



World Meteorological Organization

Weather • Climate • Water

The CGMS Baseline in the WIGOS Regulatory Material

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Purpose and outline

★ Purpose

- ★ Inform CGMS members about development of WMO Regulatory Material on WIGOS

★ Outline

- ★ Brief Introduction to WIGOS
- ★ WIGOS Implementation
 - ★ Regulatory Material
 - ★ Space-based Matters



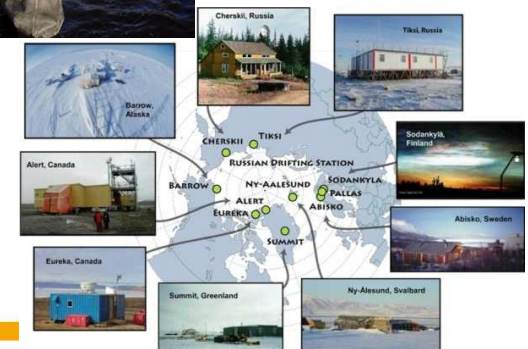
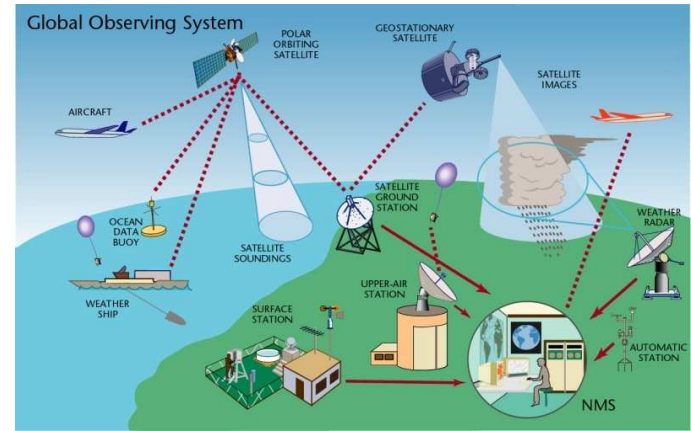
What is WIGOS?

- ★ The WMO Integrated Global Observing System is a framework for integrating all WMO observing systems and WMO contributions to co-sponsored observing systems.
- ★ A WMO Strategic Priority Area
- ★ Together with the WMO Information System (WIS), WIGOS is a WMO contribution to GEOS.
- ★ WIGOS is not:
 - ★ Replacing or taking over existing observing systems, which will continue to be 'owned' and operated by a diverse array of organizations and programmes, national as well as international.



WIGOS Component Systems

- Global Observing System (WWW/**GOS**)
- Observing component of Global Atmospheric Watch (**GAW**)
- WMO Hydrological Observations (including **WHYCOS**)
- Observing component of Global Cryosphere Watch (**GCW**)



Why WIGOS?

- ★ **Mandate of NMHSs broader now than when the World Weather Watch and the Global Observing System were created, including e.g.**
 - ★ Climate monitoring, climate change, mitigation
 - ★ Air quality, atmospheric composition from urban to planetary scales
 - ★ Oceans
 - ★ Cryosphere
 - ★ Water resources
- ★ **Advances (scientific and technical):**
 - ★ Observing technology
 - ★ Telecommunications
 - ★ Numerical modeling and data assimilation
 - ★ Increased user demand to access and use observations in decision making



WIGOS Framework Implementation Plan (WIP)

CONTENTS

1. Introduction and Background
 2. **Key Activity Areas for WIGOS Implementation**
 3. Project Management
 4. Implementation
 5. Resources
 6. Risk Assessment / Management
 7. Outlook
- Annexes

KEY ACTIVITY AREAS

- 1) Management of WIGOS implementation
- 2) Collaboration with WMO co-sponsored observing systems & international partners
- 3) Design, planning and optimized evolution
- 4) Observing System operation and maintenance
- 5) Quality Management
- 6) Standardization, system interoperability and data compatibility
- 7) The WIGOS Operational Information Resource
- 8) Data and metadata management, delivery and archival
- 9) Capacity development
- 10) Communications and outreach



Current (2012-2015) WIGOS Implementation Activities

- ✦ Implementation is led by an Inter-Commission Coordination Group on WIGOS, reporting to WMO Executive Council
- ✦ Representation from all six Regional Association and all eight Technical Commissions
- ✦ Three focus areas:
 - ✦ **Regulatory Material**
 - ✦ *Technical Regulations, Manual on WIGOS currently out for review ; sent to all PTCs per decision made at PTC-2015*
 - ✦ **Metadata**
 - ✦ Feeding into Regulatory Material, but at a slower pace; TT-WMD will wrap up the initial version of the WIGOS metadata standards this week
 - ✦ **Quality Management**
 - ✦ Team first met in Geneva April 23-24; initial focus on monitoring of observational data quality



WIGOS Regulatory Material

- ★ WIGOS part of **WMO Technical Regulations** (Vol. 49)
- ★ **Manual on WIGOS** ;
 - ★ Includes chapter on space-based component; the intention with WIGOS is to design and develop the system in an integrated fashion, rather than by component in isolation
- ★ These are legally binding documents that describe the commitments and obligations of the WMO Members in terms of developing and operating their observing systems
- ★ Both documents are in preparation and will be submitted to WMO Congress in 2015 for formal approval



Relationship to CGMS Material

- ✦ **Manual on WIGOS**, Chapter 4: “Common Attributes Specific to the Space-based Sub-system of WIGOS”
 - ✦ Description of the overall characteristics of the satellite component of WIGOS
 - ✦ First paragraph of the chapter reads:

“Members shall strive to develop, implement and operate a space-based environmental observing system in support of WMO Programmes as described in Attachment 4.1 to this section.”
 - ✦ Attachment 4.1 is the CGMS Baseline for the Operational Contribution to the GOS, as adopted by CGMS-39
 - ✦ **This ensures full consistency between WMO Regulatory Material and CGMS plans**



Summary

- ★ WIGOS, the WMO Integrated Global Observing System requires the development of new WMO Regulatory Material
 - ★ Technical Regulations
 - ★ Manual
 - ★ Guides
 - ★ ...
- ★ Technical Regulation and Manual currently being developed
 - ★ Satellite material is kept consistent with applicable material from CGMS

