

Integrating Arctic Research *a Roadmap for the Future*

3rd International Conference on Arctic Research Planning
(ICARP III)



Dr. Volker Rachold and Dr. Larry Hinzman
Wednesday, 18 February 2015 at 8:00am AKST

Slides will be shown here

Exit the presentation

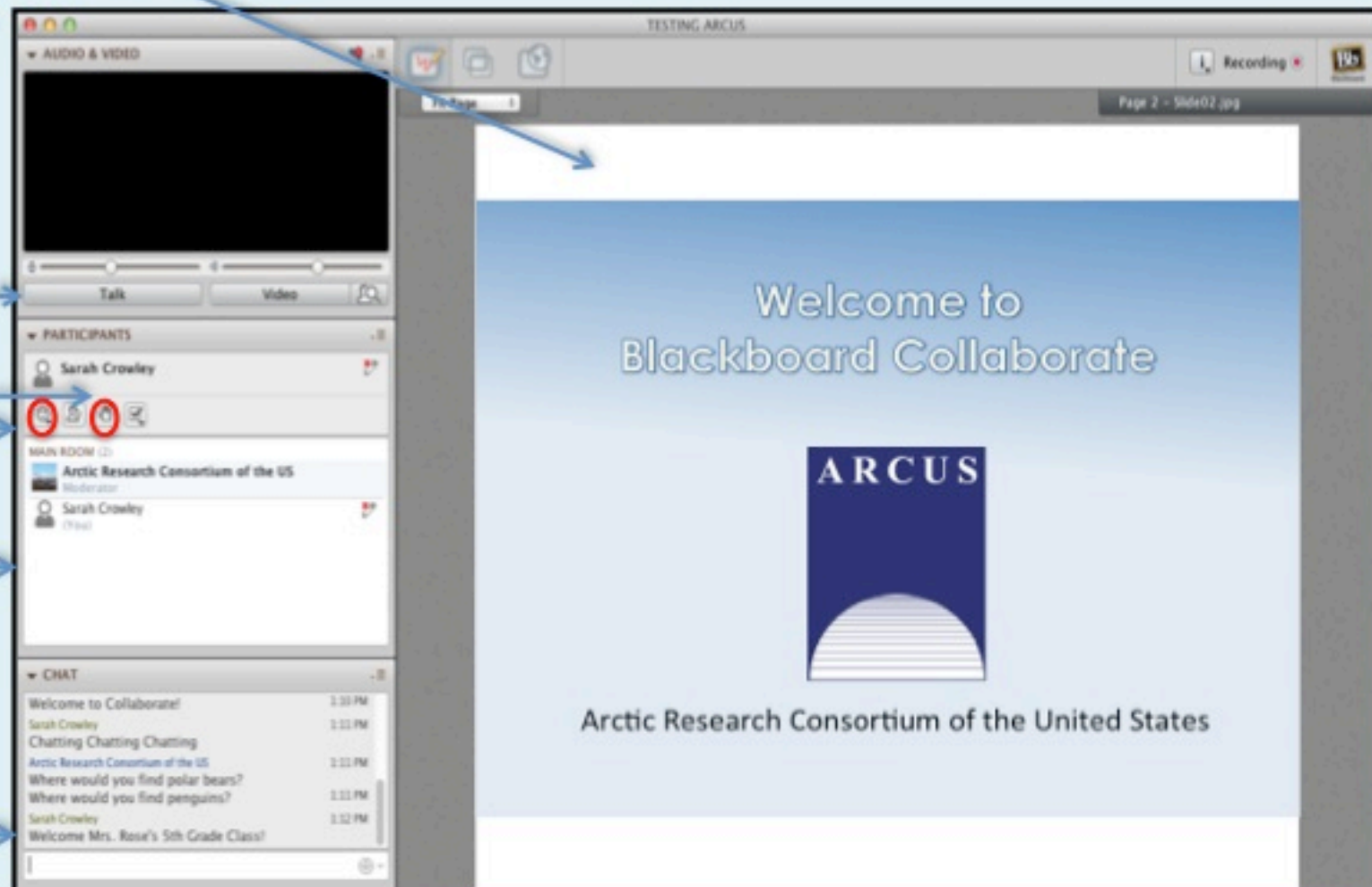
Click to Talk, Unclick to finish talking

Raise your hand to ask a question

Share with emoticons

List of all participants

Chat with one person or the entire group



The screenshot displays the Blackboard Collaborate interface. The main window shows a presentation slide titled "Welcome to Blackboard Collaborate" with the ARCUS logo and the text "Arctic Research Consortium of the United States". The sidebar on the left contains several sections: "AUDIO & VIDEO" with a "Talk" button and a "Video" button; "PARTICIPANTS" with a list of users including Sarah Crowley and Arctic Research Consortium of the US; "MAIN ROOM" with a list of users including Arctic Research Consortium of the US and Sarah Crowley; and "CHAT" with a list of messages including "Welcome to Collaborate!" and "Welcome Mrs. Rose's 5th Grade Class!".

Please Note:

- Participants using the telephone can mute/unmute by **pressing *6** on the phone.
- Today's event will be recorded and archived.

Participant Introductions

Please type in the chat box:

- ✓ Name
- ✓ Affiliation (School, Institution, Etc.)
- ✓ The number of participants with you in the same location

Questions

During the Presentation:

- Type your question in the text chat box

At the End of the Presentation:

- Raise your hand with the “hand button”.
- ARCUS staff will call on you.
- Speak loud and clear and directly into the phone to ask your question.

Click on the Talk button to speak.

Unclick when you are done.



ARCUS

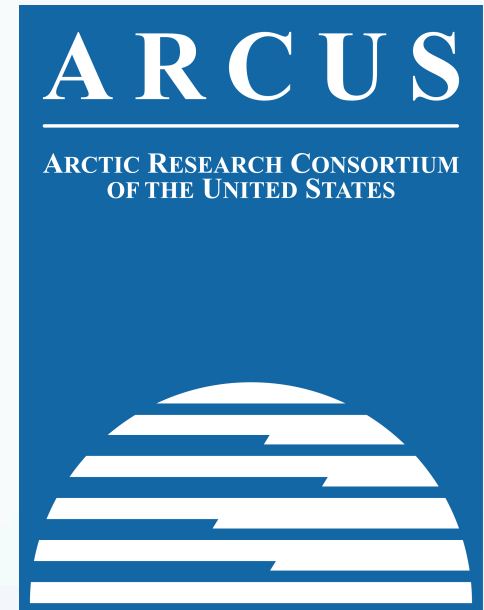
Arctic Research Consortium of the United States

www.arcus.org

ARCUS is a catalyst for interdisciplinary thinking, acting, and education leading to the development of highly collaborative partnerships.

ARCUS IS...

- **Non-Profit Organization**
- **International**
- **Arctic focused**
- **Member based**
- **Located in Alaska**



current **ICARP III partners**



ICARP III

provides a framework to help:

- ◎ **identify** Arctic research **priorities** for the next decade;
- ◎ **coordinate** various Arctic research agendas;
- ◎ **inform** policy makers, people who live in or near the Arctic and the global community;
- ◎ **build constructive relationships** between producers and users of knowledge.

ICARP III does not

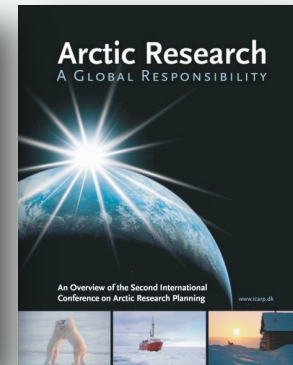
- ⊙ undertake the development of **new science plans.**

Rather:

- ⊙ ICARP III **builds** on the many comprehensive existing **science plans;**
- ⊙ and **compliments** existing activities with processes to identify and fill gaps that may need attention.



IPY



ICARP II

The process

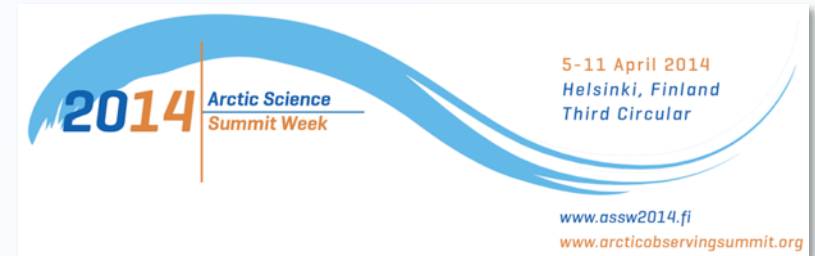
is governed by a **Steering Committee**
established by the participating organizations



Participants of the ICARP III Steering Group meeting in Potsdam, 11-12 November 2014.

The program

- ⊙ **formal launch** at the **Arctic Science Summit Week (ASSW) 2014** in Helsinki, Finland;
- ⊙ **many meetings and events during 2014/15;**
- ⊙ culminating in a **final conference** during **ASSW 2015** in Toyama, Japan



<http://www.assw2014.fi/>



<http://www.assw2015.org/>

include workshops, writing team meetings, conference sessions, townhall meetings, outreach and capacity building events etc., organized around 4 themes:

- ③ Climate System and Transformations
- ③ Societies and Ecosystems
- ③ Observing, Technology, Logistics and Service
- ③ Outreach and Capacity Building



INTERNATIONAL ARCTIC SCIENCE COMMITTEE
SPRING 2014
IASC PROGRESS
Integrating Arctic Research - a Roadmap for the Future

With this special issue of its newsletter "Progress", IASC is providing an update on the development of the 3rd International Conference on Arctic Research Planning (ICARP III). Over the last months, a number of international organizations joined the ICARP III process and agreed to contribute to the several objectives of ICARP III, namely to:

- Identify Arctic science priorities for the next decade;
- Coordinate various Arctic research agendas;
- Inform policy makers, people who live in or near the Arctic and the global community;
- Lead to build constructive relationships between producers and users of knowledge.

Beginning with the formal launch of the Arctic Science Summit Week (ASSW) 2014 in Finland next month, the ICARP III program will include a series of meetings and events during 2014-2015. The final ICARP III product, i.e. a consensus statement providing a roadmap for research priorities and partnerships, will be presented at the main ICARP III conference held during the ASSW 2015 in Japan. The outcomes of ICARP III will also be included in the conclusions of the forward-looking Horizon Scan being conducted by the Scientific Committee on Antarctic Research (SCAR) and identify contributions to the development of the International Polar Partnership Initiative (IPPI).

ICARP III Launch at the ASSW 2014
ICARP III will be formally launched at the ASSW 2014, which will be held in Helsinki, Finland, on 5-11 April 2014. The launch event will be during the ASSW 2014 Common Day on 8 April 2014, 14:00-18:00.

ICARP III Events & Activities
On the following two pages, we are providing an overview of currently planned ICARP III events and activities. The list is still growing as more events, in particular by ICARP III partner organizations, are being planned and a constantly updated portfolio will be available on the ICARP III website.

ICARP III Final Conference at the ASSW 2015
The ASSW 2015 will be held at the Toyama International Conference Center in Toyama, Japan, on 28-30 April 2015. It will include the final ICARP III Conference and 4th International Symposium on the Arctic Research (ISAR-4).

Important Dates
September 2014 - Registration open
February 2015 - Early Bird Registration close
www.assw2014.org

Theme 1: Climate System and Transformations
Theme 2: Observing, Technology, Logistics, Service
Theme 3: Societies and Ecosystems
Theme 4: Outreach and Capacity Building



INTERNATIONAL ARCTIC SCIENCE COMMITTEE
Fall 2014
IASC PROGRESS
Integrating Arctic Research - A Roadmap for the Future

With this special issue of its newsletter, IASC is providing another update on the development of the 3rd International Conference on Arctic Research Planning (ICARP III). The initial ICARP III plans had been presented at the Arctic Science Summit Week (ASSW) 2014 Common Day in Helsinki (Finland) last April. Since then, a number of ICARP III activities have already taken place and this newsletter includes:

- short summaries of ICARP III events that occurred during the last few months;
- an outlook on upcoming activities;
- the perspectives of new ICARP III partner organizations and
- an introduction to the forward-looking Horizon Scan conducted by the Scientific Committee on Antarctic Research (SCAR).

The outcome of ICARP III will be an inventory of reports and recommendations of the various ICARP III activities, with the key messages feeding into a consensus statement identifying the most important Arctic research needs for the next decade and a roadmap for research priorities and partnerships. This concluding ICARP III statement will be presented at the main ICARP III conference held during the ASSW 2015.

4th European Marine Board Forum
Brussels (Belgium), 12 March 2014
http://www.marineboard.eu/images/4thEMBFforumMessage_Arctic2014_March2014.pdf

Representatives of 64 organizations gathered at the 4th European Marine Board (EMB) Forum to discuss how to best manage the consequences of a changing Arctic Ocean. The forum delegates represented a wide range of stakeholders, spanning industry, policy, and academia as well as NGOs and consultancies. The forum included sessions on "Living with a Changing Arctic Ocean", "Arctic Ocean Observation" and "Utilizing and Managing Arctic Ocean Resources". Forum participants stressed the need for industry and science to work together, with the main priorities regarding collaboration identified as concerted data collection and analysis, which would contribute to sustainable management of the Arctic Ocean by providing data for mitigating the impacts and addressing the opportunities posed by current environmental changes in the region.

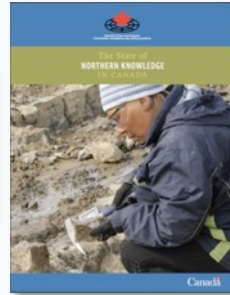
Key Messages of the 4th EMB Forum:

- A strategic plan for data collection in the Arctic.
- Ocean is urgently needed, along with new observation technologies.
- Developing a marine spatial plan for the Arctic is necessary for managing marine and maritime activities, e.g. shipping and resource extraction, as well as protecting biodiversity hotspots.
- More effective use must be made of local and traditional knowledge by engaging indigenous communities in citizen science for data collection and ecological management.
- Arctic Ocean research investment requires multi-disciplinary and cross-sector partnership for securing long-term strategic funding.
- With the Arctic being perceived as a new market by the shipping industry, associated activities like maritime trade, tourism and transport are likely to emerge faster than the necessary infrastructures for safe, secure and reliable shipping in the Arctic Ocean. Therefore, it is critical to anticipate infrastructure changes in the Arctic rather than respond to them.

Participants of the 4th EMB Forum Panel Discussion

What will be the outcomes of ICARP III?

Activity Summaries & Reports



All ICARP III partners will play a role in shaping the future of Arctic research needs

Consensus Statement



Primary audience:

- Science funders and decision makers
- Policy makers

Users:

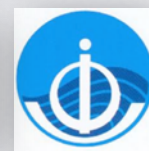
- Indigenous and Local people
- Scientific community
- Next Generation

Roadmap



International Polar Partnership Initiative (IPPI)

Co-Chairs: D. Hik, J.-G. Winther; Vice-Chair: Ø. Hov



[http:
icarp.iasc.info](http://icarp.iasc.info)

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The screenshot shows the website for the 3rd International Conference on Arctic Research Planning (ICARP III). The main header features the ICARP III logo and the title "Integrating Arctic Research - A Roadmap For The Future". Below the header is a large image of a researcher in a white protective suit using a yellow measuring tool on a snow surface. To the right of the image are social media icons for Facebook and Twitter. Below the image is a navigation bar with three tabs: "ICARP", "THEMES", and "PARTICIPANTS". The "THEMES" tab is selected, showing a list of three bullet points: "Identify Arctic science priorities for the next decade;", "Coordinate various Arctic research agendas;", and "Inform policy makers, people who live in or near the Arctic and the global community and, Build constructive relationships between producers and users of knowledge." To the right of the themes is a "LATEST NEWS" section with two entries: "Follow ICARPIII on Facebook and Twitter 08-01-2015" and "SG Meeting Report Available 15-01-2015". At the bottom of the page is a footer with four links: "Related events", "Downloads", "Contact", and "ICARP Newsletter". The footer also contains the International Arctic Science Committee (IASC) logo and contact information, and a small logo for the ASSW 2015 conference.



Photo: Luca Bracali

ICARP

THEMES

PARTICIPANTS



Third International Conference on Arctic Research Planning

ICARP III provides a framework to:

- Identify Arctic science priorities for the next decade;
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- Inform policy makers, people who live in or near the Arctic and the global community and,
- Build constructive relationships between producers and users of knowledge.

LATEST NEWS

Follow ICARPIII on Facebook and Twitter 08-01-2015

SG Meeting Report Available 15-01-2015

[Related events](#)

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[ICARP Newsletter](#)



International Arctic Science Committee (IASC)
Telegrafenberg A43, DE-14473 Potsdam, Germany
info@iasc.info - www.iasc.info



What ICARP Means to the Arctic Research Community

To best understand what ICARP may provide, it is useful to look back at ICARP I and ICARP II to see what was promoted and to see what has been accomplished.

- **ICARP I was held at Dartmouth University in Hanover, New Hampshire, 5 - 9 December 1995.**
- **ICARP II was held in Copenhagen, Denmark, 10-12 November 2005.**

ICARP I

- With the end of the Cold War in the 1990s and the emergence of big science and collaborative projects stretching across disciplines and borders, it became apparent to the founding fathers of IASC that international planning would benefit all.
- More than 250 scientists, including 33 from Russia, attended the week-long conference in Hanover.
- The conference yielded two important documents: an Executive Summary and a Final Report on the work of ICARP I entitled “Arctic Systems: Natural Environments, Human Actions, and Nonlinear Processes.”

Oran Young, 2015. First International Conference on Arctic Research Planning (ICARP I). IASC after 25 Years.

ICARP I

- ICARP I emphasized the importance of nonlinear processes affecting Arctic systems.
- Concepts that have become influential recently, such as tipping elements and tipping points, planetary boundaries, and the idea of the Anthropocene were not familiar. But there was an awareness of the importance of rapid and often turbulent change in what is now known as coupled socio-ecological systems.
- Linkages between development in the Arctic and broader concerns about global environmental change emerged as a priority.

ICARP I

- **(1) Effects of Increased Ultraviolet Radiation in the Arctic;**
- **(2) Regional Cumulative Impacts—Barents Sea;**
- **(3) Regional Cumulative Impacts—Bering Sea;**
- **(4) Mass Balance of Arctic Glaciers and Ice Sheets;**
- **(5) Terrestrial Ecosystems and Feedbacks on Climate Change;**
- **(6) Arctic Marine/Coastal/Riverine Systems;**
- **(7) Disturbance and Recovery of Terrestrial Ecosystems;**
- **(8) Dynamics of Arctic Populations and Ecosystems;**
- **(9) Sustainable Use of Living Resources;**
- **(10) Environmental and Social Impacts of Industrialization on the Arctic;**
- **(11) Rapid cultural change, human dimensions of Arctic systems;**

ICARP II

- **ICARP II was proposed in 2003. At the time the Arctic Climate Impact Assessment (ACIA) was nearing completion. The first Arctic Human Development Report (AHDR) was just getting underway and the International Polar Year was just being discussed as a possibility.**
- **Unlike ICARP I, which was planned almost entirely by IASC, ICARP II was designed to be an international and multidisciplinary effort involving the whole community and with sponsors from across the breadth of Arctic science organizations and agencies.**
- **Also unlike ICARP I, ICARPII did not directly result in new IASC projects, but produced a set of forward-looking science plans.**

Sara Bowden, 2015. Second International Conference on Arctic Research Planning (ICARP II). IASC after 25 Years.

ICARP II

- **The Working Group themes, as developed by the Conference Steering Committee with broad input from the conference sponsors, were:**
- **WG 1: Sustainable Development and Arctic Economies (Chairs: Henry Huntington and Gorm Winther)**
- **WG 2: Indigenous Peoples and Change in the Arctic: Adaptation, Adjustment and Empowerment (Chair: Jens Dahl)**
- **WG 3: Coastal Processes (Chairs: Volker Rachold and Christopher Cogan)**
- **WG 4: Deep Central Basin in the Arctic Ocean (Chair: Bernie Coakley)**

ICARP II

- **WG 5: Arctic Ocean Margins and Gateways (Chair: Jackie Grebmeier)**
- **WG 6: Arctic Shelf Seas (Chair: Heidi Kassens)**
- **WG 7: Terrestrial Cryosphere and Hydrologic Processes and Systems (Chair: Terry Prowse)**
- **WG 8: Terrestrial & Freshwater Biosphere and Biodiversity (Chairs: Torben Christensen and Terry Callaghan)**
- **WG 9: Modeling and Predicting Arctic Weather, Climate and Ecosystems (Chairs: Lennart Bengtsson and Klaus Dethloff)**
- **WG 10: Resilience, Vulnerability, and Rapid Change (Chair: Gary Kofinas)**
- **WG 11: Sciences in the Public Interest (Chairs: Lars Kullerud and Chris Southcott)**
- **WG 12: Presence and Fate of Heavy Metals, Persistent Organic Pollutants, Petroleum Hydrocarbons and Radionuclides (Chair: Lars-Otto Reiersen)**

The Value of Planning

- Intensive effort was expended by these organizing committees and by the working groups associated with these conferences to synthesize the state of the science and project where future needs would take us.
- Most of the themes identified in ICARP I and II did evolve into funded research programs, not necessarily as originally envisioned, and we can in almost all cases identify remaining knowledge gaps, but we also identify advances in each of these topics.
- In some cases, these reports provided justification to funding agencies for the need to support specific research investments... In other cases, these clear descriptions of research needs helped focus the attention and efforts of the research community.

The Need for Planning

- With each year of added warming, the urgency of research needs in the Arctic intensifies, while the potential funds available for Arctic research must compete with other societal needs.
- International collaborations have demonstrated the value that results from partnering through sharing of facilities, platforms, resources and understanding. These collaborative research programs are facilitated through ICARP conferences.

The Benefits of Participation

- The challenges we face in understanding the Arctic system are intimidating. The subtleties and complexities of the interactions, thresholds and feedbacks require cooperation and collaboration, building upon prior research and sharing of our discoveries and ideas.
- ICARP, with its focus upon present and future needs, in light of our mutual capabilities will help us achieve greater accomplishments with greater efficiency.

[http:
icarp.iasc.info](http://icarp.iasc.info)

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Photo: Luca Bracali

ICARP

THEMES

PARTICIPANTS



Third International Conference on Arctic Research Planning

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LATEST NEWS

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SG Meeting Report Available 15-01-2015

Related events

Downloads

Contact

ICARP Newsletter

Thank You!

An archive of the event will be available shortly.