

Catalyzing Science and Innovation in the Arctic

P Ruti, R Nitu, M Sparrow WMO



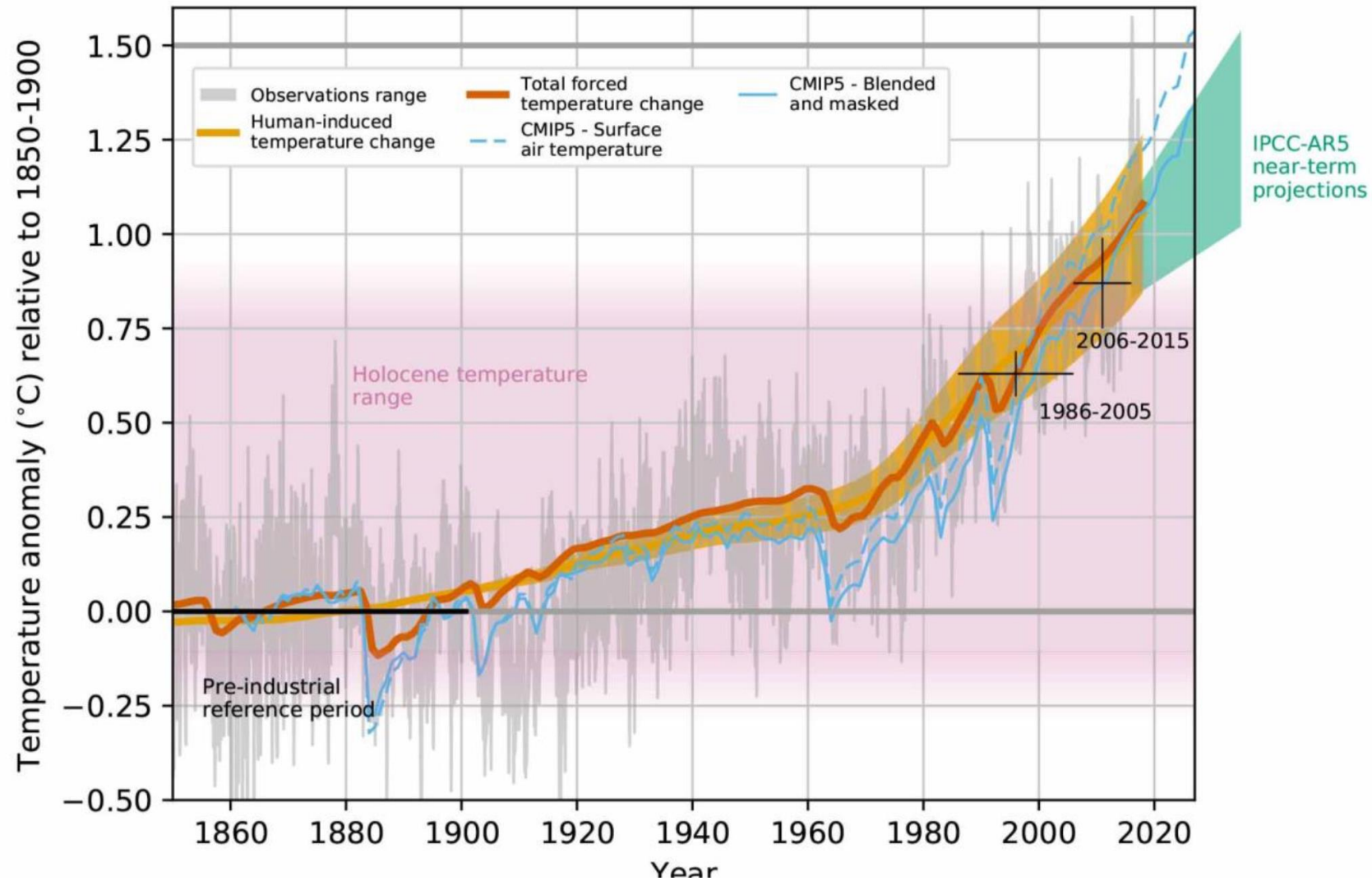
WMO OMM

World Meteorological Organization

Where are we

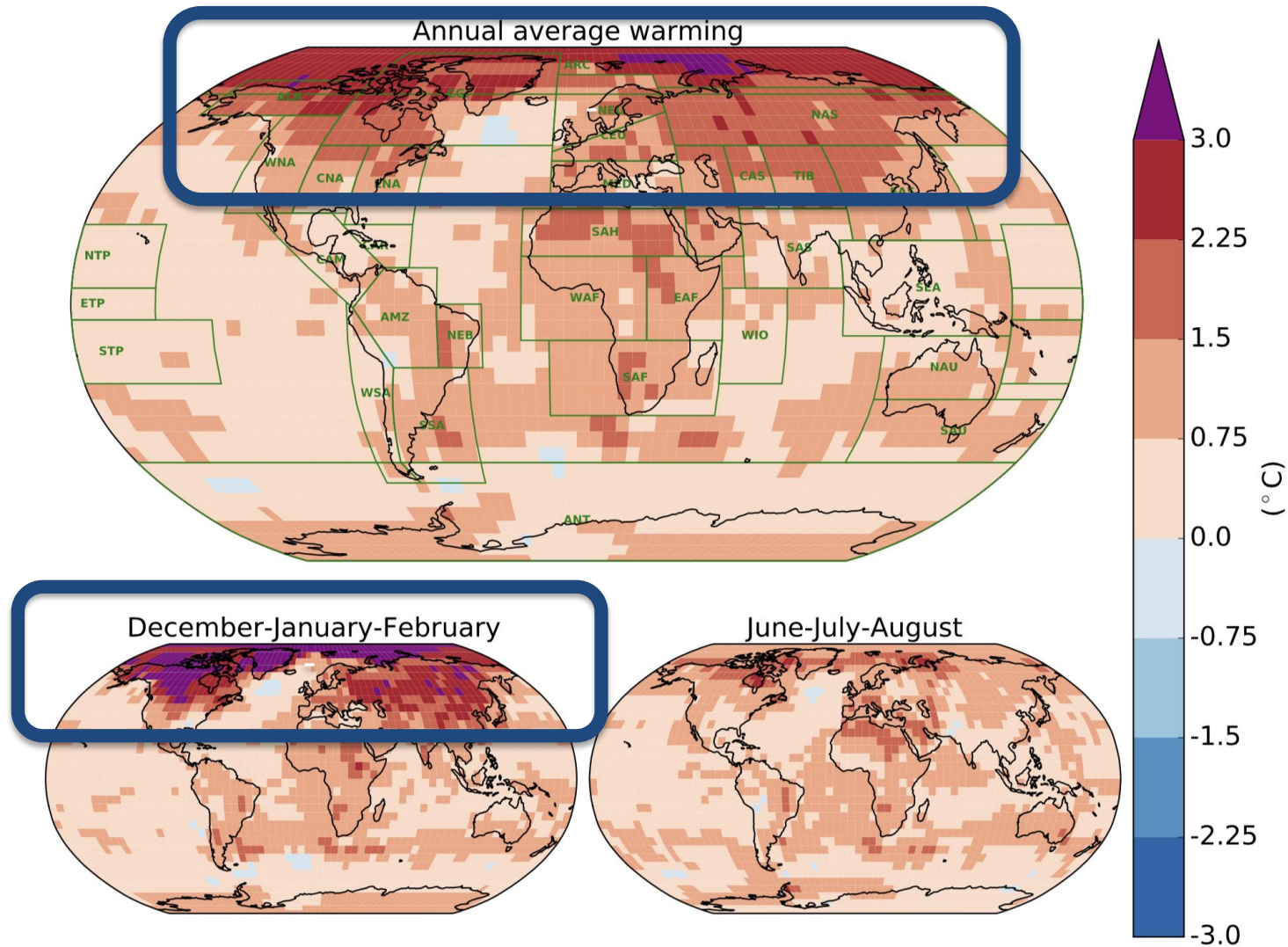
What is happening in the Arctic
does not stay in the Arctic

Where we are

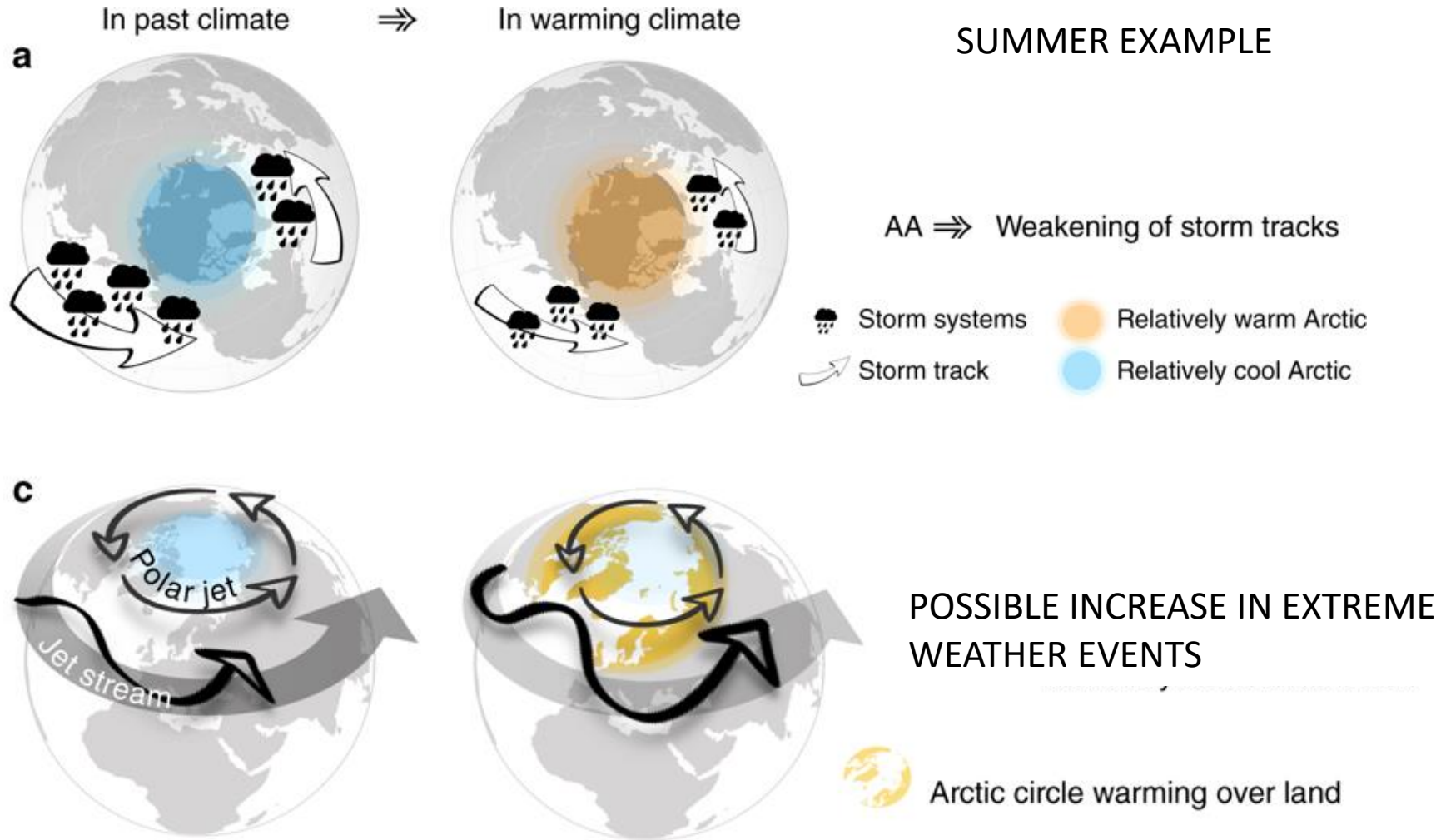


Near future risk

Regional warming in the decade 2006-2015 relative to preindustrial



Influence of Arctic on Mid-latitude



What is strategic

How to support decision- making from local to
global scales

Role of science in the value chain

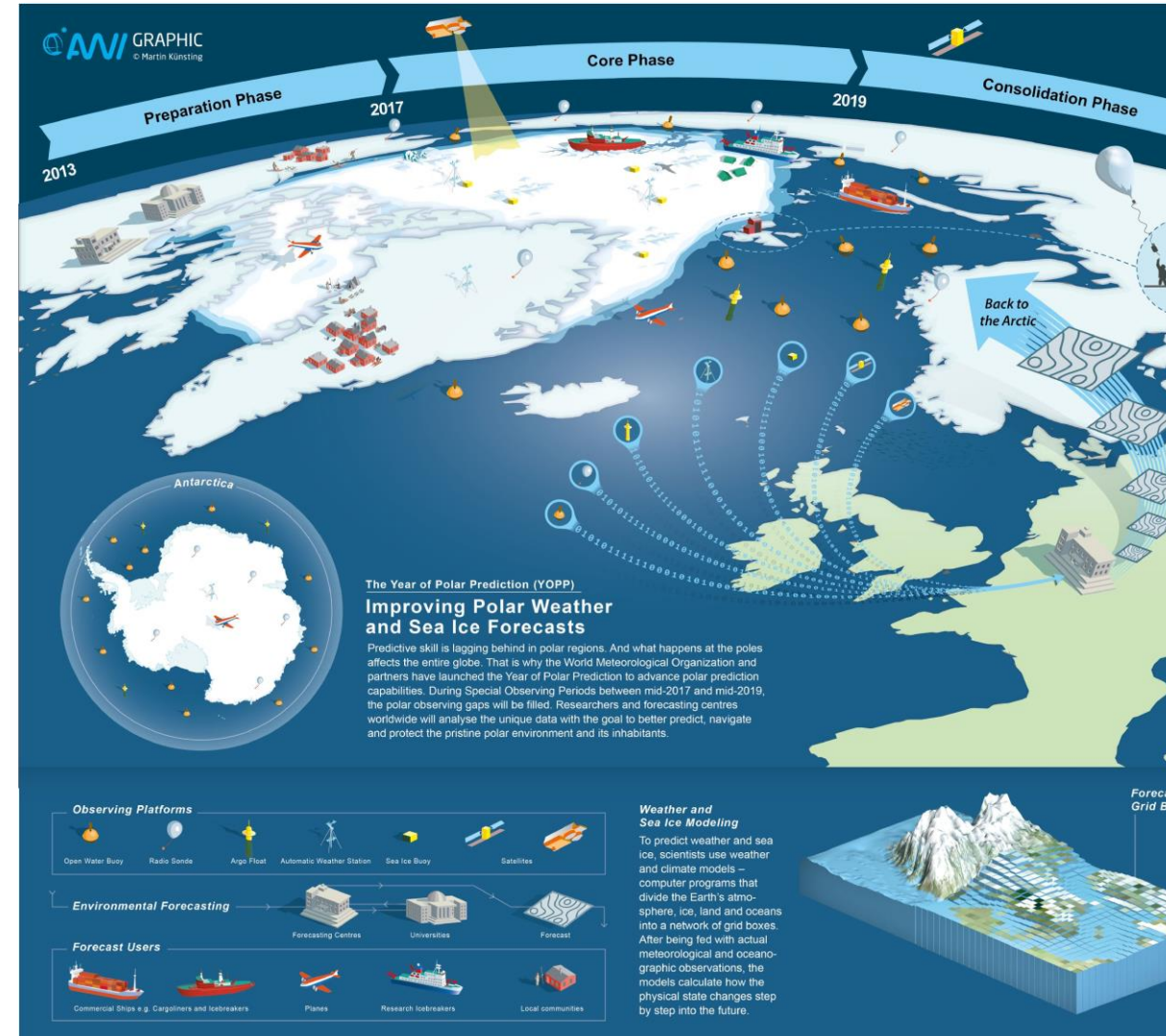


- To deliver the enhance Earth System predictive skill across weather, water, climate and environmental aspects
- To articulate requirements for enhanced observational and computational infrastructures
- To explore new approaches to data management & integration, data analytics and advanced assimilation techniques
- To investigate management strategies that will lead to a reasonably open system that will facilitate downstream seamless products

Bridging the gap between research and operations

1. **Deliver Science for Services**
 - YOPP Implementation Plan developed in collaboration with operational centers
 - YOPP encompasses observational aspects, modeling improvement and Social science
2. **Build Seamless Models**
 - Co-designed with ECMWF and NCEP
 - Both weather and climate communities
 - A field campaign organized to provide real time data to operational systems
 - Linked to the Arctic Regional Climate Center
3. **Improve Infrastructure**
 - Guarantee the development of new products for Polar Regions

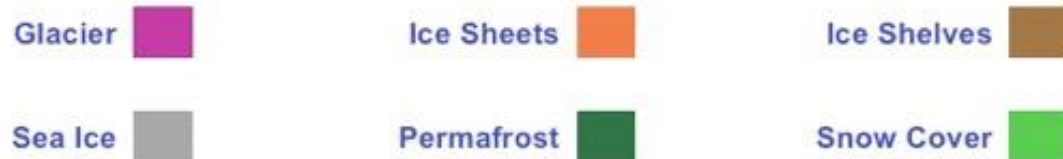
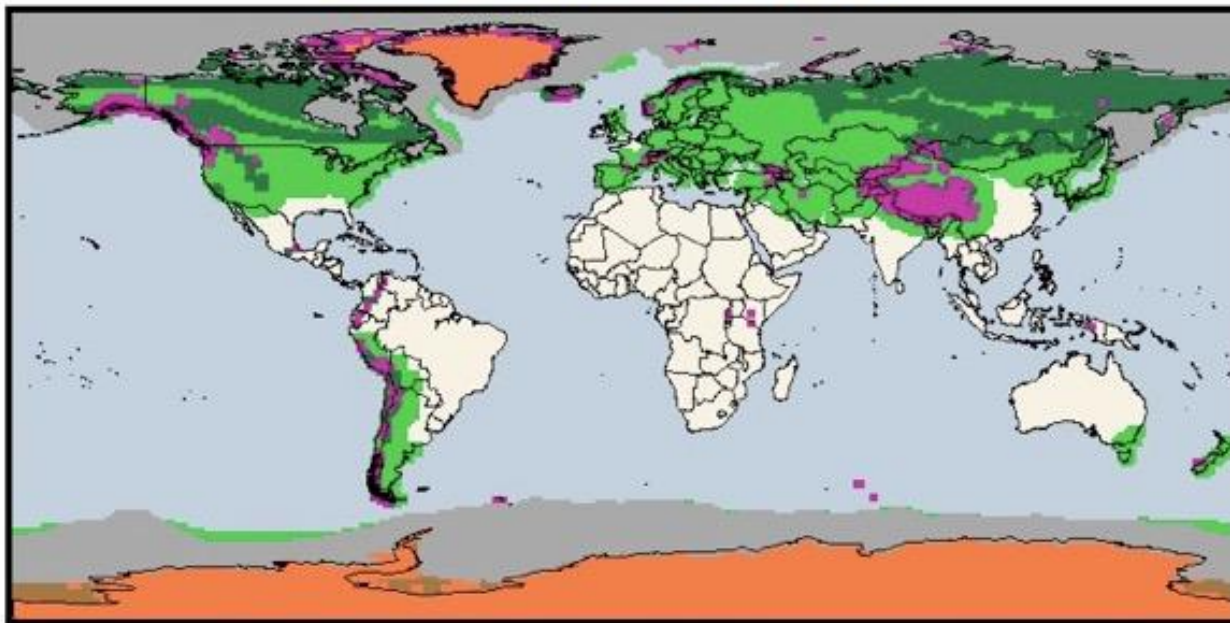
Year of Polar Prediction



Ensuring observational infrastructures

A WMO information system on the state of the cryosphere, promoting coordination of observations through the application of documented best practices, and the application of standard metadata and data models

Global Cryosphere by Type

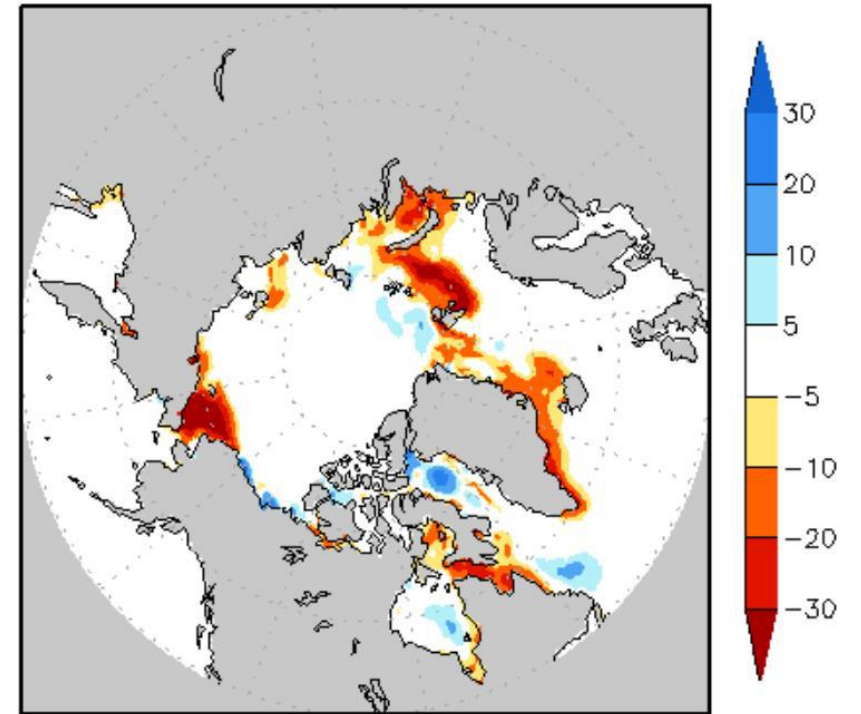
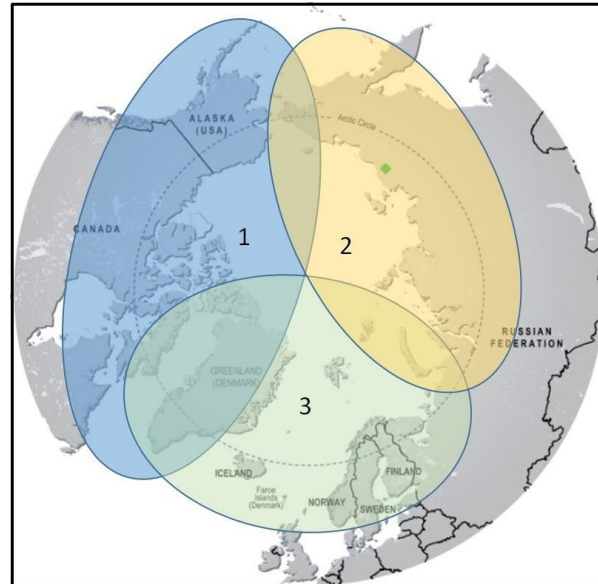


Global Cryosphere Watch a WMO mechanism to facilitate the provision of authoritative, data, information, and analyses on the past, current and future state of the cryosphere



Strengthening Collaboration and Innovation

1. Arctic Regional Climate Center
2. Pan-Arctic Climate Outlook Forum (PARCOF) engaging key stakeholders and indigenous people
3. Demonstration phase started in May 2018, Norway : overall coordinator for 3 years
4. Products
 - Monthly and seasonal (Winter/Summer) outlooks/forecasts
 - Bulletins updating the monthly and seasonal (Winter/Summer) outlooks/forecasts



June 2018 Climate Sea-Ice Concentration OUTLOOK
for the Circumpolar Arctic
Forecast issued Dec 6, 2017 based on Initial
conditions from November 25 to December 4 2017
Source: NOAA NWS/NCSP/CPC/CFSv2

Thank you Merci



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