

## CGMS-45: KEY OUTCOMES AND ACHIEVEMENTS

11-16 JUNE 2017

JEJU ISLAND, REPUBLIC OF KOREA

### PLENARY

- Agreed plan to trigger scientific studies on the criticality of the impact high frequency polar-orbiting satellite observations for Numerical Weather Prediction (NWP) in the context of the next WMO Workshop on the Impact of Various Observing System on NWP.
- Endorsement of the CGMS contribution to the CEOS AC-VC CO2 White Paper on the definition of a space-based architecture for carbon monitoring from space, including analysis of orbit and mission coordination of carbon observations, enhanced capabilities of future generation of meteorological satellites, user uptake, training and outreach.
- Endorsement of three Non Meteorological Application (NMA) projects on aerosol/dust, fire, and flooding to be undertaken in response to the CEOS NMA report presented at CGMS-44.
- Endorsement of the work plan for a CGMS Space Weather Task Team aiming at coordinating CGMS member contributions to space weather activities.
- Endorsement of the activities of the Joint CEOS-CGMS Working Group on Climate developed in response to the 2016 GCOS Implementation Plan.
- Agreed contribution on the WMO Vision for the WIGOS 2040, including specific reference to CO2 observations – as a response to the requirements expressed in the UN FCCC COP21 Paris agreement.

### WG I – GLOBAL ISSUES ON SATELLITE SYSTEMS AND TELECOMMUNICATION COORDINATION

- Contribution by CGMS members to the preparation of WRC-19, reconfirming the need for protecting EESS and passive bands necessary for remote sensing.
- Confirmation of the SATCOM Forum as a significant achievement in support to International Data Collection Systems.
- Establishment of best practices for the representation of satellite imagery data in netCDF format. The outcome of these best practices to be reflected in the future evolution of the climate and forecast convention.
- Agreement on best practices in support to local and regional processing of low Earth observation (LEO) direct broadcast data with the commitment from LEO satellites operators with Direct Readout capability to advance the implementation.

## **WG II – SATELLITE DATA AND PRODUCTS**

- Acknowledgement of GSICS “operational” activities in the development of operational tools and products enabling to provide CGMS with an annual assessment of the performance of the CGMS space-based instrumentation, including event logging.
- SCOPE-CM phase 2 is now covering nine successful projects including product maturity assessments. The next phase of SCOPE-CM is under preparation.
- Progress made in the CGMS International Science Working Groups (ISWGs): International Precipitation Working Group (IPWG), International Radio Occultation Working Group (IROWG), and the International Winds Working Group (IWWG) were presented, aiming at a better exploitation of space-based observations in these areas. The Atmospheric Motion Vectors from space-based instruments is now considered as one of the five highest contributors to the positive impact on NWP following IWWG interactions. Similar successes are reported from other ISWGs. The support to the NRT access to microwave sounder data from Meteor-M N2 by WMO Member States was agreed during CGMS-45 enabling improved forecasting.
- CGMS discussed harmonisation of best practices for product generation and validation, and the provision of meta-data to ensure the highest possible quality of satellite data.

## **WG III – OPERATIONAL CONTINUITY AND CONTINGENCY PLANNING**

- CGMS Baseline of current and planned satellite missions will be updated to reflect recent development in CGMS Members, with the intent of proposing an update of it at CGMS-47 (2019).
- CGMS will review and update the WMO risk assessment and gap analysis in view of the evolution of user requirements and space-based observing capabilities and to link it to the WMO WIGOS Vision 2040 as well as incorporating space weather observations into such baseline.
- A CGMS Task Team will revise the CGMS Contingency Plan based on new capabilities of CGMS members, with the intent of proposing an update of it at CGMS-46 (2018).

## **WG IV – GLOBAL DATA DISSEMINATION**

- The Indian Ocean Data Coverage (IODC) data dissemination plan completion was confirmed to be achieved by 2018 – securing long term coordinated observations and data access of the Indian Ocean by CGMS members.
- Global data exchange of next generation of meteorological satellite data is on track between agencies with existing or planned data access systems in place. Associated data redistribution policies will be further reviewed.
- CGMS agreed on establishing dissemination requirements for ocean data and to review these at CGMS-46 (2018).

- CGMS agreed to include access to space weather data requirements as part of its global coordination discussions on data access.

#### **SWTT – SPACE WEATHER TASK TEAM**

- SWTT members will identify an initial baseline for a space-based space weather observing system by Q3 2017.
- SWTT will support topical discussions on CGMS during the European Space Weather Week, Nov-Dec 2017, in Oostende, Belgium.
- CGMS operators agreed to provide information on their internal procedures for determining if an anomaly results from a space weather event including the thresholds used.
- Recognition of CGMS's unique role in space weather and how it might contribute to it have been socialised amongst International Space weather organisations, such as the European Space Weather Week 2016, UN COPUOS Space Weather Expert Group and the 2017 US Space Weather Week.