

CONSULTATIVE MEETINGS
ON HIGH-LEVEL POLICY ON SATELLITE MATTERS

ITEM: 1.2

FOURTEENTH SESSION

GENEVA, SWITZERLAND, 23 JUNE 2018

Original: ENGLISH

EXPLANATORY MEMORANDUM

Objectives of the session

The role of the Consultative Meetings on High-level Policy on Satellite Matters (CM) is to support a high-level dialogue between the satellite operators and WMO representatives, including the President, Vice-Presidents, Presidents of Technical Commissions and Regional Associations, Secretary-General and Directors (Resolution 6 (Cg-XIV)). As decided by the Executive Council, the CM session is normally held every two years (Resolution 10, EC-66).

One outcome of the meetings will be to ensure a better understanding of issues. A second, and more important objective, is to agree on advice and guidance to be forwarded to the WMO Executive Council and/or satellite operators.

The fourteenth session of the Consultative Meetings (CM-14) will focus on three topics:

(i) 2030 Agenda and WMO Integrated Global Observing System

The session will consider the contributions of the WMO Integrated Global Observing System (WIGOS) in support of the 2030 Agenda for Sustainable Development. Guidance will be sought on the positioning of the WMO Space Programme to support this process.

(ii) Physical Architecture for Climate Monitoring from Space

The WMO Space Programme has engaged with climate monitoring stakeholders, including CEOS, CGMS, the CEOS/CGMS Working Group Climate and GCOS, on the definition and implementation of the physical architecture for climate monitoring from space. Guidance will be sought on the preparation of a consensus document, describing the status of the physical architecture.

(iii) Data Exchange Policies

Developments in the global weather enterprise related to public-private sector engagement and data policies with a particular focus on the space-based observing system will be discussed and guidance will be sought on how the WMO Space Programme can facilitate partnership between the public-private sectors.

The discussions at the meeting are expected to provide guidance to the WMO Space Programme and their conclusions will be brought to the attention of relevant WMO constituent bodies for further consideration and/or action.

For reference, the report from the 13th session of the CM held in 2016 is available from http://www.wmo.int/pages/prog/sat/documents/CM-13_Final-Report.pdf¹.

1. ORGANIZATION OF THE SESSION

The session will be held on 23 May 2018 at WMO Headquarters, Salle Obasi (Ground floor). Registration of participants will begin at 9:00 and the meeting will start at 9:30.

1.1 Opening of the session

The session and will be chaired by Dr David Grimes, President of WMO, who will make welcome and introduction remarks.

Secretary-General of WMO will make opening remarks.

1.2 Adoption of the agenda

The session will be invited to adopt the provisional agenda contained in Document 1.2(1). Document 1.2(2) contains an explanatory memorandum and the tentative meeting schedule is available in Document 1.2(3).

The available working and reference documents will be posted on the CM-14 document web page at <http://www.wmo.int/pages/prog/sat/meetings/CM-14.php>.

2. 2030 AGENDA AND THE WMO INTEGRATED GLOBAL OBSERVING SYSTEM

2.1 UNISPACE+50 and Space 2030

2.2 WMO WIGOS Vision 2040

2.3 WMO support to United Nations HQ situational awareness and crisis management

2.4 A Decadal Strategy for Earth Observation from Space

2.5 European Commission Vision on Earth Observations (Copernicus)

2.6 Discussion and Conclusions

The session will consider the contributions of the WMO Integrated Global Observing System (WIGOS) in support of the 2030 Agenda for Sustainable Development. Presentations will include a report on the UNISPACE+50 high-level segment, held from 20 to 21 June as part of the sixty-first session of the Committee on the Peaceful Uses of Outer Space (COPUOS) and on any outcomes of relevance to the WMO Space Programme, a status report on the WMO WIGOS Vision 2040, a report from United Nations HQ on how WMO can support to the UN and its global agendas. Other presentations will provide will discuss considerations on the future evolution of Earth Observation systems in the United States and in Europe.

Guidance will be sought from satellite operators and WMO members on how the WMO Space Programme, through its activities, could be best positioned to support Member States with the implementation of the 2030 Agenda.

¹ Recommendations made at the CM-13 session:

RECOMMENDATION 1: In further developing the Vision for the WIGOS space-based component in 2040, attention should be to (i) clarify terminology ("essential", "critical"), (ii) introduce the notion of a resilient observing system, (iii) better explain the difference between the Tiers, (iv) stress the complementary value of space-based and surface-based observing systems.

RECOMMENDATION 2: WMO should consider the adequacy of its current data policy with regard to stable, predictable provision of satellite data to support WMO Members' services. The role of the private sector in data provision should be included in such a consideration.

3. PHYSICAL ARCHITECTURE FOR CLIMATE MONITORING FROM SPACE

- 3.1 Paris Agreement
- 3.2 Integrated Global Greenhouse Gas Information System (IG3IS)
- 3.3 Physical View of the Architecture for Climate Monitoring from Space
- 3.4 Discussion and conclusions

In 2011, WMO Resolution 19 (Cg-XVI) called for the Development of an Architecture for Climate Monitoring from Space to provide a framework for the sustained and coordinated monitoring of the Earth's climate from space as a major initiative of the WMO Space Programme². The Architecture aims to provide a structured and comprehensive view of what GCOS Essential Climate Variable (ECV) Climate Data Records (CDRs) are available from Earth Observation satellites, to create the conditions for delivering further CDRs through best use of existing data holdings, and to optimize the planning of future satellite missions and constellations in order to expand existing and planned CDRs and address possible gaps. The Architecture spans end-to-end over several "pillars", from remote sensing to climate data record creation and preservation and to climate applications in support of decision-making. The Architecture also provides a foundation for the Observations and Monitoring pillar of the Global Framework for Climate Services (GFCS).

In 2013, the Committee on Earth Observation Systems (CEOS), the Coordination Group for Meteorological Satellites (CGMS) and the World Meteorological Organization (WMO) jointly prepared a report on the "Strategy Towards an Architecture for Climate Monitoring from Space", which was reviewed by the Global Climate Observing System (GCOS), the Group on Earth Observations (GEO) and the World Climate Research program (WCRP)³. The report defines the terminology, a logical view and an implementation roadmap for the architecture for climate monitoring from space. As a next step, it calls for the development of a physical view of the architecture.

The WMO Space Programme has engaged with climate monitoring stakeholders, including CEOS, CGMS, the CEOS/CGMS Working Group Climate and GCOS, on the definition and implementation of the physical architecture for climate monitoring from space.

Guidance will be sought on the preparation of a consensus document, describing the status of the physical architecture.

4. DATA EXCHANGE POLICIES

- 4.1 Update on WMO Data Policy (Resolutions 40, 60)
- 4.2 Update on NOAA Commercial Data Policy
- 4.3 WMO View on Public-Private Partnerships
- 4.4 Discussion and conclusions

The weather enterprise up through the 20th century was primarily built on public investments. WMO Member States collectively built a global infrastructure under a globally coordinated World Weather Watch (WWW) Programme, composed by three global systems – the Global Observing System (GOS), the Global Telecommunication System (GTS) and the Global Data Processing and Forecasting System (GDPFS) to support the development and delivery of weather services to their constituencies.

² WMO Resolution 19 (Cg-XVI) - Development of an Architecture for Climate Monitoring from Space .

³ See http://ceos.org/document_management/Working_Groups/WGClimate/WGClimate_Strategy-Towards-An-%20Architecture-For-Climate-Monitoring-From-Space_2013.pdf .

Significant changes to this basic structure have happened over the last 10 – 15 years, and the following five primary factors seem to be driving these changes:

- a) Scientific and technological innovation;
- b) Growing demand for meteorological, climatological, hydrological, marine and related environmental products and services;
- c) Global action for adaptation to climate change and the United Nations Sustainable Development Goals;
- d) Public-sector institutional and resource constraints;
- e) Private-sector increased involvement, consolidation and globalization.

It is broadly recognized within the WMO community that WMO guidance on engagement with the private sector would help the National Meteorological and Hydrological Services of the WMO Members keep pace with the activities at the national and international levels and enhance efficiency and service delivery, including in support of the development of observational and communication infrastructures at the local and regional level. At its 69th Session in 2017, the Executive Council thus decided to develop a “WMO Policy Framework on PPE” which would assist Members and stakeholders from all sectors by providing a set of guiding principles and highlighting the challenges and opportunities that need to be addressed in order to harness the potential benefits from working together for the benefit of society.

Under this item, the WMO Resolutions 40 and 60^{4,5} are recalled, as well as current work by CBS on this matter.

NOAA will provide an update on its Commercial Weather Data Pilot. The session will also be informed about the latest developments in creating a WMO Policy Framework for Public-Private Sector Engagement.

Advice will be sought from satellite operators and WMO members on the potential role of WMO Space Programme in these ongoing, important discussions.

5. ANY OTHER BUSINESS

6. CLOSURE OF THE SESSION

⁴ WMO Resolution 40 (Cg-XII) : WMO policy and practice for the exchange of meteorological and related data and products including guidelines on relationships in commercial meteorological activities, https://library.wmo.int/pmb_ged/wmo_827_en.pdf (p.125).

⁵ WMO Resolution 60 (Cg-17): WMO Policy for the International Exchange of Climate Data and Products to Support the Implementation of the GFCS, https://library.wmo.int/opac/doc_num.php?explnum_id=3138 (p.545).