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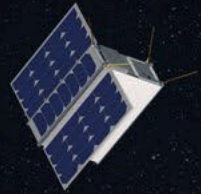
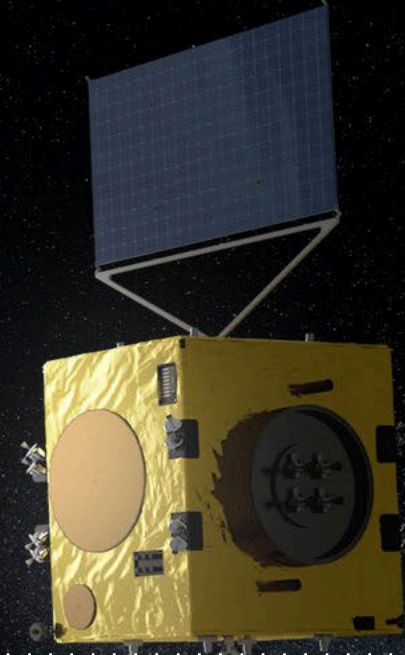


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# First SMPAG hypothetical threat exercise

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# INTRODUCTION

The SMPAG introduced the proposal for such an exercise, following its 16<sup>th</sup> 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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# SPRINT 1

- 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.

# Where we are



- Kick-off meeting 17/12/2021
- Sprint 1 started
- First round of input collected
- First progress meeting 07/02/2022



## 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

- Several delegations responded to the exercise

SMPAG delegation name	SMPAG delegation name
Italian Space Agency (ASI)	Italy
RoSA_Romania	Romania
NASA	USA
ESA	ESA
Israel Space Agency	Israel
United Kingdom	United Kingdom
DLR German Aerospace Center - Space Agency	Germany
CNES	France
China National Space Administration	China
Austria	Austria



# Outcome of first sprint

- For many delegations a structured procedure for a response 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 capabilities survey at national level
  - Started or will start steps for definition of working group
  - Re-iteration is needed in most cases

# Important remarks



- This is an exercise, you can participate as delegate of your own delegation
- The input of each delegation can be formalised at the end of the exercise
- Being an exercise, information sharing is fundamental
- The document produced for the exercise will be approved by all participating delegations



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# NEXT STEPS

- Sprint 1
  - Include all input in an internal report for sharing information among delegation
  - Possibility of another iteration at national level
  - First analysis of all the results
  - Produce report
  - Recording of PM1 to be shared with participants
  - Report template to be shared with participants
- Start sprint 2
  - Focus on inter-agency delegation
  - Task share among delegation
  - Organisation of a SMPAG-level organisation response to NEO threat
  - Integration between national delegation and SMPAG coordination
  - Produce report

# Exercise organisation

## Next steps

- Report template to be circulated
- Recording to be circulated
- Today + ~1.5 month: delegation to fill-in inputs
- Today + ~2 month: progress meeting 2:
  - Analysis of all inputs
  - Discussion
- Report of splinter 1 finalised

# Exercise organisation

## Next steps

- Today + ~2.5 month: Sprint 2 starts
  - International coordination
  - At programmatic level (e.g., responsibilities, milestones for coordination)
  - At organisational level (e.g., data sharing procedures, results validation and cross check procedure)
  - At communication level (e.g. crisis communication)



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## First SMPAG NEO threat exercise

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