

Status of WMO Core Satellite Data Activities

Presented to CGMS-50 Plenary: Agenda item 3

Coordination Group for Meteorological Satellites





Abstract/Summary:

- The document provides an update of the WMO activities to establish core satellite data as per the new WMO Unified Policy for the International Exchange of Earth System Data (Res. 1)
- The process for establishing the core satellite data is presented
- The currently identified data types is introduced.
- Status of Agency contacts





Contents

- 1. New WMO Unified Data Policy Resolution
- 2. Process for establishing core satellite data
- 3. Current status for EO data
- 4. Conclusion





WMO data policy for the international exchange of Earth system data

International data exchange is a major purpose of WMO, WMO Convention, Art. 2b

- WMO Unified Data Policy (Res. 1) approved by WMO members
- Replacing the old Res 40 (weather), 25(hydrology) and 60 (climate)
- Adopts the following policy on the international exchange of Earth system data:
 - As a fundamental principle of WMO and in consonance with the expanding requirements for its scientific and technical expertise, WMO commits itself to broadening and enhancing the free and unrestricted international exchange of Earth system data;
- Single, overarching data policy resolution emphasis on the Earth System: Observations, Monitoring, Prediction and Services





New WMO Unified Data Policy Resolution (Ext Congress 2021)

Key changes with respect to Resolution 40 (Cg-XI, 1995)

Resolution 40; 1995

- 1. Covers weather data only;
- 2. Two main categories of data:
- <u>Essential</u> (shall be exchanged);
- Additional (should be exchanged);
- Specific "essential" datasets listed directly in Annex I to the resolution (with some reference also to RBSN);
- 4. "Free and unrestricted" exchange (term not defined in the Resolution);
- 5. Covers exchange of data between NMHSs

Resolution 1; 2021

- 1. Covers <u>all WMO Earth system data</u>: weather, climate, hydrology, ...
- 2. Two main categories of data:
- <u>Core</u> (shall be exchanged);
- <u>Recommended</u>; (should be exchanged);
- 3. Specifics on *core* and *recommended* data referred to Technical Regulations, primarily Manuals on WIGOS, GDPFS;
- 4. "Free and unrestricted" exchange (term defined directly in the Resolution, literal interpretation);
- 5. Addressed to Members, but covers exchange of data between all partners, including private sector, academia, etc.



For some of the data types listed in Annex I to the draft data policy resolution, detailed Technical Regulations already exist, but for many data types these still need to be developed as requirements and agreements mature.

Specifically on satellite data in new Data Policy Resolution

- Vital importance of satellite data now clearly recognized. The concept of core satellite data is framed primarily in terms of importance to global NWP.
- No specific satellite datasets are listed as neither core nor recommended in current draft of policy. This is referred to the Manual on WIGOS.
- No particular position regarding provision of observational data by private sector
- The policy is addressed to national governments of WMO Members and cannot dictate what private sector entities should or should not do
- Reflecting guidance provided by the WMO Data Conference, exchange of core data is considered mandatory, irrespective of data origin;





Analysis of current and near future measurement capabilities

- An analysis of the current and near future measurement capabilities of the CGMS members meteorological satellite programmes was carried out
- Based on WMO OSCAR/Space, Vision 2040 for WIGOS, NWP Position Paper and other material as a reference aiming to capture user perspective
- Document for current core measurement capabilities of CGMS members was prepared
 - GEO measurements capability
 - Polar orbiter measurements capability
 - Space weather
- Analysis was consolidated with WMO Expert Teams

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WMO OMM

Coordination Group for Meteorological Satellites

Defining Core and Recommended satellite data for international data Exchange

- WMO has nominated a Data Policy Coordinator (Sue Barrell)
- Space Agencies have been invited to the bilateral discussions with WMO. Noting that:
 - It may not be in the mandate for all Agencies to commit to everything in the WMO analysis
 - They may need to consult stakeholders (which may take time)
- Definition of core data does not imply commitments on:
 - Technical implementation
 - Protocols
 - Quality
- Seek endorsement by INFCOM 2
- Consolidated commitments to be tabled in WMO WIGOS Manual for Executive Council Spring 2023, and again for Congress in Autumn 2023 for the decision of WMO members
- Will be reviewed and updated regularly (in consultation with the Space Agencies)

Coordination Group for Meteorological Satellites



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bur ref.:

10394/2022/I/SSU

Annexes: Current CGMS Members capabilities to deliver the Vision for WIGOS 2040

Dr Stephen Voltz Assistant Administra Information Service National Oceanic an Administration (NOA 1335 East-West Higl 20910 Silver Spring, United States of Am

10 May 2022

bject: Invitation to bilateral discussions on Core Satellite Data and W the International Exchange of Earth System Data

Dear Dr Volts

The 2021 Extraordinary Congress approved the WMO Unified Policy for th Exchange of Earth System Data, which defines Core and Recommended c Members shall exchange Core data on a free and unrestricted basis to un they provide for the protection of life and property and for the well-being

With the new WMO Unified Policy for the International Exchange of Earth approved, WMO wants to define the Core satellite data related to satellite order to define the Core data commitments of NOAA, we kindly invite you discussions on the Core satellite data content provided by your agency.

To support the discussions, we have prepared the document in Annex. The that data from all the measurements identified in the tables will be freely users and for NWP/Nowcasting disseminated within near real time. The table relevant column the contributions expected from your Agency.

Please contact until the end of May 2022 WMO Director of Infrastructure (area@wmo.in t) and Director of WIGOS Lars Peter Riishojgaard (Inishojg Head of Space Systems and Utilization Division Kenneth Holmlund (kholm cc, for establishing the way forward for the upcoming bilateral discussion





Status of Agency points of contacts

Agency	PoC established	Bilaterals commenced
СМА		
CNES		
CNSA		
ESA	✓	
EUMETSAT	✓	
IMD		
ISRO		
JAXA	✓	
JMA	✓	
KMA	✓	✓
NASA		
NOAA		
NSOAS	✓	
ROSCOSMOS		
ROSHYDROMET		

Coordination Group for Meteorological Satellites





To be considered by CGMS:

- ➤ CGMS Plenary is invited to take note and comment on the current status of the WMO activities to establish core satellite data as per new WMO Unified Policy for the International Exchange of Earth System Data (Res. 1)
- CGMS Members are kindly requested to nominate points of contacts for bilateral discussions on core satellite data



