



Increased meteorological cooperation - what it means for the Arctic?

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WMO received an observer status in the Arctic Council in May 2017 to strengthen the mutual cooperation by introducing the Earth system modelling approach. In preparation for Finland's chairmanship of the Arctic Council (2017-2019), the Finnish Meteorological Institute took the lead role for preparing the priority item "Meteorological cooperation". The Action Plan for this priority was prepared in collaboration with all the National Meteorological and Hydrological Services of the Arctic Council Member States, which in itself indicates the willingness and capability to perform close and fruitful cooperation from these organizations.

Weather and climate do not respect border lines. They affect us all and every day, and this is why meteorological cooperation is extremely important. The main aim of the theme was to engage WMO with the Arctic Council and its Working Groups, seeking to achieve well-maintained and sustained observation networks. The theme also included continuous monitoring in the Arctic and the continuation of WMO's leadership role in the further implementation of space-based observations of the Arctic, including the use of high-elliptical orbit satellites and emerging technologies such as nanosatellites. This is all very important as we need to improve our understanding of the extremely rapid changes taking place in the Arctic. This is the main key to adaptation to, mitigation of and combatting climate change.

An "Arctic Meteorology Summit" was organised in March 2018. This event provided an outstanding platform for discussing Arctic issues within a unique forum consisting of a very wide stakeholder basis: scientists, politicians, business and the Arctic Council. Later the same week, the Arctic Council Senior Official's confirmed meteorology as a permanent element of the Arctic Council Working groups.

Collaboration has started with remarkable speed. All Working Groups have considered the added value provided by the meteorological community, and it has been easy to identify slots where such Earth system modelling approach fills critical knowledge gaps. For example, AMAP elaborated its Climate Expert Group into a Meteorology and Climate Expert Group. The final event organized by FMI, "Connecting Meteorology with Traditional Knowledge and Local Knowledge" was a strong sign of respect and signalled the fact that the meteorological community wants to share views, expectations and experiences of peoples have been living in a changing Arctic climate. This event was one of its kind: never before has there been such an outstanding opportunity for peoples of the Arctic and the meteorological community to have this kind of dialogue.

The list of concrete achievements on Meteorological cooperation is impressive:

- a. The Finnish contribution to the WMO Year of Polar Prediction substantiated the vital importance of an extensive network of high-quality in-situ observations in the Arctic.
- b. The WMO Arctic Regional Climate Centre pilot phase started in 2017: this will provide free-of-charge meteorological services for the Arctic
- c. The WMO Pan-Arctic Regional Outlook Forum began its work in May 2018. PARCOF produces long-range climate outlooks for the Arctic. A PARCOF meeting was held in Rovaniemi on May 8-9.
- d. Notable progress has been made for implementing the Sustainable Arctic Observation Network (SAON) Action Plan through intensified monitoring. The Value Tree Project will support decision making (IBA funding from Finland's Ministry of Foreign Affairs).
- e. Networking and future planning with AMAP, PAME, CAFF and EPPR is now started, including the participation of WMO. The AMAP Climate Expert Group is enhanced into a Meteorology and Climate Expert Group.
- f. Several other relevant meetings and workshops were arranged, for example an Arctic Ocean Acidification Workshop.
- g. Last but not least is the draft resolution text provided jointly by the meteorological community: [The Arctic Council] "Welcoming the meteorological cooperation as an elemental part of the work of the Arctic Council, recognizing the utmost importance of comprehensive monitoring network of the atmosphere, cryosphere and oceans, ensuring improved understanding of climate change, adaptation and mitigation, taking into account indigenous knowledge of weather related phenomena, and providing data for modeling and services to support safety, resilience and sustainability in the Arctic."