

SMPAG APOPHIS FLIGHT MISSIONS WORKING GROUP

REPORTING TO SMPAG
63RD UN COPUOS STSC

4 February 2026

Agenda

1. Membership
2. Scope
3. Action Status
4. Deconflicting & Coordination
5. Communication
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Membership

SMPAG decides by consensus on the Apophis flight missions that participate in the SMPAG Apophis Flight Missions Working Group. **The missions include those that would approach Apophis in the period of one year before and after its close approach to Earth in April 2029.** This excludes mission concepts.

Representation to SMPAG by the Working Group Membership is normally limited to two nominations per flight mission – one with technical and programmatic expertise, the other with scientific or mission objective expertise; exceptions may be authorized by SMPAG.

The International Asteroid Warning Network (IAWN), which coordinates the Earth-based telescopic observation campaigns for Apophis, and the United Nations Office for Outer Space Affairs (UNOOSA) have *ex officio* representation on the Working Group.

Current membership representing the following missions:

- DESTINY+ (JAXA)
- OSIRIS-APEX (NASA)
- RAMSES (ESA)
- ASI, CNES, and DLR are members through their DESTINY+ and RAMSES collaborations.
- **CNSA, pending confirmation of mission information.**

Scope

The scope of the SMPAG Apophis Flight Missions Working Group includes:

1. Identifying among its members and other entities plans for potential flight missions to Apophis.
2. Allowing a forum for flight mission projects to present their plans to the SMPAG community.
3. Facilitating collaboration between projects to reduce unnecessary redundant activities and maximize mission achievements.
4. **Deconflicting potential periods of multiple mission operations and activities where unintended interference might otherwise occur.**
5. Facilitating mission-related data exchange amongst the SMPAG community
6. Providing international visibility for the individual mission activities and achievements.

The Apophis Flight Missions Working Group will not:

- Proscribe mission objectives or styles of mission management.
- Prohibit mission operations but will attempt to moderate compromises, if revealed to be harmful to other missions.
- Manage the planning and implementation of interfaces and operations between projects, including data sharing, after the need for interchange is identified. All projects manage themselves with their specified interfaces.
- Fund any activities associated with these cooperative and collaborative efforts. All Working Group involvement and activities are funded internally by the participating agencies and projects for their mutual benefit.

Action Status

Action #1

In Progress

Please evaluate if planned ground-based radar observations (ref. IAWN presentation at KO meeting) could potentially interfere with your mission operation, e.g., spacecraft to spacecraft and spacecraft to/from ground communication, scientific observations (radio science, radar), and provide feedback by 26 February 2026.

Request for clarifications from RAMSES project with respect to IWAN/Reddy presentation (KO, Mtg. #1):

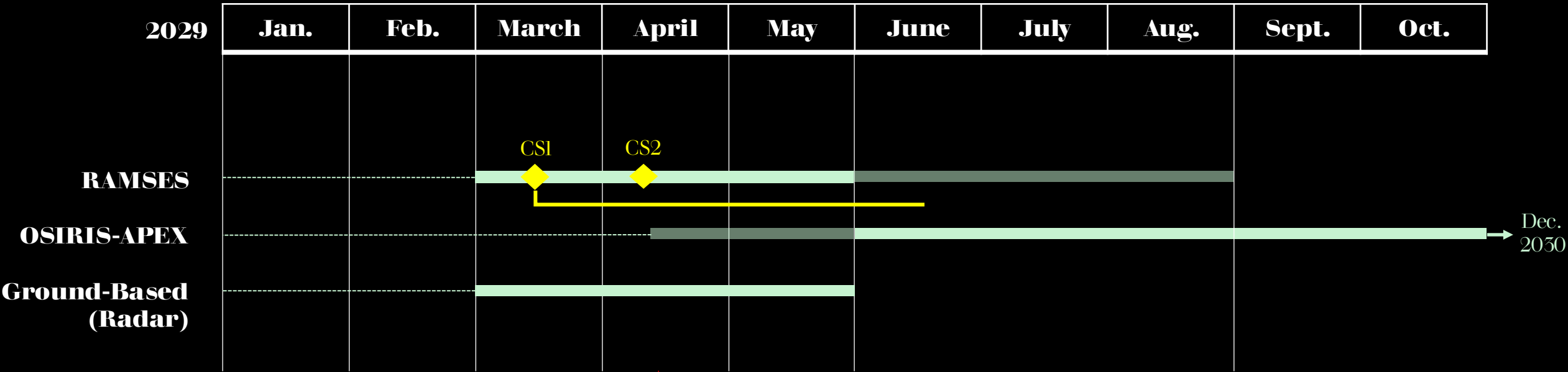
Action #2

Done

Please provide a presentation for the next meeting(s) describing:

- Planned mission timeline/events, with a focus on the proximity operations around Apophis;
- Communication system (e.g., frequency, bandwidth) for spacecraft to spacecraft and spacecraft to/from ground;
- Science observations using telecommunication systems or radar.

Deconflicting & Coordination



★
CA
13 April

CA ± 1 day 24/7
March-May: 8 h/d

Project	Up (MHz)	Down (MHz)
OSIRIS-APEX	7188	8445
RAMSES	7180	8436
Ground-Based	8560/7190/7160	

Communication

- Coordination with Chair of COSPAR Scientific Commission B (incl. small bodies), Hajime Yano, December 2025.
- Presentation of SMPAG AFM WG scope and membership to NASA Small Bodies Assessment Group (SBAG), 14 January 2026. Part of SBAG recommendation #3: “SBAG further notes that the UN-endorsed Space Mission Planning Advisory Group has established a first-of-its-kind working group to support coordination among Apophis missions. If these international missions launch and arrive as planned, they would establish new practices for coordinated, multinational small-body exploration and maximize both the scientific and planetary defense value of the Apophis encounter.”
- Presentation of SMPAG AFM WG scope, membership and status to SMPAG @ UN COPUOS STSC, 4 February 2026.
- Close-to-final reporting at 46th COSPAR Scientific Assembly (Scientific Subcommittee B1 – Small Bodies).

Outlook

New input:

- Michael Egan (OSIRIS-APEX) suggest to discuss covariance of the respective ephemerides → will be raised at next meeting.
- 70 m DSN @ Goldstone will go NON-OP for major upgrades mid 2026 until October 2028.
Watch-item!

Next meeting:

3rd meeting of SMPAG-AFM WG proposed for 26 February 2026 (1-2.30 p.m. UTC).

For more information and/or comments:

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