental mechanisms that control atmospheric composition, surface fluxes and the development of improved predictive capabilities. The Commission was founded in 1957 as the Commission on Atmospheric Chemistry and Radioactivity. In 1971 the name was changed to the Commission on Atmospheric Chemistry and Global Pollution. iCACGP leadership helped to create the international research project IGAC (International Global Atmospheric Chemistry), which is scientifically sponsored by iCACGP and the International Geosphere- Biosphere Programme (IGBP) until 2015 and now by its successor Future Earth. iCACGP also scientifically sponsors the international SOLAS (Surface Ocean Lower Atmosphere Study) together with IGBP, the Scientific Committee on Oceanic Research (SCOR) and the World Climate Research Programme (WCRP).

Purpose of the prize

The "Paul J. Crutzen Award for Early Career Scientists of the International Commissions on Atmospheric Chemistry and Global Pollution" is granted for an outstanding research contribution in atmospheric sciences by an early career scientist. The purpose of the award is to promote scientific innovation in atmospheric sciences for the protection of the environment.

The person nominated for the Award should be the first author of at least one cited paper with significant innovation and impact. An early career scientist is defined for this award as a researcher within 7 years of completing a Ph.D. or equivalent degree. If parental leave falls into this period, up to one year may be added per child where appropriate. The nominee should meet the above criteria by the first of June of the year when the award is competed.

Nomination Procedure

A complete nomination packages must be sent in one e-mail to the two following e-mail addresses:

mariak@uoc.gr; christian.george@ircelyon.univ-lyon1.fr

under the subject heading: 'Nomination for the iCACGP Paul J. Crutzen Award 2018'

The nomination package should include:

- a nomination letter (max one page).

- at least two endorsement letters (and not more than four) describing the impact and innovation of the paper and the exceptional achievements of the candidate (max one page each), the letters must clearly state the affiliation, address and scientific qualifications of the nominator.

- one page of scientific achievements of the candidate in which the key paper(s) of the candidate are cited,

- a brief curriculum vitae of the candidate (max two pages),

- a full publication list marking the papers for which the candidate is corresponding author and those that are without his/her degree advisor.

- an electronic copy of one or more key scientific paper(s) in pdf format.

To be eligible, the nomination must be complete and legible. Self-nominations will not be considered.

Nominated candidates are expected to be attendees at the next scientific meeting of iCACGP, which for 2018 will be the 14th iCACGP QS / 15th IGAC SC, which takes place from the 25th to 29th September 2018 in Takamatsu, Kagawa, Japan (icacgp-igac2018.org).

Candidates, who have previously won the Paul J. Crutzen Award for Early Career Scientists, are no longer eligible to be nominated. The Award Committee may decline to give the Award if none of the nominations submitted is of a sufficiently high scientific standard.

The deadline for submission of the full package of nominations is the 10 June 2018. The decision will be announced by mid-July 2018.

The Prize

The Award consists of a certificate, accompanied in 2018 by a prize that will cover registration fees, airfare and lodging fee of the winner to attend the joint 14th iCACGP Quadrennial Symposium and 15th IGAC Science Conference in Takamatsu, Kagawa, Japan, 25-29 September 2018. The award will be presented at the conference banquet.

The Award Committee

A ranking of the candidates will be made by the Award Committee, which consists of three iCACGP commission members, the President of the Commission, and one scientist from the Max Planck Institute for Chemistry in Mainz.

The assessors will judge and rank the nominations submitted for the Award, according to their Innovation and Impact.

The final selection will be made by the Commission. Additional information can be found at:

http://www.icacgp.org

The First Article of a series featuring Early Career Scientists

"You and Me and the Trees"

Glenn Wolfe has invested more than a decade building an observationally-grounded understanding of how natural and anthropogenic activities synergistically influence atmospheric composition and ozone. He earned a B.A. in Chemistry from Johns Hopkins in 2004 and a Ph.D. in Atmospheric Chemistry from the University of Washington in 2010. His dissertation included trans-Pacific pollution transport and exchange of reactive nitrogen within forest canopies. From this work, Glenn acquired an appreciation for the nuts-and-bolts of instrument development, the challenges and rewards of field deployment, and the wider perspective afforded by model-assisted data synthesis. As a NOAA Climate and Global Change Postdoctoral Fellow at the University of Wisconsin, he studied biogenic hydrocarbon oxidation through a combination of laboratory and modeling investigations and deployed instrumentation on a Zeppelin as part of the European-led PEGASOS mission. In October 2012 he accepted a position as a Research Scientist at NASA Goddard Space Flight Center and University of Maryland Baltimore County's Joint Center for Earth Systems Technology. At NASA, Glenn continues to seek new insights into atmospheric chemistry and surface-atmosphere interactions. Forming the core of his work are airborne in situ observations in two key flavors: formaldehyde and fluxes.

Formaldehyde (HCHO), a ubiquitous byproduct of hydrocarbon degradation, is a major source of radicals and a marker for the oxidative processes that control the abundance of air quality and climate-relevant gases like ozone and methane. Along with other members of his team, Glenn has acquired HCHO observations on NASA, NSF and NOAA missions, including (most recently) NASA's Atmospheric Tomography (ATom) Mission. The science from these measurements has advanced our understanding of atmospheric processes, including emissions, oxidation, and convection. He has used observations from the NOAA Southeast Nexus (SENEX) study to quantify the relationship between HCHO and its primary terrestrial precursor, isoprene. This work underpins ongoing efforts to estimate isoprene emissions from space-based HCHO column retrievals, and thereby constrain our regional modeling of ozone.

Glenn also studies atmospheric processes through direct measurements of vertical fluxes on low-flying aircraft. These observations are the next step in composition research, extending our capabilities from merely quantifying the state of the atmosphere (i.e. concentrations) to actually quantifying the underlying processes (emissions, deposition/uptake, chemical transformations). Airborne flux observations can directly test models and high-level satellite products. Using observations from NASA's Studies of Emissions, Atmospheric Composition, Clouds and Climate Coupling by Regional Surveys mission, Glenn derived the first-ever flux measurements from NASA's DC-8 and demonstrated their application towards quantification of emissions, deposition, chemical lifetimes, and aerosol uptake efficiencies over a Southeast US forest. More recently, he has been central to NASA's nascent Carbon Airborne Flux Experiment (CARAFE), which has quantified greenhouse gas exchange. In the future, Glenn foresees combining reactive and greenhouse gas fluxes with remotely-sensed surface properties (e.g. vegetation health) to develop a comprehensive portrait of biosphere-atmosphere interactions.

Glenn also provides a valuable service to the atmospheric chemistry community by developing and maintaining the Framework for 0-D Atmospheric Modeling (F0AM), a flexible and user-friendly chemical box model. To date, F0AM has supported 23 publications and is used by at least a dozen research groups.

As of March 2018, Glenn has co-authored 65 peer-reviewed publications. When not in the lab or the field, Glenn's hobbies including amateur carpentry, guitar, scotch appreciation, hiking, and construction of sprawling wooden train tracks with his two sons.

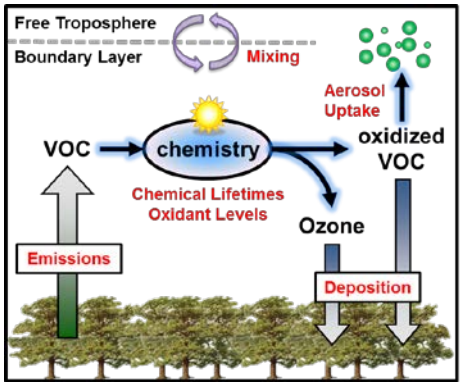

Figure 1. Some of the key processes influencing composition over a forest. All if the items in red text can be nearly-directly quantified with careful application of flux observations (see Wolfe et al., GRL (2015)).

The NASA DC-8 awaits take-off in Thule, Greenland during the February 2017 NASA ATom Mission. Glenn operated the instrument that measured formaldehye on this ATom deployment.

Author: Glenn M. Wolfe
Introduced by IO3C Member: Paul A. Newman

The IAMAS Facebook Page is now available!

IAMAS SG Office is pleased to announce the launch of IAMAS Facebook "Page".

https://www.facebook.com/IntAssociationMeteorologyAtmosphericSciencesIAMAS/

As you know, IAMAS President, John Turner has managed an IAMAS Facebook "Group", which you can join at https://www.facebook.com/groups/894638217243596/ . This Group page provides the important information and is the best place to discuss of any theme online.

On the other hand, the IAMAS Facebook "Page" managed by the IAMAS SG Office will also provide the valuable information including the latest issue of IAMAS Newsletter, introduction of Early Career Scientists, their activity report and upcoming events more frequently.

Especially, we would like to have a series of articles featuring Early Career Scientists in parallel with the IAMAS Info-Email. We have gathered some articles from young scientists who were introduced by the commission officers. The IAMAS SG Office would like to post an article on the Facebook Page each month and summarize these articles on the IAMAS Info-Emails after that.

We have a plan to announce the second call for an article from ECS in this summer.

Please follow and like the Facebook Page "IAMAS SG Office" and join IAMAS "Group". And you can spread this news and share our posts!

IUGG Annual Report 2017

The IUGG Annual Report 2017 is now available at http://www.iugg.org/publications/reports/report2017.pdf. It provides a summary of the activities of the Union, its Associations, Union Commissions and Programs.

The IAMAS SG Office would like to express our gratitude to all the commissions for contributing activity reports.

Upcoming IAMAS-related meetings

✧ **15-26 June 2018**

POLAR2018. Where the poles come together. A SCAR & IASC Conference
Davos, Switzerland
Web: http://www.polar2018.org/

✧ **17-22 June 2018**

The 16th ICAE conference (ICAE2018)
Nara, Japan
Web: http://icae2018.saej.jp/

✧ **7-8 July 2018**

Workshop on Evaluation of Cloud Probe Processing Software(ICCP)
Vancouver, Canada
Web: http://www.iccp-iamas.org/news.html

✧ **9-12 July 2018**

ISARRA 2018 - International Society for Atmospheric Research using Remotely piloted Aircraft
Boulder, CO, USA
Web: http://isarra.colorado.edu/

✧ **16-19 July 2018**

13th Workshop on Antarctic Meteorology and Climate (WAMC)
Wisconsin, USA
Web:
http://amrc.ssec.wisc.edu/meetings/meeting2018/

✧ **25-29 September 2018**

2018 joint iCACGP 14th Quadrennial Symposium and IGAC 15th Science Conference (iCACGP)
Takamatsu, Japan
Web: http://icacgp-igac2018.org/

The IAMAS INFORMATION E-MAIL

We welcome short reports from the Commissions at any time.

IAMAS, General Secretariat
Assistant: Yoshi Sasaki, Nozomi Tomizawa, Miyuki Miyazaki
IAMAS_SG_office@jaxa.jp