



Minutes of INTERACT

Station Managers Forum 1

Second phase 2016-2020



Photo: Reynir Sveinsson

25-26 January 2017, Sudurnes Science and Learning Centre, Iceland

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Executive summary – INTERACT SMF 1 minutes

The INTERACT Station Managers' Forum 1 in the second phase of INTERACT was held at the Sudurnes Science and Learning Centre in Iceland 25-26 January 2017. The meeting was held as a part of the INTERACT Kick-off meeting for the second phase of INTRACT.

Sessions focused on tasks and deliverables of WP3 (Station Managers' Forum), including:

- Awareness of the scene, where station managers are made aware of international organisations, networks, programmes and projects of relevance to research stations in cold regions.
- Building capacity for first class science support, including development courses for station managers, mentorship schemes and sharing of best practices across domains (Marine, Atmosphere, Antarctic, etc.).
- Enhanced fieldwork safety, a task that will develop a fieldwork preparation handbook and a practical field guide for field operations in arctic areas.
- Reducing environmental impact of station operations, seeking to identify means for minimizing environmental impacts of station operations by sharing best practices within INTERACT and with the Antarctic community and businesses.
- INTERACT GIS developing a platform for presenting information about the stations, projects at the stations, monitored parameters and an online application module.

Maarten Loonen presented the Netherlands Arctic Station including information and photos of facilities, research programmes and the surrounding environment.

57 participants representing 42 INTRACT stations (and one Antarctic station) participated in the meeting.

All session presentations can be seen on <http://www.eu-interact.org/station-managers-forum/meetings/smf-meeting-1/>

INTERACT Station Managers' Forum 1 - minutes

1. Welcome and agenda

By Morten Rasch (Chairman of INTERACT Station Managers' Forum)

Morten Rasch welcomed all participants and presented the agenda for the Station Managers' Forum 1. A presentation of the Netherlands Arctic Station was added to the agenda at the end of the SMF meeting. The SMF participants were introduced to the Station Managers Forum work package during the annual meeting, so there was no need to elaborate on the role of SMF in INTERACT and the deliverables. Instead, the importance of integrating the new partners and participants was highlighted and the new energy brought in by new participants was appreciated.

2. Awareness of the Scene (Task 3.2)

By Terry V. Callaghan

The task and deliverables were outlined. Terry explained that station managers in the Arctic is a diverse group of people, some being scientists others managers, managing stations in diverse landscapes and studying a variety of disciplines. At the same time there is a wealth of national, regional and global organisations, networks, programmes and projects that seek to standardize and/or synthesize data collection, analysis and modelling to identify and adapt to environmental and climate change.

Stations should be part of relevant initiatives to contribute to the development and implementation of standards and in order to contribute to larger assessments and monitoring initiatives allowing society to detect and adapt to change. Involvement in international initiatives may also be used to attract funding to a station (see example in Box 1).

This task (T3.2) will arrange talks and presentation of relevant regional/global initiatives in close dialogue with the station managers. Subjects can span across science policy, strategies, intergovernmental organisations, scientific networks, monitoring programmes, etc. covering regional or global scales.

Box1. Zackenberg Research Station and AMAP case

Zackenberg Research Station was opened mid 1990'ies with a very limited budget. At that time, Arctic Council had at that time begun a process to develop the Arctic Monitoring and Assessment Programme (AMAP). Information of this programme reached Danish authorities, money were allocated, but the science community was not informed. By pure coincidence, the station manager found out about this initiative and this was the start of the development of one of the most comprehensive monitoring programmes in the Arctic. Knowledge of policy developments and existing organisations, networks, programmes and projects can therefore greatly enhance station opportunities.

Plenum discussion:

Tom Barry (CAFF/CBMP – WP 7) informed of an Arctic Council initiative on research cooperation that could be relevant for this task (Scientific Cooperation Task Force – SCTF).

Georg Kaser (Hintereisferner Research Station, Austria) highlighted the importance of making modelers aware of what data is available. Maribeth Murray (Kluane Lake Research Station, Canada) informed about a modeling conference in 2018 and encouraged a dialogue with INTERACT. Terry V. Callaghan responded that INTERACT could play a vital role in validating modeling results and that it is important that INTRACT is represented in many forums to make the international community aware of INTERACT and what INTERACT can contribute with.

Conclusion:

It was agreed that Terry V. Callaghan, Morten Rasch and Elmer Topp-Jørgensen would plan talks/presentations for the next meeting and have further discussion of talks/presentations for subsequent meetings.

3. First Class Science Support (Task 3.3)

By Elmer Topp-Jørgensen

Elmer presented the sub-tasks and deliverables of Task 3.3 and gave the floor to sub-task leaders.

a. Station Manager Courses

By Fred Skancke Hansen (University Center Svalbard (UNIS), Svalbard)

Fred presented UNIS and provided an overview of the task and its deliverables, i.e. four courses for station managers including training materials. Potential courses and practical topics that can be covered by the planned courses were presented and formed the basis for a plenum discussion.

It was also noted that UNIS is working on a safety publication with great overlap with what INTERACT is doing and hence has a proposal for a joint UNIS/INTERACT publication (see Box 2).

Plenum discussion:

Tomas Gustafsson (ÅF, Sweden – WP8) asked about drones in arctic safety and Fred informed about the potential use in rescue operations, to inspect safety risks, map glacier surface, etc. It is a tool that can be developed to be sold to researchers working in high risk areas. GPS trackers are also increasingly being used during remote field operations.

Wlodek Sielski (Polish Polar Station Hornsund, Poland) highlighted fire as a potential important topic.

Terry Callaghan highlighted that some INTERACT stations are located in communities while others are located hundreds of km's from the nearest town. Also some stations are in the boreal zone with different health and safety risks. This needs to be remembered when identifying course contents. Fred replied that most are in cold regions, so even though there are differences, there are also some similarities that allow us to select courses of relevance to most stations.

Magnus Augner (Abisko Scientific Research Station, Sweden) argued that voluntary checklists would be better than standards, due to the environmental, climatic and legal differences between stations. In order for stations to identify relevant courses, it would be a good idea for stations to identify risks and how these are dealt with at the station.

The possibility of educating mountain guides and making their service available to scientists was presented. It is already available at some alpine stations in central Europe.

There was some interest in establishing a system where station managers can share "near misses" to learn from other stations experiences. Elmer replied that this is a possibility, but that there need to be 'buy in' from station managers to make this work. Previous efforts to share near misses resulted in very limited input.

Conclusion:

There is a lot of interest in the courses and a lot of knowledge to share. The Station Managers' Forum will initiate a risk and course-need assessment at stations. Based on this UNIS and SMF coordinators will draft proposed courses to meet these needs to the greatest extent possible.

Box 2. Arctic Safety Center at UNIS and potential cooperation with INTERACT

By Ann Christin Auestad (UNIS, Svalbard)

Ann Christin Auestad presented the Arctic Safety Center and its services, including an upcoming publication on arctic safety of relevance to INTERACT.

Conclusion:

There is great overlap with INTERACT tasks and publications and it was agreed that the UNIS and INTERACT could make a joint publication – i.e. a text book on arctic safety. The SMF coordinators will lead INTERACTs involvement in this.

b. Mentorship Schemes

By Elmer Topp-Jørgensen (Aarhus University)

Elmer presented the task and deliverables (developing and implementing mentorship schemes where relevant). Christine Barnard, Ninis Rosqvist and Maarten Loonen briefly described respectively Canadian (CNNRO: <http://cnnro.ca/>), Swedish (SITES: <http://www.fieldsites.se/en-GB>) and Svalbard (NYSMAC: <http://nysmac.npolar.no/>) networks. Meeting participants were asked about other existing national networks/mentoring groups. Terry informed that a Russian network of Siberian stations was under development, Otso Suominen (KEVO Research Station, Finland) informed that cooperation between Finnish stations were getting more formalised and Elke Ludewik (Sonnblick Observatory, Austria) informed about an alpine network of stations (SOIA: <http://www.alpconv.org/en/alpineknowledge/default.html>).

Station management is complex and involves many different skills and disciplines – planning and dealing with economy, developing science programmes, facility development and maintenance, handling staff and visitors, health and safety, education and training, outreach, data management, etc.. Mentoring or other forms of sharing of management practices can therefore be valuable, especially for new station managers with limited experience.

Break out group results on types of mentorship schemes relevant in an INTERACT context:

Group 1 – represented by Jan Dick (Cairngorms, Scotland/UK)

Nested mentoring groups within INTREACT focusing on common aspects, e.g. Arctic/Boreal/Alpine Mountains, Coastal/freshwater, etc. Groups can be disciplinary or transdisciplinary with the purpose of hearing success stories and challenges from other stations

The group considered it would be good to make a database of all possible mentoring group suggestions and then this can be used in two ways:

1. SMF could distribute a list prior to INTERACT Station Forum meetings and people could vote for what topic they want discussed at the SMF meeting (meaning mentoring groups at SMF meetings)
2. The list of thematic mentoring groups could be on the web and could be used by station managers (and people from outside) to find persons/stations with knowledge on specific station management issues.

Group 2 – represented by Snorre B. Hagen (NIBIO Svanhovd, Norway)

There could be some sort of mentorship forum in INTERACT. It should be voluntary to not impose workload on station managers and staff. It could be in the form of a closed chat forum.

Group 3 – represented by Magnus Augner (Abisko Scientific Research Station, Sweden)

Establish networks when there is a need. A bulletin board where managers could post questions and experiences which other managers could learn from. Interested parties could then respond to posts. Posts could relate both to station management and science support.

Group 4 – represented by Hanna Maria Kristjansdottir (Sudurnes Science and Learning Centre, Iceland)

Make a list on the INTERACT website with station managers/participants including name, picture and field of expertise. If a station manager has a question or a problem in a specific field, they can e-mail the person(s) who has submitted this as a field of expertise.

Wojciech Piotrowski (IFS-PAS, WP2) informed that some of these ideas could be relevant for a task in WP2 relating to a bulletin board. It was agreed, that WP2 and WP3 should cooperate and that the subject would be discussed again at the next Station Managers' Forum meeting.

c. Best practices across domains

Due to time constraint, the agenda item was postponed to the next Station Manager Forum.

4. Enhances Fieldwork preparations and field guides

By Gerlis Fugmann (APECS)

Gerlis presented information about the Association of Polar Early Career Scientists (APECS).

APECS has a project where researchers at different stations are connected. Of relevance to Task 3.2 Awareness of the scene, APECS has produced a list of acronyms on their website - <http://www.apecs.is/research/who-s-who-polar-acronyms.html>. APECS also has a member in the INTERACT Transnational Access Board.

Task 3.5 will produce a fieldwork planning handbook and practical field guide. It will contain elements related to field work planning and permits. Erika Hille (WARC, Canada) commented that it

should also include information on procedures for contacting station management before arrival. Terry Callaghan highlighted the need to register what has been done (can also include reference photos).

Conclusion

It was agreed that APECS and SMF coordinators will draft a list of contents for both the fieldwork planning handbook and the practical field guide to be discussed by station managers.

APECS task in WP3 Station Managers' Forum – station videos for website

APECS also has a task embedded in Task 3.1. Developing a framework for video presentation of stations to be presented at the INTERACT website. WP2 has a task of producing a promotional video and Mapillary, involved developing the station street-view application in WP3, may have some experience to draw on as well in relation to different outreach products. Cooperation between the different initiatives is needed to ensure common branding. It was also noted that there may be a need for people in the videos to accept that it published on the web.

It was agreed that WP2 and WP3 would cooperate on these tasks.

5. Reducing environmental impact of research station management and science activities

By Lisa Benedetti (International Polar Foundation (IPF))

Lisa presented information about the International Polar Foundation and the Princess Elizabeth Antarctic Station.

The task is to produce an idea catalogue for station managers with good practices for reducing environmental impact of station operations – building on the Princess Elizabeth Antarctic Station, industry and the knowledge embedded in INTERACT.

Participants were divided into break-out groups and asked to provide input to which themes to cover in the idea catalogue.

Group 1 – represented by Nagruk Harcharek (Barrow Environmental Observatory, Alaska/USA)

- Heat efficiency – insulations for old buildings – cheap and efficient solutions
- Sustainable and reliable energy solutions (wind, solar, geo, Biofuel/human waste, etc.)
- Reducing environmental footprint, use existing infrastructure/equipment rather than building/establishing new.
- Offer stations as test platform for testing materials/equipment - may attract businesses to showcase their products.

Group 2 – represented by Erika Hille (Western Arctic Research Station, Canada)

- Heating
 - winter insulation

- Retrofitting heating systems (e.g. smart energy solutions)
- Windows – summer/winter fittings
- Building design for heat production/temperature regulation
- Sustainable and reliable energy solutions
- Reduce environments impact in field
 - e.g. by using drones

Group 3 – represented by Ninis Rosqvist (Tarfala Research Station)

- Sustainable transport solutions (electrical, biofuel, petrol, etc.)
- Life cycle analyses (both station facilities and internal/external science projects)
 - Resource use, waste, environmental impact and regeneration, etc.
- Reduce environmental impact - social media may attract tourists and result in significant environmental impact (waste/garbage, etc.)

Group 4 - represented by Hanna Maria Kristjansdottir (Sudurnes Science and Learning Centre, Iceland)

- Waste handling/sewage treatment
- Minimise resource use/ garbage production (reusable containers, limit use of packing materials, etc.)
- Renewable energy solutions for old infrastructure
- Monitoring resource use

Discussion:

- A workshop with relevant industry representatives and possible Antarctic stations could be held at the next SMF meeting (where WP 8 is already arranging a workshop with participation of drone/remote sensing related companies). Theme could be advanced technology, materials, smart solutions, etc.
- Input could be needed from conservationists when dealing with environmental impacts in the field.
- How can stations located in towns influence environmental impacts from others (e.g. local inhabitants, companies, etc.)?
- Transport (non-fossil fuel, electrical, bicycles, etc.)

6. INTERACT GIS

By Tomas Thierfelder (Agricultural University of Sweden (SLU))

Tomas presented the recent developments of INTERACT GIS, based partly on input received at the special INTERACT GIS session at the INTERACT Meeting in Poland 2015.

Tomas noted that complex and varying application requirements make it necessary with station specific application forms. Currently the INTERACT GIS system is in operation at Abisko and Tarfala research stations and is under development at Villum and Zackenberg research stations. New features (modules) are therefore being developed. This will benefit new stations that want to join

the system as it may reduce development costs for meeting the specific application requirements for new stations joining the system.

The plan for the next four years is to:

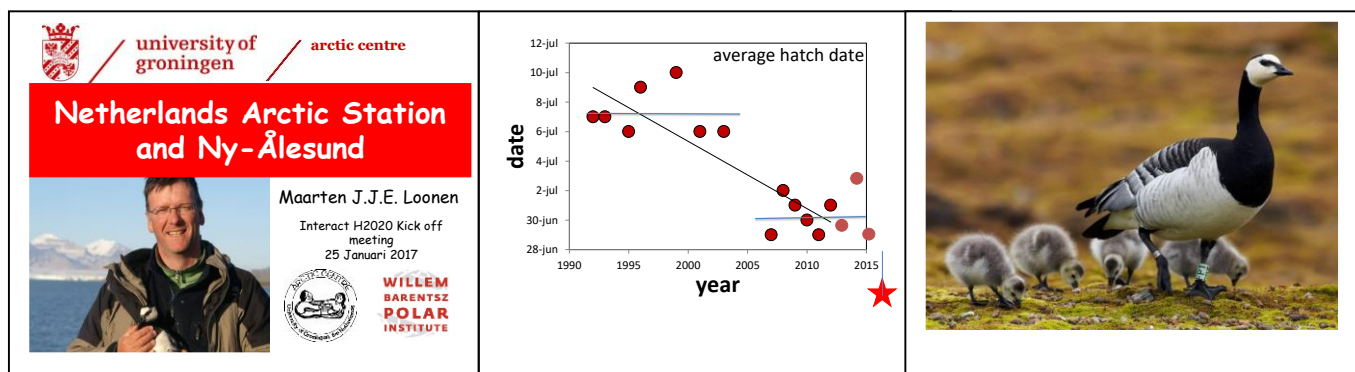
- Fully integrate the INTERACT Station Catalogue information in INTERACT GIS
- Incorporate project metadata and studied parameters (from INTERACT Research and Monitoring Report)
- Develop an organisational structure (including management board, technical support, etc.) and work flows for the future run of INTERACT GIS.

It was noted that TA users has an interest to see what has been studied at the stations (project metadata from R&M Report) and it was suggested that we also add TA projects info to the system.

More technical questions from the Data Management work package were addressed on a side meeting to the Station Manager Forum.

Station presentation - Netherland Arctic Station

By Maarten Loonen



7. Any other business

- d. ÅF and Umbilical Design mentioned that they would be interested in talking to station managers with experiences from or desire to working with drones. This side meeting was scheduled to Friday 27 January 2017.
- e. Station managers were thanked for the input to previous INTERACT publications, and it was stressed that we are dependent on good (and timely) input to keep up the standards of upcoming publications.

8. Closing the Station Managers' Forum

Morten Rasch closed the meeting and thanked for a good and constructive dialogue with great 'buy in' from new and "old" participants.