

FARO: Forum of Arctic Research Operators

FARO

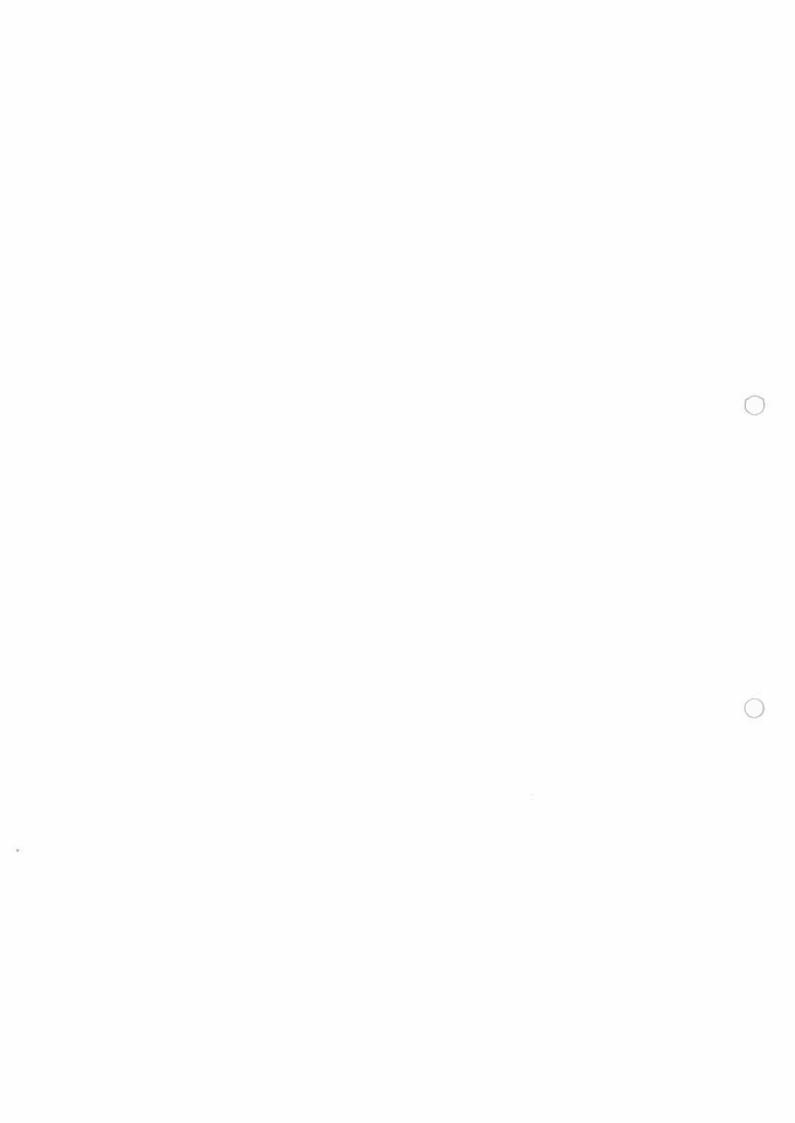
FORUM OF ARCTIC RESEARCH OPERATORS

MEETING REPORT

OPEN SESSION

22 APRIL 2005

KUNMING, CHINA

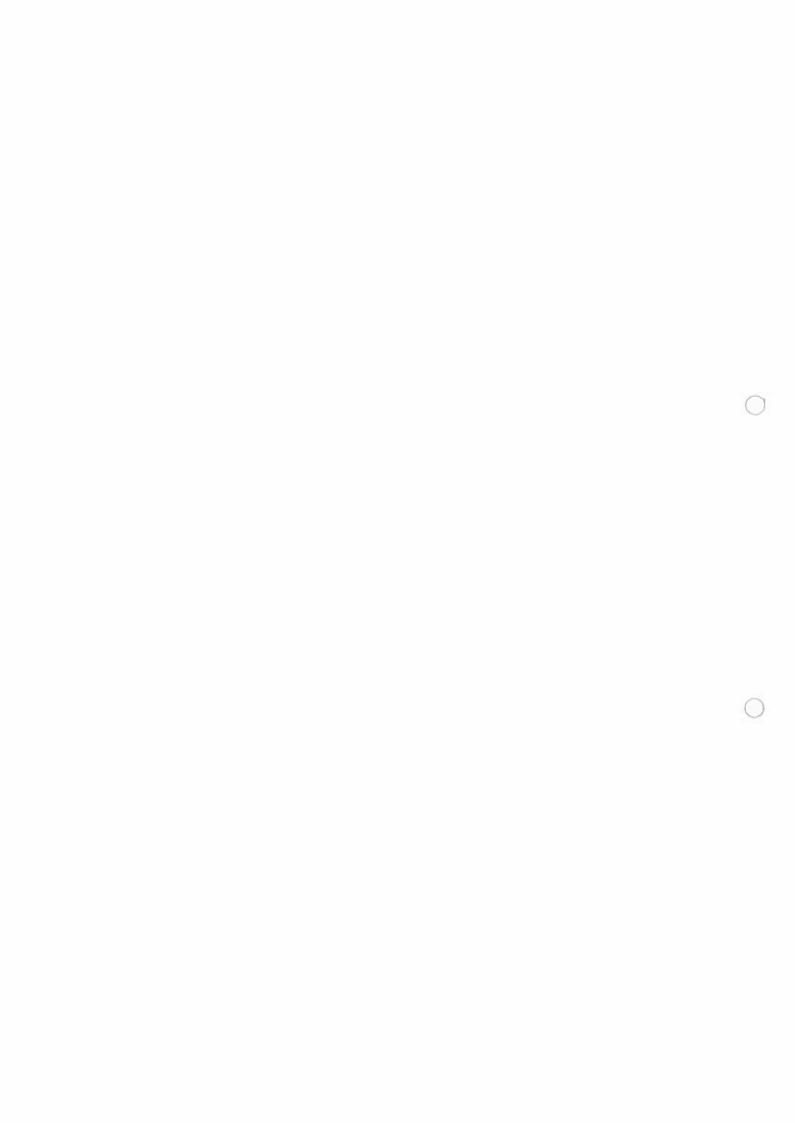




MEETING REPORT OPEN SESSION

CONTENTS

		Page
1.	OPENING AND REPORTING SESSION	1
1.1	Welcome and Introduction	1
1.2	Minutes from the Last Meeting	1
1.3	Adoption of the Agenda	1
1.4	Report from the Chair	1
2.	MAIN ISSUES	2
2.1	FARO Secretariat	2
2.2	Restructuring FARO	3
2.3	ICARP II	4
3.	Information Session	
3.1	Status Report on "Aurora Borealis"	4
3.2	CCGS Amundsen	5
3.3	Overview of NSF's New Contract with VECO	5
3.4	The Marine Laboratory in Ny-Ålesund, Svalbard	6
3.5	Barrow Arctic Science Consortium (BASC)	6
3.6	Chukotka Science Support Group (CSSG)	6





FARO: Forum of Artic Research Operators ASSW 2005 Kunming, China 22 April 2005

MINUTES Open Session

Participants: See enclosed list - Appendix I

OPENING AND REPORTING SESSION

1.1 WELCOME AND INTRODUCTIONS

The Chair, Dr Simon Stephenson, welcomed all participants and suggested a brief round of self-introduction.

1.2 MINUTES OF THE LAST MEETING

The minutes had first been reviewed by the Chair, then sent electronically to all participants for comments, and finally a paper copy was mailed to all. No comments had been received to the paper copy version and the minutes were accepted.

1.3 ADOPTION OF THE AGENDA

It was agreed to split the Agenda into two parts:

- An open session before lunch, and
- A closed session after lunch, to which operators only were invited, with the intention of discussing operational issues.

In addition, information about ASSW 2006 was added to the Agenda.

With these changes the Agenda was adopted.



1.4 REPORT FROM THE CHAIR

The Chair reported that a meeting of the FARO Executive had been held in Copenhagen, Denmark, 4 October 2004.

Issues discussed:

- IPY: Up-date on IPY planning and Arctic coordination needs
- ICARP II: FARO had been asked to serve as an ICARP II working group reviewing critical infrastructure needs.
- Secretariat for FARO: Considering the future requirements, a possibly more active role of FARO, and forming a separate secretariat from IASC.
 DPC had agreed to serve on the condition that some additional support could be provided.
- Membership and fee: FARO had been through its initial phase which, in this period, consisted of an open forum with an annual meeting. The future need is likely to become more in the form of active consultations between operators, increased secretarial support requiring a long-term strategy for funding.

In addition, the Chair noted that CEON (a FARO project also adopted by IASC) had progressed well, and was now being considered combined with COMAAR.

The ship database now operated by ARCUS contained a great deal of information. However, it was somewhat lacking in detailing the ship information of particular interest to operators.

The discussion following this report focussed on ship information and the missing report from the FARO/AOSB Advisory Group on Ship Information. In addition, the question is which ships are really needed to be included; the assumption was that the only relevant ships to be included were those that could be 'cooperative candidates', i.e. those directly or indirectly controlled by the research operators, and in particular icebreaker and ice-strengthened research vessels.

MAIN ISSUES

2.1 FARO SECRETARIAT

The Danish Polar Center (DPC) had offered to host the FARO Secretariat for an initial period, on the condition that some additional funding could be provided. Dr Hanne Petersen presented DPC (on behalf of Dr Morten Rasch) giving an indication of what tasks and services they could provide. FARO needs would be defined as a 20% job with Dr Morten Rasch in charge – drawing on other staff members.



They would need a transition period of 1-2 months, and thereafter be operative.

Conclusions:

All members endorsed the proposal to house the FARO Secretariat at DPC and they will be informed when the new FARO Secretariat has become operative at DPC. The ship database is the most urgent issue. It was agreed to remain with ARCUS. However, the new FARO Secretariat would be asked to stimulate, and keep track of the work of the FARO/AOSB advisory group and the ARCUS responses.

2.2 RESTRUCTURING FARO

Professor Anders Karlqvist introduced this item by mentioning that FARO was initiated in 1998 and inspired by the COMNAP cooperation. Some terms of reference were developed (see the FARO website for details at: http://www.faro-arctic.org). The idea was to create a forum that:

 "aims to encourage, facilitate and optimise logistics and operational support for scientific research in the Arctic, through international collaboration for all those involved in Arctic research" (the FARO mission).

The proposed structure was a forum of national representatives with their network to other operators in their country.

The achievements have been slow, and apart from exchange of information, projects like CEON, access, ship survey etc. have been the main issues. There is a need for new initiatives and someone to do the job; i.e. secretarial assistance.

The tasks are:

- Exchange information between operators
- Coordination of logistics (IPY)
- Respond to requests from the science community
- Sharing information and experience with Antarctic colleagues (technology)
- Advice to policy makers (Arctic Council)

As to membership, we should consider building on organisations rather than national representatives. As increased secretarial assistance is needed, we may also consider introducing fees in order to secure a long term funding of a secretariat.

The discussion confirmed support for some of the ideas presented, although a more thorough analysis may be needed and could be a task for the Executive/Secretary. The European Polar Consortium with their European Polar Infrastructure was mentioned, and mutual interests should be explored. Other groups (Chukotka Science Support Group, Barrow Arctic Science Consortium, etc.) showed an interest in joining FARO.

There was a general, open attitude to paying a membership fee.

The COMNAP fee is AUD 6 500 (or USD 5 400)

COMNAP has organised some of their work into working groups, and FARO could consider a similar structure.

			0
			0

Decision:

The Executive to develop a discussion paper together with the Secretariat, and to circulate it for comments prior to the next meeting.

Action: The Secretariat

2.3 ICARP II

.1.

ICARP II was presented during ASSW Project Day.

FARO had earlier been invited to be in charge of an ICARP II working group on "Enabling research infrastructure", see invitation enclosed, Appendix II.

FARO had accepted this invitation, and a Group was needed to address it.

Decision:

The Executive to compose a group.

Action: The Chair

3 INFORMATION SESSION

The intention of this session is to give short information presentations of potential interest to members.

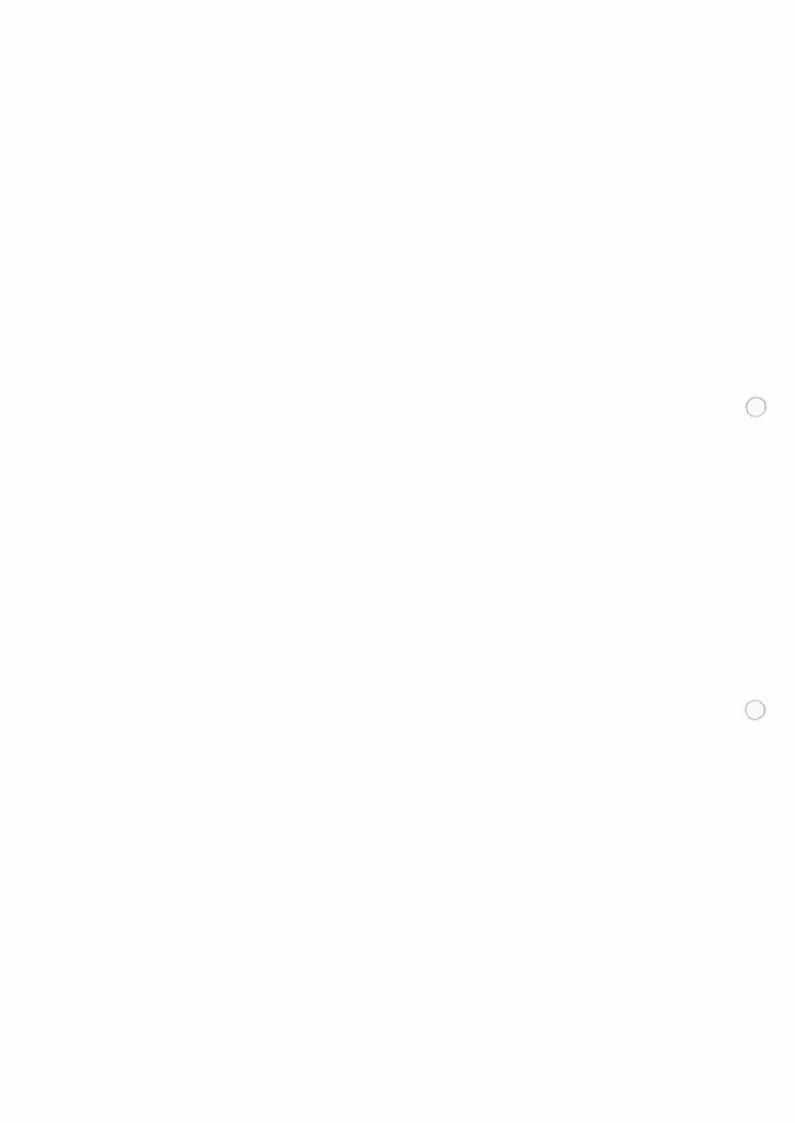
3.1 STATUS REPORT ON "AURORA BOREALIS"

Prof. Jörn Thiede gave an overview of the "Aurora Borealis" concept both as an advanced research vessel and the science plan.

Aurora Borealis will be a novel research icebreaker with no national or international competitor because of its drilling capability, its sophisticated modularised mobile laboratory systems allowing mission-specific laboratory selections, its moon pools for drilling and for the deployment of Remotely Operated Vehicles (ROV) and Autonomous Underwater Vehicles (AUV) for sub ice surveys, its propulsion and dynamic positioning systems and its capability for polar expeditions into high latitude ice-covered deep-sea basins also during the unfavourable seasons of the year.

This unique facility addresses two scientific communities, which in part overlap and in part have divergent interests. The first one is the general polar science community, which requires a research vessel for conducting its field and sea work throughout all seasons of the year. The other is the deep-sea drilling community, which would use the ship mainly during the summer months to study the structure and properties of oceanic crust and the history of the oceanic depositional environments.

This has never been done in the permanently ice-infested waters of the Arctic.



2005 FARO Meeting Report

To develop this science plan, the European Polar Board decided to establish an International Working Group composed of specialists recruited from two communities. Both groups were aided by specialists in ice-breaker technology.

Information both about Aurora Borealis Science Plan, as well as the Aurora Borealis is available at: http://www.esf.org/esf-genericpage.php?language =0§ion=2&domain=1zgenericpage=1898

The total costs are estimated at about \in 250 mill. EU will contribute with \in 50 mill. and the rest to be funded by the consortium.

The intention is to have "Aurora Borealis" in operation during IPY.

3.2 CCGS AMUNDSEN

CCGS Amundsen is a Canadian research icebreaker for international collaboration in the changing Arctic. In general any project using this icebreaker should be Canadian led.

The infrastructure consists of the Class-1200 Canadian Coast Guard Ship, Sir John Franklin, its refit and transformation into a state-of-the-art research icebreaker, the specialised scientific equipment necessary to complete her scientific mission and part of the costs of operation during the first 5 years. At 98 m overall length and developing 10 142 kW, the Franklin, which became the CCGS Amundsen on 13 September 2003, is one of 3 sister icebreakers built from 1978 to 1982. Sister ships of the Amundsen have proven efficient, versatile and cost-effective ships to conduct scientific research of international calibre in the Canadian Arctic.

She is fitted with 12 interior laboratories. More information and specifications are available at: http://www.amundsen.guebec-ocean.ulaval.ca

The schedule of deployment of the Amundsen for the next few years is being developed. The ship is presently available to support international programmes in and outside the Canadian Arctic. For charter conditions and dates of availability or to discuss international collaborations, please contact Louis Fortier at louis.fortier@bio.ulaval.ca

3.3 OVERVIEW OF NSF'S NEW CONTRACT WITH VECO

Information by Dr Simon Stephenson, NSF.

VECO is a company providing engineering, construction and operations. Their standard business approach is to engage local regional partners working in the Arctic and subcontracting to them, for example PCSP (Polar Continental Shelf Programme) for the Canadian Arctic.

The NSF contract is for 3 years, annually renewable up to a total of 7 years.



3.4 THE MARINE LABORATORY IN NY-ÅLESUND, SVALBARD

This experimental marine laboratory will be opened in June 2005, at 78° 55'N in an international research community with very easy access. The user group consists of representatives from 9 nations. The laboratory is owned by the Kings Bay company.

Ny-Ålesund has open access to the Arctic Ocean at least half of the year.

More detailed information available at: http://www.kingsbay.no (click on Research – The Arctic Marine Lab.).

3.5 BARROW ARCTIC SCIENCE CONSORTIUM (BASC)

Dr Glenn W Sheehan, Executive Director of Barrow Arctic Science Consortium (BASC), gave an overview of the Barrow Arctic Science consortium activities and international cooperation.

Barrow has roots back to the first international polar year (1881-83).

BASC is dedicated to the encouragement of research and educational activities pertaining to Alaska's North Slope, the adjacent portions of the Arctic Ocean, and in Chukotka, Russia. BASC is a community-based organisation dedicated to helping closer contacts between scientists and community members. BASC is supported financially by NSF.

Construction of a new research station has just started. More information available at: http://www.sfos.uaf.edu/basc/

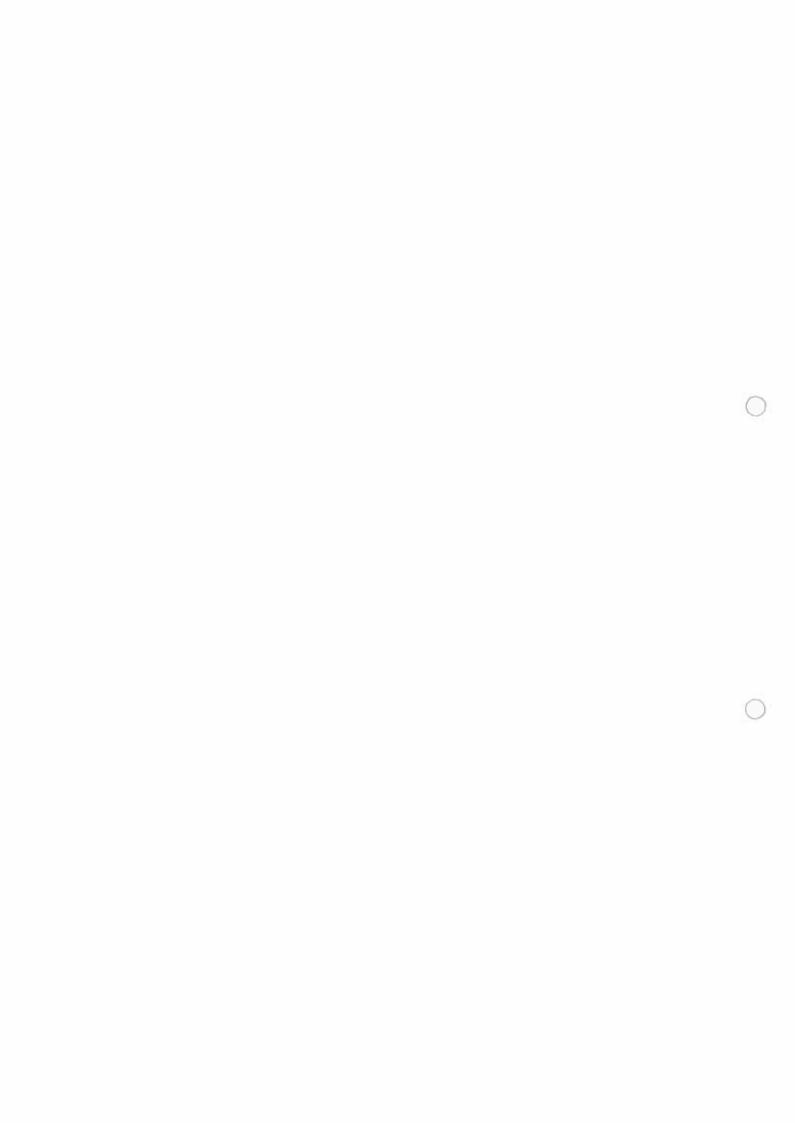
Professor Menguha Wei presented the plan for the Chinese Earthquake Administration to set up a seismic station in Barrow, Alaska by 2006, following several years of work with Barrow Arctic Science consortium.

3.6 CHUKOTKA SCIENCE SUPPORT GROUP (CSSG)

Gennady Zelenskiy, Executive Director of the Chukoatka Science Support Group (CSSG), gave a brief description of its recent activities.

BASC (see 3.5) is offering logistical support and assistance with obtaining all necessary permits for scientists wishing to conduct research in Chukotka. CSSG has been formed by two Chukotka based native organisations for support to science projects in Chukotka.

Please visit the website mentioned under 3.5 and then click on *Chukotka* for more information.



3.7 RUSSIAN ARCTIC OCEAN

Dr Sergey Priamikov, AARI, gave an up-date on North Pole drifting research ice camps. Deploying NP will now be made by ship (Akademik Fedorov). NP33 will start its drifting at about 85°N, north of the Novosibirskye Island.

Observational programmes for: met. data, atmospheric observations, oceanic measurements, sea-ice and snow, plankton.

This year there will be a Norwegian participant.

3.8 AIR OPERATIONS

Dr Leonid Bogdanov, POLUS, reported that they had supported ice camps at 89°N since 2002. They had built up good practical knowledge and experience by flying in equipment and cargo airdropping, as well as building short-term ice runways.

3.9 ASSW 2006

AWI and the French Polar Institute invited to ASSW 2006 in Potsdam (outside Berlin) towards the end of March 2006.

The invitation was warmly welcomed.

USA has earlier offered to host ASSW 2007.

3.10 CLOSURE

The Chair thanked all participants for their contributions, and welcomed operators back for a closed session after lunch.







FARO 2005 – Open Session Forum of Arctic Research Operators

CANADA: Operator	Ms. Bonni A. Hrycyk, Director (regrets) Polar Continental Shelf Project 615 Booth Street, Room 233 Ottawa, ON K1A 0E9	Fax: 1 613 947 1611 Phone: 1 613 947 1601 Email: <u>bhrycyk@gsc.nrcan.gc.ca</u>
Observer	Dr Martin Bergmann, Director, National Center for Arctic Aquatic Research Excellence, Dept of Fisheries and Oceans Freshwater Institute 501 University Crescent Winnipeg, Manitoba R3T 2N6	Fax: 1-204 984 2401 E-mail: <u>bergmannm@dfo-mpo.gc.ca</u>
Observer	Louis Fortier Québec-Océan Université Laval Quebec City, QC G1K 7P4	Phone: 1-418 656 5646 E-mail: louis.fortier@bio.ulaval.ca
CHINA: Operator	Dr Zhanhai Zhang Polar Research Institute of China 451 Jingiao Road Shanghai pudong,	Fax:+ 86 2158 711663 E-mail: <u>zhangzhanhai@263.net.cn</u>
Observer	Dr Menghua Wei Institute of Geology State Seismological Bureau P O Box 634 Beijing 100029	E-mail: mhwei@126.com
Observer	Mr Wang Yong Chinese Antarctic Administration – CACPR 1 Fuxingmenwai Avenue, Beijing 100860	E-mail: wang-yong@263.net.cn
DENMARK Operator	Dr Hanne Petersen, Director Danish Polar Center Strandgade 100 H DK-1401 Copenhagen K	Fax: 45 32 88 01 01 Phone: 45 32 88 01 00 E-mail: <u>hkp@dpc.dk</u>
Operator	Dr Morten Rasch (regrets) Danish Polar Center Strandgade 100 H DK – 1401 Copenhagen K	Phone :45-32880110 E-mail : <u>mr@dpc.dk</u>
FINLAND Operator	Dr Henrik Sandler Finnish Institute of Marine Research P O Box 33 FI-00931 Helsinki	Fax: 358 9613 94494 Phone 358 9 613 941 E-mail: <u>Henrik.Sandler@fimr.fi</u>

Observer	Prof. Dr Paula Kankaapää Arctic Centree University of Lapland P O Box 122 96101 Rovaniemi FINLAND	Fax: 358 16 341 2777 Phone: 358 16 341 2768 E-mail: paula.kankaanpaa@urova.fi
FRANCE Operator	Dr Gérard Jugie Directeur de l'Institut Polaire P B 75 29280 PLOUZANE	Fax: 33-2 980 56510 Phone: 33-2 980 56502 E-mail: dirpol@ifremer.fr
GERMANY: Operator	Dr Hartwig Gernandt AWI for Polar and Marine Research P O Box 120161 D-27568 Bremerhaven	Fax: 49 471 4831 1355 Phone: 49 471 4831 1160 E-mail: hgernandt@awi-bremerhaven.de
Observer	Dr Roland Neuber AWI Telefragenberg A43 D-14473 Potsdam	E-mail: neuber@awi-potsdam.de
Observer	Prof. Jörn Thiede AWI for Polar and Marine Research P O Box 120161 D-27568 Bremerhaven	E-mail: jthiede@awi-bremerhaven.de
Observer	Prof. Dr Dieter Fütterer AWI for Polar and Marine Research P O Box 120161 D-27568 Bremerhaven	Fax: 49-471-4831-149 Phone: 49-471-4831-200 Telex: 238695 polar d E-mail: dfuetterer@awi-bremerhaven.de
ICELAND Operator	Dr Kristján Kristjánsson RANNÍS Laugavegi 13 IS - 101 Reykjavík	Fax: 354 552 9814 Phone: 354 515 5800 E-mail: kristjank@rannis.is
ITALY: Observer	Dr Marcello Manzoni Università Via Alviano 18 I-34170 Gorizia	Fax: 39 – 481 599 203 Phone: 39-481 599 243 E-mail: manzoni@pug.univ.trieste.it
JAPAN	Professor Okitsugu Watanabe National Institute of Polar Research Kaga 1-9-10, Itabashi Tokyo 173-8515 JAPAN	Fax: +81- 3 - 3962 4759 Phone: +81 3962 0150 E-mail: watanabe@niptip

REP. OF KOREA Operator	Dr Yeadong Kim, Director Polar Science Laboratory, KORDI Ansan P O Box 29 Seoul 425-600	Phone: 82 31 400 6400 Fax: 82-31408 5825 E-mail: <u>ydkim@kordi.re.kr</u>
Observer	Dr Byong-Kwon Park Korea Research Council of Public Science and Technology 305 Diplomatic Center, 1376-1 Seocho 2-dong, Seochu-Ku, Seoul 137-072	Fax: 82 2 578 7594 Phone: 82 2 578 1261 E-mail:bkpark@korp.re.kr
THE NETHERLANDS Operator	Prof. Dr. Louwrens Hacquebord RUG, Arctic Centre P. O. Box 716, NL-9700 AS Groningen	Fax: 31-503-634900 Phone: 31-503-636832 E-mail: L. Hacquebord@let.rug.nl
NORWAY: Operator	Professor Olav Orheim, Director Norwegian Polar Institute Polarmiljøsenteret N-9005 TROMSØ	Fax: 47 77 75 05-01 Phone: 47 77 75 05 ¹ 00 E-mail: orheim@npolar:no
Observer	Professor Harald Loeng Institute of Marine Research P O Box 1870 Nordnes N-5817 Bergen	E-mail: harald.loeng@inusno
Observer	Dr Fridtjof Mehlum Research Council of Norway P O Box 2700 N-0131 Oslo	Phone: + 47 22 03 74 15 E-mail: fme@rcn.no
POLAND: Operator	Dr. Piotr Glowacki Dept. of Polar and Marine Research Polish Academy of Sciences ul. Ksieceia Janusza 64 01-452 Warszawa	Fax: 48 22 6915893 Phone: 48 22 6915890 E-mail: glowacki@igf.edu.pl
Observer	Prof. Aleksander Guterch Polish Academy of Sciences ul. Ksieceia Janusza 64 01-452 Warszawa	Fax: 48 22 6915 915 Phone: 48 22 6915 653 E-mail: aguterch@igf.edu.pl
Observer	Prof. Jacek Jania Department of Geomorphology Univ. of Silesia, Faculty of Earth Sciences ul. Bedzinska 60 41-200 Sosnowiec	E-mail: jjania@us.edu.pl
RUSSIA Operator	Dr Sergei Priamikov Arctic and Antarctic Research Institute 38 Bering str. 199397 St Petersburg	Phone: 7-812 352 0096 Fax: 7-812-352-2688 E-mail: <u>priamiks@aari.nw.ru</u> Web: www.aari.nw.ru

Observer	Dr Yury Sychev, Executive Director Polar Foundation 11A Seleznevskaya Str. 103030 Moscow	Fax: 7-095 292 Phone: 7 095 292 7143 E-mail: sychev@polarf.ru
Observer	Dr Leonid Bogdanov PGK, Center "POLUS" 2-ya Reysovaya str., 2A bld. 119027 Moscow	Phone: +7 095 436 2847 E-mail: Bogdanov@polus.ru
Observer	Dr Gennady M Zelenskiy Chukotka Science Support Group P O Box 30, Lavrentia Chukotka Autonomous Okrug 689300 Russia	Phone: +7 42736 2 27-30 E-mail: zelensky@pisem.het
SWEDEN Operator	Prof. Anders Karlqvist Swedish Polar Research Secretariat Box 50003 S-10405 Stockholm	Fax: 46-8-152057 Phone: 46-8-673 9600 Email: anders@polar.se
Observer	Dr Magnus Tannerfeldt Swedish Polar Research Secretariat P O Box 50003 SE 104 05 Stockholm	Phone: + 46 8 673 9793 E-mail: magnus.tannerfeldt@polar.se
Observer	Ambassador Helena Ödmark Swedish Ministry of Foreign Affairs S-10339 Stockholm	Phone: + 46 8 405 3794 E-māil: helena.odmark@foreign.ministry.se
UNITED KINGDOM Operator	Dr John R Dudeney, Deputy Director British Antarctic Survey High Cross, Madingly Road Cambridge CB3 OET	Fax: 44 1223 350 456 Phone: 1223 22 1523 J.Dudeney@bas.ac.uk
USA Operator	Dr. Thomas Pyle, Office of Polar Programs Arctic Sciences Section National Science Foundation 4201 Wilson Blvd., Room 740 Arlington, VA 22230	Fax: 1 703 292-9081 Phone: 1 703 306 1029 E-mail: tpyle@nsf.gov
Observer	Dr Robert W Corell 1401 Oyster Cove Drive Grasonville Maryland 21638	Phone: +1 410 827 0998 E-mail: global@dmv.com
Chair	Simon Stephenson, Office of Polar Programs	Phone: 1-703 292 7435
Operator	Arctic Sciences Section National Science Foundation 4201 Wilson Blvd., Room 740 Arlington, VA 22230	E-mail: sstephen@nsf.gov
Observer	Dr John Calder NOAA/Arctic Research Office 1135 East-West Highwat Silver Spring, MD 20910	Fax: 1-301 713 2519 Phone: 1-301 713 2518 x 288 E-mail: john.calder@noaa.gov

Observer	Professor Patrick John Webber, PhD Department of Botany and Plant Pathology 100 North Kedzie Michigan State University East Lansing, MI 48824	Fax: 1-517 432 2159 or 2050 Phone: 1-517 355 1284 E-mail: webber@msu.edu
Observer	Jerry Brown International Permafrost Association P O Box 7 Woods Hole, MA 02543	E-mail: <u>jerrybrown@igc.org</u>
Observer	Dr René Eppi National Oceanic & Atmosphere Administration OAR/IA 1315 East West Hwy. 11230 Silver Spring, Maryland 21029	Phone: 1 301 713 2469 x 132 Fax: 1 301 713 1459 E-mail: RENÉ.EPPI@NOAA.GOV
Observer	Dr Kathleen Crane Arctic Research Office NOAA 1315 E-W Hwy Silver Spring, MD 20910	
Observer	Glenn W Sheehan Barrow Arctic Science Consortium PB 577 Barrow, AK 99723	E-mail: basc@arcticscience.org Phone: 1 907 852 4881
Observer	Dr John Tichotsky Advisor to the Governor of Chukotka P O Box 103737 Anchorage, AK 99510	Phone: 1 – 907 440 4701 E-mail: <u>itichotsky@alaska.com</u>
European Polar Board Observer	Dr Paul Egerton Executive Scientific Secretary European Polar Board European Science Foundation 1 quai Lezay-Marnésia 67080 Strasbourg Cedex, FRANCE	Phone: 33 3 88 762165 Fax: 33 3 88 76 71 80 E-mail: <u>pegerton@esf.org</u>
IASC	Odd Rogne, Executive Secretary IASC Secretariat P O Box 5156 Majorstuen 0302 Oslo	Fax: +47 22 95 99 01 Phone: +47 22 95 99 02 E-mail: <u>iasc@iasc:no</u>

		*
		0



2nd International Conference on Arctic Research Planning Copenhagen 10 - 13 November 2005

February 21, 2005

Dear Simon:

Several months ago we spoke about FARO assisting with the ICARP II Working Group on Infrastructure. You had agreed to pull together a group to examine the Working Group reports when they are available to examine them and quantify infrastructure needs. I am very pleased that you will be able to do so. The WG reports will be available in late summer and I will make sure that you receive a copy of them at that time.

The ICARP II SG met in Copenhagen in January. During that meeting, several members of the SG raised concerns that FARO may not have the scope to deal with all the different types of infrastructure that will be addressed in the WG reports. For example, does FARO include within its purview meteorological and hydrological stations? I am unaware myself of the scope of FARO, thus my question to you. If you do not currently have this expertise, could it be added for purposes of this review, or for the long-term?

The SG felt that it might aid your review of the WG reports and drafting of your report to the Conference if we provided some clear guidance. I have, therefore, drafted guidelines for your review and discussion.

Guidelines for FARO review:

- Objective is to review the WG reports and quantify the infrastructure needs of the various WGs and to report the findings at the Conference.
- Some of the infrastructure needs will be currently available and some will be planned or currently in production or testing. The report should clearly make a distinction between new technologies and research platforms and those already in use.
- The infrastructure needs of the various groups will be very wide including not only platforms for making observations, but also including data management and networking. The report should be able to identify all of these needs, show where they are available and where additional resources will need to be added in order to implement the science plans. Of course, research platforms for IPY will be an issue at the time of the Conference.

I look forward to an opportunity to discuss this with you. I plan to attend the ASSW meeting in Kunming, and perhaps I can meet with FARO at that time in order to clarify any questions you have.

Thank you for your consideration and help with this important aspect of ICARP II.

Best Regards,

Robert Corell

Chair, ICARP II Steering Group

fortwoord