

(DRAFT) Report of the Second Meeting of the Arctic Data Committee

(In Conjunction with the Second Polar Data Forum)



University of Waterloo
Waterloo, Ontario, Canada
26-27 October 2015

Report of the Second Meeting of the Arctic Data Committee

Meeting Details

Meeting: *Second Meeting of the Arctic Data Committee*

Date:Time: *08:30 – 17:00 26 October, 08:30 – 11:30 27 October 2015*

Location: *Multi Purpose Room A, Fed Hall, University of Waterloo, Waterloo, Ontario, Canada*

Attending:

Ruth Duerr (USA)
Julie Friddell, Canada
Allison Gaylord, (USA) (Remote)
Øystein Gødoy (WMO)
Helge Goessling (ICES)
Peter Griffith (USA)
Halldór Jóhannson, Iceland (Remote)
Ulf Jonsell (Sweden)
John Kozimor (USA)
Jan Rene Larsen (SAON)
Kári Lárusson (AMAP)
William Manley, (USA) (Remote)
Mark Parsons (RDA) (27th)
Serge Scory (Belgium)
Colleen Strawhacker (USA)
Marten Tacoma (Netherlands)
Alex Tate (UK)
Stein Tronstad (Norway)
Volker Rachold (IASC) (27th)
Shannon Vossepoel (Canada)
Hinori Yabuki (Japan)
Lynn Yarmey (USA)
Zhang Beichen (China)

Summary of Discussions and Outcomes

Administration and Governance

- The Arctic Data Committee (ADC) governance and administrative model was discussed and a revised Terms of Reference (ToR) developed. The ToR will be reviewed by the ADC and the IASC and SAON Executives with confirmation expected early in 2016
- An ADC Steering Group is proposed comprising a Chair and two Vice Chairs. Details are provided in the draft ToR. Candidates for the positions are:
 - Chair: Peter L. Pulsifer, United States
 - Vice-chair (elect) (focus on outreach), Stein Tronstad, Norway
 - Vice-chair (elect) (secretary) – Marten Tacoma, The Netherlands
- Reports were made on each of the work packages (WPs) established during the first ADC meeting, and two new WPs were established:

ADC Activities

Mapping the Arctic Data Ecosystem (Peter Pulsifer, USA)

Good progress has been made with a first iteration of the ecosystem map ready to include in the new ADC website. The current model is provisional and will be refined through continued consultation with communities of practice (e.g. atmospheric, Arctic ocean fisheries, documenting Indigenous knowledge etc.).

This WP will continue with a focus on the expansion of content, improvement of the display, database and query technology, and significant promotion of the results. WP activities will be done in collaboration with a complementary EU-PolarNet project.

Common Metadata Elements (Julie Fridell, Canada)

Progress was made in refining a previously developed inventory of different metadata profiles being used in polar science. Additional work and resources are required and a Canadian funding initiative may provide some support for this effort if successful.

Goals this year are to finalize the preliminary set of elements and discuss with expert groups, review with the ADC and the broader community and publish a first iteration. If possible, also validate the recommendations, make a list of compliant data centres and write a “Dummies Guide” for sharing metadata.

Data Publication and Citation (Alex Tate, UK)

A summary web page was created reference a selection of key documents and best practices relevant to data publication and citation. There was agreement that principles and practices developed by other expert groups should be endorsed and promoted by the ADC (e.g. COPDESS). This WP is complete and the results will be used to populate the data publication and citation section of the new ADC website.

Interoperability Experiment

Following discussion, it was decided that at present the ADC does not have the resources needed to move this WP forward on its own. Additionally, there was agreement that the mandate of the ADC is generally not to build systems, but to advise and coordinate activities. The ADC will work to facilitate, and where appropriate endorse, partnerships and efforts by ADC members and others in the community to secure additional funding and develop projects with an interoperability focus. This WP will be seen as an ongoing effort with a significant network building and outreach component.

Network Building (New)

There was agreement that network building and in particular building connections with external bodies focused on various aspects of data management, sharing and use is a priority. Specifically, this will include applying for a World Data System membership and establishing a memorandum of cooperation with the Standing Committee on Antarctic Data Management. A network building work package will be developed in Year 2 of ADC operations.

Outreach (New)

Related to network building, outreach was recognized as a key area of development for ADC as it matures. This includes development of a social media strategy, creation of outreach materials (e.g. logo, website, poster for presentation at conferences etc.). A network building work package will be developed in Year 2 of ADC operations.

Detailed report

October 26th

Introductions

All participants attending the meeting introduced themselves

Opening remarks

- Peter Pulsifer presented the draft ADC governance and administrative model developed before the meeting.
- We have spoken about ethically open data. Basic rule is open data, but with room for exceptions for protecting human subjects or specific situations. There are different definitions on this. Do we have to establish a definition as a group? Yes. This will be included in the ToR.
- The discussion has a bias towards environmental data, Ruth Duerr ask how we will maintain connections with other data initiatives. Peter: Through individual members of the ADC [and establishment of new Network Building and Outreach WPs]¹

Decisions

- Include definition or 'Ethically open data' – from the IASC Data Statement
- Include definition of 'Arctic Data System' – from the IASC Data Statement
- Include a 'Glossary'
- On 'Long term preservation of data' – this can vary and be context specific
- Add 'Facilitate the development and harmonisation of data policies.'
- Consider remove 'mix of gender and seniority' from the section about the steering group
- On membership:
 - Invite leaders of active and relevant SAON Tasks and Projects to join ADC
 - Consider how to engage Indigenous Organisations and Permanent Participants of the Arctic Council.

ACTION: Julie to send a definition of polar data from 'Polar Knowledge Canada' to Peter Pulsifer

ACTION: ADC steering group to Invite leaders of active and relevant SAON Tasks and Projects to join ADC

ACTION: Peter Pulsifer will post draft statement to a Google doc to facilitate group editing.

¹ Decided during the course of the meeting.

Review of the previous year

The ADC website

- The website was hosted by the ArcticHub, now by ArcticPortal. The migration of the information has started, target for publication is end of November 2015. A draft of the site is available at <http://arcticdc.org>

Work Package 1: Mapping the arctic ecosystem

- Peter Pulsifer presented the progress to date. The data model will be completed in the next few months. The database will be populated, published and visualisations will be made.
- Various organisations have expressed interest or will provide input: NSF, EU-PolarNet, ESA
- Map has and will be developed through Partnerships with communities of practice.
- In the relationship there are four levels: Global initiatives with a polar/arctic aspect. Regional polar initiatives. National initiatives. There are international data organisations.

Work Package 2: Metadata profile

- Julie Fridell reports on the progress last year. The spreadsheet has been updated and the group has come up with a matrix. The progress is restricted by funding. In a Canadian program for cyberinfrastructure funding has been asked for one person for a year. As ADC we might be able to use some of those hours.
- One of the ideas for the future is a 'Dummies guide for metadata'. As soon as basic material has been collected Julie will call for a teleconference.

Work Package 3: Citations / publications

- Alex tells all the documents that were planned to be written in this WP already existed. Instead of rewriting them all a list of links is assembled at <https://www.bas.ac.uk/data/data-guidance-and-policy/data-citation-and-publishing/>
- This task is completed. In the afternoon the future will be discussed.

Work Package 4: Interoperability experiment

- Because of limited resources little has happened in this WP beyond discussion
- Following discussion, it was decided that at present the ADC does not have the resources needed to move this WP forward on its own.
- Additionally, there was agreement that the mandate of the ADC is generally not to build systems, but to advise and coordinate activities.
- The ADC will work to facilitate, and where appropriate endorse, partnerships and efforts by ADC members and others in the community to secure additional funding and develop projects with an interoperability focus.
- This WP will be seen as an ongoing effort with a significant network building and outreach component.

Learning about new polar science and data initiatives

The following initiatives were presented:

- EU-Polarnet (Jan Rene Larsen)
- Polar View (Peter Pulsifer on behalf of David Arthurs)
- NASA ABoVE Science Cloud (Peter Griffith)
- Arctic SDI (Peter Pulsifer)
- SIOS (Svalbard Integrated Observing System, Øystein)
- YOPP (Year of Polar Prediction, Øystein)
- WIGOS (WMO Integrated Global Observing System, Øystein)
- ADIwg Metadata Tools (Alaska Data Integration Working Group, Allison Gaylord)
- ARMAP / AOV (Bill Manley)
- GTN-P (Arctic Portal) on permafrost by AWI
- GaPSS (Gateway for Polar Social Sciences, Colleen Strawhacker): A new platform from NSIDC/ Meant to handle social science data. Also helps to enable trust among data scientist. Most of GaPSS hasn't had a technical build-up yet. Proposals for case studies are being written.
- Considering the breadth and depth of the sampling of projects presented, the importance of network building and outreach are confirmed.
- Network building, and in particular building connections with external bodies focused on various aspects of data management, sharing and use is a priority.
- Specifically, this will included applying for a World Data System membership and establishing a memorandum of cooperation with the Standing Committee on Antarctic Data Management. Connecting with the Research Data Alliance was also identified as a priority. A network building work package will be developed in Year 2 of ADC operations.
- Øystein Godøy (WMO, Norway) will take a lead role in this effort.

Establish a viable work plan for ADC year 2

Peter Pulsifer made a number of introductory statements and posed questions to encourage group discussion: We should set achievable goals. Are there things that we are not doing? Do we get involved in system development and writing code? Do we get further into policy, like a data statement? Are we going to make a data system for ADC?

Stein Tronstad: Making a data systems that is ADC-specific would be beyond the scope of this work. It is a matter of funding.

Peter: What if someone came and said that they would build the system? General answer: ADC could work with proponents of system to guide design, ensure that priorities established by IASC/SAON are considered etc.

Evaluation of year 1

What are your reflection on your activities?

Arctic Ecosystem mapping (Peter): Despite progress, I am not exactly where I want to be on this. Software development is lacking behind the scenes. Along with developing content, this is where focus needs to be in Year 2.

Alex: (This is data citation, not PIC). I did not waste time, but beyond. REMEMBER to put this on SAON Facebook.

Metadata profile (Julie): Names and links have been established. A proposal has been made – part of a 5 million \$ proposal. Next time there will be a plan for completing it including contingency should proposal not be funded.

Peter: The recurring theme is that we need to stay very focused when establishing the scope of our deliverables and look to other sources of funding, like the Belmont Forum, if we are to expand.

Ruth Duerr: Much is happening globally, and it is important to know what is happening so you can affect what is happening elsewhere, and know what you have to adapt to.

Lynn: I found that metadata on its own is not particularly appealing to funders. Trendy things are funded. There is much potential in this room with people wanting things to be done.

Peter: How can we make the committee effective?

Allison: Her group has significant experience working with limited resources. She can provide input with respect to maximizing efficiency with what we have available. Many others in the group have similar experience.

Ruth: There are similar groups who are using student fellows.

Peter: We have had discussions about APECS, who we should link to. There is interest in this group about data management.

Lynn: Through day to day data center activities could be contributing to validation activities related to ADC, such as testing ADIwg metadata suite?

Ruth: With respect to networking, you may consider ratifying the Declaration on Data Citation of COPDESS.

Peter: I have been asked to endorse proposals. When doing so, I have simply recognized the relationship between the project and the objective of ADC rather than providing any statement on the quality of the proposal or value. Moving forward, we should consider the value of this to ADC or the parent bodies? Perhaps evaluate in terms of the proposals potential to contribute to ADC goals?

Goals Proposed for Year 2

Items between square brackets would be nice to achieve, but will only be done if time permits

- Interoperability – there has to be funding before this can be done. This may already have been done by SIOS.
- Arctic Data Ecosystem mapping – Peter Pulsifer
 - Establish a data model in correlation with ADC and EU PolarNet
 - Basic Prototype, this may be coevolved with SAON Committee on Observing Networks
- Metadata – Julie Fridell
 - Preliminary set of elements to distribute to experts groups (John, Stein, Alex, Øystein, Colleen Peter G. Allison G., Hinori Yabuki, Jan) (+SCADM) (within two months)
 - Then review by full committee(s) (End of year)
 - Review with broader community (Polar Mailing List) 6 weeks' notice
 - Publish recommendations
 - [Validate recommendations (ie ADIwg tools)]
 - [Create a list of adhering data centers/users]
 - [Dummies Guide to sharing metadata]
- Connection with other groups – Øystein

Organisation	Person
RDA	Ruth Duerr
GEO/GEOSS	Julie Fridell, Peter Pulsifer, Jan Rene Larsen)
EU Polarnet	Ulf Jonsell
YOPP / WIGOS / GCW	Øystein
EarthCube	Lynn
AGU	Ruth Duerr
ESIP	Peter Pulsifer, Ruth Duerr, John, Peter F
APECS	Colleen Strawhacker
IASSA	Colleen Strawhacker
SCADM	Through the many joint national representatives

- Data Publication and Citation – Alex Tate
 - Endorse Principles
 - Endorse COPDESS (Coalition on Publishing Data in the Earth and Space Sciences)
 - Populate arcticdc.org menu 'Data Publication' with a link to the BAS page and other relevant links.
 - Link to community (ESIP/RDA/COPDESS) (Ruth)
 - IODE / IOC – Ocean Data Publication Cookbook (add reference)

- ESIP Guidelines for data citation
- Outreach (Colleen S., Shannon V., Anton vdP., Haldór J. identified as key participants)
 - Finish and launch new web site
 - Create outreach materials
 - Logo/style set, posters, slides
 - Communicate to the community the background, skills of ADC (i.e. scientific capacity as well as DM)
 - A list of where scientists should be submitting data (Shannon V.) (check WDS)
 - Establish Twitter; FaceBook; LinkedIn (Hashtag: PolarData ArcticData)
 - APECS (relates to connection)
 - GIS day November 18th
- Become member of WDS (World Data System)
 - ADC could be an associate member, this means no requirements or reporting
 - How to join:
 - Expression of interest
 - Letter of Agreement
 - Representative
 - Brief description of data activities
 - We will apply
- Moving PIC forward (PIC) (Mark Parsons)
 - Copy Ethics and Norms to ADC website (Marten)
 - Work plan re. legal and usage in context (e.g. public mark) (possibly Carolyn Dubois)
 - Cloud and discover tool - support (reference GitHub)
 - How To on badging methods (Ruth)
- Sustainability plan (Halldór J.)
 - David Arthurs
- Repository of Data Management Plans (website)(partnership with SCADM) (Bob Arko)

ADC Steering group candidates

According to the - to be finalized - Governance and Administrative model the steering group should consist of 4 people:

- Chair – Peter Pulsifer
- Vice-Vhairs
 - Outreach – Stein Tronstad
Connecting with other groups and social media
The original candidate was Colleen Strawhacker, since both she and Peter are from the U.S. and the SG should consist of national representatives from different countries she is not eligible.
 - Secretary – Marten Tacoma
Organise meetings, manage systems like Trello and google docs

- The previous chair – Since there is no previous chair yet this position will not be filled this year

Working with SCADM

On points where developments in the Arctic and Antarctic (should) go in the same direction and where both SCADM and ADC have working programs, these will be aligned to prevent unneeded overlap and results will be shared between the groups. The aim of the cooperation is to make sure the standards will be as similar as possible between the Arctic and Antarctic and reduce redundancy.

The polardata list (<https://nsidc.org/mailman/listinfo/polardata>) can be used for general discussions. It might be useful for ADC to also establish a separate list for 'internal' communication.

The memorandum of cooperation will be finalized in the coming period.

Next meeting

The next meeting will be combined with a suitable activity, some possible options are:

- Arctic Observing Summit (intersessional)
- Data Science Week
- In conjunction with Arctic Circle in Iceland

The next joint meeting with SCADM is planned in 2017 in conjunction with the 3rd Polar Data Forum should one be organized. If not, an alternative will be established.