

# Discussion on future CGMS WGI efforts on Space Debris and Collision Avoidance

Presented to CGMS-51 WG-I session, agenda item 7.1 Andrew Monham, EUMETSAT



## **Coordination Group for Meteorological Satellites - CGMS**

### Review of CGMS efforts so far.

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CGMS-47 WGI: 6.2 Space debris and collision avoidance. Coordination with the IADC  Collision Avoidance Process and Lessons Learned in EUMETSAT (A. Monham)  NOAA's response to space debris and concerns on the increasing threat or danger (V. Griffin)  CGMS-49 WGI: 6.2 Space debris and collision avoidance. Coordination with the IADC  Responding to WGI/A46.11  PPT CGMS-47-EUMETSAT-WP-15 19/05/2019  WGI/A47.09 Form a Task Group on Space Debris and Collision Avoidance to produce a Best Practice on Collision Avoidance. Renamed Action WGI/A48.07  PPT CGMS-47-NOAA-WP-10 07/05/2019  CGMS-49 WGI: 6.2 Space debris and collision avoidance. Coordination with the IADC		CGMS-46 WGI: 6.2	Space debris and collision avoidance. Coord	dına	tion with t	the IADC	No papers	
Collision Avoidance Process and Lessons Learned in EUMETSAT  (A. Monham)  NOAA's response to space debris and concerns on the increasing threat or danger  (V. Griffin)  CGMS-49 WGI: 6.2  Potential creation of working group on space debris avoidance (V. Griffin)  Responding to WGI/A46.11  WGI/A47.09 Form a Task Group on Space Debris and Collision Avoidance a Best Practice on  Collision Avoidance. Renamed Action WGI/A48.07  PPT CGMS-47-NOAA-WP-10 07/05/2019  CGMS-49 WGI: 6.2  Space debris and collision avoidance. Coordination with the IADC  Potential creation of working group on space debris NOAA-EUM having initial ToR discussions and will make avoidance (V. Griffin)  NOAA-EUM having initial ToR discussions and will make preliminary BP assessment before CGMS-50.		A46.11: Members to provide the status of their collision avoidance processes and the lesson learned when implementing these processes						
Lessons Learned in EUMETSAT (A. Monham) NOAA's response to space debris and concerns on the increasing threat or danger (V. Griffin)  CGMS-49 WGI: 6.2 Potential creation of working group on space debris and collision avoidance (V. Griffin)  NOAA-EUM having initial ToR discussions and will make avoidance (V. Griffin)  WGI/A47.09 Form a Task Group on Space Debris and Collision avoidance a Best Practice on Collision Avoidance Renamed Action WGI/A48.07 PPT CGMS-47-NOAA-WP-10 07/05/2019  O7/05/2019  Verbal 06/04/2021  Potential creation of working group on space debris avoidance (V. Griffin)  Potential Creation of Working group on space debris avoidance (V. Griffin)		CGMS-47 WGI: 6.2	Space debris and collision avoidance. Coord	dina	tion with t	the IADC		
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		CGMS-50 WGI: 5.1	Space debris and collision avoidance. Coordination with the IADC					

• Detailed elements for to form the BPs already assessed

WGI/A50.07: Deliver a Best Practice document on collision

• expand TG to all CGMS Members

avoidance and debris mitigation



Group on Space Debris and

Response to Space Debris and

the Concerns on the Increasing Threat or Danger (B. Walling)

(B. Walling/A. Monham)

Collision Avoidance

Report from the CGMS WGI Task • TG ToR provided.



PPT CGMS-50-WGI-WP-02

PPT CGMS-50-NOAA-WP-06

No naners

25/04/2022

25/04/2022

## **Coordination Group for Meteorological Satellites - CGMS**

## Synergy with inputs from draft SSA Position Paper

Step 1: Identify and review scope of other international governmental and commercial efforts to coordinate in the space traffic domain. *Identify opportunities for collaboration, lessons learned etc.* 

Step 2: Review Conjunction Management approaches to identify best and minimum acceptable practices which can form the basis of an international norm, acceptable to global operators and SSA analysts. (Builds upon the NOAA-EUM CGMS-50 Papers)

Step 3: Perform a gap analysis between the needs and the available/used Space Traffic Coordination (STC) services. This will need to highlight deviations in regional STC service approaches and address feasibility of alignment / identification of acceptable minimum capabilities based on Step 2 output

Step 4: Prepare a proposal for the best practices to support improvement of STC services towards the CGMS Member Agencies' needs. *Note this needs to take a global perspective, taking into account outputs from Steps 2,3*.

Step 5: Engage with UN-COPUOS to achieve global standardised approach for STC based on CGMS proposal. Requires a CGMS position paper for tabling at the UN-Copuos STSC (Science and Technical Subcommittee)





### **Coordination Group for Meteorological Satellites - CGMS**

# **Proposal for Next Steps**

- 1. Identify leadership and membership of the Debris and Collision Avoidance TG
- 2. Build on the NOAA-EUM work already performed, with wider Agency participation
- 3. Propose to integrate agreed steps from the final SSA Position Paper with appropriate delivery dates.

