

**Status of the
Space Mission Planning Advisory Group
SMPAG**

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Establishment of the Space Mission Planning Advisory Group was recommended by the Working Group on near-Earth objects of the STSC during its 50th session in February 2013 and formally endorsed by UN COPUOS at its 56th session in June 2013 and by the 68th session of the UN General Assembly in December 2013.

The purpose of the SMPAG is to prepare for an international response to a NEO impact threat through the exchange of information, development of options for collaborative research and mission opportunities and NEO threat mitigation planning activities.



The SMPAG was officially established during a meeting at ESOC, Darmstadt, on 6/7 February 2014.

During a second meeting on 12-13 June 2014, held at the margins of COPUOS, the Terms of Reference were finalized. ESA was elected as SMPAG chair for 2 years. The establishment of a work plan was started.

A SMPAG Steering Committee meeting was held on 5/6 February 2015 on the margins of this STSC meeting.

A full SMPAG meeting was held on 9/10 April 2015 at ESRIN in Frascati just before the 4th IAA Planetary Defense Conference.

Main points of the SMPAG Terms of Reference:

- Membership is open to all national space agencies or governmental or inter-governmental entities that coordinate and fund space activities and are capable of contribution to or carrying out a space based NEO mitigation campaign.
- SMPAG consists of a plenary group and a steering group with a rotating chair.
- Delegates have to be nominated by the SMPAG members.
- New members may be included upon consensus of the current members.
- Any member may withdraw its membership at any time.
- Each member shall provide its own funding and resources for its activities

SMPAG Membership

(Status November 2015)



Official members with nominated delegations:

AEM (Mexico)	ESA
ASI (Italy)	NASA (USA)
Belspo (Belgium)	ROSA (Romania)
CNES (France)	ROSCOSMOS (Russian Federation)
DLR (Germany)	SSAU (Ukraine)
IAWN (ex officio)	SUPARCO (Pakistan)
ISA (Israel)	UKSA (UK)
JAXA (Japan)	

Intention of Membership indicated:

CSA (Canada)
China

The SMPAG work plan presently includes a list of 11 activities

- Criteria and thresholds for impact threat response actions
(Lead: NASA)
- Mitigation mission types and technologies to be considered
(Lead: UKSA)
- Mapping of threat scenarios to mission types
(Lead: ESA)
- Reference missions for different NEO threat scenarios
(Lead: ASI)
- A plan for SMPAG action in case of a credible threat
(Lead: TBD)
- Communication guidelines in case of a credible threat
(Lead: NASA)

- Produce a 'road map' for future work on planetary defense
(Lead: DLR)
- Consequences, including failure, of NEO mitigation space missions
(Lead: TBD)
- Criteria for deflection targeting
(Lead: TBD)
- Study of the nuclear device option
(Lead: TBD)
- Toolbox for a characterisation payload
(Lead: CNES)

- It was agreed during the previous meeting in April 2015 to provide semi-annual reports on ongoing work plan activities. In July/August reports were received from:
 - DLR, NASA (on 2 activities), ASI, UKSA
- Results on ongoing work plan activities have been delivered by CNES and DLR
- It is planned to complete a first draft of the SMPAG work plan during this meeting

- The URL 'smpag.net' was reserved and is active.
- It is planned to request temporary observer status for SMPAG at the next STSC COPUOS meeting in February 2016.
- The request to address legal issues was raised from several sides (dedicated Agenda point).
- Other points raised and to be discussed:
 - Secretary function
 - Frequency and form of meetings
 - Statement of support for NEO mitigation mission
 - Formal appointment of IAWN representatives?
 - Communication activities on SMPAG (and IAWN)?