



Report on the outcome of WGIV activities since last plenary

Presented to CGMS-50 Plenary, agenda item 4.3

Introduction

Working Group IV – DATA ACCESS & END USER SUPPORT

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- Rapporteurs (acting): Simon Elliott (EUMETSAT) and Natalia Donoho (NOAA)

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 Cyber Security
- Task Group on Data Access/Exchange
- Task Group on Metadata
- Task Group on User Readiness

WGIV main outcomes and future work(1)

User-provider dialogue on regional/global scales

WGIV took note of the WMO Regional Association (RA) II WIGOS Project to Develop Support for National Meteorological and Hydrological Services (NMHSs) in Satellite Data, Products, and Training is a regional framework formed to assist NMHSs in RA II for better use of satellite-related information in collaboration with relevant satellite operators, users and WMO. The Third Joint Meeting of RA II WIGOS PROJECT and RA V TT-SU for RA II and RA V NMHSs was held online, on November 5, 2021

Cyber security towards and users

After its first meeting on 17 March 2021, the newly created CGMS WG IV Cyber Security Task Group did not have the opportunity to meet again.

Recommendation: CGMS WGIV recommends to the Plenary Session of CGMS-50 to suspend the activities of the Task Group on Cyber Security, and to revisit the role of the Task Group for CGMS-52.

WGIV main outcomes and future work(2)

Coordinated communication satellite broadcast systems

CMA gave an overview of CMACast and described its current status. The broadcast transponder of CMACast will change and will bring an increase in area of coverage to include a large part of Africa. CMACast Helpdesk will provide operation instructions and technical support to help users to switch their reception antenna.

JMA presented an overview of Himawari-8/9 data dissemination and distribution in JMA, and reported on their recent updates. JMA provides Himawari-8/9 data via its HimawariCast and HimawariCloud systems. A seamless switch from Himawari-8 to -9 is planned for around December 2022. JMA confirmed that access to HimawariCloud is intended for NMHSs, with one point of access per country.

NOAA presented the status of GEONETCast Americas. In 2020, the satellite rebroadcast was moved to another transponder that could accommodate a higher data rate up to 20 Mbps, and in 2021 underwent a significant product content change with expansion to include all 16 bands of GOES-16's Cloud Moisture Imagery (CMI), and increased JPSS products.

WGIV main outcomes and future work(3)

Global or inter-regional data circulation and access, WIS

CMA gave a detailed presentation of the data policy, services and applications for their Fengyun satellites. KMA presented a report on GK2A data services.

Both NOAA and EUMETSAT reported on pilot data services in which radio occultation observations are purchased from a private company.

WMO provided an update of their activities to establish core satellite data as per the new WMO Unified Policy for the International Exchange of Earth System Data (Resolution. 1).

Long term data preservation

The CEOS Working Group on Information Systems & Services (WGISS) and its interest group on Data Preservation and Stewardship (DSIG) were introduced and their role in the establishment and implementation of best practices for space data preservation was explained.

Action: WGISS and WGIV to hold a joint meeting to discuss modalities and areas of common activities between WGISS and WGIV.

WGIV main outcomes and future work(4)

Disaster support

CMA, JMA and KMA all offer disaster support mechanisms to the international community (FY_ESM, HimawariRequest, GK2A AMI Rapid Scan observations respectively). These services can be requested by the international community in support of emergency management activities.

CMA, JMA and KMA plan to continue to work closely together on disaster support activities

Support to the Ocean user community

KMA reported on its marine weather broadcast service. It uses GK2A's LRIT, and is the world's only public satellite service dedicated to providing weather information free of charge with an aim of ensuring the safety of ships. The broadcast service is available for ships located within a 3,700 km radius of GK2A. It provides 15 types of 360 products, including surface analysis and forecast charts, wave analysis, and satellite images

Coordination of Metadata

The Task Group on Metadata held an initial kickoff meeting in February 2022. A follow-on kick-off meeting is planned for summer 2022

WGIV main outcomes and future work(5)

User readiness for new satellite systems

The Vlab report was presented. Since CGMS-49, Vlab members have offered a variety of training opportunities addressing the new generation of satellites, which continues to be the major training need identified by VLab members. VLMG continued to coordinate its activities and support for training events via regular online meetings.

NOAA summarized three stages of user engagement during the satellite's life cycle: User needs, user readiness and user sustainment. The second presentation followed the user needs phase of user engagement and how the development of the mission value studies will help inform Phase 2 (User readiness) of user engagement.

WMO-CGMS Best Practices for Achieving User Readiness for New Meteorological Satellites were discussed.

WGIV main outcomes and future work(6)

Cloud Services interoperability

NOAA provided summary and highlights from CGMS WGIV Cloud Service Expert Group Workshop. The group's main goals are to establish a suite of best practices for cloud use and define how to make cloud-based dissemination more interoperable. To meet these goals, the group hosted a Cloud Workshop to increase awareness of the current and future trends in cloud services amongst CGMS members and understand key capability gaps that the cloud can fulfil so participants can fully leverage the advantages the cloud can offer. As a result of industry presentations, open discussions, and agency-only roundtables, CGMS cloud services experts have increased their knowledge of industry cloud trends and will take back best practices and lessons learned to their respective organizations. Best practices, trends, and common themes were identified amongst workshop presentations, and will be incorporated into the group's Best Practices document for presentation and endorsement at the CGMS Plenary in 2023

Recommendation: WG IV recommends that Cloud Service Workshops are organized on an annual basis, the schedule being shortened to take advantage of the consequent recurrence

WGIV main outcomes and future work(7)

Widening of data access

NASA reported on their progress with Earth Observation Training Education and Capacity Development (EOTEC DevNet), its effort to improve coordination of Earth observation-related capacity building.

Launched March 2021 and in Year 1 of a 2-year pilot, EOTEC DevNet set up global and regional structures, created an online prototype tool to track capacity building resources for flooding, and began work on its communications infrastructure. Meeting participants affirmed several EOTEC DevNet priorities and also its thematic focus: disaster risk reduction and climate mitigation and adaptation. A prototype flood tracker was developed by capacity development and floods experts representing providers and users of training from the leadership partners and CoPs. Key activities for Year 2 of the pilot have also been established. WGIV, VLab and WMO supported this initiative and encouraged WGIV members to foster the growth of EOTEC.

Action: CGMS members continue to foster the growth of EOTEC DevNet by, for example: joining the CoPs, identifying other experts for the CoPs, contributing to EOTEC DevNet products, and sharing EOTEC DevNet information within their network.

Items for Plenary(1)

- The HLPP was updated following review of WGIV related matter. The revised HLPP will be presented to plenary for endorsement.
- CGMS agencies to consider nominating additional members for all the WGIV Task Groups, especially ones where no representatives of the agencies are currently participating in the Task Group(s).
- Natalia Donoho (NOAA) and Simon Elliott (EUMETSAT) were nominated as the Co-Rapporteurs of WGIV for Plenary endorsement.