



Atmosphere Working Group Meeting

15 April 2013

09.00-18.00

(Lunch 12.00-14.00, Coffee Breaks 10.30-10.45 and 16.10-16.30)

Krakow, Poland
Dom Polonii

Agenda

Participants:

WG MEMBERS PRESENT:

JIM OVERLAND - USA, CHAIR
HIROSHI L. TANAKA - JAPAN, VICE CHAIR
MICHAEL TJERNSTRÖM - SWEDEN, VICE CHAIR
CLAUDE LABINE – CANADA
BIAN LINGEN – CHINA
KAMIL LASKA – CZECH REPUBLIC
HENRIK SKOV – DENMARK
TIMO VIHMA – FINLAND (AFTERNOON)
LASSE MAKKONEN - FINLAND
KATHY LAW – FRANCE
KLAUS DETHLOFF – GERMANY
GÜNTHER HEINEMANN – GERMANY
HALLDOR BJORNSSON – ICELAND
GUDRUN NINA PETERSON - ICELAND
SURESH BABU – INDIA
NUNCIO MURUKESH – INDIA
VITO VITALE – ITALY
YOUNG JUN YOON – KOREA

SEONG JOONG KIM – KOREA
KJETIL TØRSETH – NORWAY
ANNA SJÖBLOM – NORWAY
TADEUSZ NIEDŹWIEDŹ – POLAND
RAJMUND PRZYBYŁAK - POLAND
ANGEL FRUTOS BARAJA – SPAIN
JOHN CASSANO – USA

WG MEMBERS NOT PRESENT:

KAORU SATO - JAPAN

GUESTS AND OBSERVERS:

SANDY STARKWEATHER (NOAA)
MONIKA KEDRA (ART EXECUTIVE COMMITTEE)
JUN INOUE (NIPR)

SECRETARIAT

YOO KYUNG LEE (EXECUTIVE OFFICER)



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1 OPENING AND REPORTING (09.00-09.30)

1.1 WELCOME AND INTRODUCTIONS

JAMES OVERLAND

1.2 REPORT FROM THE CHAIR

JAMES OVERLAND

1.3 APPROVAL OF THE MINUTES FROM THE LAST MEETING

YOO KYUNG LEE

- The minutes of the 2012 meeting is given in ANNEX 1.3

1.4 ADOPTION OF THE AGENDA

JAMES OVERLAND

2 MAIN ISSUES (09.30-16.00)

2.1 REPORTS ON AWG ACTIVITIES

2.1.1 POLAR PREDICTION

A major theme of the AWG is understanding polar prediction. Over the past year, the AWG has supported and/or organized three workshops around this theme.

2.1.1.1 APRIL 2012 IASC/WCRP WORKSHOP IN TORONTO

JAMES OVERLAND

The IASC/WCRP Polar Climate Predictability workshop (2-4 April, 2012) was a follow-on meeting to the Bergen workshop in October 2010. The purpose of this meeting was to develop a draft implementation plan for an initiative to be considered by the WCRP Joint Scientific Committee (JSC) and IASC in 2012.

- The Workshop report is given in ANNEX 2.1.1.1.

2.1.1.2 OCTOBER 2012 IASC/CLIC/AMAP WORKSHOP IN SEATTLE

JAMES OVERLAND

Multiple groups such as the Arctic Monitoring and Assessment Program (AMAP) and various national programs are interested in having Arctic climate

projections as one source of information towards an Arctic Change Assessment. Loss of sea ice and global change, marine access, species impacts, impacts on coastal communities, and governance are all drivers of the need for increased information. The Atmospheric Working Group of IASC and the World Climate Research Program (WCRP) are interested in the science of Arctic climate change and polar prediction. A group of 27 researchers representing eight countries came together in the fall of 2012 in Seattle to discuss the state of the science, what might be possible given current data and model results, and to provide guidance on a way forward.

2.1.1.3 JANUARY 2013 IASC/ISAR3 WORKSHOP IN TOKYO **HIROSHI TANAKA**

Hiroshi Tanaka will report on the Tokyo workshop held in conjunction with the ISAR 3. The workshop looked at ways that the AWG can organize national and international research projects in an optimum way in order to avoid unneeded duplication and conflicts of various projects by individual countries. Exchanging ideas for future research and adjusting possible international collaborations is an important role of IASC AWG. The theme of the workshop held in Tokyo in January was to look at a wide range of topics in Arctic Climate Change, including: Polar Predictability, Arctic Amplification, and linkage to global process.

- The Workshop report is given in ANNEX 2.1.1.3.

2.1.2 MOSAIC **MICHAEL TJERNSTRÖM, KLAUS DETHLOFF**

This workshop followed meetings in Potsdam and Denver during the fall of 2011, and represented a key step for producing project documentation (a science plan and implementation plan) necessary to formally propose such an observatory to science directorates and funding agencies in the participating countries. This workshop was held in Boulder, Colorado, USA, on June 27-30, 2012. The WG will hear a report on MOSAIC plans and developments and will discuss its role in the future of the activity which is led by the AWG.

- The MOSAIC Workshop report is given in ANNEX 2.1.2.

2.1.3 HISTORICAL DATA RETRIEVAL (ACRE) **RAJMUND PRZYBYLAK**

The 5th ACRE (Atmospheric Circulation Reconstructions over the Earth) workshop took place on 28-30 November 2012 in Toulouse. The workshop

provided a key opportunity for international experts in sparse-input reanalysis, large-scale data management, and historical climatology to build successful collaborative projects like the IASC-AWG endorsed Old Weather – Arctic project (www.oldweather.org) and SIRCA (Sparse Input Reanalysis for Climate Applications).

2.1.4 IASOA

SANDY STARKWEATHER

The IASOA consortium aims to combine ground-based pan-Arctic atmospheric science planning with research infrastructure planning. The consortium is comprised of science and operational leads from Arctic flagship observatories and national atmospheric organizations. The purpose of IASOA is to help produce relevant pan-arctic science deliverables to address atmospheric science questions as they contribute to relevant system science questions. During the 2012 meeting a decision was made to support IASOA. A proposal to do so was received from Sandy Starkweather and support has been given to enable the IASOA to hold a side meeting during the April 2013 Arctic Observing Summit. Sandy will report on the upcoming meeting.

- The IASOA Proposal is given in ANNEX 2.1.4.

2.1.5 PUBLIC PERCEPTIONS ON ARCTIC CHANGE

JAMES OVERLAND

Polar science faces a strange conundrum: while recent years (and the Fourth IPY in particular) have brought massive advances in understanding the polar systems, popular understanding of these processes seems to be diminishing. In light of tremendous changes threatening the state of the system in the Arctic and elsewhere, misperceptions and representations of polar climate science become a matter of concern for society at large. Given the critical role media and politics play in that field, representatives from these arenas gave presentations as part of the IPY Montreal Conference. The latter group included climate scientists, historians of science, as well as social scientists trying to understand the current situation.

2.2 REVIEW OF IASC ACTIVITIES RELATED TO THE AWG

2.2.1 SEA-ICE BOUNDARY LAYER WORKSHOP

WALT MEIER

“Arctic amplification” is the term given to the phenomenon seen in global climate models (GCMs) in which climate change in the high northern latitudes is enhanced relative to other areas of the world. The atmosphere-ocean boundary layer in which sea ice resides includes many complex processes that require a more realistic treatment in GCMs, particularly as models move toward full “earth system” descriptions. The primary purpose of this workshop (25-27 June, 2012) was to define and discuss such coupled processes from both the observational and modeling points of view.

- The Sea-Ice Boundary Layer Workshop report is given in ANNEX 2.2.1.

2.2.2 ARCTIC IN RAPID TRANSITIONS

MONIKA KEDRA

The ART Science Plan was approved by the Marine WG in 2010 and the Implementation Plan in 2011. The ART Executive Committee Held its first science symposium from 22 - 26 October 2012 in Sopot, Poland.

- The Symposium Summary is attached in ANNEX 2.2.2

2.2.3 ACSNET

MARY-LOUISE TIMMERMANS

The introductory ACSNet meeting was held during the IPY2012 Conference in Montreal on 23 April 2012. The goal of the meeting was to set a course for activities under ACSNet that would promote and strengthen international, interdisciplinary research collaborations in the Western Arctic.

2.2.4 IASC DATA POLICY GROUP

YOO KYUNG LEE

To reinforce IASC's commitment to robust data management and sharing activities, IASC Council decided to form a small advisory group of external experts and interested Council members that would develop and recommend a data policy, including steps toward implementation of the policy that would provide guidance for IASC supported activities. At its meeting in January 2013, the Action Group developed a draft IASC data policy which will be presented to IASC Council at the ASSW 2013.



- The draft IASC Data Policy is given in ANNEX 2.2.4.

2.2.5 IASC GEOSCIENCE GROUP

YOO KYUNG LEE

To address the issue that geological research is underrepresented in the current WG structure, IASC Council agreed to form an Action Group on Geosciences (AGG) with the terms of reference to provide strategic advice on both long-term opportunities and priorities in the field of Geoscience research in a broader sense. At its meeting in February 2013, the Action Group developed a report, including a set of recommendations, which will be presented to IASC Council at the ASSW 2013.

- The draft of the IASC Action Group of Geosciences is given in ANNEX 2.2.5

2.3 OTHER ATMOSPHERE ACTIVITIES EXTERNAL TO IASC

The agenda item will include brief updates on external activities that could be of interest to the AWG

2.3.1 YEAR OF POLAR PREDICTION

MICHAEL TJERNSTRÖM, KLAUS DETHLOFF

2.3.2 ARCTIC DATA ASSIMILATION PROJECT

JUN INOUE (NIPR)

To understand the uncertainty of the Arctic atmospheric circulation, intensive radiosonde observations for a data assimilation study are scheduled during September 2013. The special observing network, which obtains 3- or 6-hourly radiosonde data, will be established with the aid of Ny-Alesund and Tiksi stations, and R/V Mirai. These data will be used for observing system experiments. This workshop coordinates the observing strategy and a future science plan. This workshop is open for scientists who are interested in supporting this experimental observing network.

2.4 NEW ACTIVITIES FROM IASC CROSS-CUTTING ROUND

YOO KYUNG LEE

A call for new cross-cutting proposals has been launched in November last year. Under this agenda item, the Secretariat will introduce the initiatives that have been selected for funding.

2.5 3RD INTERNATIONAL CONFERENCE ON ARCTIC RESEARCH PLANNING (ICARP III)

JAMES OVERLAND

Under this agenda item, the Chair will introduce the draft concept for IASC's 25th Anniversary Celebration, including the Third International Conference on Arctic Research Planning (ICARP III).

- The ICARP III concept paper is given in ANNEX 2.5

The IASC WGs are expected to play an important role in the ICARP III

2.6 REVIEW OF WG FOCI

JAMES OVERLAND

The Scientific Foci of the Working Group had been discussed and agreed upon at the first WG meeting in Potsdam (Germany) in January 2011.

Under this agenda item, the WG is asked to revisit these foci and to discuss possible changes or additions.

2.7 PROPOSED ACTIVITIES

2.7.1 NEW ACTIVITIES/TASK BROUGHT FORWARD BY MEMBERS

Under this agenda item, new suggestions and proposals on WG activities will be brought forward by members of the Working Groups. This will include short presentations followed by a discussion.

2.7.1.1 ATMOSPHERIC CHEMISTRY, AEORSOLS, CLOUDS, RADIATION, POLLUTION, ETC

JAMES OVERLAND

The AWG has covered climate dynamics, a multidisciplinary, long-term, international field program, and data rescue topics. The Steering Group would like to encourage other members of the AWG to suggest additional topic areas and development of activities.

2.7.2 NEW ACTIVITIES FROM EXTERNAL INPUT

JAMES OVERLAND

An invitation to submit ideas and proposals for the WG to consider had been sent to the ArcticInfo mailing list prior to the meeting. Under this agenda item,



the suggestions received from the boarder research community, will be tabled and discussed by the WG.

3 NEXT MEETING (16.00-16.10)

YOO KYUNG LEE

3.1 ASSW 2014

The next meeting of the WG will be held in conjunction with the ASSW 2014 in Helsinki (Finland) on 7-12 April 2014

3.2 ASSW 2015

The 2015 meeting will be held at the ASSW 2015 in Japan, in conjunction with IASC's 25th Anniversary, the ICARP III and the 4th International Symposium on Arctic Research