CGMS-52-WGI-WP-04
20 March 2024

Prepared by: EUMETSAT
Agenda Item 4.1
Discussed at WG-I

Subject	**Report from the CGMS WGI Task Group on Satellite Data and Codes (incl. latest ToR, status on current & proposed/planned activities)**
In response to CGMS action/recommendation	
HLPP reference	
Executive Summary	The CGMS Task Group on Satellite Data and Codes has been actively supporting the coordination of work on satellite product format issues within the CGMS community and providing support to the work of WMO's expert teams since its first meeting in 2008. This paper reviews the status of the Task Group and looks forward to its forthcoming activities.
Action/Recommendation proposed	Recommendation: Working Group I to support CGMS's work on satellite data and codes through the continued activities of its Task Group on Satellite Data and Codes. The Working Group is recommended to encourage active participation in the work of the Task Group from all satellite operators.

1 INTRODUCTION

CGMS established the Task Force on Satellite Data and Codes (TFSDC) in order to coordinate work on satellite product format issues within the CGMS community and to support the work of WMO's expert teams. The group had its first meeting in 2008.

As of 2022, the activities of the CGMS WGI ad hoc team on coordination of CF-netCDF standards have been assimilated into the work of this Task Group.

This paper briefly summarises the status of the Task Force and looks forward to its upcoming activities.

2 CURRENT STATUS

2.1 Membership

The current membership of the TGSDC is listed below:

CMA	Xu Zhe
EUMETSAT	Simon Elliott - chairman and liaison with WMO
SRC Planeta	Nikita Ekimov
JMA	Kazuki Shimoji
KMA	Junho Kim
KMA	Jae-dong Jang
WMO	Heikki Pohjola
WMO	Enrico Fucile
NOAA	Awdhesh (AK) Sharma
EUMETSAT	Daniel Lee
CGMS	Mikael Rattenborg
JMA	Kazutaka Yamada
NOAA	Maurice McHugh

As noted at CGMS-50 and -51, an additional member from ISRO would complement the current composition well.

2.2 Current activities

2.2.1 Introduction of new BUFR encoding sequences for satellite data

The Task Group has worked with the WMO Secretariat and the WMO Expert Team on Data Standards (ET-Data) and its Task Team on Table Driven Code Forms (TT-TDCF) on the development of a number of new BUFR encoding sequences and Common Code Table entries. In each case, the Task Group acts as a reference group of experts who are invited to consider and endorse relevant proposals going through WMO's approval process.

2.2.1.1 Satellite identifiers

During the period since CGMS-51, the following entries have been defined in Common Code Table C-5 for satellite identifiers:

Satellite	Code table entry	WIGOS station identifier
GOSAT-2	141	0-20009-0-141
DMSP1 - 4	746 – 749	0-20009-0-746 to -749
GEO-KOMPSAT-2B	814	0-20009-0-814
Sentinel-1C, -1D	68, 69	0-20009-0-068, 0-20009-0-069
FY-3F, -3G	525, 526	0-20009-0-525, 0-20009-0-526
TEMPO	790	0-20009-0-790
AWS-1	80	0-20009-0-080
SWOT	280	0-20009-0-280

2.2.1.2 Instrument identifiers

During the period since CGMS-51, the following entries have been defined in Common Code Table C-8 for instrument identifiers:

Instrument	Code table entry
TANSO-FTS2	521
SSH (DMSP)	7
GIIRS-1 to -6	962, 967 – 971
AGRI-1 to -6	961, 972 – 976
GHI	977
HIRAS-2, -3	983, 984
MWRI-1, -2	985, 986
MWRI-RM	987
TEMPO	435
MWR (AWS-1)	209
MW radiometer (SWOT)	368

2.2.1.3 Metop-SG

EUMETSAT has developed BUFR encoding sequences for the following products to be generated from Metop-SG:

- IASI-NG level 2 temperature and water vapour profiles;
- IASI-NG level 2 cloud mask cloud detection;
- IASI-NG level 2 surface parameters;
- IASI-NG level 2 total columns of nitrous oxide, methane and carbon dioxide;
- IASI-NG level 2 carbon monoxide total column, carbon monoxide profile;
- IASI-NG level 2 nitric acid total column, nitric acid profile (NAC) and level 2 ozone total column, ozone profile;
- IASI-NG level 2 SO2 total column;
- VII level 2 cloud detection;
- VII level 2 Cloud top pressure;
- VII level 2 cloud optimal cloud analysis, and
- VII level 2 cloud total precipitable water IR and VIS.

These sequences have been extensively reviewed by the various groups involved and will also came in to force with WMO's Fast Track-II process, in November 2023.

2.2.2 Update to Oscar/Space to include satellite and instrument identifiers

The Group continued to encourage WMO to ensure that OSCAR/Space includes references to the Common Code Table entries used for satellite identifiers (table C-5) and instruments (C-8). WMO has made significant progress in this area and will soon make available an update to OSCAR including the satellite identifiers form C-5, and the associated WIGOS station identifiers. The Group will continue to encourage the inclusion of instrument identifiers from C-8.

3 UPCOMING ACTITIES

Between CGMS 52 and CGMS 53, the Task Group will continue work on coordinating format standardisation for satellite data, implementation of WIGOS station identifiers for satellite platforms, and providing subject matter expertise to WMO Expert Teams.

An important task for this period will be working together with the WGI Task Group on Metadata on supporting WMO with the transition to WIS 2.0, and the input to this from the satellite community.

Two intersessional meetings are planned; late September 2024 and early January 2025.

4 ACTIONS AND/OR RECOMMENDATIONS FOR CONSIDERATION BY WORKING GROUP I

Recommendation: Working Group I to support CGMS's work on satellite data and codes through the continued activities of its Task Group on Satellite Data and Codes. The Working Group is recommended to encourage active participation in the work of the Task Group from all satellite operators.

5 CONCLUSION

The Task Group on Satellite Data and Codes continues to play a useful role. During the forthcoming intersessional period, the group's main activities will be concerned with the support of the global migration from GTS to WIS 2.0.