

COMMISSION FOR BASIC SYSTEMS
OPEN PROGRAMME AREA GROUP ON INTEGRATED OBSERVING SYSTEMS

EXPERT TEAM ON SATELLITE SYSTEMS
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ITEM: 2

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OUTCOME OF WMO MEETINGS OF RELEVANCE TO ET-SAT

Draft Resolution on the Exchange of Climate Data and Products to Support the Implementation of GFCS

(Submitted by the Secretariat)

Summary and Purpose of Document

This document contains the Draft Resolution on the WMO policy for International Exchange of Climate Data and Products to Support the Implementation of the Global Framework for Climate Services (GFCS), which was discussed at the 66th session of the WMO Executive Council (EC-66/Doc. 3.2(1)).

From the perspective of the architecture for climate monitoring from space, the Council requested the Secretary-General to inform space agencies of this draft resolution so that their feedback could be provided at the 17th session of the Congress through Members connected with the Coordination Group for Meteorological Satellites (CGMS) and the Committee on Earth Observation Satellites (CEOS), among others.

ACTION PROPOSED

ET-SAT is invited to note the opportunity to provide feedback on the draft resolution at Cg-17.

Draft Resolution xxx (Cg-17)

**EXCHANGE OF DATA AND PRODUCTS TO SUPPORT THE IMPLEMENTATION
OF THE GFCS**

THE CONGRESS,

Noting:

- (1) Resolution 40 (Cg-XII) – WMO policy and practice for the exchange of meteorological and related data and products including guidelines on the relationships in commercial meteorological activities,
- (2) Resolution 25 (Cg-XIII) – Exchange of hydrological data and products,
- (3) Resolution 16 (Cg-XVI) – Climate Data Requirements,
- (4) Resolution 48 (Cg-XVI) – Implementation of the GFCS,
- (5) Resolution 1 (Cg-Ext.(2012)) – Implementation of the GFCS,
- (6) Resolution 2 (Cg-Ext.(2012)) - Establishment of the Intergovernmental Board on Climate Services,
- (7) Resolution 6 (IOC-XXII) – IOC Oceanographic Data Exchange Policy,
- (8) Annex to paragraph 3.2.4 of the general summary of EC-65 - The role and operation of national meteorological and hydrological services - A Statement by the World Meteorological Organization,

Recalling that:

- (1) Cg-Ext.(2012) had adopted the Implementation Plan of the GFCS for further consideration by the Intergovernmental Board for Climate Services (IBCS)-1,
- (2) The vision of the GFCS is to enable society to manage better the risks and opportunities arising from climate variability and change, especially for those who are most vulnerable to climate-related hazards,
- (3) All eight principles for the implementation of the GFCS, in particular Principles 2, 5 and 6 which state that:
 - (a) A primary goal will be to ensure greater availability of, access to and use of enhanced climate services for all countries,
 - (b) Climate information is primarily an international public good provided by governments, which will have a central role in its management under the framework,
 - (c) Promote the free and open exchange of climate-relevant data, tools and scientifically based methods while respecting national and international policies,
- (4) The role of WMO (and its constituent bodies) in the establishment and maintenance of systems for the rapid exchange of meteorological and related information,

Considering:

- (1) That this Resolution will only apply to meteorological, hydrological, environmental and related data and products required to support the implementation of the GFCS, hereafter referred to as climate relevant data and products,
- (2) The fundamental importance of the free and unrestricted¹ exchange of climate relevant data and products to enable society to manage better the risks and opportunities arising from climate variability and change, especially for those who are most vulnerable to climate-related hazards,
- (3) The continuing importance, for the provision of climate services in support of the protection of life and property, of the free and unrestricted exchange of climate relevant data and products among WMO Members to facilitate the implementation of the GFCS,
- (4) The role of the World Data Centres (WDCs), the Global Producing Centres (GPCs) for Long Range Forecasts, the Regional Climate Centres (RCCs) and the Regional Climate Outlook Forums (RCOFs) in the provision of consolidated global and regional climate relevant data and products as identified in Climate Services Information System (CSIS) of the GFCS,
- (5) The WMO Statement on the role and operation of national meteorological and hydrological services in relation to the role of WMO Members' NMHSs in the provision of national climate relevant data and products in furthering applications of meteorology to all human activities,
- (6) The importance of the contribution of other GFCS partner organizations and the role these organizations can play in support of the goals and objectives of the GFCS,
- (7) The initial four priority areas for the implementation of the GFCS, health, disaster risk reduction, agriculture and food security and water and the climate relevant data related requirements of these priority areas as identified in the annexes to the Implementation Plan for the GFCS,

Recognizing:

- (1) The need for increased access to all types of climate relevant data and products,
- (2) The importance of access to reliable, relevant and timely data and products in supporting resilience to climate variability and change and underpinning sustainable development as espoused at various international forums, such as Rio +20, under the theme of the "Future We Want", and the meetings of the Conference of the Parties (COPs) of UNFCCC,
- (3) That increased availability of and access to climate relevant data, especially in data sparse regions, can lead to better quality and will create a greater variety of products and services,
- (4) That increased use of reliable climate products and stronger collaboration between providers and users can lead to improved climate-smart decision making, including those relevant to climate change issues,

¹ "Free and unrestricted" means non-discriminatory and without charge [Resolution 40 (Cg-XII) – WMO policy and practice for the exchange of meteorological and related data and products including guidelines on the relationships in commercial meteorological activities", in the context of this resolution, means at no more than the costs of reproduction and delivery, without charge for the data and products themselves.

- (5) That countries will benefit from the climate products that are derived through the use of their data at global, regional and national levels,
- (6) The rights of Members to choose the manner by, and the extent to, which they make their climate relevant data and products available domestically or for international exchange, taking into consideration relevant international instruments and national policies and legislation,
- (7) The importance of respecting the conditions of use set by the originators of the data and products, such as attribution, to facilitate access to the data and products,
- (8) The successful experience gained by Members in the development and implementation of Resolutions 40 (Cg-XII) and 25 (Cg-XIII),

Decides:

- (1) To adopt the policies and practices of Resolution 40 (Cg-XII) and Resolution 25 (Cg-XIII) for the exchange of climate relevant data and products to enable the achievement of the goals and objectives of the GFCS;
- (2) That Members shall provide, on a free and unrestricted basis, the climate relevant data and products described in Annex I to this resolution to enable society to manage better the risks and opportunities arising from climate variability and change for all nations, especially for those who are most vulnerable to climate-related hazards;
- (3) That Members should also provide the additional climate relevant data and products which are required to support and sustain the GFCS and WMO initiatives at the global, regional and national levels and, further, as mutually agreed, to assist other Members to enhance access to climate relevant data and in the provision of climate products in their countries. Such additional climate relevant data and products should be free of charge, but would have conditions associated with their use, such as, for example, restrictions on their use for commercial purposes, attribution of their source or licensing;

Urges Members to:

- (1) Strengthen their commitment to the free and unrestricted exchange of climate relevant data and products;
- (2) Increase the volume of climate relevant data and products accessible to meet the needs for implementation of the GFCS and the requirements of the GFCS partners;
- (3) Make use of the WMO Information System for the exchange of climate relevant data and products among Members;
- (4) Provide the related metadata as defined by the WMO Information System (WIS) and WMO Integrated Global Observing System (WIGOS);
- (5) Strengthen their commitments to the WMO WDCs and ICSU World Data System (WDS) in their collection and supply of climate relevant data and products on a free and unrestricted basis;
- (6) Implement the practice on the international exchange of climate relevant data and products, as described in Decides (1) to (3) above;

- (7) Inform all third parties of the terms and conditions associated with the additional climate relevant data and products (including their related metadata), such as ownership and attribution;
- (8) Make best efforts to ensure that users and subsequent users are aware of the conditions of use on the additional climate relevant data and products, particularly regarding their redistribution;

Encourages Members to establish financial mechanisms, including new investments, for sustaining the network of stations and sensors needed for the global observing systems for climate, and also the maintenance and operation of the data preparation and management systems, necessary to support the implementation of the policy of free and unrestricted exchange of climate relevant data and products;

Requests the Executive Council to:

- (1) Invite the president of the Commission for Climatology (CCI), in collaboration with the other technical commissions, in particular the president of the Commission for Basic Systems (CBS), to provide advice and assistance on the technical aspects of the resolution's implementation and ensure that appropriate standards are identified, implemented and maintained;
- (2) Task the technical commissions, as appropriate, to regularly review and update the climate relevant data and products to be provided by the global and regional climate centres with a view to increasing the access to and availability of climate relevant data and products;
- (3) Take into consideration the views of the IBCS with respect to the issues that may arise with the implementation of the resolution;
- (4) Foster initiatives that:
 - (a) Enhance the capabilities of Members, especially least developed countries (LDCs) and developing countries, to provide, deliver and improve access to climate relevant data and products to adequately respond to user needs and to enable their use in decision-making by all relevant societal sectors;
 - (b) Support Members in the implementation of this resolution, especially those who are most vulnerable to climate-related hazards;

Requests the Intergovernmental Board on Climate Services to:

- (1) Apply this resolution in the context of the implementation of the GFCS;
- (2) Maintain effective coordination with the GFCS partners, including FAO, WFP, WHO, UNISDR, UNESCO, UNDP, IOC, and other international organizations, and encourage them to adopt similar policies and practices to the free and unrestricted exchange of their related data and products in support of the GFCS;
- (3) Consider and recommend to Congress how third party data and products could be treated in the context of the implementation of this resolution;

Requests the Secretary-General to:

- (1) Assist NMHSs in making the case to their governments for establishing financial

mechanisms, including new investments, for sustaining the network of stations and sensors needed for the global observing systems for climate, and also the maintenance and operation of the data preparation and management systems, necessary to support the implementation of the policy of free and unrestricted exchange of climate relevant data and products;

- (2) Bring this resolution to the attention of Members of WMO, ICSU WDS, WDCs, RCCs, GPCs GFCS partners and other involved international organizations;
- (3) Make known to all Members those climate relevant data and products which have conditions on their use;
- (4) Implement a process for monitoring the accessibility and exchange of climate relevant data and products under this resolution;

Further decides to review the implementation of this resolution at the Eighteenth Congress.

Annex: 1

Annex to draft Resolution xx (Cg-17)

**CLIMATE RELEVANT DATA AND PRODUCTS TO BE EXCHANGED WITHOUT CHARGE
AND WITH NO CONDITIONS ON USE**

Purpose

The purpose of this listing of climate relevant data and products is to identify a minimum set of data and products which are essential to enable society to manage better the risks and opportunities arising from climate variability and change for all nations, especially for those who are most vulnerable to climate-related hazards, and which Members shall exchange on a free and unrestricted basis.

The climate relevant data and products which are essential include, in general, the data from the Regional Basic Climate Networks (RBCNs) and GCOS Surface Network and as many data as possible that will assist in defining the climate on at least a scale of the order of 200 km in the horizontal and daily in time.

Contents

In addition to the climate data and products provided under Annex I to Resolution 40 (Cg-XII), the following data and products, including those relating to the GCOS Essential Climate Variables (ECVs) (Atmospheric, Oceanic and Terrestrial):

- (1) All available² metadata for the data provided meeting the WIS/WIGOS metadata standards;
- (2) All available historical³ climate⁴ time-series from the RBCN and the GCOS Surface Network at a time resolution necessary to resolve the statistics of climate, including trends and extremes;
- (3) All available climate relevant upper ocean data (0-700m), in particular sea ice, temperature and salinity;
- (4) All available climate relevant coastal interface data, in particular sea level, waves and storm surges;
- (5) All available data on radiative forcing greenhouse gases and aerosols;
- (6) All available climate relevant satellite data and products;
- (7) All available stream flow and lake level data, including stage and discharge;
- (8) All available climate relevant cryospheric data, in particular snow cover, snow depth, glacial monitoring, permafrost and lake and river ice;
- (9) All climate products distributed by ICSU WDS, WDCs, GPCs, RCCs, and RCOFs to meet their WMO obligations as defined by the CSIS of the GFCS;
- (10) All available climate relevant data and products required for the current and future priority areas of the GFCS as defined in the Annexes to the Implementation Plan for the GFCS.

² "All available" means that the originators of the data can make them available under this resolution.

³ "Historical data" are defined as observations that have been collected for as long a period as they are available.

⁴ "Climate data" are defined as meteorological observations that are older than 24 hours.