

Prepared by NOAA Agenda Item: I.2 Discussed in Plenary

# SUMMARY LIST OF ACTIONS FROM CGMS XL (08 July 2013)

NOAA response to actions from CGMS XL.



# Summary List of Outstanding CGMS Actions and Recommendations (08 July 2013)

# A. Permanent Actions

**Permanent 01:** Members to inform the Secretariat of any change in the status or plans of their satellites to allow the updating of the CGMS Tables of Satellites. The Secretariat to review the tables of current and planned polar and geostationary satellites and to distribute this updated information, via the WWW Operational Newsletter, via Electronic Bulletin Board, or other means as appropriate. CGMS satellite operators to update table 7 for polar-orbiting satellite equator crossing times on an annual basis. CGMS Members to update the table on polar-orbiting satellite equator crossing times as well as the table on coverage from geostationary satellites.

Status: See NOAA-WP-23.

**Permanent 02:** CGMS Members to report to CGMS plenary on their activities and plans related to space weather including: (i) impact of solar events and space radiation on satellites, protective measures, (ii) space weather observations, and (iii) space weather warning services.

Status: See NOAA-PP-02.

**Permanent 03:** CGMS Members to review the list of available list servers used by CGMS groups and update as appropriate.

Status: NOAA provided updates for the list servers via e-mail.

**Permanent 06**: All CGMS satellite operators to regularly include user statistics in their reports on current satellite systems.

See NOAA-PP-02.

**Permanent 08**: CGMS Members to provide WMO with the update of their programmes for the dossier on the space-based GOS.

Status, None.

**Permanent 10:** CGMS Members to provide at every CGMS meeting a list of frequencies used by their current and future systems in the format provided in WG I report-39 (Annex 1).

Status: NOAA-WP-07.

## **B** CGMS-40 ACTIONS



Plen IV.4 40.05 WGII to identify in consultation with the ISWGs the priority ECV climate data records and communicate these priorities to the SCOPE-CM Secretariat for consideration in the call for proposal of January 2013. [WGII] 31-Dec-12 OPEN HLPP#5.1

Status: Discussion topic at next ISWGs.

CGMS/VLab co-chairs Plen VI.1 40.09 CGMS to investigate the possibility to provide funding to the VLab CoEs in Argentina, Australia, Brazil and South Africa, to establish a project for generation of conceptual models for the Southern Hemisphere. Deadline: CGMS-41 HLPP#4.2

Status: See NOAA-WP-05 and NOAA-PP-05.

#### WGI - TELECOMMUNICATIONS

CGMS satellite operators WGI 40.10 Interested satellite operators to inform WMO if they identify/designate a representative to be invited to the Satcom forum (WMO point of contact is Etienne Charpentier, <a href="mailto:Echarpentier@wmo.int">Echarpentier@wmo.int</a>). Deadline: 31-Dec-12HLPP#2.0

Status: Scott Rogerson is the NOAA representative. WMO and CGMS Secretariat were notified via e-mail.

CGMS members WGI 40.11 CGMS members to provide comments to the draft ToR of the Users of Satellite Data Telecommunication Systems (Satcom) Forum, included in annex to CGMS-40 WMO-WP-02, by the end of December 2012. Deadline: 31-Dec-12 HLPP#2.0

Status: NOAA reviewed the ToR's and provided comments to the WMO and CGMS Secretariat.

CGMS members WGI 40.12 CGMS members to complete and review interference assessment (in response to action 39.21) by end Q1 2013 (e-meeting). Deadline: 31-Mar-13 HLPP#1.3

Status: NOAA did not complete this action.

CGMS members WGI 40.13 Round table for comments review to proposed update to CGMS Global Specification 04 (by end of Q1 2013 –same e-meeting as for action 40.12). Deadline: 31-Mar-13 HLPP#1.3

Status: NOAA reviewed and provided comments on the updates to the Global Specifications.

### WGII – DATA AND PRODUCTS

EUM and NOAAWGII40.15 NOAA and EUMETSAT are invited to present a consensus concept and realisation of a calibrations events logging system with emphasis on issues and lessons learned. Due date: CGMS-41. Deadline: CGMS-41 HLPP#3

Status: See NOAA-WP-12



CGMS members WGII40.16CGMS members to complete the GSICS vision questionnaire. Deadline: January 2013 HLPP#3

Status: See NOAA-WP-16

CGMS members WGII40.21 CGMS members and WMO to provide adequate support to ensure active participation at international meetings, and training events by developing and LDCs, e.g. for the IPWG-7 workshop in Japan in Oct 2014. Deadline: CGMS-41 HLPP#4.3

Status: NOAA plans to provide financial support to CGMS science working groups.

CGMS members WGII40.22 All CGMS members that have committed to participate in the second AMV derivation intercomparison project are invited to carry out the study on the basis of the guidance provided by IWWG and the Meteosat data set provided by EUMETSAT. All CGMS members to report on preliminary results at CGMS-41. Final results should be presented at IWW12 in 2014. Deadline: CGMS-41 HLPP#3

Status: Completed

CGMS members WGII40.23 CGMS to convene through the IROWG an ad-hoc meeting on the global GNSS-RO constellation, inviting all interested CEOS agencies. Deadline: CGMS-41 HLPP#1.1

Status: NOAA will attend

EUM, JMA, NOAA WGII40.24 EUMETSAT, JMA and NOAA are invited to report on their development toward common and consistent volcanic ash products from Meteosat and MTSAT-2 and GOES, respectively. Due date CGMS-41 HLPP#3

Status: See NOAA-WP-17.

CGMS members WGII40.27 CGMS members to provide additional comments to the SCOPE-Nowcasting concept and confirm their participation in pilot projects as delineated in Annex I of WMO-WP-04. Deadline: 15-Dec-12 HLPP#3

Status: NOAA has agreed to participated in SCOPE-CM.

CGMS members WGII40.28 CGMS members participating in SCOPE-Nowcasting to nominate a focal point to the ad hoc SCOPE-Nowcasting Working Group, to meet in Q2/Q3 2013 (cf. Annex II). Deadline: 15-Dec-12 HLPP#3

Status: Complete – Mike Pavolonis has been nminated

#### WGIII - CONTINGENCY AND CONTINUITY

NOAA WGIII 40.32 NOAA, in consultation with South America users and WMO, to investigate options for a follow-on to GOES-12 mission for South America, in order to



develop a transition plan, involving GOES or other geostationary satellites, until the availability of the GOES next generation, which is expected to provide full coverage of both North and South America. Deadline: 15-Apr-13 HLPP#1.1

Status: NOAA-PP-20...

CGMS members WGIII 40.34 All CGMS Members to review and update their contribution to the mapping of CGMS mission plans against the CGMS baseline, and inform WMO accordingly. (5 December 2012). Deadline: 05-Dec-12 HLPP#1.1

Status: Complete

CGMS members WGIII 40.35 CGMS Members to consider opportunities for partnership with NOAA on COSMIC-2 ground segment and DSCOVR follow-on mission and report to CGMS-41. Deadline: CGMS-41 HLPP#1.1

Status: See NOAA-PP-02.

CGMS satellite operators WGIII 40.36 CGMS satellite operators to inform the ICTSW via the WMO Secretariat (jlafeuille@wmo.int) on their needs for space weather data and warning products. Deadline: CGMS-41 HLPP#5.2

Status: See NOAA-PP-21.

#### WGIV - GLOBAL DATA DISSEMINATION

CGMS satellite operators WGIV 40.37 CGMS satellite operators to report about the implementation of the World Geodetic System (WGS84) and Earth Geodetic Model (EGM-96) geographical reference systems. Deadline: CGMS-41 HLPP#2

Status: Open for NOAA.

CMA and NOAA WGIV 40.39 CMA and NOAA to review the draft revised Global Specification 04 and provide comments by April 2013, with the goal to provide a revised version for CGMS-41. Deadline: 31 Mar 2013; CGMS-41 HLPP#2

Status: NOAA reviewed and provided comments on the updates to the Global Specifications.

WMO and NOAA WGIV 40.40 WMO and NOAA to discuss future possibility of NOAA disseminating via GEONETCast-Americas certain environmental data to users in Central and South America. Deadline: CGMS-41 HLPP#2

Status: See NOAA-WP-22

CGMS members WGIV 40.41 CGMS members to propose experts for a CGMS-WMO Task Force on Metadata implementation, for the purpose of interfacing with the WMO IPET-MDRD in the context of the revision of the WMO core metadata profile. Deadline: CGMS-41 HLPP#2

Status: Open for NOAA.



CGMS members WGIV 40.43 JMA, CMA, KMA, NOAA and other CGMS agencies, as appropriate, to nominate focal points to the Task Team on Satellite User Requirements recently established in RA V (South-West Pacific) (Lead: Russell Stringer, Bureau of Meteorology Australia, <a href="mailto:r.stringer@bom.gov.au">r.stringer@bom.gov.au</a>); due date: end of the 2012. Deadline: 31-Dec-12 HLPP#2

Status: Open for NOAA.

CGMS members WGIV 40.44 CGMS Members to support the RA V Task Team in organising a workshop in late 2013 to advance its work plan, in conjunction with the 4th Asia/Oceania Meteorological Satellites Users' Conference in Australia. Deadline: 30-Sep-13 HLPP#2

Status: Open for NOAA.

#### C. CGMS-40 RECOMMENDATIONS

#### **PLENARY**

CGMS members Plen R

VI.1 40.01 Satellite operators to provide regular, annual contributions into the WMO VLab Trust Fund to ensure the continuation of the post of the VLab TSO. Deadline: CGMS-41 HLPP#4.2

Status See NOAA-WP-05 and NOAA-PP-05.

CGMS members Plen R

VI.1 40.02 Satellite operators and WMO to provide necessary resources for the translation of relevant training materials (websites, modules and related) into other WMO languages.

Deadline: CGMS-41 HLPP#4.2

Status: Open for NOAA.

CGMS members Plen R

VI.1 40.03 Satellite operators and trainers to take note of the new "CBS Guideline for ensuring user readiness for new generation satellites" and plan appropriate projects to ensure user readiness. Deadline: CGMS-41 HLPP#4.2

Status: See NOAA-WP- 25 and NOAA-PP-25.

CGMS members Plen R

VI.1 40.04 CGMS agencies are encouraged to exploit opportunities for education, outreach and training through the WMO-CGMS Virtual Laboratory for enhanced utilisation of observations and products for marine forecasting, especially of high winds in coastal areas. Deadline CGMS-41 HLPP#4.2

Status: See NOAA-PP-03.



CGMS members [Vlab] Plen R

VI.1 40.05 CGMS agencies to support widening of VLab scope (marine, land applications, agricultural meteorology). CGMS-41 OPEN HLPP#4.2

# **WGI - TELECOMMUNICATIONS**

CGMS satellite operators WGI R 40.06 CGMS satellite operators are invited to note the CBS-XV recommendations and the resulting WMO requirements for Direct Broadcast from polar-orbiting meteorological satellites in both X-Band and L-Band. Deadline: CGMS-41 HLPP#2

Status: See NOAA-WP-25 and NOAA-PP-25.

CGMS members WGI R 40.07 The establishment of the Satcom Forum has been discussed in WG-I who confirmed that CGMS representation is proposed to be maintained by the CGMS secretariat (currently S. Burns) and also encouraged additional CGMS members (specially satellite operators having an interest in data collection and related issues) to identify themselves as potential participants. Deadline: CGMS-41 HLPP#1.2

Status: Scott Rogerson, NESDIS is the NOAA representative.

#### WGII – DATA AND PRODUCTS

CGMS members WGII R 40.08 CGMS agencies are invited to present working papers at CGMS-41 working group II on image processing tools for enabling the integration of various datasets for promote decision support efforts. Deadline: CGMS-41 HLPP#4.1

Status: Did not complete this recommendation

CGMS satellite operators WGII R 40.10 CGMS operators are encouraged to provide instrument performance monitoring information routinely on their respective websites. Deadline: CGMS-41 HLPP#3

Status: Complete – NOAA has instrument performance websites..

CGMS members [GSCIS] WGII R 40.11 All CGMS members participating in GSICS should consider nominating candidates for the positions of Chair and vice-chairs of the working groups and the Executive Panel; they should also provide representatives to the GRWG and GDWG. Deadline: CGMS-41 HLPP#3

Status: N/A – Mitch Goldberg is current chair.

CGMS members WGII R 40.12 CGMS members that are not currently participating in GSICS to consider an active role in the future progress of GSICS. Deadline: CGMS-41 HLPP#3

Status: N/A



CGMS satellite operators WGII R 40.14 CGMS members to plan the sequence of satellite launches into the polar orbit to minimise the risk of instrument failures and gaps in the time series of observations, in accordance with the GCOS Climate Monitoring Principles. Space agencies should consider this for the further planning of the Architecture for Climate Monitoring from Space. Deadline: CGMS-41 HLPP#1.1

Status: Based on current performance of S-NPP instruments we anticipate overlap of data with JPSS. JPSS launch is on schedule for early 2017.

CGMS members WGII R 40.15 CGMS members to conduct studies to trade off benefits of spectral, radiometric, and spatial resolutions of infra-red sounders and to pursue the development of next generation sounders. Deadline: CGMS-41 HLPP#1.1

Status: NOAA will consider improvements to CrIS for JPSS-3 and 4 based on reassesment

CGMS members WGII R 40.16 Support for line-by-line (LBL) reference model development is of paramount importance and should be continued to ensure that users (in both operational and non-operational institutions) have access to the latest updates in LBL forward modelling. Deadline: CGMS-41 HLPP#3

Status: NOAA recognizes the importance of this action and provides support in this area.

CGMS members WGII R 40.17 CGMS members should set up the archives of historical data necessary for CDR generation, together with the relevant algorithm versions for products, and other metadata (e.g., spectral response functions) derived by operational and quasi-operational satellite algorithms. This should include the preservation of pre-1979 records. Access mechanisms need to enable CDR generation by users. All archived records should be registered in the ECV Inventory.

Deadline: CGMS-41 HLPP#5.1

Status: NOAA CDR and GSICS programs provide support in this area..

CGMS satellite operators WGII R 40.18 CGMS agencies to support fast delivery initiatives using direct broadcast with extensions wherever possible (e.g., IASI, METOP-B, NPP), including on future polar orbiting satellites. Deadline: CGMS-41 HLPP#2

Status: See NOAA-WP-13.

CGMS members WGII R 40.19 CGMS agencies to work with EUMETSAT to extend Regional ATOVS Retransmission Services (RARS) with Direct Readout stations receiving NPP. CGMS-41 OPEN HLPP#2

Status: NOAA will work with EUMETSAT to extend RARS to S-NPP/JPSS and METOP-B.

IWWG WGII R 40.20 IWWG co-chairs to provide a state-of-the-art overview on the research on high resolution wind production and usage and to encourage increased focus on this theme at IWW12. This will involve input from NWP centres (to investigate need for this data in high resolution models and how best to assimilate) and data producers (how best to adapt the derivation). CGMS-41 OPEN HLPP#3



Status: Agree – NOAA Jaime Daniels is co-chair of IWWG.

CGMS satellite operators WGII R 40.21 Satellite providers should investigate the potential of global AMVs from tandem satellites: e.g. dual Metop, MODIS/VIIRS and the future Sentinel 3A/B. First assessments are invited for CGMS-41 as a basis for more detailed discussions at IWW12 in 2014. CGMS-41 OPEN HLPP#3

Status: NOAA is currently performing studies in this area..

CGMS members WGII R 40.22 CGMS members are invited to participate in the 3rd workshop of the International Radio Occultation Working Group, taking place near Graz, Austria from 5 - 11 September 2013. In particular, colleagues from China, India, Russia are invited to report on their radio occultation activities. 31-Jul-13 OPEN HLPP#3

Status: UCAR will participate and represent NOAA.

CGMS members WGII R 40.23 CGMS agencies should engage in reprocessing of radio/occultation data to maximize their utility in anchoring climate reanalyses.

CGMS-41 OPEN HLPP#5.1

Status: Agree.

CGMS satellite operators WGII R 40.26 All operators are invited to consider also the implementation of a common volcanic ash product. Implementation in parallel to existing products would help the evaluation. CGMS-41 OPEN HLPP#3

Status: See NOAA-WP-17.

EUM, JMA, NOAA WGII R 40.27 The scientific development (EUM, JMA, NOAA joint development of common/consistent volcanic ash products) should be considered as a pilot activity of SCOPE-Nowcasting. Due date CGMS-41 (ref. action WGII 40.24)

CGMS-41 OPEN HLPP#3

Status: NOAA will participate in this assessment.

CGMS members WGII R 40.28 CGMS recommended that new sea surface temperature datasets be compared with other satellite and in-situ sea surface temperature datasets under the auspices of the Group on High Resolution Sea Surface Temperature (GHRSST), which was described in CGMS-39 IOC-WP-01. CGMS-41 OPEN HLPP#3

Status: NOAA SST group are active participants in GHRSST and is currently conducting detail comparisons of VIIRS, MODIS and AVHRR SSTs..

NOAA, CGMS members WGII R 40.30 CGMS recommended that NOAA and other agencies interested in understanding the carbon cycle continue to coordinate infrastructure development to calibrate and validate the Suomi NPP ocean colour satellite observations.

CGMS-41 OPEN HLPP#3



Status: See NOAA-WP-14. – NOAA supports MOBY infrastructure for vicarious calibration. MOBY data is available freely.

CGMS members [Vlab] WGII R 40.31 Marine forecasters training activities should be widened with input and participation by other CGMS operators. CGMS-41 OPEN HLPP#4.2

Status: No progress.

CGMS members WGII R 40.33 Interested CGMS Members are invited to report by CGMS-41 on their respective processes for elaboration of user requirements for future marine and atmosphere services, and the status of their evaluation. CGMS-41 OPEN HLPP#3/4

Status: No Status.

CGMS satellite operators WGII R 40.34 CGMS agencies to provide reports on groundand space-based space weather observing systems to CGMS-41. CGMS-41 OPEN HLPP#5.2

Status: See NOAA-WP-15.

CGMS members WGII R 40.47 CGMS members to support active participation of their nominated member agency representatives in the Polar Space Task Group CGMS-41 OPEN

Status: Jeff Key is NOAA Representative.

#### WGIII - CONTINGENCY AND CONTINUITY

CGMS satellite operators WGIII R 40.35 R & D or operational satellite operators should consider the provision of some high-accuracy, SI-traceable and stable reference instruments as anchors for operational instruments, in particular, for climate purposes. CGMS-41

OPEN HLPP#5.1

Status: Open for NOAA

CGMS satellite operators WGIII R 40.36 CGMS Satellite Operators to address the anticipated or potential gaps identified in the WMO Gap Analysis, in particular:

- infrared and microwave sounding on the early morning orbit,
- hyperspectral sounding missing in some geostationary sectors,
- long-term follow-on of radio-occultation constellation,
- global precipitation measurement precipitation radar follow-on mission,
- long-term Earth Radiation Budget monitoring



• limb sounding for high-vertical resolution observations in the stratosphere and mesosphere (of temperature, humidity, wind, aerosol, ozone and other trace gases). CGMS-41

OPEN HLPP#1.1

Status: Open for NOAA

CGMS members WGIII R 40.37 All CGMS Members to provide updates on satellite programmes to be included in OSCAR, through their annual reports to CGMS and by other means as appropriate. CGMS-41 OPEN HLPP#4.1

Status: NOAA provide information to the WMO Space Programme on it's current and future LEO and GEO constellations. NOAA will provide updates to the WMO to ensure the data provided is current and relevant.

CGMS members WGIII R 40.38 CGMS satellite operators to support NWP centres to perform Observing System Experiments (OSEs) on the regional impact of a potential gap of sounding from the early morning orbit. CGMS-41 OPEN HLPP#1.1

Status: JCSDA provided assessment.

CGMS members WGIII R 40.39 CGMS Members to support CMA in further investigations of the benefit and technical consequences of potential move of a mid morning mission to an early morning mission. CGMS-41 OPEN HLPP#1.1

Status: Discussion at CGMS-41

CGMS members WGIII R 40.40 CGMS Members, through WG III, to evaluate the CGMS baseline in the light of the climate architecture strategy with a view to populate the space segment part of the initial physical view of the architecture and identify gaps and scenarios to address them. CGMS-41 OPEN HLPP#5.1

Status: See NOAA-PP-19.

CGMS members [IROWG] WGIII R 40.41 CGMS, via the IROWG, to support the development and use of GNSS radio-occultation for ionospheric monitoring. CGMS-41 OPEN HLPP#1.1

Status: Open for NOAA

CGMS members WGIII R 40.42 CGMS members operating dual-frequency altimeter missions to support the use of altimeter measurements for ionospheric monitoring.

CGMS-41 OPEN HLPP#1.1

Status: Open for NOAA

#### WGIV - GLOBAL DATA DISSEMINATION

CGMS satellite operators WGIV R 40.44 CGMS satellite operators to actively support user readiness projects as part of the implementation of their new generation satellite systems,



following best practices recommended in the "CBS Guideline for Ensuring User Readiness for New Generation Satellites". CGMS-41 OPEN HLPP#4.2

Status: See NOAA-WP-25 and NOAA-PP-25.

CGMS members WGIV R 40.45 CGMS members are highly encouraged to utilise the operational infrastructure of WIS in particular for the description, inclusion and provision of their satellite meta data to WIS GISCs such that satellite data becomes discoverable within WIS and also consider using WIS in the context of provision of their satellite data.

CGMS-41 OPEN HLPP#2

Status: Open for NOAA.

CGMS members WGIV R 40.46 CGMS members are encouraged to support the expansion of RARS to advanced sounder data and the broader IGDDS initiatives in order to further expand the access to and use of satellite data and products. CGMS-41 OPEN HLPP#2

Status See NOAA-WP-25 and NOAA-PP-25.