WGIV key recommendations to CGMS plenary

Presented to CGMS-53 Plenary

Coordination Group for Meteorological Satellites

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Executive summary of the WP

CGMS-53 WGIV meeting took place on 24 March 2025

Highlights (part I):

- Natalia Donoho (WMO) as new co-chair pending endorsement by CGMS-53 plenary.
- XIAN Di (CMA) was designated as new co-chair of VLab on behalf of CGMS space agencies and operators, pending endorsement by CGMS-53 plenary.
- For CMA data distribution, core satellite data will be on WIS 2.0 by end of 2025
- JMA described its plan for the Himawari-8/9 to Himawari-10 transition. Himawari-10 will most likely use netCDF format, which is a significant change. Transition efforts will start with provisions of sample data in the new format in 2027.

Executive summary of the WP

Highlights (part II):

- The Disaster Charter presentation triggered some discussion about access to high resolution image data and how to handle the data volumes involved.
- CMA presented their work on the Satellite Application Centre for support to developing countries. There was general support for the concept, noting the need to ensure no overlap with related activities coming from RA-II/RA-V.
- Long Term Data Preservation (LTDP) was confirmed as a key activity to be handled by CGMS. The Working Group concluded that data access and interoperability access aspects belong in WGIV, and that other topics relating to LTDP would be better handled in WGII.
- Refreshed Terms of Reference (ToR) of WGIV were agreed by the Working Group, noting that the point relating to LTDP will be made more specific, as discussed above. The ToR need to be endorsed by plenary.

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Background

Working Group IV – DATA ACCESS & END USER SUPPORT

- Co-chair: Kotaro Bessho (JMA)
- Co-rapporteurs: Simon Elliott (EUMETSAT) and Natalia Donoho (WMO)
- *Transition of Natalia Donoho from co-rapporteur to co-chair role pending endorsement by Plenary*

Objectives of WGIV

- To support the user-provider dialogue on regional/global scales;
- To support the implementation and evolution of sustained and coordinated communication satellite broadcast systems (e.g. GEONETCAST related);
- To address global or inter-regional data circulation and access (e.g. WIS/GTS/RMDCN, academic networks, other terrestrial networks, etc.) in coordination with WMO dedicated expert teams;
- To promote the widening of data access, to new missions/providers as well as for other user communities;
- To promote data formats and standards, including the use of open standards (currently handled by the CGMS Task Teams on data formats);
- To support the coordination of metadata for satellites and instruments (currently handled by the CGMS Task Force on meta data);
- To address the user readiness for new satellite systems, with support from SATURN point of contacts;
- To address the notification of changes (and alerts) in satellite data and/or products impacting users, with the aim of defining best practices;
- To address topics related to cybersecurity towards end users;
- To address long term data preservation;
- To discuss relevant aspects on the implementation of the global contingency plan (as proposed by WGIII) from Plenary; and
- To address topics from the CGMS High Level Priority Plan within the scope of WG IV.

WGIV Task Groups:

- Expert Group on Cloud Services
- Task Group on Data Access/Exchange
- Task Group on Metadata
- Task Group on User Readiness

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WGIV main outcomes and future work (1)

User-provider dialogue on regional/global scales

KMA, JMA, CMA, and BoM have strengthened cooperation in 2024 to develop support for meteorological satellite users in RA II and RA V. AOMSUC continues to be used as a forum for providing joint training and progressing on actions.

The joint RA II and RA V Coordination Meeting in 2024 included about 37 participants and 17 country reports from 11 members of RA II and 6 members of RA V. The meeting consisted of 7 presentation sessions including Updates on Working Structure and Operating Plans of RA II ET-SOA and RA V ET-SAT, Members' reports, Reports from RA I and RA III/IV, WMO-CGMS VLab updates and plans.

Communication satellite broadcast systems

CMA reported on the operation of the CMACast system and introduced the operation overview of their WIS2.0 systems. They also discussed the different ways users can work with the FENGYUN satellite data. JMA described Himawari-8/9 data dissemination; they will move to netCDF for Himawari-10 data. JMA intends to follow the best practices for user preparation established by CGMS WGIV and WMO

WGIV main outcomes and future work (2)

Disaster support

CMA introduced its Emergency Support Mechanism of FENGYUN (FY) Satellite (FY_ESM), and described its evolution since its launch in 2018. JMA provided an update on its international Himawari Request service. As part of the RA II WIGOS Project, JMA is working on user-friendly map content displaying the locations of request-based high frequency regional observations conducted by CMA, JMA and KMA in real time. EUMETSAT introduced the International Charter: Space and Major Disasters; this led to discussions about activation and support requests, as well as access to high volume data.

Support for hyperspectral infrared instruments

JMA introduced the GHMS, the hyperspectral sounder to be flown on Himawari-10 and due for operations in 2029. It was confirmed that the imager data from Himawari-10 and the principal component scores and possibly a subset of channels from GHMS will be designated core data.

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WGIV main outcomes and future work (3)

CGMS Future Direction 2022+ - Support to developing countries

CMA presented the concept of a satellite application centre for EW4ALL, which would enhance meteorological satellite applications' supporting role for Early Warnings, NWP, and disaster protection. The group noted that there could be an overlap with existing initiatives in RA-II and RA-V. It was agreed that CMA would analyse the results of the existing surveys and at intersessional provide a detailed analysis, and proposal of what the solution might be.

Cloud services interoperability

The Cloud Service Expert Group remains very active. The group was informed of its status and plans, and the outcome and recommendations from the 3rd cloud technology workshop. The group reported that the next Cloud Workshop will look at leveraging AI technology to make the most of the cloud.

Long term data preservation

Long-term data preservation of satellite observation is part of the terms of reference of WG IV. The group discussed transferring part of the topic to WG II. This was addressed by clarifying the terms of reference of WG IV to refer to addressing "long term data preservation issues related to data access and interoperability". See CGMS-53-WGIV-WP-13

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To be considered by CGMS:

- CGMS is invited to note the outcome of WGIV activities since last plenary

- Actions raised by WGIV for attention of plenary:
  - endorsement of Natalia Donoho (WMO) as co-chair of WGIV
  - endorsement of XIAN DI (CMA) as co-chair of Vlab (see CGMS-53-VLab-WP-02)
  - endorsement of the updated ToRs (see CGMS-53-WGIV-WP-13)