

## **B02-O03**

### **THE GLOBAL CRYOSPHERE WATCH (GCW) SURFACE OBSERVATIONS PROGRAMME CRYONET**

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In 2011 the World Meteorological Organization (WMO) decided to develop the Global Cryosphere Watch Programme as one of its key initiatives within its WMO Global Integrated Observing System (WIGOS). Based on the successful example of the Global Atmosphere Watch Programme, GCW shall establish an international mechanism for supporting all key cryospheric in-situ and remote sensing observations, from research and operations, and for implementing the recommendations of the Integrated Global Observing Strategy Partnership (IGOS-P). GCW is a common activity of WMO with all relevant partner organizations with interest in the cryosphere. To meet the needs of WMO Members and partners in delivering services to users, the media, public, decision and policy makers, GCW will provide authoritative, clear, and useable data, information, and analyses on the past, current and future state of the cryosphere. One key activity of GCW is to implement a network of high-quality surface observations (CryoNet) based on standardized, accepted practices and open data access. Further standardization (in particular for those cryospheric observations not well standardized now) and development of best practices are an essential need for CryoNet. A Network strategy with three different site types (baseline, reference and integrated) has been developed capturing different needs with respect to monitoring and research. Reference sites are the key sites of CryoNet with respect to the assessment of long-term changes of the cryosphere as well as for the validation of satellite data and cryospheric models. Long-term, sustained, monitoring based on common best practices is fundamental for ongoing development and validation of satellite products. Fourteen CryoNet sites have been selected so far from over 100 suggested by countries for initial development and implementation of CryoNet in the Arctic, Antarctic and high alpine regions. Though not fully operational yet, CryoNet has made significant steps forward in the design planning and presentation of first useful applications for users, which will be presented at the meeting.