



IAMAS

International Association of Meteorology
and Atmospheric Sciences

Annual Report of the International Association of Meteorology and Atmospheric Sciences (IAMAS) 2019

www.IAMAS.org

Introduction

IAMAS is the specialized association of the International Union of Geodesy and Geophysics (IUGG) that deals with all aspects of the gaseous envelope around the Earth and other planets. The main research work is carried out, coordinated and communicated through IAMAS's 10 International Commissions (IC), which, in alphabetical order, are the:

- International Commission on Atmospheric Chemistry and Global Pollution (ICACGP)
- International Commission on Atmospheric Electricity (ICAE)
- International Commission on Climate (ICCL)
- International Commission on Clouds and Precipitation (ICCP) including the Committee on Nucleation and Atmospheric Aerosols (CNAA)
- International Commission on Dynamical Meteorology (ICDM)
- International Commission on the Middle Atmosphere (ICMA)
- International Commission on Planetary Atmospheres and their Evolution (ICPAE)
- International Commission on Polar Meteorology (ICPM)
- International Ozone Commission (IOC)
- International Radiation Commission (IRC)

All the ICs, and IAMAS as a whole, play a leading role in global coordination, communication and discussion of the latest research through organization of and participation in a wide range of scientific meetings that are open to all scientists.

Administration

The 2019 Bureau and Executive Committee meetings were held over 8–18 July 2019 during the 27th General Assembly of the International Union of Geodesy and Geophysics (IUGG) in Montréal, Québec, Canada. Minutes from the IAMAS assembly meetings are forth coming. The Bureau and Executive Committees reviewed the IAMAS financial status and activities and discussed and approved a new strategic plan. The financial audit was discussed and approved. In addition, elections for President, Secretary General, 2 Vice Presidents, and 5 new Members at Large were held.

In addition, the IAMAS Executive Committee agreed that the term of the Secretary General

should be four years, instead of eight years. A few other minor changes were made to the IAMAS Statutes. Elections were conducted by some commissions and new commission officers were elected as shown below.

Activities

The IAMAS Executive Committee approved the IO3C Resolution on the Role of Ozone and Ozone Depleting Substances for the Environment

http://www.io3c.org/sites/io3c.org/files/upload/news/Ozone_IUGG_resolution_v1_approved.pdf

A new website design was developed for IAMAS to modernize the look and support user needs. With the change in leadership, the official website of IAMAS is now being migrated to a secure web server.

A new email address was set up, iamas.org@gmail.com

To improve visibility, there will be a IAMAS booth at the May, 2020 EGU meeting
https://egu2020.eu/exhibition/list_of_exhibitors.html

Awards:

- Dr. Lei Bi, Department of Atmospheric Sciences School of Earth Sciences, Zhejiang University, awarded the 2019 IAMAS Early Career Scientist Medal.
- Dr. Warren Washington, was a winner of the ‘Nobel Prize for the Environment’, the Tyler Prize for Environmental Achievement.

IAMAS EXECUTIVE COMMITTEE 2019-2023

President:	Joyce E. Penner	USA
Vice-Presidents:	John Burrows	Germany
	Mary Scholes	SOUTH AFRICA
Past President:	John Turner	UK
Secretary General:	Steven Ackerman	USA
Deputy Secretary General:		USA
Assistant Secretaries General	Leanne Avila	USA
Members at large:	Lisa Alexander	AUSTRALIA
	Keith Alverson	USA / JAPAN
	Iracema Cavalcanti	BRAZIL
	Mu Mu	CHINA
	Michiel R. van den Broeke	NETHERLANDS

IAMAS COMMISSIONS

Atmospheric Chemistry and Global Pollution (ICACGP) www.icacgp.org		
President:	Melita Keywood	AUSTRALIA
Vice-President:	Mary Barth	USA
	Christian George	FRANCE
	Stuart Piketh	SOUTH AFRICA
	Tong Zhu	CHINA
Secretary:	James R. Drummond	CANADA
Atmospheric Electricity (ICAE) http://icae.jp		
President:	Xiushu Qie	CHINA
Secretary:	Weitao Lyu	JAPAN
Climate (ICCL) www.iccl-iamas.net		
President:	Jianping Li	AUSTRALIA
Secretary:	Quizhen Yin	CHINA
Clouds and Precipitation (ICCP) www.iccp-iamas.org		
President:	Andrea Flossmann	FRANCE
Vice-President:	Greg McFarquhar	USA
Secretary:	Darrel Baumgardner	MEXICO
Committee on Nucleation and Atmospheric Aerosols (ICNPAA) www.icnaa.org		
Chair:	Markku Kulmala	FINLAND
Dynamic Meteorology (ICDM) http://icdm.atm.ucdavis.edu/ICDM.html		
President:	Thomas Spengler	NORWAY
Secretary:	Craig Bishop	AUSTRALIA
Middle Atmosphere (ICMA) www.icma-iamas.org		
President:	Bernd Funke	SPAIN
Vice-President:	Natalia Calv	SPAIN
Ozone (IO3C) http://www.io3c.org/		
President:	Sophie Godin-Beekmann	FRANCE
Vice-President:	Paul A. Newman	USA
Secretary:	Irina Petropavlovskikh	USA
Planetary Atmospheres and their Evolution (ICPAE) http://icpae.iaps.inaf.it/		
President:	Feng Tian	CHINA
Vice-President:	Ann Carine Vandaele	BELGIUM
Secretary:	Christina Plainaki	ITALY
Polar Meteorology (ICPM) www.icpm-iamas.aq		
President:	Matthew Lazzara	USA
Secretary:	Tracy Moffat-Griffin	UK
Radiation (IRC) www.irc-iamas.org		
President:	Byung-Ju Sohn	KOREA

Vice-President:
Secretary:

Peter Pilewski
Marcia Akemi Yamasoe

USA
BRAZIL

Highlights from the IAMAS International Commissions

ICACGP (<http://www.icacgp.org/>)

iCACGP convened several sessions at the 27th IUGG Assembly in Montreal in July 2019. These included M08 - Air Quality in the Changing Anthropocene, M09 - The Arctic in the 21st Century: A Hotbed of Global Change and the joint session, JM02 - Anthropogenic changes in Chemistry and Physics of the Atmosphere: Evidence and Attribution Studies (IAMAS, IAVCEI, IAG). All sessions were well attended, with the M08 session extending to 9 time slots. The commission also held its annual meeting in Montreal, which was attended by 23 commissioners who developed the strategic direction for iCACGP over the 2019-2021 period. iCACGP working with IGAC, SOLAS, and GAW have been successful in the submission of several proposals for sessions at the Sustainable Research and Innovation 2020 conference focusing on atmospheric chemistry and the Sustainability Development Goals <https://sri2020.org/>.

ICAE (<http://icae.jp/>)

1) The new ICAE Commission started its new term in 2019. Four new members joined the ICAE commission and five members became honorary members.

2) ICAE organized one session for IUGG2019 in Montreal.

3) ICAE published 2 issues of newsletters in 2019. All the two ICAE newsletters were distributed to a mailing list of around 800 ICAE colleagues from nearly 50 countries. 4) The new website for ICAE is being constructed at www.icae-iamas.org.

5) The ICAE mailing list has been updated.

Plan for 2020

1) Transfer the content of the former ICAE website, www.icae.jp, to the new ICAE website, www.icae-iamas.org, and regularly update it.

2) Issue two newsletters, one in spring and one in the fall.

3) Update the ICAE colleague mailing list as needed.

ICCL (<http://www.iccl-iamas.net/>) held the following meetings:

27th IUGG General Assembly in Montreal, Quebec, Canada. July 8 - 18, 2019

During the centennial IUGG conference, the ICCP commission ran the M01 - Cloud-Precipitation-Aerosol session. Talks and poster sessions covered four entire conference days and special talks honored the recently deceased giants of our field Roland List and John Hallett. Joint sessions with ICPM on polar clouds and with ICCLAS (IAHS) on precipitation and hydrological aspects were conducted. Also, an ICCP business meeting was held.

International Workshop on Airborne Instrumentation and Data Processing, Beijing, China. June 26 - 28, 2019

This workshop was hosted by the Key Laboratory of Cloud and Fog Physics and Laboratory of Weather Modification and Airborne Measurement, Chinese Meteorological Agency (CMA). It was attended and supported by many members of the ICCP. Sessions on cloud probes, processing techniques for cloud probes, research aircraft, and past data sets were held.

Preparation of the 18th International Conference on Clouds and Precipitation, in 2020 to be held in Pune, India

The bureau and the local organizing committee prepared the venue and web portal for the conference and the associated workshops.

Other information: webpage (<http://www.iccp-iamas.org/>) + presence on LinkedIn; Facebook page (over 550 likes): <http://www.facebook.com/pages/ICCP/318220008285622>

ICDM (<http://icdm.atm.ucdavis.edu/ICDM.html>)

In 2019 ICDM developed 9 symposiums (7 IAMAS, 2 Joint) at the 26th IUGG Assembly in Montreal. ICDM also promoted (with IAMAS and IUGG assistance) the first TEAMx Workshop in Rovereto, Italy (August). Formed in late 1967, ICDM chose to celebrate our 50th Anniversary at the Montreal Assembly with a small reception, a memento, and dinner at a local, fine restaurant. (Pictures attached) Thomas Spengler was elected the new ICDM President and Craig Bishop elected the new ICDM Secretary. Five members reached the end of their terms and five new members were elected.

ICMA (<http://icma.iaa.es/>)

The International Commission on the Middle Atmosphere (ICMA) mandate is to foster international cooperation in research into the science of the middle atmosphere and its coupling with the climate system. ICMA is part of the Inter-Association (IAGA/ICMA/SCOSTEP) Working Group II-F: Long-term Trends in the Mesosphere, Thermosphere and Ionosphere.

Assembly symposia

ICMA organized two symposia at the 27th IUGG General Assembly, 8 - 18 July 2019, Montreal, Canada: The Middle Atmosphere Science symposium (M06) lasted 3 days (10 sessions) and had 55 abstracts. The Stratosphere Couplings to the Troposphere and Ocean symposium (M07) lasted 3 days and had 37 abstracts. ICMA was also involved in the organization of the inter-association symposia JA5 Solar Influence on the Atmosphere and JC2 Atmosphere-Ocean-Sea Ice Interactions: Local Processes and Global Implications, and co-sponsored a few other symposia with IAGA (A03 and A06).

Business meetings

During the IUGG Assembly, ICMA held its business meeting on 12.07.2019 with the election of the Vice President and 13 new members for the term 2019-2023. The current ICMA EC is composed by Bernd Funke (President), Natalia Calvo (Vice President), and Elisa Manzini (Past President).

ICMA sponsored Workshops

ICMA sponsored the Atmospheric circulation in a changing climate - DynVarMIP workshop which was organized jointly with SPARC/DynVar and SPARC/SNAP. It took place on 22-25 October 2019 in Madrid and attracted 94 scientists from 17 countries. A detailed workshop report will appear in the next SPARC newsletter, January 2020 (Report on the joint DynVarMIP/CMIP6 and SPARC DynVar & SNAP Workshop Atmospheric Circulation in a Changing Climate, Karpechko et al.)

IO3C (<https://ioc.atmos.illinois.edu/>)

1) The SPARC/IO3C/WMO LOTUS Report was prepared for analyses of stratospheric ozone trends and included a new approach for uncertainty analyses of the combined trends. IO3C leads the SPARC activity group to organize trend analyses. The report was published in 2019 and contributed to the WMO/UNEP Ozone assessment, <https://www.sparc-climate.org/publications/sparc-reports/sparc-report-no-9/>

SPARC Report N°9 (2019) of The SPARC LOTUS Activity: SPARC/IO3C/GAW Report on Long-term Ozone Trends and Uncertainties in the Stratosphere. Prepared by the SPARC LOTUS Activity, edited by I. Petropavlovskikh, S. Godin-Beekmann, D. Hubert, R. Damadeo, B. Hassler,

and V. Sofieva. www.sparc-climate.org

2) IO3C organized a session for the IAMAS Session M21 - Celebrating the Montreal protocol in Montreal : assessing ozone layer recovery in an evolving climate at 27th International Union of Geodesy and Geophysics (IUGG) General Assembly, 8 - 18 July 2019, Montreal, Canada

3) At the recent IAMAS meeting during the IUGG general Assembly in Montreal, Canada, IO3C proposed and presented the Resolution on the Role of Ozone and Ozone Depleting Substances for the Environment. The Resolution was accepted by IAMAS.

4) Quadrennial ozone symposium (QOS2020) in Seoul, South Korea, was announced in the fall of 2019, the Local Organizing committee was formed, IO3C invited keynote speakers and QOS2020 webpage was created. It is now open for abstract submission, qos2020.yonsei.ac.kr

5) IO3C prepared and distributed a Press Release on September 16, 2019: The International Ozone Commission, on the 32th anniversary of the Montreal Protocol, reports success in healing of the ozone layer, <http://www.io3c.org/press-release-international-ozone-commission-32th-anniversary-montreal-protocol-reports-success>

6) IO3C has a very successful Facebook page, with 470 members and many important discussions, meeting announcements and sharing of materials.

7) IO3C members contributed to the SPARC organized CFC-11 Symposium on 25-27 March 2019, <https://www.sparc-climate.org/meetings/meetingscfc-11-workshop-march-2019-in-vienna/>

ICPAE (<http://icpae.iaps.inaf.it/>)

ICPAE participated in the IUGG general Assembly in Montreal, Canada but otherwise did not organize meetings or workshops in 2019. ICPAE focused increasing the membership of ICPAE members and are planning for a workshop in 2021.

ICPM (<http://www.icpm-iamas.aq/>)

The International Commissions on Polar Meteorology (ICPM) endorsed the first workshop on Quantifying the Indirect Effect: From Sources to Climate Effects of Natural and Transported Aerosol in the Arctic held in Cambridge, United Kingdom in April 2019. In June 2019, the commission endorsed the 14th Workshop on Antarctic Meteorology and Climate, which was held in Charleston, SC. The SCAR Operational Meteorology meeting was also held as part of this workshop as was the Year of Polar Prediction in the Southern Hemisphere (YOPP-SH) meeting. The workshop went extremely well and was attended by ~55 people from 10 different countries. The workshop also resulted in a meeting summary paper in a special issue of Advances in Atmospheric Sciences on Antarctic Meteorology and Climate: Past, Present and Future (Lazzara et al, 2020).

During the 27th IUGG General Assembly in Montreal, ICPM members were conveners or co-conveners of the following five sessions: Polar Atmospheric Instrumentation, Cloud-Precipitation-Aerosol, First Results from the YOPP-SH, Future Evolution of the Polar Atmospheres, and Polar Modelling (Polar CORDEX). New members were elected to the commission from Canada and China expanding membership that covers interest and skills over both polar regions as well as a first step toward meeting our membership goal of having representation from across the globe. Efforts are already underway to convene seven sessions for the BACO-21 meeting planned for Busan, in 2021.

Lazzara, M. A., and Coauthors, 2020: The 13th and 14th Workshops on Antarctic Meteorology and Climate. Adv. Atmos. Sci., 37(4), <https://doi.org/10.1007/s00376-019-9215-6>. (in press)

IRC (<http://www.irc-iamas.org/>)

The IRC convened two sessions at the 27th IUGG General Assembly 2019 in Montreal: Current Progress in Atmospheric Radiation and Earth's Energy Budget; and three joint sessions: Solar Influences on the Atmosphere and Climate, Remote Sensing and Modelling of the Atmosphere, and Innovative Monitoring and Observation Techniques. We congratulate IRC Officer Lei Bi, Department of Atmospheric Sciences School of Earth Sciences, Zhejiang University, on being awarded the 2019 IAMAS Early Career Scientist Medal. The IRC Business Meeting 2019 was held on 10 July 2019, where we had 12 IRC Working Group presentations as well as continuing discussions on reformulation the IRC Working Groups and adding new ones. Since then, many of the important preparations for the International Radiation Symposium 2020 in Thessaloniki, Greece were conducted. An attendance of approximately 500 scientists is anticipated.

FUTURE ACTIVITIES

Planning is underway for the IAMAS-IACS-IAPSO joint assembly to be held in the (International Association of Cryospheric Sciences, IACS; the International Association for the Physical Sciences of the Oceans, IAPSO), in the city of Busan, Republic of Korea, during the period of July 18-23, 2021. (BACO-21 http://baco-21.org/2021/english/main/index_en.asp)

Submitted by
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