



SEARCH Science Steering Committee (SSC) eMeeting 19 August 2009 Summary Notes

A SEARCH Science Steering Committee (SSC) eMeeting was held on 19 August 2009. Participants included SSC members and SEARCH panel members. The agenda, PowerPoint presentation, and participant list are available on the eMeeting webpages at: <http://www.arcus.org/search/meetings/2009/ssc/index.php>.

An archive of the eMeeting (recorded slides, audio, and chat), can be found through the Wimba eMeeting website at:

http://67.202.210.57/launcher.cgi?room=ARCUS_Live_2009_0819_1508_17

When you open the archive link, click on "Participant Login," then click the "Enter" button on the next screen (you don't have to fill in the "name" field). The archive will launch automatically.

The notes below summarize the key discussion points during the eMeeting. Action items are noted in blue text below the relevant sections.

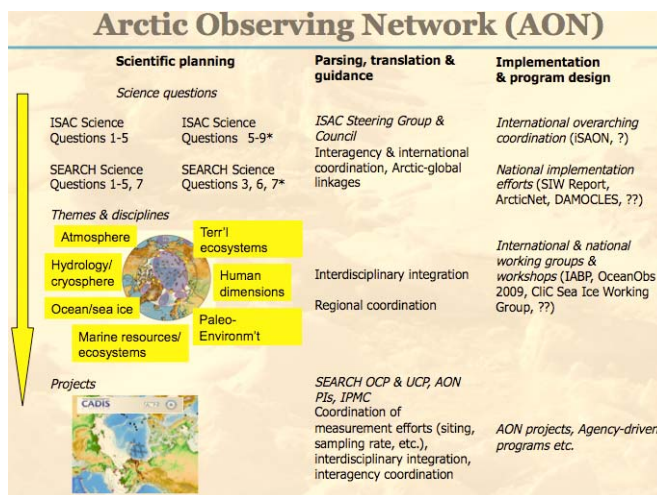
Overall SEARCH Status (*Peter Schlosser*)

- Brief review of the development of SEARCH: During the first five years of this decade, SEARCH developed its identify and set up the three main components of Observing Change, Understanding Change, and Responding to Change.
- We saw a large implementation opportunity from the International Polar Year (IPY), with major resources in SEARCH science. The SEARCH Implementation Workshop in 2005 established science priorities for SEARCH (see report at: <http://www.arcus.org/search/meetings/2005/siw/report.php>)
- Of the three components, Observing Change is furthest along because of the Arctic Observing Network (AON); the Responding to Change component needs the most focus and building.

Observing Change: Arctic Observing Network (AON) (*Hajo Eicken*)

- The Observing Change Panel (OCP) convened a SEARCH Data Advisory Group, chaired by Steve Oberbauer, which took the place of the previous SEARCH Data Working Group (which was convened to set a SEARCH data policy, see the policy at: <http://www.arcus.org/search/searchscience/data.php>). Now that AON is launched, NSF supports the Cooperative Arctic Data and Information Service (CADIS; <http://www.aoncadis.org/>, which supports AON by providing portal for data discovery, provide near-real-time data delivery, a repository for data storage, and tools to manipulate data). NSF wants a good way to provide guidance, advice, and feedback on CADIS and broader data management/dissemination issues. They will need feedback from any potential data users, specifically on how data is coming out of AON.

- There will be an AON Principal Investigator (PI) Meeting 30 November–2 December 2009 in Boulder, CO. An Organizing Committee, led by Craig Lee, is currently working on a draft agenda for the meeting and will circulate a draft when it's developed.
- The Observing Change Panel (OCP, currently chaired by Hajo) serves as a bridge between the SEARCH Program as a whole and AON (which is now mostly funded out of NSF).
- NSF had another call for proposals for AON; those groups who were successful appear to be notified, so more projects are coming online. Will get these projects in the online SEARCH project catalog (<http://www.arcus.org/search/catalog/display>) – this is important because it can be difficult to find who is funded through AON.
- Now that all these AON projects are funded and NSF has made a significant investment (about \$40-50 million), NSF is looking for a “design plan” for AON. This is not straightforward because AON is very broad and multidisciplinary. But there needs to be more organized approach for AON to answer the key science questions.
- See Slide #6 in the PowerPoint for a science planning overview of AON (<http://www.arcus.org/search/meetings/2009/ssc/index.php>):



- One of the things we are struggling with, but now making process on, is how to go about designing a longer term observing network.
- NSF would like some type of report to guide further AON implementation – this report is the target of a one-year process that has been started. There will be a workshop later this fall in conjunction with AON PI meeting for “AON Design and Implementation (ADI)”; the ADI workshop will be held right after the AON PI meeting (2–4 December) in Boulder, and will be fairly small (about 30 people). For the 4-6 months after that, there will be a period for small-scale “proof of concept” projects, then another workshop around May 2010. The final report to summarize all of this will be due in summer of 2010.

ACTION ITEMS: Need content on SEARCH website for the new Data Advisory Group and activities, as well as ADI activities and new AON projects. Craig Lee will circulate draft agenda of the fall AON PI meeting.

Understanding Change (*Peter Schlosser*)

- ARCSS and SEARCH to align to implement Understanding Change component of SEARCH. This was discussed at the last SSC meeting and discussed among the ARCSS Committee (AC). In spring 2009 there was a lot of exchange between members of SSC and AC, including a conference call with NSF. We are planning a small meeting in September to prepare concept for how to align ARCSS and SEARCH, including the “Understanding Change” areas of the two programs.
- We hope by end of year we will have a concept ready for input by the SSC and broader community, then can ramp up the Understanding Change component, similar to the Observing Change component.

ACTION ITEMS: Project Office will circulate results of September workshop/draft concept as soon as it is developed.

Responding Change (*Peter Schlosser and Maribeth Murray*)

Peter Schlosser:

- This is a central piece of the SEARCH program because it makes SEARCH research relevant and real, but it is not ramped up in pace with Observing or Understanding pieces. There are several reasons for this – it can be a challenge to deal with human dimensions and to move from “pure” research; we need to define what we really mean by “Responding to Change;” the community is smaller so it’s harder to find momentum; and the resources can be more limited for this kind of work.
- SEARCH has a responding to Change Panel, though Jack Kruse stepped down as chair. The panel has not been revisited since the last SSC meeting; we first need a white paper or similar document for Responding to Change describing what SEARCH means by “Responding to Change”, what activities are needed, and how those will interact with other components of SEARCH.
- So we need to undertake a major building exercise. The International Study of Arctic Change (ISAC) Science Plan has helped clarify thinking on these issues.
- *Maribeth Murray* – The ISAC program is laid out in the same structure as SEARCH (see ISAC website at: <http://www.arcticchange.org/>). One fundamental difference is that ISAC put Responding to Change as a driver for the whole program. ISAC has a proposal for continuing the ISAC project office for another 3 years – including focused Responding to Change workshops (one on exploratory modeling/decision making, another on ways of controlling carbon emissions in arctic communities, another on capacity building with respect to coordination amongst understanding and responding). Will have an ISAC Science Steering Group (SSG) meeting in September; will start to develop one of these “Responding” workshops, which can feed into the SEARCH Responding to Change component. Next Responding to

Change workshop will be late spring 2010 or so, after the State of the Arctic conference to build on what comes out of that.

- *Karen Pletnikoff* – Responding to change is where the small rural communities will be interested in participating.
- *Larry Hamilton* – Responding to Change research raises different kind of data issues than what CADIS was set up for – the AON PI meeting in the fall will be a good place to talk about these issues, e.g., how to make project results accessible to people in the Arctic.
- *Maribeth Murray* – One of the ISAC agenda items is to develop some kind of policy or approach to convey data and information to stakeholders.
- *Deanna Kingston* – related to the data sharing issue, Peter Schweitzer, Arthur Mason, and she have been conversing about how to develop some sort of social science portal/database management system; can be dealing with qualitative data such as video, images, audio, etc. - this is an issue that we've been talking about, but haven't reached a consensus yet on how to move forward.

ACTION ITEMS – SSC and panel members please send input and ideas for Responding to Change issues, topics, or activities to be included in the State of the Arctic Conference. ISAC will continue planning for Responding workshop in spring/summer 2010.

State of the Arctic Conference (*Peter Schlosser*)

- We have been talking about this conference for several years in SSC meetings and other contexts.
- Set for 16–19 March 2010 in Miami; website has been launched (<http://soa.arcus.org>).
- Conference will provide an open international forum for discussion of future research directions aimed toward a better understanding of the arctic system and its trajectory.
- Topics will range from basic understanding of the arctic system and its change to developing response strategies to adapt and mitigate change.
- Expecting 800 – 1,000 participants – a large conference.
- Main science themes:
 1. Advances in arctic system understanding - the basic functioning of the arctic system, including human subsystems;
 2. Arctic change - rapid, system-scale changes and the capability to project future states of the arctic system under various scenarios;
 3. Linkages to the Earth system - linkages and feedbacks between the arctic system and the Earth system; and
 4. Translating research into solutions - informed solutions to the problems caused by human-induced environmental change.

- The planning is now at point where looking for input on topics, sessions, speakers, products, and any other ideas. Looking for community input so we capture broader sentiment. The Organizing Committee is listed on the webpage at: <http://soa.arcus.org/about/organizing-committee>. Science partners include SEARCH, ARCSS, ISAC, ArcticNet, and DAMOCLES and are looking for others.
- The next critical milestone is to finish a tentative program by mid-September so we can open for call for abstracts, which will be open for 2-3 months.
- *Helen Wiggins* – Next steps for the development of the program will be to tie in expected outcomes and products to structure of program – need SSC input.
- *Mike Steele* – Would be good to have a travel fund to help support younger scientists/young investigators/students. Also a session on outreach and broader impacts and what people are doing for that.
- *Peter Schlosser* – want input soon, by the end of this month.
- *Karen Pletnikoff* – will provide additional input via email.
- *Peter Schlosser* – This represents a major conference in SEARCH, from the initial meeting in 1997, then the Open Science Meeting in 2003 (<http://www.arcus.org/search/meetings/2003/index.php>) - it's a good time to look at where we are headed as arctic community. IPY has provided new knowledge and insight; major components in SEARCH and ARCSS are implemented; international activities like DAMOCLES, ArcticNet, are ongoing, etc. This conference will set the agenda for arctic research for years to come.

ACTION ITEMS: SSC provide input into conference by emailing Helen Wiggins (helen@arcus.org) or through the online input form at: <http://soa.arcus.org/sessions/suggest>

Other Informational Items (*Peter Schlosser*)

- **Sea Ice Outlook**
 - *Helen Wiggins* - August report published online (see: http://www.arcus.org/search/seaiceoutlook/2009_outlook/report_august.php).
 - *Hajo Eicken* – On one hand there is very little multiyear ice, but on other hand solar radiation/weather may not reduce sea ice this season as much as some of the earlier month's outlooks indicated. Will be an interesting next 3-4 weeks as we hit the sea ice minimum. Very interesting details, including how different individual outlooks approach sea ice extent. Outlook contributors will do a review post-season. Participation has been very good this year.
 - *George Kling* – looking at the graph of outlook values, which look like they vary about 20%, this seems to be a wide spread.

- *Hajo Eicken* – well it depends on definition of “wide”. A lot of variability is result of a few outliers, which you can see by looking at the individual outlook contributions.
- **Understanding Change Workshop**
 - *Peter Schlosser* – An Understanding Change workshop will be held in 2010 after the State of the Arctic; this workshop won’t be in 2009 because planning depends on ARCSS and SEARCH first figuring out a way to align programs and advance Understanding Change collaboratively.
- **International Study of Arctic Change (ISAC) (Maribeth Murray)**
 - (See ISAC website at: <http://www.arcticchange.org/>)
 - ISAC Science Plan was released in March 2009; it was available for public comment longer than 6 weeks. The Science Steering Group will be revising the Science Plan in September. IASC will publish the final version hopefully before Christmas, but for sure before the State of the Arctic Conference.
 - Next step in ISAC is to develop implementation of the program. The SEARCH/DAMOCLES partnership provides a good model. Now working to develop similar partnerships with ArcticNet and other groups.
 - Submitted two proposals for continued ISAC support. One to the Swedish Research Council to support the international program office in Stockholm, with a staff person to deal with data-related issues, including a web catalog of projects and GIS activities, etc. – similar to what the SEARCH Project Office is doing but international in scope. Second proposal for ISAC support was submitted to NSF. Should hear about both proposals in September.
 - Between now and December, regardless of funding, there will be several ISAC activities, including: an open meeting at AGU (and will do this at AGU every year); co-sponsoring State of the Arctic and participating in the 4th day on international collaboration; participation in the ArcticNet annual meeting.
 - ISAC sat as representative on the Sustained Arctic Observing Network (SAON, see: <http://www.arcticobserving.org/>) initiating group; ISAC worked hard to make sure science observing stayed on the agenda for SAON and that it considered flexible and continued growth in an observing system. The Arctic Council has made recommendations on SAON, including formation of another working group (mainly formed of AMAP and IASC) to move the process along to the next step. Maribeth will keep SEARCH informed of ISAC and SAON activities.
- **Organization of Projects on Environmental Research in the Arctic (OPERA)**
 - NSF released a program solicitation for “Organization of Projects on Environmental Research in the Arctic (OPERA)”
 - Available at: <http://www.nsf.gov/pubs/2009/nsf09599/nsf09599.htm>
 - The solicitation “seeks proposals for activities to foster and sustain collaboration among projects funded by NSF that contribute to the US arctic environmental change research effort.”

- Components of the solicitation include: (1) Overall support of the US SEARCH effort, (2) Leadership of the US portion of an Arctic Observing Network, (3) Leadership of efforts in Understanding Arctic Change, (4) Management of Arctic Data, (5) Responding to Change component of SEARCH.
 - Additional details can be found in the full solicitation online.
- **Arctic Environmental Change Program Network**
 - This refers to SEARCH efforts to bring existing national (and some international) programs that have goals similar to SEARCH together through Memoranda of Understanding (MOUs), etc. (similar to the “SEARCH for DAMOCLES” MOU), with ISAC as the international umbrella. Such agreements can serve to underpin efforts in SAON. Currently in discussion with ArcticNet. Also looking at how to entrain programs from Asia and Russia.

[ACTION ITEMS – follow up on developing an ArcticNet MOU.](#)

- **DAMOCLES (Developing Arctic Modeling and Observing Capabilities for Long-term Environmental Studies)**
 - A DAMOCLES (<http://www.damocles-eu.org/>) General Assembly meeting will be held 10–12 November 2009 in Brussels; will feature summary of findings of the DAMOCLES project. Peter talked to Neil Swanberg (NSF, Chair of SEARCH IPMC) about supporting travel for people representing SEARCH – about 5–10 may be able to be supported for this meeting. If you are interested in participating, let Helen Wiggins (helen@arcus.org) know.
 - Craig Lee – there will also be an Arctic/Subarctic Ocean Fluxes (ASOF, <http://asof.npolar.no/>) steering meeting in Brussels during the two days following the DAMOCLES meeting.

[ACTION ITEMS – anyone interested in attending the November DAMOCLES General Assembly meeting should email Helen Wiggins \(\[helen@arcus.org\]\(mailto:helen@arcus.org\)\).](#)

- **SSC Membership**
 - We have three new SSC members on the call. Hajo Eicken (already chair of the Observing Change Panel) will be the new SSC Chair (to be formalized at the State of the Arctic meeting). Uma Bhatt and Caspar Amman are new SSC members.
- **Next SSC Meeting**
 - The next SSC Meeting will be an in-person meeting this fall. It will likely be in the Washington, DC area to enable agency participation.
 - *Maribeth Murray* – Is the SSC meeting just for SSC members? Peter – primarily, but others will be invited, such as panel chairs, panel members, relevant members of the community-at-large, IPMC members, etc.

- *Karen Pletnikoff* – Would like to see an agenda item on the SSC meeting for discussion of Responding to Change, including what to present/include at the State of the Arctic conference.

ACTION ITEMS – Project Office will schedule the next in-person SSC meeting.

- **Meeting Adjourned**