

Forum of Arctic Research Operators

FARO

FORUM OF ARCTIC RESEARCH OPERATORS

MINUTES OF MEETING

26 APRIL 2002

GRONINGEN, THE NETHERLANDS

FARO Meeting
Groningen, The Netherlands
26 April 2002

REPORT

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Minutes

The 2002 FARO Meeting, held on 26 April 2002 at Martini Plaza, Groningen, The Netherlands

PARTICIPANTS

- A. See enclosed list – **Appendix I**

1. OPENING AND REPORTING SESSION

1.1 WELCOME AND INTRODUCTIONS

The FARO Chair, Ms Bonni Hrycyk, Canada welcomed all participants, and gave some practical information.

1.2 APPROVAL OF THE MINUTES OF THE PREVIOUS MEETING (IN 2001)

The initial minutes had been circulated for inclusion of additional information, and thereafter circulated in paper form. No comments were received to this draft version.

The Minutes were approved.

1.3 ADOPTION OF THE AGENDA

Participants adopted the Agenda.

1.4 REPORT FROM THE CHAIR

The Chair had had communications with the Secretariat during the year. The FARO Executive had held a telephone meeting discussing key issues; all of them were enclosed with the present meeting agenda.

1.5 REPORT FROM COMNAP

COMNAP (Council of Managers of National Antarctic Programmes) is the Antarctic equivalent organisation of FARO. Dr Gérard Jugie gave a summary of the current issues on their agenda, which included:

- Environmental impact assessment of research activities in the Antarctic
- Practical guidelines for environmental impacts
- Antarctic shipping guidelines
- Guidelines for handling waste, etc.

More detailed information is available on the COMNAP web site at:
<http://www.comnap.aq/>

The introduction was followed by a discussion about what we could learn from COMNAP. The following issues were noted:

- **Information about national research programmes**
Such information is available in COMNAP, and may be easier to achieve as all scientists are depending on logistical support from a national operator. However, an initiative in this area should also be possible in the Arctic.
(Secretary's note: Some of this information is available on the IASC web site under "National Plans".)
- **Information on ship operations in the Arctic**
could be another area worth looking into, compared to the Antarctic information available (some of this information is available on the FARO web site; click "Arctic Research Vessels").
- **Environmental impacts of research stations**
It was proposed to select a few research stations in the Arctic in order to study the way they operated in comparison with the Antarctic rules. A possible start was to select Ny-Ålesund (where many nations are involved) and present the outcome as a case study at the next ASSW (Kiruna 2003).

There is some overlap in the COMNAP and FARO membership. We should attract some COMNAP member(s) who are not members of FARO to attend our next meeting.

2 MAIN ISSUES

2.1 CEON: CIRCUM-ARCTIC ENVIRONMENTAL OBSERVATORIES NETWORK

CEON is in its initial phase based on the following:

- **Objectives:**
 - Promote environmental observations in the Arctic
 - Promote dissemination of environmental observations to Arctic researches using:
 - o common parameters, format
 - o continuous availability (if possible)
 - Address gaps in environmental observations in the Arctic
- It is suggested that the CEON network should comprise:
 - 5 North American observatories (2 Alaskan, 3 Canadian)
 - ENVINET (Arctic observatories)
 - 5 – 6 Russian observatories

Information given during the discussion:

- CEON should be **science driven**; it requires long-term **operational support**, and it should also serve **monitoring needs**.
- On the US side, **Toolik Lake** and **Barrow** are the candidate observatories, and they are prepared to share and coordinate resources, in particular to make standard measurements and observations of physical, environmental and biological phenomena.
The new multiagency SEARCH programme would provide a basis for the US needs.
- **ENVINET** (the European environmental research network covering Arctic and Alpine) is a 3-year programme, which has developed common standards that have been internationally accepted.
For more detailed information about ENVINET, please visit their web site at: <http://envinet.npolar.no>
As mentioned last year, CEON could/should build on these established standards.
- CEON initially to focus on terrestrial stations
- AMAP and CAFF (both working groups under the Arctic Council) have expressed an interest in joining CEON discussions

- **The Arctic Canadian observatories** will be selected from EMAN-North (Environmental Monitoring and Assessment Network.)
- **The Russian Arctic** constitutes about 50% of the Arctic region, and clearly should be fully involved.

At the meeting, we received information that a new Russian-Norwegian environmental station in the Pechora delta would be opened in September this year.

Last year the ISIRA group (ISIRA: The International Science Initiative in the Russian Arctic, a forum for all carrying out bilateral research in the Russian Arctic) discussed which Russian stations could be good candidates for a network. The conclusions of their discussions were:

Kola region:	Hayes Island (Roshydromet), alternatively a station on the Kola peninsula
Pechora/Naryan Mar:	Amderma (near Vaygach) alternatively new Russian-Norwegian station in the Pechora delta
Yamal:	Belyi (an island on the tip of the Yamal peninsula). An old research station (1923) possibly supported by an American-Russian agreement.
Taymyr:	Severnaya Zemlya alternatively also Dickson
Lena delta:	Tiksi alternatively also Ostrov Kotelnyy (New Siberian Islands)
Chukotka:	Wrangel Island (American-Russian discussions ongoing) Alternatively also Pevek (SW of Wrangel Island)

Action:

A small group to prepare for a meeting during the next ASSW. **Knud Falk**, Denmark, and **Simon Stephenson**, USA agreed to be initial members and supplement the group as required.

2.2 ASOF IMPLEMENTATION PLAN

An ASOF Implementation Plan was developed in December 2001, and presented to the FARO by the Chair of ASOF: Dr Bob Dickson, UK.

ASOF: The Arctic and Subarctic Ocean Flux programme aims to monitor and understand the oceanic fluxes of heat, salt and freshwater at high northern latitudes and their effect on global ocean circulation and climate.

ASOF plans to construct a coordinated, circum-Arctic ocean flux monitoring system. The system will provide the long-term measurements critical to

understanding the factors that control the global THC and its influence on global climate.

For practical and funding reasons, ASOF comprises two parts: a European part and a North American part.

ASOF is now a sub-programme of SEARCH and of the Framework V of the European Union.

- A. The ASOF tasks by region are given in **Appendix II**.

For more detailed information about ASOF, please visit: <http://asof.npolar.no/>

2.3 SATELLITES AND GROUND TRUTH CONTROL

Introduction by: Prof. Olav Orheim, Norway

ENVISAT and CRYOSAT are of interest to Arctic science, and satellite data is increasingly important for polar research. Prof. Orheim proposed a small workshop to be convened at the next ASSW, which will be held close to the Swedish space centre (Esrange, Kiruna).

In addition, remote sensing issues could be presented as a part of the Science Day. AOSB also has a remote sensing interest, and their needs could be combined in a joint session.

A small group was appointed, consisting of Bonni Hrycyk, Liz Morris and Duncan Wingham, to start planning the suggested workshop on ground truth control.

Action: Hrycyk

2.4 COOPERATION OF SHIP-BASED PROGRAMMES

Introduction by Prof. Anders Karlqvist.

In general, FARO members should be responsive to operational needs from the Arctic science community.

The Arctic Ocean (Polar Basin) is the least explored area in the Arctic. New initiatives requiring ship operations are likely to present themselves and the need for multinational logistical cooperation should be explored.

On the European side, the planning of a new European icebreaker "Eurora Borealis" is ongoing. Independent of the outcome relating to building the ship, the discussions about the scientific needs are important and useful.

The need for delineating the continental shelf into the Polar Basin is of interest to some Arctic rim nations. The IODP is planning to drill at the Lomonosov-Ridge, and the Swedish icebreaker "Oden" will take part in this effort in 2004.

For 2005, Sweden is planning a major research activity in the Beringia region with a focus on tundra ecology, and also including a marine transect across the North Pole with Oden.

"The Icebreaker Club"

The ideal situation would be to have identified all icebreakers (and ice-strengthened vessels?) capable of operating in the Polar Basin, and to have their long-term plans in order to investigate opportunities for closer cooperation.

However, some operators have only annual plans. An alternative approach may be

needed possibly by identifying the relevant icebreakers and their operators, as a first step.

Information about "Arctic Research Vessels" is found on the FARO web site at: <http://www.faro.arctic.org>

Members are kindly asked to up-date this information by an e-mail to the FARO Secretariat.

At present the information contains:

Canada	http://polar.nrcan.gc.ca/NorthernFacilities_e.html
Finland	http://www2.fimr.fi/en/aranda.html
Germany	http://www.awi-bremerhaven.de/Polar/polarstern.html
Netherlands	http://www.nioz.nl/en/facilities/vessels
Norway	http://www.nilu.no/avd/troms/nncpr/
United Kingdom	The BAS fleet of polar ships: http://www.antarctica.ac.uk/Living/Transport/Ships/Ships.html
United States of America	http://oceanic.cms.udel.edu/ships/default.htm <i>This site also includes information on vessels from other countries.</i>

With regard to cooperation in the field, communication between icebreakers and ice information will be important issues.

Conclusion

The FARO Executive was requested to consider steps to be taken, and report back at the next meeting.

2.5 JOINT FARO – COMNAP TECHNICAL SEMINAR

Little progress had been made in this area, and members were invited to express themes or areas which could benefit from a joint initiative.

The conclusion at the meeting was that no technical seminar is to be planned in 2003.

Dr Stephenson, USA, reported that a workshop on instrumentation for Arctic Ocean exploration will be held later this year.

Full information will be announced on Arcticinfo. However, the main information is:

"Workshop to Promote the Development of Instrumentation for Arctic Ocean Exploration: Technology for Accessing the Water Column and Seafloor, October 16 – 18 2002, Moss Landing, California".

2.6 NEW INITIATIVES

Under this item, the proposed "IPY 2007" was briefly discussed. The proposal would become a major operational issue, if the implications should be a multi-ship operation in the Arctic Ocean.

FARO participants were also informed that the European Polar Board will undertake a review of the proposal during the year to come.

2.7 FARO OUTREACH

The Chair informed that she had been invited to give FARO presentations at the AOSB and Council meetings. This is a first step towards raising the FARO profile.

2.8 OPERATIONAL DEVELOPMENTS

- Stephenson, USA reported that the icebreaker "Healy" is now fully operative and is successful. There have been some problems with the communication system, and also other improvements will be made. Last year's cruises were to the Gakkel Ridge, and to an area north of Svalbard.
- Sparapani, Italy reported that they are testing a small rubber platform for marine research in Kongsfjorden (the fjord outside Ny-Ålesund, Svalbard).

2.9 ANY OTHER BUSINESS

2.9.1 FARO LOGO

A proposed logo, symbolising a lighthouse (the Spanish word for lighthouse is Faro) had been the inspiration. The designer was Mr Erkki Heino, Finland (a service provided by Prof. Paula Kankaanpää).

Conclusion

Logo agreed. Selection of colours left to the Chair in consultation with the Executive.

2.9.2 FARO WEB SITE

This web site has been using the IASC web address, but as a separate web site for FARO. As agreed at the last meeting, FARO has obtained a domain address, which is: <http://www.faro-arctic.org>

Members are kindly asked to suggest improvements of the web site.

2.9.3 ANY OTHER ITEMS

Several items and ideas were suggested for the FARO Executive to consider and present at the next FARO meeting:

- membership
- comparison with COMNAP
- NySMAC as a working group of FARO?
(NySMAC: Ny-Ålesund Science Managers Committee)
- A working group of ship operators?
- Operational issues during ASSW should be discussed in FARO and not in other fora (check the agendas of AOSB and IASC).

2.9.4 ALIAS: ARCTIC LOGISTICS INFORMATION AND SUPPORT

Presentation by Dr Simon Stephenson, USA

The ALIAS web site is under development by the Arctic Research Consortium of the United States (ARCUS)

ALIAS will serve as the primary access point and a comprehensive information source to help researchers to assess the feasibility of working in a specific area, plan the conduct of research, view current research in a given area, including maps and publications, and make useful scientific and logistics support contacts.

The initial development of ALIAS is underway and should be largely completed by the fall of 2002. The work now in progress means that you will encounter some dead-end links, for which we apologise. We hope that you will keep checking the site to see what is new.

Development goals include:

- Develop a simple user interface to provide access to basic logistics information
- Create an interactive site to deliver current, searchable, database-driven information
- Provide for discussions of logistics needs, contributions of up-to-date information on research sites, logistics providers, needs and problems.
- Identify changeable resources, including human resources and community contacts.

More information is available at: <http://www.arcus.org/ALIAS/index.html>

2.10 ELECTIONS

It was agreed that the present FARO Executive should serve for another year. The members are: Bonni Hrycyk, Canada (Chair); Anders Karlqvist, Sweden; Olav Orheim, Norway and Tom Pyle, USA.

2.11 NEXT MEETING

To be held in Kiruna, Sweden during the ASSW 2003 on Thursday 3 April.

2.11 CLOSURE

Bonni Hrycyk thanked all participants for their contributions and wished everyone a safe journey home.

