

WMO Overview

WEATHER CLIMATE WATER
TEMPS CLIMAT EAU



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World Meteorological Organization
Organisation météorologique mondiale

Polar Space Task Group
Meeting #8
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Rodica Nitu
Project Manager, Global Cryosphere Watch
World Meteorological Organization

Outline

- WMO Executive Council Decision on PSTG
- WMO Governance reform
- WMO Long term goals and objectives
- High Mountain Summit

Decision 45 (EC-70)

POLAR SPACE TASK GROUP

The Executive Council decides:

- (1) To endorse, as a priority of the Panel of Experts for Polar and High-mountain Observations, Research, and Services (EC PHORS), **conducting a gap analysis of the availability and requirements for observing critical Earth System parameters required for monitoring polar and high-mountain regions, and other relevant cryospheric ecosystems (e.g. lake and river ice), both, in situ and remotely sensed observations**, as a collaborative effort of the Polar Space Task Group (PSTG), the Global Cryosphere Watch, and technical commissions, in particular CBS and JCOMM;
- (2) To request EC-PHORS that **PSTG undertake an assessment of currently available space cryosphere products in the polar and high-mountain regions**, with a view of **extending its mandate and membership** (e.g. other space agencies), to address gaps, especially in high-mountain areas;
- (3) That on the basis of these analyses, EC-PHORS reviews and updates the Terms of Reference of PSTG and its membership, for consideration by Cg-18.



WMO Governance reform

- <https://public.wmo.int/en/governance-reform>
- Proposed structure;
- transition period 2020-2021:



<https://public.wmo.int/en/governance-reform/terms-of-reference>

WMO 2020-2030 Long-term Goals and Strategic Objectives

- https://library.wmo.int/doc_num.php?explnum_id=4981; (pages 296-303)
- (details in the next 4 slides)

Goal 1 Better serve societal needs: delivering, authoritative, accessible, user-oriented and fit-for-purpose information and services

Long-term outcome: Enhanced capability of Member States to develop, access and utilize accurate, reliable and fit-for-purpose weather, climate, water and related environmental impact-based services to best support the policy-making and actions that implement sustainable development and mitigate weather, climate and water-related risks.

- Objective 1.1 Strengthen national multi-hazard early warning/alert systems and extend reach to better enable effective response to the associated risks
- Objective 1.2 Broaden the provision of policy- and decision-supporting climate information and services
- Objective 1.3 Further develop services in support of sustainable water management
- Objective 1.4 Enhance the value and innovate the provision of decision-supporting weather information and services

Goal 2 Enhance Earth system observations and predictions: Strengthening the technical foundation for the future

Long-term outcome: An integrated Earth system observational network increasingly automated and optimized to ensure effective global coverage. High quality fit-for-purpose measurements feeding a continuous global data exchange underpinned by data management and data processing mechanisms.

- Objective 2.1 Optimize the acquisition of Earth system observation data through the WMO Integrated Global Observing System (WIGOS)
- Objective 2.2 Improve and increase access to, exchange and management of current and past Earth system observation data and derived products through the WMO Information System
- Objective 2.3 Enable access and use of numerical analysis and Earth system prediction products at all temporal and spatial scales from the WMO seamless Global Data Processing and Forecasting System

Goal 3 Advance targeted research: Leveraging leadership in science to improve understanding of the Earth system for enhanced services

Long-term outcome: Leveraged global research community resulting in fundamental advances in the understanding of the Earth system, leading to improved policy-relevant advice and predictive skill at all time scales in a seamless context. This will result in the strengthened forecast and warning performance of all Members as research and operations coalesce to apply the best science to all components of the service value chain.

- Objective 3.1 Advance scientific knowledge of the Earth system
- Objective 3.2 Enhance the science-for-service value chain ensuring scientific and technological advances improve predictive capabilities
- Objective 3.3 Advance policy-relevant science

Goal 4 Close the capacity gap on weather, climate, hydrological and related environmental services: Enhancing service delivery capacity of developing countries to ensure availability of essential information and services needed by governments, economic sectors and citizens

Long-term outcome: Improved access to regional and global monitoring and prediction systems and utilization of weather, climate and water information and services bringing tangible benefits to developing Members, in particular least developed countries, small-island developing states and Member island territories. This will be achieved through strategic investments, technology transfer, knowledge and experience sharing, and by taking due account of social inclusion and gender factors.

- Objective 4.1 Address the needs of developing countries to enable them to provide and utilize essential weather, climate, hydrological and related environmental services
- Objective 4.2 Develop and sustain core competencies and expertise
- Objective 4.3 Scale-up effective partnerships for investment in sustainable and cost-efficient infrastructure and service delivery



High Mountain Summit

Developing end-to-end high mountain hydro-meteorological and climate services to address water and hazard risk management needs

- 25-27 February 2019, WMO, Geneva.
- The High Mountain Summit will seek to address the need for accessible, reliable, and policy-relevant information on water resources, natural hazard management, and addressing accelerated changes in high mountain cryosphere and ecosystems, which have cascading and often devastating effects on populations, economic activities, infrastructure and ecosystems in mountain regions, downstream, and in lowland areas, with the objective to inform, and therefore, promote sustainable mountain development.
- It aims to create a platform for enhanced multi-sectoral inter-agency collaboration at national, regional and international levels, across sectors, scales, and actors, by leveraging existing and planned initiatives for providing integrated and comprehensive climate services along the production and utility value chain. It will identify education and capacity building needs to address mountain challenges.
- Themes:
 - User needs and the provision of robust and sustained hydro-meteorological and climate services supporting Sustainable Mountain Development;
 - Enhance Earth system observations and predictions in High Mountain regions: Strengthening the technical foundation for sustainable services and research
 - Interdisciplinary and transdisciplinary scientific and applied research agenda responding to knowledge gaps on climate and hydro-meteorology in high mountains, reflecting regional priorities
- <http://highmountainsummit.wmo.int/>
- **CONTACT:** highmountainsummit@wmo.int



High Mountain Summit: relevance to PSTG activities and future work plans

- Representation from PSTG at the High Mountain Summit: recommended:
 - Link to high level user needs and proposed research initiatives;
 - Present opportunities (existing activities) and challenges;
- High Mountain Summit proposed outcomes:
 - Mobilize public and private sector leaders to leverage decision-making and funding in support of relevant initiatives;
 - Promote collaboration for new and ongoing initiatives, by developing a roadmap for strengthening the provision of hydro-meteorological, climate, and prediction services for mountain regions, for optimizing and enhancing cryosphere and high mountain observations (in-situ, remote sensing), and advancing the scientific and applied research agenda to address emerging gaps;
 - Leverage the knowledge and influence of stakeholders with the goal of coordinating and upscaling end-to-end services, and increase interagency engagement, including identifying barriers and proposing enabling actions;
 - Ensure that existing funding mechanisms such as The World Bank, Green Climate Fund, Global Environmental facility, the Adaptation Fund, and others, identify high mountains as priority areas for investments and projects.
- The Summit will launch a limited number of projects for high mountain observations, predictions, research and services, targeting 2-3 regions and focus areas.
 - Space based cryosphere observations in these regions will be an integral part of these initiatives.



Thank you Merci



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