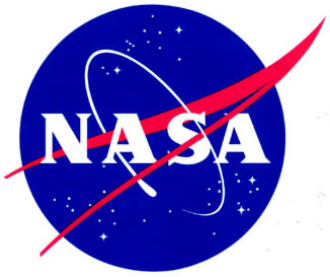

# HELIOPHYSICS EXPLORERS PROGRAM CONCEPT STUDY REPORT (CSR)

# 2022 SMALL EXPLORER (SMEX)

# STEP 2 QUESTIONS & ANSWERS

## Updated March 18, 2024

~~January 26, 2024~~
~~December 5, 2023~~
~~November 17, 2023~~

# HELIOPHYSICS EXPLORERS PROGRAM
# ANNOUNCEMENT OF OPPORTUNITY

# 2022 SMALL EXPLORER (SMEX)
# CONCEPT STUDY REPORTS (CSRs)

# STEP 2
# QUESTIONS & ANSWERS

Please submit your Questions to Dr. Moses, Dr. Naseri, Dr. McKenney, and Dr. Wu by email at:

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We will work to develop Answers your Questions, and post those Answers to this document. Please check back for the latest version, as you may not be notified that your Question has been answered.

Q&As 11- 12 posted on March 18, 2024.
Q&A 10 posted on January 26, 2024.
Q&As 5- 9 posted on December 5, 2023.
Q&As 1- 4 posted on November 17, 2023.

**Additions are in bold and/or *italicized* text and deletions are struck through in amendments.**

**Q1:** How should the proposer include Step-1 Scientific Merit (Form A) Potential Major Weakness (PMW) clarification responses in the Step-2 CSR submission?

**A1:** Any updates from the Step-1 Form A PMW clarification responses must be incorporated in the Science Investigation section. Step-1 Form A PMW clarifications shall be incorporated appropriately throughout Section D of the CSR and identify that they were provided in Step 1 (i.e., not new changes in Step 2). The Step-1 Form A PMW clarifications must be identified using different methods from any Step 2 changes. The proposer can color code text, highlight using a specific color, highlight in bold, column mark, or use any combination to identify the PMW clarification responses. An identification key must be provided. If the Step-1 Form A PMW clarification response affects any of the science objectives it must be included in the change matrix described in G&C Requirement CS-20.

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**Q2:** Are there new requirements for the Diversity and Inclusion Plan?

**A2:** The G&C document has been updated to reflect the latest NASA language and guidance to clarify what Diversity and Inclusion Plan information the proposers need to submit as part of their Concept Study Report (See G&C Appendix L.15).

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**Q3:** Proposers are requesting a LSP summary update, a lot has changed and been learned over the last few years. They are hoping to get new more realistic requirements and information. Will new guidance be available?

**A3:** Proposers should work directly with the LSP contact provided in the G&C document to get the latest guidance. The LSP contact for this evaluation is: Mr. Shaun Daly, 321-867-8400, shaun.m.daly@nasa.gov.

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**Q4:** Is the use of Ka-band required for future NASA missions?

**A4**: NASA intends to transition all space missions to the use of Ka-band for science data return. Telemetry, tracking, and commanding (TT&C) data may still be transmitted using X-band or S-band. To better manage the Agency's transition to Ka-band service, proposed investigations are highly encouraged to baseline the use of Ka-band for science data return, unless it is inappropriate.

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**Q5:** Will the $2M 2022 Heliophysics SMEX Phase A budget be in FY2022 or Real Year dollars?

**A5:** NASA requests that the 2022 SMEX Phase A CSR proposals be scoped to remain within the cost cap of $2M total in real year (FY24) dollars. As all teams are subject to the same cost cap, this scope adjustment cannot be considered a competitive disadvantage. However, if there are unique cases where this cost cap imposes a significant hardship, the proposers are invited to provide a writeup detailing the situation to the Program Scientist.

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**Q6:** Is there a Citizen Science Incentive?

**A6:** If a Citizen Science component is proposed as part of the Baseline Science Mission, the CS component shall be described and the cost included in the PI-Managed Mission Cost.
The funding level for this incentive is defined to be 1% of the PI-Managed Mission Cost. Contributions to the CS are permitted. The proposed NASA cost of this CS, up to the CS incentive, will be outside of the PI-Managed Mission Cost. If the CS costs NASA more than the CS incentive, then the balance of the NASA cost of the CS must be within the PI-Managed Mission Cost. (Reference AO Requirement 60).

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**Q7:** Is there a page limit for the Citizen Science Plan?

**A7:** There is a 5 page limit for the Citizen Science Plan (G&C Requirement CS-4)

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**Q8:** With the anticipated delay of the downselect date relative to the AO, will the launch date be revised?

**A8:** Yes, the new "launch date" (DRD: delivery readiness date /LRD: launch readiness date) is expected to be NLT Q1 CY2029.

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**Q9**: Is there a cost cap for the optional Science Enhancement Options?

**A9**: There is not a cost cap. Costs for proposed SEO activities must be defined in CSRs, but will not count as part of the PI-Managed Mission Cost (PIMMC). Funding requested for SEO activities prior to Phase E should be minimized and flight hardware *may not* be proposed as SEOs. (Reference AO 5.1.8).

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**Q10**: Phase B and the six-month Bridge Phase are expected to start NLT 15 April 2025 (https://explorers.larc.nasa.gov/HPSMEX22/SMEX/pdf_files/03-Moses-SMEX22-Step2-Kickoff-revA.pdf, page 8). Currently, a priced option for a six-month Bridge Phase is negotiated as part of the Phase A contract. Will NASA accept delivery of the Bridge Phase cost proposal with the CSR?

**A10**: No, for programmatic and budgetary planning purposes, the Program Office requires the Bridge Phase priced option as part of the Phase A contract, to facilitate a timely transition for the continued project into Phase B. During the Bridge Phase, NASA and the continued project will negotiate and sign a contract modification necessary for the remaining portion of Phase B, on the basis of information provided in the CSR. Each SMEX Phase A study team should generate a program schedule for the CSR to meet the stated milestones.

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**Q11**: The *Guidance for Distributed Satellite System (DSS) Architectures for Class D Missions* document in the 2022 Heliophysics Small Explorer (SMEX) Program Library provides additional guidance for multiple-satellite mission configurations and mission designs. Is there a possibility that extra pages for multiple-satellite missions can be allowed to address these?

**A11**: To allow proposers with multiple-satellite missions (with more than one spacecraft) to provide more detail with the CSRs, an additional two pages are allowed in addition to the 110-page limit specified for Sections E through H in the Table 2, CSR Structure and Page Limits of the G&C document.

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**Q12***:* How are Diversity, Equity, Inclusion, And Accessibility (DEIA) and Citizen Science (CS) going to be evaluated?

**A12***:* Diversity, Equity, Inclusion, And Accessibility (DEIA) is part of Form B (Scientific Implementation Merit and Feasibility of the Proposed Investigation). The specific factor is B-10: Merit of the Diversity and Inclusion Plan. This plan will be evaluated by DEIA experts and the results included as part of the Form B rating.

The Citizen Science (CS) evaluation criteria are defined by SPD-33, Section IV and will be evaluated by CS experts. There are three scenarios for the CS evaluation.

1. If the CS is part of the baseline mission, it will be evaluated as part of the Form A/B evaluation.
2. If the CS is not part of the baseline mission, the evaluation results will be captured on a new Form F which will also be added to the G&C evaluation criteria. The final result of Form F will be Grades: Meritorious or Not Meritorious.
3. If the CS includes items that are both part of the baseline and outside the baseline, both of the above methods will be used.

The G&C document will be updated to reflect this information.

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