

WMO INPUT TO WORKING GROUP III

The paper firstly recalls that the purpose of contingency planning is to secure continuity of critical missions of the nominal operational configuration. Such contingency planning can thus only be developed with reference to a baseline configuration, which implies that critical missions have been identified within this baseline with sufficient detail to allow, for instance, the definition of re-launch criteria.

Potential continuity issues for geostationary coverage of South America and of the Indian Ocean in the coming years are highlighted.

For the longer term, it is noted that the space-based Global Observing System (GOS) is widening its scope to include a number of new operational missions such as e.g. ocean surface measurements. The document suggests reviewing the CGMS Global Contingency Plan in this perspective.

Action/Recommendation proposed

- To note potential continuity issues regarding global geostationary coverage, and to advise on appropriate actions.
- To initiate reflection on the development of a contingency approach for the new missions that will be part of the new GOS baseline.

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1 INTRODUCTION

The purpose of contingency planning is to secure continuity of critical missions of the nominal operational configuration. Such contingency planning can thus only be developed with reference to a baseline configuration, and implies that critical missions have been identified within this baseline with sufficient details to allow defining for instance re-launch criteria.

The space-based Global Observing System (GOS) is now widening its scope to include ocean surface measurements such as altimetry, scatterometry and ocean colour and, in the future, will include a number of other missions as described in the new WMO Vision for the GOS in 2025 (See CGMS-36, WMO-WP-17). Thus there will be a need to review the CGMS Global Contingency Plan in this perspective.

It is therefore suggested that the Working Group III consider:

- (i) Potential contingency issues related to the current GOS baseline and contingency plan
- (ii) Issues raised by the evolution towards a new Vision for the GOS
- (iii) Steps to be taken to develop a an updated Global Contingency Plan in accordance with the new Vision of the GOS to 2025.

2. CONTINUITY ISSUES FOR CURRENT GEOSTATIONARY MISSIONS

Geostationary plans are currently well established to provide continuous coverage of most of the sectors, with the exception of two sectors that require particular attention, South America and the Indian Ocean.

Frequent coverage of South America is currently provided by GOES-10, relocated at 60 deg West, which is extremely valuable for South American users. Beyond 2015, it is expected that the GOES-R and –S spacecraft will have the capability to provide frequent coverage of both North and South America, unlike the current GOES series. However GOES-10 will cease operation well before the launch of GOES-R. WMO encourages NOAA to investigate solutions to avoid any gap in the coverage of South America between GOES-10 and GOES-R.

Indian Ocean coverage has been provided for many years by EUMETSAT through its Meteosat IODC mission, as a replacement for the GOMS. Since EUMETSAT's plans for IODC do not go beyond 2010, the situation over this part of the globe needs to be kept under review.

3. CONTINUITY ISSUES FOR LOW-EARTH ORBIT MISSIONS

The situation of am and pm orbit coverage for imagery and sounding should be reviewed, taking into account the actual status of instruments and communication payloads, as well as the latest launch schedule.

4. EVOLUTION OF THE GOS BASELINE

CGMS-35 was informed of the initial development of a new Vision for the surface and space-based GOS. The space-based component would include a number of new missions that formerly were not undertaken on an operational basis, e.g.:

- Radio-occultation sounding constellation.
- Geostationary hyperspectral sounders
- Operational sounding from an early-morning orbit.

In addition, a request was made to optimize the nominal geostationary locations in order to reduce the maximum longitude gap between adjacent satellites.

A comprehensive description of the proposed new vision is included in WMO-WP-17. CGMS Members are invited to evaluate how they could plan to contribute to implement this new Vision.

5. CONTINGENCY PLANNING FOR NEW MISSIONS

The future space-based GOS will be a composite system including various constellations. Continuity requirements and possible contingency measures may thus be defined separately for each mission,

It is suggested that a specific workshop be convened to initiate discussion on defining the critical deliverables of each mission and the corresponding re-launch or contingency measures to be considered for each one.

6. CONCLUSIONS

The Working Group is invited:

- To note the potential continuity issues regarding global geostationary coverage and advise on appropriate actions,
- To initiate reflection on the development of a contingency approach for the new missions that will be part of the new GOS baseline.