

**Space Mission Planning Advisory Group
(SMPAG)
Status Report**

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SMPAG formation and status

The SMPAG was officially established in February 2014

SMPAG Terms of References were finalized in June 2014

SMPAG has established a work plan in November 2015 which is a living document

The most recent SMPAG meetings:

- **Feb 2017 at STSC in Vienna**
- **Oct 2017 at CNES in Toulouse, France**
- **Jan 2018 at STSC in Vienna**

SMPAG Membership

(Status 17 Oct 2018)

Official members with nominated delegations:

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

Permanent Observers: ASE, IAA, IAU, UNOOSA, ESO

Application for membership: received from **Czech Republic**

Application as permanent observer: received from **COSPAR**

SMPAG work plan

A list of 11 activities has been identified by SMPAG:

- **5.1: Criteria and thresholds for impact threat response actions. (Lead: NASA)**
- **5.2: Mitigation Mission Types and technologies to be considered (Lead: UKSA)**
- **5.3: Mapping of threat scenarios to mission types (Lead: ESA)**
- **5.4: Reference missions for different NEO threat scenarios (Lead: ASI)**
- **5.5: A plan for SMPAG action in case of a credible threat (Lead: NASA/IAA)**

SMPAG work plan, cont.

- **5.6: Communication guidelines in case of a credible threat (Lead: NASA)**
- **5.7: Roadmap for future work on planetary defense (Lead: DLR)**
- **5.8: Consequences, including failure, of NEO mitigation space missions (Lead: ESA)**
- **5.9: Criteria for deflection targeting (Lead: ROSA)**
- **5.10: Study the nuclear device option (Lead TBD)**
- **5.11: Toolbox for a characterization payload (Lead: CNES)**

SMPAG work status

- **Results on ongoing work plan activities have been delivered by**
 - **NASA (5.1 proposed threshold criteria). The proposed thresholds have been agreed by SMPAG. A report is pending**
 - **Intermediate results have been delivered for several work plan items (e.g. 5.7, 5.8, 5.11)**
 - **Several splinter meetings have been held during the 9th and 10th meeting to progress the work**
 - **A UN Report on NEOs and Planetary Defence was produced**
 - **A paper on IAWN and SMPAG was accepted by Acta Astronautica**

SMPAG work status

- **An ad-hoc working group on legal issues (SMPAG Legal WG) was officially established during the 7th SMPAG meeting in Oct 2016**
- **The ToR of the Legal WG were approved by SMPAG at the 9th meeting in Oct 2017**
- **The Legal WG made a major effort to review and assess existing space laws relevant for planetary defence**
- **The last of many meetings of the Legal WG took place on 30 Sep 2018 in connection with the IAC in Bremen (D).**
- **A draft Report of the Legal WG entitled ‘**Planetary Defence, Legal Overview and Assessment**’ has been produced and delivered to SMPAG.**