



Cryosphere Working Group Meeting

14 April 2013

10:00-18:00

(Lunch 12.30-14.30, Coffee Breaks 11.00-11.15 and 16.10-16.30)

Krakow, Poland
Dom Polonii

Agenda

Participants:

WG MEMBERS PRESENT:

MARTIN SHARP - CANADA, CHAIR
JULIAN DOWDESWELL - UK, VICE CHAIR
PEDRO ELOSEGUI – SPAIN, VICE CHAIR
TETSUO OHATA – JAPAN, VICE CHAIR
SUN BO – CHINA
JAN KAVAN - CZECH REPUBLIC
RENÉ FORSBERG - DENMARK
SIGNE BECH ANDERSEN - DENMARK
MATTI LAPPÄRANTA – FINLAND
PENTTI KUJALA – FINLAND
MICHEL FILY - FRANCE
PETER LEMPKE - GERMANY
HANS-WOLFGANG HUBBERTEN - GERMANY
HELGI BJORNSSON - ICELAND
THORSTEINN THORSTEINSSON - ICELAND
ARUN CHATURVEDI - INDIA
PARMANAND SHARMA - INDIA
HIROYUKI ENOMOTO – JAPAN
SHIN SUGIYAMA – JAPAN
SOON DO HUR – KOREA
JON OVE HAGEN - NORWAY
JACEK JANIA – POLAND
KRZYSZTOF MIGALA – POLAND
FRANCISCO NAVARRO – SPAIN
GEORGIA DESTOUNI – SWEDEN
MARTIN LÜTHI – SWITZERLAND

FRANCESCA PELLICCIOTTI – SWITZERLAND
WALTER MEIER – USA
ELIZABETH HUNKE - USA

WG MEMBERS NOT PRESENT:

CARLEEN TIJM-REIJMER-THE NETHERLANDS
JACK KOHLER - NORWAY

SECRETARIAT

VOLKER RACHOLD (IASC EXECUTIVE SECRETARY)
YOO KYUNG LEE (EXECUTIVE OFFICER)



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	Studies on Tidewater Glaciers	3
2.1.2	GTN-P	4
2.1.3	ISMASS.....	4
2.1.4	Boundary Layer Workshop	4
2.2	REVIEW OF IASC ACTIVITIES RELATED TO CWG	5
2.2.1	Vulnerability of Permafrost Carbon Research Network and Coordination.....	5
2.2.2	MOSAiC	5
2.2.3	Network of Arctic Glaciology	5
2.2.4	IASC Data Policy Action Group	6
2.2.5	IASC Geosciences Group.....	6
2.3	OTHER CRYOSPHERE ACTIVITIES EXTERNAL TO IASC	6
2.3.1	CliC.....	6
2.3.2	International Association of Cryospheric Sciences.....	6
2.4	NEW ACTIVITIES FROM IASC CROSS-CUTTING FUNDING ROUND	7
2.5	THIRD INTERNATIONAL CONFERENCE ON ARCTIC RESEARCH PLANNING	7
2.6	REVIEW OF WG FOCI.....	7
2.7	PROPOSED ACTIVITIES	7
2.7.1	New activities/Task brought forward by members	7
2.7.1.1	Glaciers and Ice Caps Initiative (jointly with NAG)	7
2.7.2	New activities from external input	8
3	NEXT MEETING.....	8
3.1	ASSW 2014.....	8
3.2	ASSW 2015.....	8

1 OPENING AND REPORTING (10.00-10-30)

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 2012 meeting is given in ANNEX 1.3

1.4 ADOPTION OF THE AGENDA

MARTIN SHARP

2 MAIN ISSUES (10.30-16.00)

2.1 REPORTS ON CWG ACTIVITIES

2.1.1 STUDIES ON TIDEWATER GLACIERS

JACEK JANIA

The purpose of the workshop was to train early career scientists in field and remote sensing studies of tidewater glaciers. The workshop had three major goals: (a) to present recent results from studies of Svalbard (and other) tidewater glaciers during scientific sessions; (b) to share experience, application of new techniques and obtained results directly in the field by visiting key tidewater glaciers in Spitsbergen; and (c) to discuss a potential international program of coordinated field and remote sensing observations of calving glaciers in the Arctic. The workshop was held on board the R/V Horizont II, chartered by the Institute of Geophysics Polish Academy of Sciences.

- The CWG needs to consider follow-up activities related to this activity.

2.1.2 GTN-P

HANS-WOLFGANG HUBBERTEN

The workshop was a direct follow-up to the joint IASC-SCAR-IPA GTN-P workshop held in November 2011 in Potsdam, Germany, and a necessary step for the redesigning from the operation on a voluntary basis towards a more professional operation to meet the increasing expectations from the science community. The workshop was held in conjunction with a meeting of the PAGE21 project as well as a meeting of the Executive Committee of the IPA.

The next workshop/meeting will take place in May 2013 in Geneva, and consist of an introductory seminar, which will deliver clear guidelines to the National Correspondents to explain their specific tasks as well as their responsibilities. The workshop will directly feed into current efforts to build a permafrost observing component into Sustaining Arctic Observing Network (SAON) and contribute to enhance the visibility of the IPA in the WMO and GEOSS arena, through the involvement of the GTOS, GCOS and GCW.

- The workshop proposal is given in ANNEX 2.1.2.

2.1.3 ISMASS

FRANCISCO NAVARRO

On 14 July 2012 the Ice Sheet Mass Balance and Sea Level (ISMASS) 2012 workshop was held in Portland, Oregon. This was the kick-off workshop of the renewed ISMASS expert group, under the co-sponsorship of both IASC and SCAR (formerly, it was a SCAR Expert Group). The workshop was attended by 60 people and included 7 invited presentations and 3 round tables on the main topics of the workshop, mostly focused on understanding the discrepancies among the mass balance estimates by the distinct remote sensing techniques and analyzing the improvements needed by the current ice-sheet models to better predict the ice-sheet response to climate changes. An ISMASS organization section was also held.

- The Workshop report is given in ANNEX 2.1.3.

2.1.4 BOUNDARY LAYER WORKSHOP

ELIZABETH HUNKE

“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 Workshop report is given in ANNEX 2.1.4.

2.2 REVIEW OF IASC ACTIVITIES RELATED TO THE CWG

2.2.1 VULNERABILITY OF PERMAFROST CARBON RESEARCH COORDINATION AND NETWORK VOLKER RACHOLD

The “Vulnerability of Permafrost Carbon Research Coordination Network” took place in St. Pete Beach, Florida (USA) on May 17-18, 2012. The purpose of the meeting of the leadership was to review initial drafts of synthesis products and to identify remaining gaps for future cross-group synthesis opportunities. Short presentations by working group leads/co-leads on current progress were followed by feedback and discussion with the whole group. Remaining gaps were identified and a plan was developed to communicate these to the broader science community, both within and outside of the network, in order to inform members and to get new scientists involved in synthesis activities.

2.2.2 MULTI-DISCIPLINARY DRIFTING OBSERVATORY FOR THE STUDY OF THE ARCTIC CLIMATE (MOSAIC) WALT MEIER

This workshop followed meetings in Potsdam and Denver in 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 2.2.2.

2.2.3 NETWORK OF ARCTIC GLACIOLOGY MARTIN SHARP



2.2.4 IASC DATA POLICY ACTION

VOLKER RACHOLD

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

VOLKER RACHOLD

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 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

JENNY BAESEMAN

2.3.2 INTERNATIONAL ASSOCIATION OF CRYOSPHERIC SCIENCES

MARTIN SHARP

2.4 NEW ACTIVITIES FROM IASC CROSS-CUTTING FUNDING ROUND

VOLKER RACHOLD

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)

MARTIN SHARP

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

MARTIN SHARP

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 GLACIERS AND ICE CAPS INITIATIVE (JOINTLY WITH NAG)

MARTIN SHARP

During the 29 November 2012 CWG Teleconference, it was agreed that a discussion on a possible initiative related to glaciers and ice caps would be undertaken, particularly one done in collaboration with NAG.



**2.7.2 NEW ACTIVITIES FROM EXTERNAL INPUT
MARTIN SHARP**

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 broader research community, will be tabled and discussed by the WG.

**3 NEXT MEETING (16.00-16.10)
VOLKER RACHOLD**

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.