Minutes of the

SAON Board Meeting

Vancouver, Canada, 29 April 2013

1. Welcome and Introductions

The SAON vice-Chair, David Hik (IASC), opened the meeting of the SAON Board at 9:00 AM, Monday, 29 April 2013. David Hik welcomed the participants and explained that the purpose of the meeting was to move towards a strategic plan for SAON and to make decisions on priorities. He believed that the timing of the meeting, i.e. prior to the Arctic Observing Summit (AOS) was significant and would allow the Board to clarify the vision of SAON.

The SAON Chair, Tom Armstrong (AMAP, attending the meeting remotely via Skype), also welcomed the participants and apologized that he could not be present in person at the meeting. He put emphasis on the need to look not only on the SAON Tasks individually, but said that there has been developed a keen desire to understand how these belong together from the perspective of the SAON vision where users should have free and open access to data in order to provide societal benefits. The building blocks are the roots, but beyond this, SAON should be able to add value. There are three major basic questions: 1) What can SAON do for you, 2) What can you do for SAON from a circum-arctic perspective and also from the outside, and 3) What is the added value of SAON, beyond the individual Tasks and assets? Tom Armstrong explained that five different pillars have been identified: Coordination, Data, Community Based Monitoring (CBM), Platforms and Outreach. He asked the meeting participants to discuss the contents of these pillars, how to implement them, and how to put them into a strategic context.

The participants introduced themselves. The meeting adopted the agenda as proposed. The agenda is attached as Appendix 1 and the list of participants as Appendix 2.

2. Actions from Last Board Meeting

The SAON Secretary, Jan René Larsen (AMAP) went through the List of Action from the second Board meeting in Potsdam, noting that all actions had been addressed or were to be addressed during the Vancouver meeting.

3.-7. Developing and Deploying the SAON Strategy: White Papers and Breakout Groups

In order to structure the discussions, six documents had been drafted prior to the meeting:

- Development of the SAON Strategy (doc. 11, Tom Armstrong/David Hik)
- SAON White Paper on Coordination (doc. 12, Tom Armstrong/David Hik)
- SAON White Paper on Data (doc. 02, Jan René Larsen (AMAP))
- SAON White Paper on CBM (doc. 03, Eva Kruemmel (ICC) and other)
- SAON White Paper on Platforms, doc. 04 Lars-Otto Reiersen (AMAP))
- SAON White Paper on Outreach (doc. 05, Volker Rachold (IASC) and Magnus Tannerfeldt (Sweden))

David Hik introduced doc. 11 and 12 on SAON strategy and coordination. He emphasized the principle of developing two Committees under the Board: Committee on Observations & Networks (CON) and Committee on Information and Data Services (CIDS). Each of the existing SAON Tasks would be allocated to these two Commitees and this would establish a clearer distinction between tasks and observational networks. In addition to overseeing the work of the Committees, the Board would continue to be responsible for SAON outreach and the AOS. David Hik noted that the proposed structure would support the five pillars, except that the role of CBM would still need clarification. It should be defined if CBM should be seen as an integrator or a separate activity.

Martin Jeffries (USA) expressed the view that SAON should focus on developing guidelines, since these should serve as vehicles for funding of SAON activities. Observational projects would increase the probability for funding if documented to be in agreement with relevant SAON guidelines.

Eva Kruemmel introduced doc. 03 on CBM where one recommendation was to have a group on CBM that would take stock of progress within the tasks and make recommendations for next steps. Another recommendation was to have guidelines from SAON that could be strengthened if funding agencies would support them by asking proponents of projects to adhere to SAON guidelines, or by giving preference to proposals that would do that.

Jan René Larsen introduced doc. 02 and 17 on SAON data policy, activities, services, and deliveries. In the following discussion, David Hik described IASC work to develop a data policy, which prescribes that any new IASC project should have a data management plan.

Martin Jeffries stated that the private sector has large observational programs, and that SAON should develop a strategy that would encourage the release of these data.

Vito Vitale (Italy) introduced doc. 04 on observational platforms, putting emphasis on the role of SAON to have focus on existing structures and to try to develop a mechanism where SAON would add value to ongoing activities.

Volker Rachold (IASC) introduced doc. 05 on SAON's communication strategy. In the following discussion, Tom Armstrong asked the meeting to discuss who is the audience of SAON? Risa Smith (CAFF) said that SAON has to provide a service, and referred to the Arctic Biodiversity Data Service of CAFF. Thorkild Meedom (Denmark) suggested that the Board might discuss whether SAON should be branded under its own name or as an activity under the

Arctic Council. Volker Rachold described the vision of a SAON web data portal that could allow easy access to data and only with a few clicks.

The meeting was subsequently divided into three break-out groups (CBM, Data, Platforms), each with the task to discuss the three questions from doc. 11: 'What can SAON do for you?', 'What can you do for SAON?', and 'What is the value-added of SAON?'

8. Developing and Deploying the SAON Strategy: Synthesis

Jim Gamble (AIA) introduced the work of the <u>CBM break out group</u> (Appendix 5). He believed that the discussions had been interesting and that the focus of SAON should continue to be on categories (definitions and best practices) for now. He noted that quality control of CBM data is necessary, but in order to implement this, there must be an understanding that there are different levels: Even data with low quality can be useful. The need for recognition of communities that provide observations and data must be understood. There are several CBM projects on the way, including some within UNESCO. Several projects identify themselves as CBM.

In terms of outreach, SAON should make statements to the Arctic Council on the importance of observations of indigenous people and local communities. SAON already has focus on CBM when it comes to the basic Tasks.

David Hik wanted the Board to discuss whether CBM should be a separate stream in SAON or if there is a need to find a way to integrate it. Eva Kruemmel responded that that would depend on the readiness of CBM. If it is integrated too early, there is the risk that it gets lost. Jim Gamble supplemented this by saying that there are platforms that are working already, but they are small. Martin Jeffries explained how he had been in two minds on this subject. There is a potential value in it to be a separate category, and this would involve a commitment to SAON to see it grow as its own category. It might be helpful, if the CBM group would be able to come up with one or two examples? David Hik noted that there is a literature that indicates that uptake is increased when CBM is involved.

Vito Vitale introduced the work of the <u>Platform break-out group</u> (Appendix 7). He believed that SAON should continue to clarify which questions to address, who are stakeholders, what is the need for reaching out, and integration. SAON has a reputation to have a good connection to the policy level. SAON needs to move from the bilateral to the multilateral level. Magnus Tannerfeldt believed that SAON should continue to define the uniqueness of SAON. This would help SAON to focus and ensure the SAON does not undertake redundant work. One important example of this is the good link to Arctic Council.

Ola Glesne (Norway) introduced the work of the <u>Data break-out group</u> (Appendix 6). He emphasized the need for making things simple. SAON should understand who will benefit from the observations. Franz Immler (EC) agreed that the most important thing to understand is the stakeholders of the data. Ole Glesne noted that there is a need for visualizations, and it should be prioritized so that the most important and simple things are done first. He believed that more

emphasis should be on the national reporting to SAON, such as documenting national projects and efforts already existing.

Jackie Grebmeier (PAG) suggested that a case study should be used to visualize SAON. This would show that in the Tasks, things are working well. Peter Schlosser (ISAC) said that this would document how SAON had made a difference. Eva Kruemmel added that in the beginning stages of SAON (when AOS was proposed) it was thought that the AOS could be a forum where Tasks are being presented and where it can be shown what is done under SAON. Eva Kruemmel did not believe that the first AOS was that forum, but that it is needed in order to showcase what SAON is doing. If the AOS will not develop the forum that is needed for this purpose, then there might be a need to create something else. David Hik supplemented this by saying that there are good examples of when SAON has made a difference, and that different types of communications are needed. Greg Flato (CliC) supplemented this by noting that there are two groups of consumers: users of data, and people who organizes platforms and networks. Volker Rachold repeated his proposal to establish a SAON newsletter as a vehicle for this communication.

The meeting noted the initiative of the Arctic Council to establish a 'Task Force for Enhancing Scientific Cooperation in the Arctic'. The meeting suggested that SAON should be involved in this initiative. Thorkild Meedom said that it has not been explained, is there a need for a new body. David Hik supplemented this by saying that we do not know enough about this, and that SAON could offer a lot to this initiative.

Peter Schlosser said that SAON could play a role by putting emphasis on 'sustaining'. SAON should work towards formulating high priority activities, and should put weight behind these. In this way, there would be hope that things that are currently done in a fragmented way could be better coordinated. He believes that researches are now willing to contribute data or products to show case the value of SAON. David Hik supplemented this by repeating that the sustaining part of SAON is what should be considered.

Tom Armstrong thanked the meeting participants for the ideas on how to demonstrate the added value of SAON. He noted that it is one thing to show the progress of the Tasks. Another approach could be to ask the opposite questions: Would the Task be successful, even if SAON did not exist? At the end of the day, we still need to look at the Task and display the value added of SAON. There is a need to bring the SAON strategy beyond the definition phase and into the implementation phase.

David Hik wanted a further discussion of the high-level structure of SAON as it had been outlined in "SAON White Paper on Coordination" (doc. 11). He believed that a good job had been done in the beginning in identifying the Tasks. Now there was a need to define a structure in between the Tasks and the Board. With the model proposed, SAON would have a light super structure. The work in the Committees would need people from the Board, but it could also draw on externals. Erica Key supported the idea, and noted that the Board could work as the integrator.

Thorkild Meedom asked where CBM would fit into the structure, and David Hik responded that it was intentionally not put there, noting that it could be a separate structure, or it could be part of the structure. Eva Kruemmel supplemented this by saying that this would require further consideration.

David Hik concluded the discussion by noting that the structure of SAON needs to be further developed and that Terms of Reference for the Committees should be drafted. He suggested that a new version should be circulated among the Board members for approval and implementation.

9. Review of SAON

Jan René Larsen presented the drafts review plans as they had been prepared for the second meeting of the Board in Potsdam (doc. 24).

Tom Armstrong supplemented this by noting that the need for a review was given the Arctic Council decisions that had formed the basis for SAON. It was also founded in SAON's own Terms of Reference (ToR) and Rules of Procedure (RoP). This has to be an external process, but that does not mean that it has to be a long process. Questions in support of the review process should be formulated, like: 'Do we have the right activities?' and 'Are there redundancies?'

Jim Gamble noted that it is probably right to look on how SAON functions, but it is perhaps too early for a full review, and especially to start discussions about the ToR again. The principle should be not to fix anything that works well. He believed that the compromises that were laid down in the SAON ToR/RoP work well. Volker Rachold said that SAON should not be reviewed too early, since the SAON structure has only recently been defined. David Hik supplemented this by noting that it was left to the discretion of the Board to decide when this should be done.

Tom Armstong argued that an early review would allow SAON to make early corrections. On the other hand side, SAON is still so nascent that it will probably not be worth the effort. Mikko Strahlendorff (Finland) supported an early review by noting that it would give SAON an opportunity to fix the things that does not work. Martin Jeffries shared the concern that SAON is a nascent activity. He believed that it would be a better idea to schedule this to after the second AOS. This could also be an opportunity to put out a new call for Tasks, since AOS may develop new suggestions.

The meeting decided to defer the review, but to plan for this in 2014 after the second AOS.

10. Any other business

Peter Schlosser reported from the planning of AOS 2013, noting that there would be 144 participants, 48 white papers, and 13 comments. He believed that the idea to integrate AOS into the Annual Science Summit Week (ASSW) would be a good idea. He noted that there is no template for the Summit, and that the organizers will learn from AOS 2013. David Hik thanked

ISAC for the effort to plan the Summit, noting that ISAC will continue to host the planning in coorporation with the local host and the SAON Board.

Mikko Strahlendorff reported from the planning of AOS 2014 (doc. 13), and suggested that the SAON Board holds its next meeting after the AOS, and not before. The suggestion was supported.

Etienne Charpentier (WMO) informed the Board on the 'Rolling Review of Requirements (RRR¹)' (doc. 15) and how this work would form the basis for WMO's observing systems design and evolution to address the needs of WMO Application Areas in the most cost-effective way. Mikko Strahlendorff asked if it would be possible to extract only those requirements that were related to the arctic, since this could be useful for a gap analysis. Etienne Charpentier responded that some requirements are specific for the arctic, but are not necessarily marked as such, GCW being regarded as a cross-cutting application in the RRR framework rather than an independent Application Area². WMO will investigate how to improve its database³ to allow easy extraction of polar related observational user requirements. David Hik noted that the partnership between SAON and WMO is very useful, and that it is getting into a phase with tangible outcomes.

Yubao Qiu (GEO) presented GEO's plans for their 'Cold Regions' initiative, noting that this may act as the interface between SAON and GEOSS (doc. 14). In his presentation, he highlighted the GEOSS Common Infrastructure (GCI) which is a technical platform that might also serve SAON needs. SAON was invited to take part in the GEO's planning work, and informed the Board about the coming GEO Work Plan Symposium in June 2013. David Hik thanked for the invitation, noting that the relationship between GEO and SAON is nascent and should be further developed.

Erica Key and Andy Burnett (KnowInnovation) presented ArcticHub which is a technical platform hosting approximately 40 web sites, based on a technology developed by the HUBzero Foundation. It is an open source software platform, originally created by researchers at Purdue University in conjunction with the NSF-sponsored Network for Computational Nanotechnology. EarthCube has been built based on the same technology. Erica Key had originally approached the Foundation, asking them if they could build a platform for the Arctic Community. The platform supports collaboration and have ¼ million members. The project is entering a phase of 'development sprint' and is currently reviewing user requirements.

Jan René Larsen gave a brief update on the 'SAON Data Interface', which had been presented by Halldor Johansson from Arctic Portal at the second meeting of the Board in Potsdam, Germany (doc. 54 from this meeting). Halldor Johansson had applied to the EU for funding and the application was still under review.

David Hik noted that the composition of SAON Executive Committee (EC) would change. The nationality of the representative of the arctic country follows the chairmanship of the Arctic

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¹ http://www.wmo.int/pages/prog/www/OSY/GOS-redesign.html

http://www.wmo.int/pages/prog/www/wigos/wir/application-areas.html

³ http://www.wmo-sat.info/oscar/observingrequirements

Council. Since this chairmanship changes from Sweden to Canada in May 2013, Tove Lundeberg (Sweden) will step out, and Helen Joseph (Canada) will step in.

11. End of meeting

David Hik closed the meeting at 17:30 and thanked the Board members for their participation.

Appendix 1: Agenda

0900	1. Opening of the meeting Welcome, practical information, approval of agenda, and introduction
0915	2. Actions from latest Board meeting Follow up on actions from latest Board meeting
0930	 3. Developing and Deploying the SAON Strategy Preamble Introduction to two of five pillars and white papers: 1. Coordination 5. Outreach
1000	4. Break-out groups for the two pillars
1115	5. Introduction to three of five pillars and white papers:2. Access to free, open and high quality data3. Community Based Monitoring4. Securing platforms and access to these
1145	6. Break-out groups for the three pillars
1300	Lunch
1400	7. Reporting from break-out groups
1500	8. Synthesis
1600	9. Review of SAON The Board is invited to review the document 'SAON Review – Draft proposal' as presented to the Board meeting in Potsdam 2012
1630	10. Any other business, including Arctic Observing Summit 2013 Arctic Observing Summit 2014 GEO/GEOSS ArcticHub Expert Team on the Observing System Design and Evolution (IPET-OSDE)

1700 11. End of meeting

Appendix 2: List of Participants

Affiliation	Country	First name	Last name	Institute name	Mailing address	Phone	Fax	e-mail
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Notes:

Byong-Kwon Park and Peter Schlosser attended part-time
Andy Burnett from KnowInnovation was present during a presentation of ArcticHub in the afternoon
Martin Jeffries and Tom Armstrong attended remotely

Appendix 3: Meeting documents

Agenda Item I		Document No	Document Title	Document author
1	Opening of the meeting	10	Draft agenda	Chairmanship and Secretariat
		09	Draft list of participants	Secretariat
		11	Development of the SAON strategy	Tom Armstrong/David Hik
	Developing and Deploying the SAON Strategy	12	SAON White Paper on Coordination	Tom Armstrong/David Hik
		02	SAON White Paper on Data	Jan René Larsen
3		17	SAON Data 1)	Jan René Larsen
and 5		03	SAON White Paper on CBM	Eva Kruemmel and other
		04	SAON White Paper on Platforms	Lars-Otto Reiersen
		16	Observational Platforms 1)	Vito Vitale
		05	SAON White Paper on Outreach	Volker Rachold and Magnus Tannerfeldt
9	Review of SAON	(24 from Potsdam meeting)	Draft SAON Review Plan	Jan René Larsen
10	AOB/Arctic Observing Summit 2014	13	AOS Teaser 1)	Mikko Strahlendorff
10	AOB/ArcticHub	07	ArcticHub Evaluation for	Jan René Larsen

			the SAON Board 1)	
10	AOB/GEO-GEOSS	14	GEO-Cold-Region-SAON 1)	Yubao Qiu
10	AOB/Expert Team on the Observing System Design and Evolution (IPET-OSDE)	15	<u>WMO_RRR</u> 1)	Etienne Charpentier

¹⁾ Note: These documents became available during the meeting

Appendix 4: Action list

No	Action	Who
1	Further develop the Committee structure to include CBM	Executive Committee
2	Develop ToR for the two committees	Executive Committee

Appendix 5: Notes from the CBM break-out group

Rapporteur: Jim Gamble

CBM Definitions/Best Practices:

Need to design projects with a CBM focus or component into which CBM is integrated from the beginning

Even within the breakout group there was a difference in understanding of terms like community based monitoring and citizen science. This idea of terms and definitions needs to be addressed as a matter of priority.

Quality control of CBM data is different than data collected in other ways, but it is just as necessary and it's no more likely that a CBM project would have poor quality control then another type of project.

CBM has different or perhaps additional steps to implement

Even in projects that are not strictly CBM related, researchers can learn by being open to community knowledge in the places they're working

Despite potential differences in the quality of data, even data that might be perceived as low quality can be useful under the right circumstances.

Bottom up vs. top down design of projects. How to integrate the data of observation efforts that are already established and not using a SAON established set of best practices. Also, have others already examined this, are we repeating the work of others.

Communities involved in these projects should, perhaps, be recognized in some special way for their contributions. This provides encouragement for their participation (communities respond to different motivations to take part)

Recognition that the data that SAON networks collects can influence policy decisions

CBM Projects and Initiatives Already Underway:

UNESCO ...other

ICC web atlas will be live soon

CAFF covers biodiversity projects specifically

Canada is doing national observing inventories and discovered that many projects self-identified as CBM, this points to the need to increase awareness of these projects at the national level and it can be valuable to SAON as well.

CBM Advantages:

CBM can collect the same data as other methods, but with deeper advantages for the communities

Community involvement can lead to knowledge resources that might not otherwise be available to other types of research

Community involvement in monitoring builds in a connection to community adaptation processes related to the findings of the data collected

Moving Forward:

CMB outreach must reach communities, scientists, policy makers and funders; this is not covered in established tasks.

SAON can state to the Artic Council and others how important the participation of indigenous organizations and communities is, particularly to CBM based observing networks, What SAON has accomplished in CBM already needs to be highlighted and that some of the most important next steps for CBM in SAON are already encompassed in the existing tasks, and that these tasks need to be implemented

Appendix 6: Notes from the Data break-out group

Rapporteur: Ola Glesne

Keep it simple

Do not re-invent the wheel. See how others have done it. This is often wise.

Start with important needs. This will give you a direction. Prioritize.

Do not do all things at once: Make a plan. What can we do in a year, two years or in longer term? We need visualization and inspiration. What is the goal? What can we gain?

From plan to doing it

Start with a smaller task first, to get a good start.

If you are not experienced, pick the low hanging apples on the tree first.

If you struggle, ask for help from your institution, the national agencies or the SAON network. Collaboration is wise! This could be done at national or international level between other SAON states, preferably with institutes you are acquainted with from earlier work.

Interact and use the network

We need national reporting to SAON. We need to see progress.

Data for whom: Observation goes many ways. Is this a problem? One should not think so. If the data are good, they cannot do any harm.

Show what you have done the last year. Update SAON databases of your national monitoring data that can be shared each year. A template is made for the reporting. Remember, we will share both data and metadata, open for all.

Appendix 7: Notes from the Platform break-out group

Rapporteur: Vito Vitale



Funding issues -

- How to influence national plans, priorities and decisions regarding securing/improving research and observation
- · How to increase private funding support ? (foundations, oil, mining, transport companies, ...)
- · How to better support SAON building blocks (Tasks) in their initiatives/activities connected to observations as well as the emergence of new (e.g. ARICE, MoSaiC)?
- How to promote at the Arctic level the open access vision largely developed since 2006 by EU?



SAON has a general reputation to have a good connection with the policy-maker level

SAON should organize a group with the commitment to synthesize the large work already done in identifying gaps and design an optimal system. The group should develop SAON recommendations to be promoted at the

The group should include sufficient capabilities for the social sciences and give voice to the point of view of the economic sector

Recommandations shoud refer to stakeholder needs, and support concretely multilateral collaboration should be indicated as a priority.



Observational platforms -

- · Up to now a very broad definition
- · We need some criterion for classification or hierarchy
- · Which questions to address and who are stakeholders we need to reach/integrate?

The SAON Initiative: Critical Linkages to Arctic Marine Safety and Environmental Protection (statement presented at AOS)

Being SAON as an overarching initiative we should maintain a broad approach and show different needs and relevance through examples. Very important to show how wide are the questions and stakeholders needs in the



SAON Design, optimization and implementation

- · How much SAON should be involved in this process ?
- · How to efficiently connect SAON to the initiatives promoted by a large number of Agencies, Organizations, Programs, Projects, (AON, WMO, IASC, AOOS, INTERACT, IASOA, ..)
- How to introduce CBM in this design ?

SAON should not move in the details of the design, optimization and implementation process, but work to identify guidelines, and provide in some way endorsement/support to the different approaches can be followed to develop the whole process: 2-level approach (research + operational) with respect single approach (science plan implementation) or networking.



Development (survival) regarding observation platforms in the North for the next decade or two

Proposal The SAON Secretariat in cooperation with National Coordination Committees and data users and providers, could prepare a first simple overview of some existing observing platforms and their financial situations and "life expectancy"

Can we do more to obtain a better picture of future perspectives for the Arctic Observing System landscape?

Break out group had no time to discuss this point, bur no objection was rised with respect to the proposal