

Call for Proposals 2026 Planetary Mission Senior Review (PMSR26)

September 9, 2025

1. Overview

As required by Congress, NASA’s Planetary Science Division (PSD) conducts periodic review of missions approaching the end of their authorized funding (End-of-Mission, EOM) to assess the opportunity and value of funding additional operations. The normal cadence for mission reviews is every three years.

PSD will hold its next [Planetary Mission Senior Review \(PMSR\)](#) in winter 2025-2026 to evaluate proposals requesting extended operations for FY27 through FY28. PSD missions that will reach the end of their current Prime Mission or Extended Mission (EM) operations by the end of FY26 will be reviewed at this PMSR.

The following mission is invited to submit a proposal to be reviewed at the PMSR26:

Mission	Institution
Mars 2020 Perseverance Rover (M2020)	Jet Propulsion Laboratory

2. Proposal Overview

The M2020 mission should prepare a proposal which lays out clear prioritized science goals for a two-year mission extension, covering FY27-FY28. The proposed EM should be driven by a well-described science plan, which can be conducted with *in situ* scientific observations on the surface of Mars.

There are no specific physical locations or targets required by the EM. Decisions about the tour plan should be justified with science investigations of sufficiently high importance. The mission may set the end location of the proposed tour based on its scientific merits alone; NASA has no *a priori* preferred destination for the rover at the end of this extended mission.

The proposal may optionally include a plan to acquire samples if these samples have sufficiently high importance; however, such activities are not required. The mission should assume that the rover will continue to carry its collection of samples (both currently acquired and any future samples) on board, and not establish another surface depot during this extended mission. Any future decision to deposit a surface depot would be made by the Associate Administrator for Science, who would provide associated direction to the mission.

The science plan should include both acquiring the data, and performing initial data analysis. The proposal may describe the acquisition of additional data which will be downlinked and archived, but for which data analysis will be performed in the future, outside the scope of this EM.

3. Proposal Format

The proposal should be prepared in the form of an electronic presentation (e.g., PowerPoint). It should contain the following sections. Each of these sections must be present, and should be at least one slide in length. The slides should be meaningful and understandable to a typical reviewer (e.g., a subject-matter expert, SME). Font size and figures should be legible without magnification on a standard laptop display. Animations are allowed but the proposal must not rely on them, and all illustrations must be meaningful when exported to a static format (e.g., PDF). The presentation should not exceed 60 slides.

1. Title slide
2. Executive summary of EM (one slide)
3. Current mission status
4. Accomplishments during current mission phase
 - The proposal should briefly list the major science results (~5-10) achieved during the current mission phase
5. Prioritized EM Science Objectives
 - This section should provide a summary of the science goals for the EM, and their links to the Decadal Survey. This section may present the material within the Science Traceability Matrix (STM) submitted in the Appendix, but in a format appropriate for a presentation.
6. Proposed EM Programmatic Objectives (optional)
 - This may include activities such as data relay for other NASA or international missions; science which advances the goals of NASA directorates beyond SMD; international cooperation; or other significant non-science activities.
7. EM Operational Plan
 - Proposal should present a detailed plan to conduct the EM.
8. Mission Health and Risks
 - Proposal should clearly describe the health of the spacecraft and its possible degradation during the EM, as well as the impact of degradation on planning, operations, and science. Health factors to be considered include consumables (fuel, battery cycles, thruster pulses), power, radiation damage, and electronic or mechanical degradation.
9. Foreign Partner Contributions
 - Proposal should describe clearly the contribution which any foreign partners will commit to the EM (e.g., instrument operation, or science analysis).
10. Management Plan
 - Proposal should describe project organization and roles and capabilities of key personnel. Key personnel include Project Scientist, Deputy Project Scientist, Project Manager, Deputy Project Manager, and Science Team Leads / Investigation PIs.

11. Professional Development Plan (PDP)

- Plan should describe a PDP to be implemented during the proposed EM.

12. Data Archiving

- Summary of archiving with the PDS during the current mission phase, including a description of any delays or variances from the PDMP.
- The PDS will provide the review panel and mission with metrics about PDS archiving (e.g., 'stop-light chart'); it is not necessary that the proposal replicate this information.
- Optional: Additional archiving or distribution via any public non-PDS archive may also be described.

13. Budget

- NASA will provide the mission with three distinct budget profiles: High (HP), Guideline (GP), Low (LP). Each will be specified by a total budget per FY.
- Some tasks or goals in the proposal may be applicable to all three budget profiles, while others may be applicable to only one or two. The proposal should make clear which activities apply to which budget profiles (e.g., by grouping tasks together in the proposal).
- A budget for each profile should be presented with a table by WBS Level II per FY, and should include the previous three years (FY24/25/26) and the EM (c.f. Table 2, Appendix A). Any reserves should be listed and justified.
- The mission is encouraged to consider proposing distinct different EM plans for the three different budget profiles, rather than just one EM plan scaled up or down to match the available budget. These different EM plans may differ in science goals, tour plan, risk, or other factors, so as to present a variety of EM options to be evaluated.

A supplement to the presentation should be included in PDF format. This supplement will be for reviewer reference and will not be presented. This supplement should consist of:

A1. Science Traceability Matrix (STM)

- The STM should link the goals and questions in the Decadal Survey to the goals, science objectives, and measurements to be taken during the EM.
- An example format for the STM is given in Table 1, Appendix A.
- The STM may use a foldout or other larger PDF form size.

A2. Acronym List

A3. References

- The presentation is intended to give an overview of the science plan for the EM, and should list the most important references to justify the science. The supplement should list the full title and bibliographic information for all references cited in the proposal. The proposal need not list all relevant references, but only the most important ones.

A4. Publications

- *Team Publications*. List of relevant journal publications for which the primary author is or was on the team when the work was performed, with summary table listing total publication counts per year. Publications should include only peer-reviewed science journal articles and book chapters. Conference proceedings, general-audience articles, and engineering papers should not be included. Publications should include only those which are directly dependent upon mission data or results.

- *External Publications (optional)*. List of significant journal publications for which the primary author is not or was not on the team.
- A5. Science Team
- Name, role, affiliation, and FTE of each science team member, with very brief descriptions of their science focus during the EM (e.g., “Martian atmospheric chemistry”). Proposals should identify team members at or above the level of postdoc. Individuals not yet identified may be listed generally (e.g., “1 postdoc – aeronomy, 0.3 FTE”).
 - FTEs should be listed in fractions of a work year. The FTE level for each team member should be listed as the effort directly funded by the EM, plus any effort funded at no cost to NASA by institutions or other partners (e.g., “0.5 + 0.25”). Individuals with total funded + unfunded effort < 0.03 FTE should not be listed.
 - Members at international partner institutions should be included only if at the level of Co-I (or equivalent) and above; it is optional to list their FTE level(s).
- A6. Project Data Management Plan (PDMP).

No additional supplements are allowed.

4. Proposal Content Notes

Professional Development Plan (PDP)

NASA has a strong interest in developing the leadership and management skills of scientists who aspire to serve in leadership roles on future missions. Given the long cadence of planetary missions, it is important that developmental activities for future leaders be incorporated into the planning and decision processes for extended missions. NASA encourages proposals to include plans for training the next generation of mission leaders, such as future PIs / Project Scientists, Instrument PIs / Leads, and Science Team leaders. The PDP should identify roles and mentors for individuals to be trained, and describe a plan to build their skills and experience.

Project Data Management Plan (PDMP)

Each mission must describe a plan to archive all science data to NASA’s Planetary Data System (PDS). Science data includes information that leads to scientific publication, and/or are reflective of the data sets used by the mission team. Examples of science data include calibration data, derived data products, mission planning documents, user guides, navigation and pointing kernels, and ancillary data used for science investigations, in addition to observational data from science instruments.

The PDMP may follow the same format as the mission’s current PDMP. The PDMP should be updated to reflect each mission’s current status and practices, and describe data management through proposed mission closeout.

All data acquired during the proposed EM must be archived to the PDS in PDS4 format.

NASA's 2021 *Science Information Policy for the Science Mission Directorate* ("SPD-41") provides details on requirements and best practices for archiving mission data. The PDMP must justify the reason for any variances from SPD-41.

NASA's 2022 *Science Information Policy for the Science Mission Directorate* ("SPD-41a") provides guidance regarding NASA's transition to "Open Science," including open sharing of data, publications, and software. Although compliance with SPD-41a is not required for PMSR26, missions may optionally choose to be compliant with any or all SPD-41a, and are encouraged to do so. Any additional cost for compliance with SPD-41a over SPD-41 may be included as a budget overguide.

Exclusion: Communications Plans

Communications plans are not evaluated as part of the PMSR, and should not be included. Although a communications plan is not being solicited for the PMSR, the proposed EM budget should include a communications budget based on activities described in the mission's existing communications plan and anticipated in the future EM.

5. Proposal Submission

Proposals will be submitted through NASA's NSPIRES proposal system. Proposals will be submitted as two PDF files. The first file should be a PDF version of the presentation. The second file should be a PDF file with the supplementary information (A1 - A6).

When submitting the proposal via NSPIRES, the proposal should include the names of the Project Scientist and Project Manager only. Other team members, such as Co-Investigators, need not be individually added in NSPIRES.

No Notice-of-Intent (NOI) or Step-1 proposal is required. A redacted budget is not required.

6. Review Panel

NASA will assemble a review panel consisting of subject-matter experts (SMEs). The panel membership will consist of leading authorities with relevant expertise in science, engineering, mission operations and data archiving drawn from government, academia, and/or industry. The mission will be reviewed by a panel led by a Group Chief. Proposals will be evaluated on criteria related to scientific merit and technical capability by the review panels.

A panel of 1-2 non-voting Review Chair(s) will oversee the review process, and produce their own independent Final Report of the evaluation process, along with any findings.

The mission may provide NASA with a list of suggested reviewers, and a list of up to three reviewers to be excluded. Suggested reviewers are most likely to be useful to NASA if they have minimal conflicts-of-interest with the missions under review during PMSR26.

In order to help NASA identify conflicted reviewers, the mission must provide NASA with a list of all science team members and their institutions at the level of Co-I and above, including those

currently funded and those expected to be funded in the EM, before submission of the proposal (see Schedule).

7. Presentation Format

The review will be conducted virtually and in two phases, to allow for meaningful interaction between the mission and the review panel in order to fully evaluate the proposed EM.

1. **Submission.** The proposal will be submitted through NSPIRES and distributed to the review panel.
2. **EM Presentation.** The mission will make an oral presentation of their plan at a virtual meeting, to be attended by the presenters and the panel. The team should present their slide set in its entirety (*i.e.*, backup or supplementary slides are not permitted beyond the stated limit). The panel may ask clarifying questions. Length: 90-minute presentation + 30-minute Q&A.
3. **Initial Panel Discussion.** The panel will meet to discuss the mission presentation. The panel will develop a set of followup written questions (N ~ 10-15) to be submitted to the mission. The schedule will allow time to develop responses to these questions.
4. **Response Presentation.** The mission will present responses to the panel's questions, via a second virtual meeting. The panel may ask additional followup questions. Length: 90-minute presentation + 30-minute Q&A.

The mission must supply NASA with a complete list of up to five presenters in advance of each presentation (see Schedule). No other team members may observe the presentation. The mission must provide a complete set of slides for the Followup Presentation to the PMSR Lead before the start of the presentation.

The review may be observed by relevant NASA Program Executives and Program Scientists. The role of these observers is limited to being present during the discussion and presentation, and answering programmatic questions posed by panelists.

8. Evaluation Criteria

Proposals will be evaluated based on factors related to both the proposed EM, and the performance of the mission and team in the current phase. These criteria are classified as Primary and Secondary; the Primary criteria each carry a greater weight in the overall evaluation than the Secondary criteria. The evaluation criteria to be used are as follows:

Primary Criteria

- Intrinsic merit of the proposed science investigations to be undertaken during the EM.
- Responsiveness of the proposal to goals described in the Decadal Survey *Origins, Worlds, and Life: A Decadal Strategy for Planetary Science and Astrobiology 2023-2032*.
 - The mission may optionally also refer to goals in *Vision and Voyages for Planetary Science in the Decade 2013-2022* (2011). The proposal should make clear from which Decadal Survey each goal is taken. Goals from later Decadal Surveys should be prioritized over earlier ones.

- Proposals may mention goals from other strategy documents or Decadal Surveys outside of PSD, but these will not contribute to the mission's evaluation.
- Capability of the spacecraft to achieve proposed science.
- Merit of any programmatic objectives.
- Scientific productivity of the mission team in the current phase.
- Performance of the mission team in archiving data to the PDS in the current phase.

Secondary Criteria

- Intrinsic merit of any science data to be acquired and archived, but not analyzed.
- Demonstrated capabilities and expertise of key personnel.
- Expected effectiveness of the proposed PDP in training future mission leaders, and demonstrated progress toward the goals of the PDP in the current mission phase.
- Thoroughness and appropriateness of the PDMP

9. Review Findings and Notifications

The Final Report (from the Review Chairs) and the individual mission evaluation (from the Group Chief) will be delivered to the PSD Division Director. Both reports will be posted publicly. The mission will receive both reports in advance of their public release. Following the evaluation and internal discussion, NASA will send the mission a Letter of Direction containing guidance for the EM.

10. Schedule

Call for Proposals (Draft) released to mission	August 19, 2025
Comments on Call for Proposals (Draft) due	August 29
Call for Proposals (Final) and budget assumptions released	September 9
List of team members, presenters, and suggested / excluded reviewers due	September 26
Proposal due	January 16, 2026
Presentation 1: EM Proposal	January 21
Panel Questions given to mission	January 23
List of presenters due	January 28
Presentation 2: Response to Panel Questions	February 11
Direction to Mission released (anticipated)	March

11. Contact Information

For questions related to budget or planning, missions should contact their designated PS or PE at NASA HQ.

For questions related to the PMSR process or proposal format, please contact the PMSR lead, Henry.Throop@nasa.gov.

12. Resources

1. National Academy of Science (2023). [*Origins, Worlds, and Life. A Decadal Strategy for Planetary Science and Astrobiology 2023-2032.*](#)
2. National Academy of Sciences (2011). [*Vision and Voyages for Planetary Science in the Decade 2013-2022.*](#)
3. National Academy of Sciences (2003). [*New Frontiers in the Solar System: An Integrated Exploration Strategy.*](#)
4. NASA SMD (2020). [*Policy and Requirements for SMD Communications for Flight Missions. SPD-26b.*](#)
5. NASA SMD (2022). [*Scientific Information Policy for the Science Mission Directorate, SPD-41a.*](#)
6. NASA SMD (2021). [*Science Information Policy for the Science Mission Directorate, SPD-41*](#) [superseded by SPD-41a].

Appendix A. Templates

Table 1. Science Traceability Matrix

#	Decadal Survey Goal / Objective	Decadal Survey Question	EM Science Goal	EM Science Objective	Measurements	Instruments	Comments
1							
2							
3							

Table 2. Budget

WBS Level II	Current Phase			Extended Phase		Delta	Comments [optional]
	FY24	FY25	FY26	FY27	FY28		
01 - Project Management							
02 - System Engineering							
03 - Mission Assurance							
04 - Science							
05 - Payloads							
06 - Flight System							
07 - Mission Operations							
08 - Launch Vehicle / Services							
09 - Ground Data System							
10 - Integration and Testing							
11 - EPO / Comms							
PDS Costs							
Other NASA Costs							
Other #1							
Other #2							
UFE / Reserves							
Total NOA							
Guideline NOA							
Delta from Guideline							

- This template provides a framework to present the budget and may be modified as needed.
- All budget figures should be in terms of New Obligation Authority (NOA) for that fiscal year, in real-year \$K.
- It is not necessary to split costs by NASA center vs. JPL, etc.
- $\text{Delta} = (\text{FY27} + \text{FY28}) - (\text{FY25} + \text{FY26})$
- Empty rows [\$0] may be deleted.
- The proposal should include full budget information for the High, Guideline, and Low budget profiles, either by using multiple tables, or by adding additional columns as needed.

Change History

- 18 August 2025: Draft for comment
- 6 September 2025: Final call
- 9 September 2025: Final schedule added