

## Collaborations between WCRP-CliC and GCW

1. The "Climate and Cryosphere" project (CliC), encourages and promotes research (modeling and observations) in the cryosphere and its interactions as part of the global climate system. It is one of four core projects of WCRP.
2. WCRP also has a "Melting Ice and Global Consequences" Grand Challenge (GC), closely connected to CliC.
3. The Global Cryosphere Watch (GCW) provides authoritative, clear, and useable data, information, and analyses on the past, current and future state of the cryosphere from an operational perspective. It is part of WMO.
4. It may be advantageous to formalize a link between WCRP cryospheric activities (CliC and the GC) and GCW. This should be done at the level of WCRP. The CliC PO Director is already a member of GCW Steering Group.
5. Recognising that there is a distinction between research (the domain of WCRP) and operations (the domain of GCW) there are a number of areas where focused collaboration between CliC and GCW would be advantageous to both. These include, but are not limited to:
  - Exploring how to transition research observations into a more operational monitoring setting by evaluating observational methodologies and strategies for combining observation streams into "operational monitoring" products, building robust historical time series.
  - Collaborating on further development of the surface observation network, e.g. CryoNet and AntON.
  - Contributing to GCW efforts to develop observational "best practices".
  - Engaging in discussions on data and metadata, including interoperability between data centres and systems.
  - Sharing of data and results, notably how CliC modeling activities could benefit GCW and GCW data could benefit the modeling efforts.
  - Collaboration between CliC Sea Ice activities (e.g. ASPECT and Arctic Sea Ice Working Group) and the GCW Sea Ice Team.
  - Collaboration in planning contributions and participation in YOPP.
  - Joint development of a survey on user needs and observational requirements.
  - Sharing of ideas for new products.
  - Collaboration on outreach and communication materials and tools, including website content.

Date: \_\_\_\_\_



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