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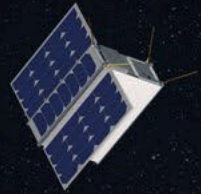
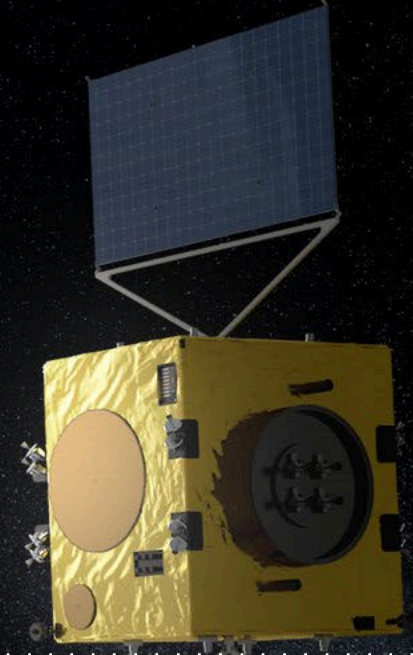


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Final meeting Sprint #1: first SMPAG hypothetical threat exercise

Camilla Colombo, Marco Castronuovo

Italian SMPAG delegation

Space Mission Planning Advisory Group, 08/02/2023



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INTRODUCTION

The SMPAG introduced the proposal for such an exercise, following its 16th meeting, to the Scientific and Technical Subcommittee of COPUOS as part of its reporting.

The **first SMPAG hypothetical threat exercise** will focus on the inter-agency procedure to organise a coordinated response to the threat

Primary objective

- to define the tasks required for a SMPAG coordinated response to the Exercise NEO threat
- to define which entity/ies would be responsible for these tasks.
- to identify the procedures internally to each SMPAG member to propose a response to the SMPAG

Secondary objective

Aside the minimum aim of the exercise described above, a **desired but not requested aim** of this first SMPAG exercise is to simulate and perform the actual tasks or part of them for the selected threat scenario. This secondary objective can be done collaboratively between contributing SMPAG members.



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EXERCISE TASKS

- The **first sprint** will focus on the national organisation and coordination and on defining the lists of tasks to be performed in response to a real threat scenario.
- To harmonise the national (SMPAG-level) efforts into a SMPAG coordinated action this must be organised at communication level, technical level, decision level. The **second sprint** will focus on discussing how the coordination is done among different SMPAG delegations.
- The **third sprint** will deal with communication and coordination issues within SMPAG.

Task 1 List the required tasks for a coordinated response to the threat.

- A non-complete list of tasks is reported here below as example. It is asked to each delegation to complete this list.
 - Refinement of risk of impact, Improved orbit determination, Trade-off of possible mission architectures and deflection strategies, Selection of the deflection strategy and eventual investigation mission, Perform mission analysis of selected mission, Perform system design of selected mission, Approval at SMPAG-member level of the proposed mission, Others...

Task 2 List the entities involved at national (SMPAG-member) level for the completion and coordination of these tasks at national (SMPAG-member) level

- List all the different entities involved at national (SMPAG-member) level for the completion of this tasks, describe how the coordination of these tasks is performed at national level.
- Explain which tasks can be performed at national level as there is internal capabilities to perform them and for which tasks there is no internal capabilities.

Task 3 Explain the internal (SMPAG-member) procedure for performing and advancing the tasks identified at Task 1 at national (SMPAG-member) level

Outcome of first sprint



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- Several delegations responded to the exercise

SMPAG delegation name	SMPAG delegation name	Notes
Italian Space Agency (ASI)	Italy	
RoSA_Romania	Romania	
NASA	USA	
ESA	ESA	
Harel Ben-Ami	Israel	
United Kingdom	United Kingdom	Internal approval needed
DLR German Aerospace Center - Space Agency	Germany	Internal approval needed
CNES	France	Personal view, internal iteration needed
China National Space Administration	China	Submitted two forms
Austria	Austria	

Outcome of first sprint

- For many delegations a structured procedure for answer to a NEO threat is not in place yet
- The exercise served/is serving as means of
 - Identifying the requested steps at national level
 - Started the process of survey at national level
 - Started or will start steps for definition of working group
 - Re-iteration is needed in most cases

Outcome of first sprint



- We have e report!
- SMPAG logo



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NEXT STEPS

Exercise organisation

- 6 weeks from now to finalise issue 1 of report 22 March 2023
- **Unconfirmed delegations who filled the form.** Please send confirmation by 17 Feb 2023
- **Participating delegations**
 - Can work collaboratively on the report, link to the report to be distributed together with minutes of SMPAG meeting
 - Can modify only their chapter not others'!
- Report **SMPAG Sprint #1** will be put online at SMPAG website. It will be Issued 31 March 2023



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First SMPAG NEO threat exercise

camilla.colombo@polimi.it

marco.castronuovo@asi.it



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www.compass.polimi.it

