

Cryosphere Working Group Meeting

6 April 2014

09:00-18:00

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

Helsinki, Finland

The Dynamicum, Finnish Meteorological Institute

Agenda

Participants:

WG MEMBERS PRESENT:

MARTIN SHARP - CANADA, CHAIR
JON OVE HAGEN - NORWAY, VICE CHAIR
SUN BO - CHINA
PENTTI KUJALA - FINLAND
JARI HAAPALA - FINLAND
HELGI BJORNSSON - ICELAND
ARUN CHATURVEDI - INDIA
HIROYUKI ENOMOTO - JAPAN
HYUN CHEOL KIM - KOREA
ELISABETH ISAKSSON - NORWAY
JACEK JANIA - POLAND
KRZYSZTOF MIGALA - POLAND
MARTIN LÜTHI - SWITZERLAND
MARTIN SCHNEEBELI - SWITZERLAND
ELIZABETH HUNKE - USA

WG MEMBERS NOT PRESENT:

JULIAN DOWDESWELL - UK, VICE CHAIR
WALT MEIER - USA, VICE CHAIR
JAN KAVAN - CZECH REPUBLIC
RENÉ FORSBERG - DENMARK
SIGNE BECH ANDERSON - DENMARK
MICHEL FILY - FRANCE

HANS-WOLFGANG HUBBERTEN - GERMANY
PETER LEMPKE - GERMANY
THORSTEINN THORSTEINSSON - ICELAND
PARMANAND SHARMA - INDIA
SHIN SUGIYAMA - JAPAN
SOON DO HUR - KOREA
PEDRO ELOSEGUI - SPAIN
FRANCISCO NAVARRO - SPAIN
VEIJO POHJOLA - SWEDEN
PEDRO ELOSEGUI - SPAIN
CARLEEN TIMJM-REIJMER - THE NETHERLANDS

GUESTS AND OBSERVERS:

HUGUES LANTUIT - AWI
JENNY BASEMAN - CLIC
THOMAS JUNG - WMO

SECRETARIAT

VOLKER RACHOLD (IASC EXECUTIVE SECRETARY)
HEIKE MIDLEJA (IASC SECRETARITAT)
ELENA KUTZNETSOVA (APECS PARTICIPANT)
LOUIS-PHILIPPE ROY (APECS PARTICIPANT)

Table of Content

| | | |
|------------|---|----------|
| 1 | OPENING AND REPORTING | 3 |
| 1.1 | WELCOME AND INTRODUCTIONS..... | 3 |
| 1.2 | REPORT FROM THE CHAIR..... | 3 |
| 1.3 | APPROVAL OF THE MINUTES OF THE LAST MEETING..... | 3 |
| 1.4 | ADOPTION OF AGENDA | 3 |
| 2 | MAIN ISSUES | 3 |
| 2.1 | REPORTS ON CWG ACTIVITIES | 3 |
| 2.1.1 | GTN-P..... | 3 |
| 2.1.2 | ISMASS..... | 4 |
| 2.1.3 | INTERNATIONAL SEA ICE PRIORITIES WORKSHOP..... | 4 |
| 2.2 | REVIEW OF IASC ACTIVITIES RELATED TO CWG | 4 |
| 2.2.1 | 19TH NORTHERN RESEARCH BASINS WORKSHOP..... | 4 |
| 2.2.2 | NETWORK OF ARCTIC GLACIOLOGY..... | 4 |
| 2.2.3 | THAW 2014..... | 4 |
| 2.2.4 | SECRETARIAL SUPPORT | 5 |
| 2.3 | OTHER CRYOSPHERE ACTIVITIES EXTERNAL TO IASC | 5 |
| 2.3.1 | CLIC (CLIMATE AND CRYOSPHERE)..... | 5 |
| 2.3.2 | INTERNATIONAL ASSOCIATION OF CRYOSPHERIC SCIENCES | 5 |
| 2.3.3 | NORDIC CENTRE OF EXCELLENCE PROGRAMME | 5 |
| 2.3.4 | WMO POLAR PREDICTION INITIATIVE | 5 |
| 2.4 | THIRD INTERNATIONAL CONFERENCE ON ARCTIC RESEARCH PLANNING | 6 |
| 2.4.1 | ALBEDO..... | 6 |
| 2.4.2 | MOSAIC..... | 6 |
| 2.5 | PROPOSED ACTIVITIES | 6 |
| 2.5.1 | NEW ACTIVITIES/TASKS BROUGHT FORWARD BY THE MEMBERS | 6 |
| 2.5.1.1 | SEA ICE AND POLAR CLIMATE PREDICTABILITY ACTIVITIES..... | 7 |
| 3 | NEXT MEETING..... | 7 |
| 3.1 | ASSW 2015..... | 7 |
| 3.2 | ASSW 2016..... | 7 |

1 OPENING AND REPORTING (09.00-10-30)

1.1 WELCOME AND INTRODUCTIONS

MARTIN SHARP

1.2 REPORT FROM THE CHAIR

MARTIN SHARP

1.3 APPROVAL OF THE MINUTES OF THE LAST MEETING

VOLKER RACHOLD

- The minutes of the 2013 meeting is given in ANNEX 1.3

1.4 ADOPTION OF THE AGENDA

MARTIN SHARP

2 MAIN ISSUES (09.30-16.00)

2.1 REPORTS ON CWG ACTIVITIES

2.1.1 GTN-P

HUGUES LANTUIT

The objective of the Geneva National Correspondents Workshop was to train the National Correspondents (NC) who were recently appointed by the countries involved in GTN-P. The IASC-supported workshop which was held on 6-8 May 2013 Geneva, helped them to establish a strong national participation in this program and to actively contribute to the achievement of the GTN-P goals and obligations. In total there were 50 registered attendees including 19 NC representing Austria, Canada, China, Denmark/Greenland, France, Germany, Japan, Italy, South Korea, Kyrkyz Republic, Norway, Poland, Portugal, Russia, Sweden, Switzerland, USA, Antarctica, Svalbard. The workshop discussed on how to partner with other international organizations and platforms of climate data collection, and how to provide products to the public.

- The workshop proposal is given in ANNEX 2.1.1.

2.1.2 ISMASS

JON OVE HAGEN

On 7 October 2013 the Ice Sheet Mass Balance and Sea Level (ISMASS) 2013 workshop was held in Sheffield, UK. The main purpose of the meeting was to reorganize the ISMASS Steering Committee (according to the recommendations made at the ISMASS Workshop held in Portland, USA in July 2012) and to redefine the terms of reference.

- The Workshop report is given in ANNEX 2.1.2.

2.1.3 INTERNATIONAL SEA ICE PRIORITIES

JENNY BAESEMAN

The sea ice modeling and observing workshop, was held in Tromsø on 5-7 June 2013, brought together Arctic and Antarctic sea ice researchers to define priority research areas for the coming years. The 48 participants included specialists working on sea ice modeling, observations, remote sensing and forecasting.

- The Workshop report is given in ANNEX 2.1.3.

2.2 REVIEW OF IASC ACTIVITIES RELATED TO THE CWG

2.2.1 19TH NORTHERN RESEARCH BASINS WORKSHOP

MARTIN SHARP

The Northern Research Basins workshop, was held in Alaska on 7-11 August 2013.

2.2.2 NETWORK OF ARCTIC GLACIOLOGY

MARTIN SHARP

2.2.3 THAW – 2014: WORKSHOP ON FRESHWATER ECOSYSTEMS IN PERMAFROST LANDSCAPES

WARWICK F. VINCENT

The TWG and CWG sponsored activity is bringing together Arctic, Subarctic and Antarctic researchers to examine the role of aquatic ecosystems in

permafrost degradation and its associated carbon dynamics. The workshop will examine the limnology of these lake and river systems, including their physical properties, aquatic biodiversity, microbiology, biogeochemistry and regional differences. The aim is to yield an improved understanding of the global importance of thaw aquatic ecosystems as biogeochemical reactors and gas conduits to the atmosphere, and their responses to the rapidly changing northern climate. Specialists from different disciplines will share their knowledge about these dynamic systems in the permafrost landscape, and identify priorities for future research. Some 80 abstracts have been submitted for the workshop, also supported by CLiC and the International Permafrost Association, and to be held at the Centre for Northern Studies (CEN) in Quebec City, Canada, 12-15 March 2014.

2.2.4 SECRETARIAL SUPPORT **VOLKER RACHOLD**

- The White Paper is given in ANNEX 2.2.4.

2.3 OTHER CRYOSPHERE ACTIVITIES EXTERNAL TO IASC

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

2.3.1 CLiC (Climate and Cryosphere) **JENNY BAESEMAN**

2.3.2 INTERNATIONAL ASSOCIATION OF CRYOSPHERIC SCIENCES **MARTIN SHARP**

2.3.3 NORDIC CENTRE OF EXCELLENCE PROGRAMME **JON OVE HAGEN**

Interaction between climate change and the cryosphere.

2.3.4 WMO POLAR PREDICTION INITIATIVE **THOMAS JUNG**

2.4 3RD INTERNATIONAL CONFERENCE ON ARCTIC RESEARCH PLANNING (ICARP III)

MARTIN SHARP

Under this agenda item, the Chair will introduce the selected proposals from the ExCom meeting. The IASC WGs are expected to play an important role in the ICARP III.

2.4.1 ALBEDO

MARTIN SHARP

The activity “Quantifying Albedo feedbacks and Their Role in the Mass Balance of the Arctic Terrestrial Cryosphere,” addresses several foci of the CWG including:

- i) The Cryosphere as a climate amplifier,
- ii) The role of the Cryosphere in Arctic hydrology, and
- iii) The surface energy balance of the Arctic

- The ICARP III proposal is given in ANNEX 2.4.1

2.4.2 MOSAIC

MATTHEW SHUPE

The Multidisciplinary drifting Observatory for the Study of Arctic Climate (MOSAIC) is motivated by dramatic changes observed in the Arctic related to rapid sea-ice loss and other processes, and by the difficulties in understanding and modeling these changes and processes. The observatory will spend at least one year embedded within the Arctic sea ice to collect the interdisciplinary, process-level observations necessary to evaluate and improve model parameterizations in the central Arctic to support advances in sea ice prediction and numerical weather and climate models.

- The ICARP III proposal is given in ANNEX 2.4.2

2.5 PROPOSED ACTIVITIES

2.5.1 NEW ACTIVITIES/TASKS BROUGHT FORWARD BY THE 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.

2.5.1.1 SEA ICE AND POLAR CLIMATE PREDICTABILITY ACTIVITIES

ELIZABETH HUNKE

There are already at least 4 different efforts: the WCRP Polar Climate Predictability Initiative, the WWRP Polar Prediction Project, CliC workshops on sea ice modeling, and the Sea Ice Prediction Network (SPIN), which is a U.S. interagency-funded follow-on to the SEARCH Sea Ice Outlook. All of these groups are planning workshops in the next several years.

3 NEXT MEETING (16.00-16.10)

VOLKER RACHOLD

3.1 ASSW 2015

The 2015 meeting will be held at the ASSW 2015 in Toyoma, Japan on 23-30 April 2015, in conjunction with IASC's 25th Anniversary, the ICARP III and the 4th International Symposium on Arctic Research.

- The first circular is given in ANNEX 3.1.

3.2 ASSW 2016

The 2016 meeting of the WG will be held in conjunction with the ASSW 2016 in Fairbanks, Alaska, USA.