National Aeronautics and Space Administration

2026 NASA SCIENCE

ROSES 2025 B.8
Spaceflight Science Foundations (SSF)

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Agenda

01 **HELIOPHYSICS DIVISION WELCOME**
Dr. Joe Westlake

02 **SSF & RESEARCH PROGRAM**
Dr. Therese Moretto Jorgensen

03 **SSF SOLICITATION OVERVIEW**
Dr. Kelly Korreck

04 **EXPECTATIONS & EVALUATION PROCESS**
Dr. Jared Leisner

05 **Q&A**
Korreck & Leisner





JOE WESTLAKE
Heliophysics Division Director



THERESE MORETTO JORGENSEN
Heliophysics Research Program Director



KELLY KORRECK
Heliophysics Living with a Star Program Director



JARED LEISNER
Heliophysics Decadal Survey Lead

Submit Your Questions By Nov. 6:

1

Method 1:
Question Submission
https://forms.gle/WLPHGF5x3AGgpRvx9



2

Method 2:
Email NASA SSF POCs
hq-hpd-ssf@mail.nasa.gov

The SSF team monitors the email address and the Google Form results daily. | Answers are uploaded to NSPIRES weekly.

What We Hope to Accomplish With This Telecon

Share information about the ROSES-25 Spaceflight Science solicitation

Answer submitted questions

Encourage interest in responding

Spaceflight Science Foundations (SSF)

Solicits investigations that enable the formulation of high-impact spaceflight science projects with a cost-effective implementation.

Investigations must result in quantified science objectives and science requirements. Proposals are restricted to the science projects specified within the solicitation (Section 2).

Investigations will be completed with basic science and/or focused pre-formulation research activities. No hardware activities are permitted.

Investigations are expected to identify key knowledge gaps to be closed and/or other needed pre-formulation activities to be completed to effectively implement the spaceflight investigations.

Science Project 1: Links

This project would study the dynamic couplings and connections across regions and scales in the near-Earth space environment, utilizing concurrent measurements of the magnetosphere and Earth's aurora.

Proposals examining potential measurement strategies and mission architectures are encouraged to consider the science impact of heterogenous constellation measurement capabilities and staggered launches for the constellation.

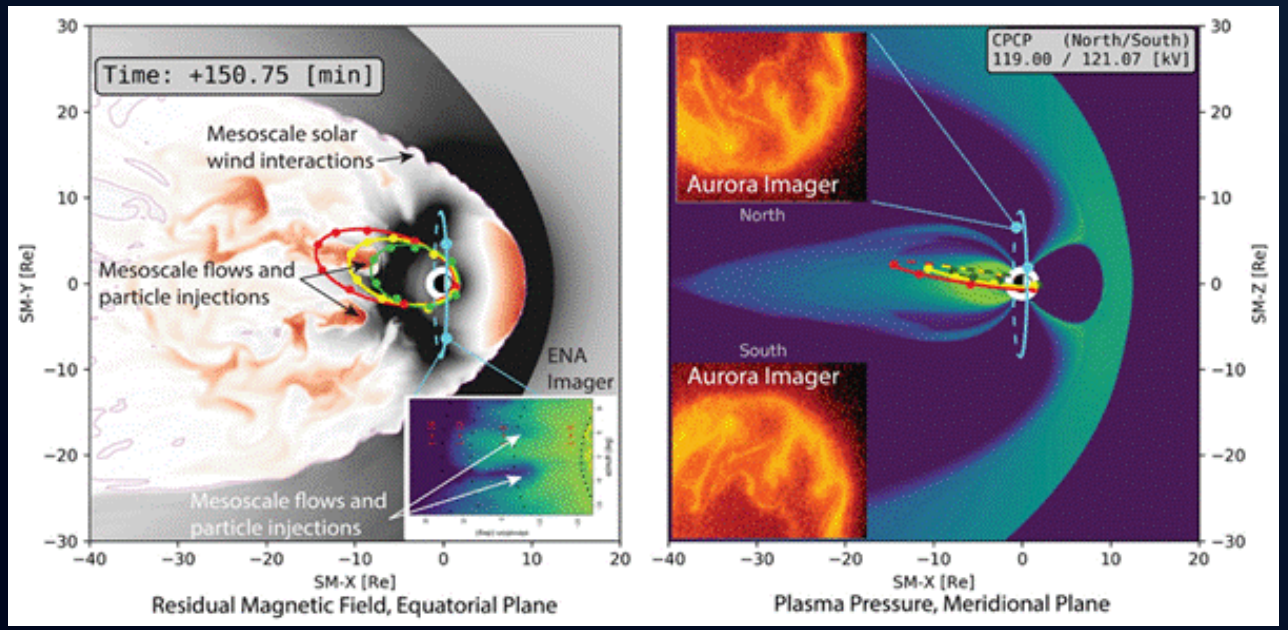


Illustration of the Links mission concept spacecraft configuration in the magnetospheric X-Y and X-Z planes. Credit: National Academies, Los Alamos National Laboratory, U.S. Department of Energy

Science Project 2: Solar Polar

This project would study the Sun's global dynamics and the mechanisms that underlie the solar dynamo and its varying behavior across the solar cycle.

Proposals that would examine potential measurement strategies and mission architectures are encouraged to consider the science impacts of different mission architectures (including length of science operations) on completing definitive tests of outstanding hypotheses and/or physical characterizations of the solar interior, solar surface, and/or inner heliosphere.

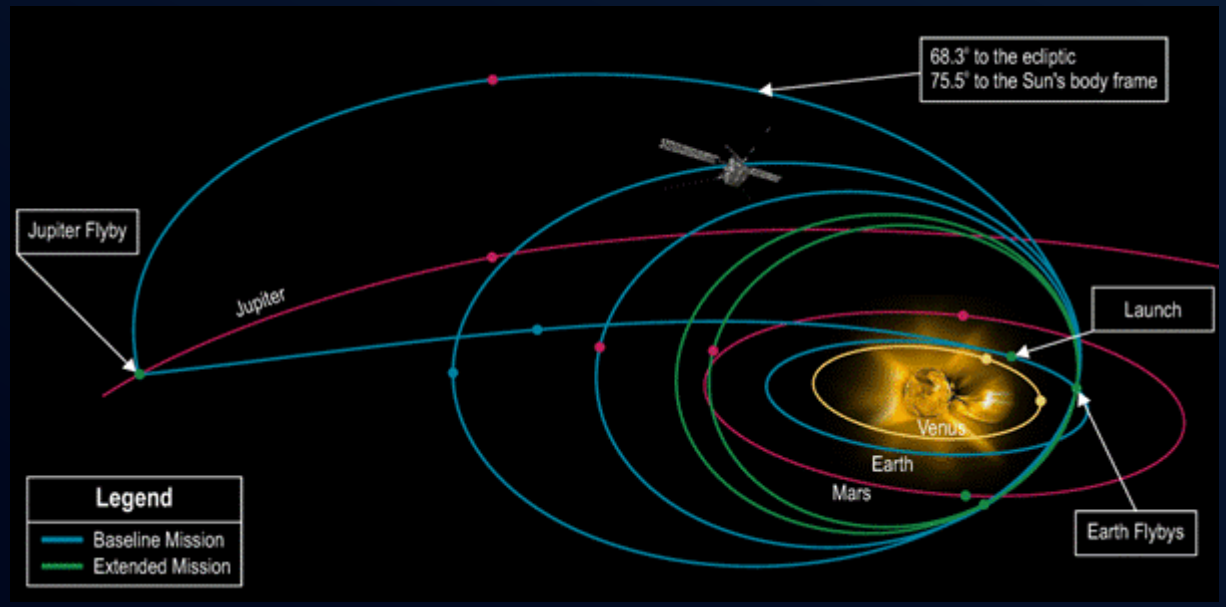


Illustration of the Solar Polar mission concept trajectory using a Jupiter flyby and multiple Earth flybys. Credit: National Academies, Southwest Research Institute

Expectations for Proposals

Advance beyond the 2024 Heliophysics Decadal Survey

- Refine the science case, explore new mission architectures

Identify key knowledge gaps to be closed and/or other needed pre-formulation activities

- Science goals, science objectives, physical parameters
- Measurement strategies and planning (e.g., event statistics, OSSEs)
- Mission architectures (incl. potential heterogeneity, staggered launches, augmentations, prime operations length, etc.)

Propose research activities essential for project readiness

- Refine needed system-level characterizations, hypotheses
- New scientific research
- New data analysis methods

Science Project Definition

Goal: Strategic focus the project will address.

Objective: Focused, quantified science the project will complete. Addresses the project goals. Completed using physical parameters.

Physical Parameter: The highest-order data product used to complete the science objectives. Generated by combining measurements (potentially multiple types) collected over the course of prime operations.

Proposal Submission Process

Step	Submission Requirements	Due Date
Step 1	3-page limit, inclusive of references	Nov. 20, 2026
Step 2 *By Invitation Only*	15-page limit	Feb. 5, 2027

Step-1 and -2 proposals must be submitted by Authorized Organization Representative.

Steps 1 and 2 will use the dual-anonymous process. See Section 3.2 and Appendix B.1 for more information.

Proposal Evaluation Process

The evaluation of merit will include:

- The compelling nature and scientific priority of the proposed investigation, as applicable to the type of investigation.
- The appropriateness of the investigation metrics as measures of progress and success for the investigation.
- The quality of the investigation team structure and management approach.

The evaluation of Relevance will be specific to the type of investigation and include:

- How applicable the investigation's objectives are to refining the future spaceflight science projects science goals, leading to a more impactful and cost-effective implementation.



Responses to Community Questions

Community Question

Can I submit multiple proposals to this program? Can I propose to the same project to multiple ROSES elements?

NASA Response

No. An individual may submit only one proposal to this program as PI (or Science PI). Proposers may not submit multiple Step-2 proposals for the same or essentially the same work to multiple programs.

See Appendix B.1, Section 1.4, for full information.

Community Question

Can a team submit a Step-2 proposal if their Step-1 proposal was not accepted or if they did not submit a Step-1 proposal?

NASA Response

No. Only teams invited to develop a Step-2 proposal will be allowed to submit one. Only teams whose Step-1 proposal is accepted by NASA will be invited to develop a Step-2 proposal.

Community Question

Can I propose to this program to develop hardware to address the project science objectives?

NASA Response

No. Hardware development would be in a separate call for proposals.

Community Question

Can mission architecture studies include telemetry and operations information?

NASA Response

No. Those depend on the specific implementation and are out of scope for the program element.

Community Question

Is the Solar Polar call focused only on the solar dynamo or can proposals address the inner heliosphere, solar wind, corona or in situ measurement? Do I have to address all of those aspects?

NASA Response

The call for proposals is open for science cases that were included in the Solar Polar mission in the decadal survey.

No you do not need to address all of the aspects of the Solar Polar mission as described in the Decadal Survey.

Community Question

What is the difference between Physical Parameters, Measurements, Observables, and Observations in the solicitation? How can a proposal discuss Measurements without discussing instruments?

NASA Response

Physical Parameters: Higher-order data products that are used to complete the science objectives.

Measurements: Scientific information that is processed into the Physical Parameter.

Instrument-agnostic

Observables: The signal within the space environment whose analysis provides the Measurement.

Observations: Direct sensing of the space environment by an instrument that captures the Observable.

Instrument-dependent

Community Question

What are the specific requirements and constraints on using the Decadal Survey material? How different must a measurement strategy or architecture be? What qualifies as resembling the Ecliptic Heliospheric Constellation (EHC)?

NASA Response

The Decadal Survey provided high-level goals that encompasses polar science. EHC was larger than Solar Polar, both in mission scope and cost.

This program solicits proposals must identify completable science objectives and flow that down to science and other pre-formulation gaps.

Measurements or implementation details without science objectives are not responsive. Augmentations that significantly grow Solar Polar are not responsive.

Community Question

Will teams selected through this program automatically be added to the science team for the projects? Will teams not selected through this program be ineligible to join the science team for the projects?

NASA Response

No. This solicitation is independent from selection for a project's science team.

National Aeronautics and Space Administration

Wrap Up



Wrap-Up

- This telecon presentation and recording will be posted to NSPIRES to use as a reference throughout the process.
- Due Dates
  - Step-1: November 20, 2026
  - Step-2 (Invite-Only): February 5, 2027

Please submit ROSES-25 SSF Questions by Nov. 6:

Use the Question Submission Form

Email NASA SSF POCs

hq-hpd-ssf@mail.nasa.gov

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