

**Heliophysics Explorers Program
2022 Small Explorer Announcement of Opportunity
Program Library Change Log**

This document may be found in the 2022 Heliophysics Small Explorer Program Library, at <https://explorers.larc.nasa.gov/HPSMEX22/SMEX/programlibrary.html>, by selecting “View Change Log”.

Note: If a document is posted out of sequence or is revised, it will be indicated via highlighting in this log.

January 22, 2025: **Strategic Documents** item #4. “*NASA Strategic Plan for Diversity, Equity, Inclusion, and Accessibility, Fiscal Years 2022-26*”, is deleted from the Program Library.

June 20, 2024: Updated Program Specific Documents line #4 *Guidelines & Criteria for the Phase A Concept Study (Rev B 1/31/24)* to *Guidelines & Criteria for the Phase A Concept Study (Rev C 5/13/24)*.

February 28, 2024: Updated Program Specific Documents line #4 *Guidelines & Criteria for the Phase A Concept Study (draft)* to *Guidelines & Criteria for the Phase A Concept Study (Rev B 1/31/24)*.

January 18, 2024: Corrected NASA-STD-8739.8, Standard for Software Assurance back to Revision A (from Revision B) to match revision level that was in effect at AO release date.

November 13, 2023 - Step 2 Updates

November 13, 2023: Lined out Program Specific Documents line #7 *Information on International Space Station Resources*.

November 13, 2023: Lined out Program Specific Documents line #12 *Table B3a and B3b*. Added note that cost tables have been updated for step 2.

November 13, 2023: Moved *NPR 7150.2D, NASA Software Engineering Requirements* and *NASA-STD-8739.8B, Standard for Software Assurance* from the “Additional NASA and Federal Documents” section up to the “NASA and Federal Documents” section and added the hyperlinks.

November 13, 2023: Posted all the Step 2 documents identified in the table below:

Documents to assist CSR submissions (NOTE: Step-2 addition)

Document Title	
1	Space System Protection Documents

	Document Title
	Security Requirements for Cryptographic Models, FIPS PUB 140-2 Change notice (12-3-2002)
2	Sample International Agreements a. With Belgium for Juno b. With France for MSL
3	Program Level Requirements Appendix (PLRA) Examples a. TESS L1 PLRA b. ICON L1 PLRA
4	Mission Definition Requirements Agreement (MDRA) Examples ICON L2 MDRA (Rev E)
5	Level 1/Level 2
6	Conflicted Parties List Template
7	Templates <i>Microsoft Excel version of the Step 2 cost template tables in the AO:</i> • Cost Table 1: Total mission cost funding profile by organization • Cost Table 2: Time-phased cost breakdown by WBS and major cost category • Cost Table 3a: Total mission cost profile by mission phase, fiscal year, and WBS in real year dollars • Cost Table 3b: Total mission cost profile by mission phase, fiscal year, and WBS in fiscal year dollars • Cost Table 4a: Co-I funding profile by mission phase in real year and fiscal year dollars • Cost Table 4b: Collaborator Commitment and cost by funding profile by mission phase in real year and fiscal year dollars • Cost Table 5: NASA civil service costs by fiscal year in real year dollars • Cost Table 6: New Obligation Authority Budget in real year dollars • Cost Table 7: Funding profile for any SEO activities by fiscal year in real year dollars
8	The Explanatory Guide to the NASA Science Mission Directorate Educational Merit Evaluation Factors for Student Collaboration Elements
9	SPD-33 Citizen Science
NASA and Federal Documents	
1	NPR 8079.1 NASA Spacecraft Conjunction Analysis and Collision Avoidance for Space Environment Protection (Applicable after down selection)

Hyperlink files for table above:

- 1_NIST.FIPS.140-2.pdf
- 2a_Juno_with_Belgium.pdf
- 2b_MSL_with_France.pdf
- 3a_TESS_Level-1_Program_Requirements_HQ_Final_Signed_Copy Redacted+OCR.pdf
- 3b_1 CON PLRA signed Redacted+OCR.pdf
- 4_ICON L2 Project Requirements.pdf
- 5_PI-MastersForum_Level1-2s_JLeisner pared2 200207.pdf
- 6_Conflicted_Party_List_(Rev_03_22_2020).xlsx
- 7_Step2_CSR_CostTableTemplates.xlsx
- 8_SMD_SC_Guide_1_120508.pdf
- 9_SPD-33-Signed.pdf
- NASA_Fed_1_NPR_8079_0001_.pdf

November 13, 2023: NASA and Federal Documents item 17. “[Frequently Asked Questions for Protecting SMD Spaceborne Assets](#)”, is deleted from the Program Library.

November 13, 2023: Items posted as Program Specific Documents under item “8. [Space Communications and Navigation \(SCaN\) Mission Operations and Communications Services \(MOCS\)](#)”.

November 13, 2023: 08a_S-Band-Overview_2-8GHz.pdf posted as Program Specific Documents item “8a. [S-Band-Overview_2-8GHz](#)”

November 13, 2023: 08b_Spectrum-Data-Space-Communication-Bands.pdf posted as Program Specific Documents item “8b. [Available Spectrum and Channel Limits By Allocated Service](#)”

November 13, 2023: 08c_453-UG-002905.pdf posted as Program Specific Documents item “8c. [Near Earth Network Users Guide](#)”

November 13, 2023: 08d_LEGS Brochure r20.pdf posted as Program Specific Documents item “8d. [Lunar Exploration Ground Sites \(LEGS\)](#)”

November 13, 2023: 08e_457-BROC-0001_Baseline.pdf posted as Program Specific Documents item “8e. [Near Space Network \(NSN\) Brochure](#)”

----- ^^^^ **STEP 2 UPDATES** ^^^^ -----

October 18, 2022: 22g_Aproved_SMD_EVMS_Deviation.pdf posted as Program Specific Documents item “22g. [Approved Deviation from FAR and NFS EVMS Policy for SMD Class D](#)”.

September 8, 2022: 05_NASA_LSP_Information_Summary_20220908.pdf posted as Program Specific Documents item “5. [NASA Launch Services Program \(LSP\) Information Summary](#)”.

August 25, 2022: 18_MRPP_CPS_Candidate_Protection_Strategies-v4.5-20201216.pdf posted as NASA and Federal Documents item “18. [Candidate Protection Strategies](#). MRPP.CPS.20201216 Version 4.5”.

August 25, 2022: 17_FAQs for Protecting Spaceborne Assets 13-May-2020.pdf posted as NASA and Federal Documents item “17. [Frequently Asked Questions for Protecting SMD Spaceborne Assets](#), May 13, 2020”.

August 25, 2022: 15_MRPP Project Protection Plan Template 12-16-2020.docx posted for Program Specific Documents item “15. [Project Protection Plan \(PPP\) Template](#), December 16, 2020”.

August 25, 2022: 04_NASA-DEIA-Strategic-Plan-FY22-FY26---FINAL.pdf posted as Strategic Documents item “4. [NASA Strategic Plan for Diversity, Equity, Inclusion, and Accessibility, Fiscal Years 2022-26](#)”.

August 22, 2022: 14_2022-07-15-NASA-STD-1006A-Approved.pdf posted as NASA and Federal Documents item “14. [*Space System Protection Standard*](#), NASA-STD-1006A (replaces NASA-STD-1006 w/Change 1)”.

August 8, 2022: 22f_GuidanceForDSSArchitecturesForClassDMissions-20220803.pdf posted as Program Specific Documents item “22f. [*Guidance for DSS Architectures for Class D Missions*](#)”.

August 1, 2022:

04_DRAFT-HEP22_GuidelinesAndCriteriaForThePhaseAConceptStudy-20220801.pdf posted as Program Specific Documents item “4. [*Guidelines and Criteria for the Phase A Concept Study*](#)”. Note that this is a draft document; the final document will not be posted until Step 2.

July 6, 2022: Program Specific Documents item 22“d. [*TMC Expectations on SMA-related Program Requirements for NASA Class C and Class D Payloads*](#)” is deleted from the Program Library.

July 1, 2022: 04_DRAFT-HEP22_GuidelinesAndCriteriaForThePhaseAConceptStudy-20220701.pdf posted as Program Specific Documents item “4. [*Guidelines and Criteria for the Phase A Concept Study*](#)”. Note that this is a draft document; the final document will not be posted until Step 2.

June 13, 2022: 16_OCE_51.pdf posted as NASA and Federal Documents item “16. [*NASA Spacecraft Conjunction Assessment and Collision Avoidance Best Practices Handbook*](#), OCE-51”.

June 13, 2022: 15_NIST.SP.800-53r5.pdf posted as NASA and Federal Documents item “15. [*Security and Privacy Controls for Information Systems and Organizations*](#), NIST Special Publication 800-53 Revision 5”.

June 13, 2022: 14_2020-11-05_nasa-std-1006_w-change_1-_approveddocx.pdf posted as NASA and Federal Documents item “14. [*Space System Protection Standard*](#), NASA-STD-1006 w/Change 1”.

June 13, 2022: 13_N_PR_7120_008A_.pdf posted as NASA and Federal Documents item “13. [*NASA Research and Technology Program and Project Management Requirements*](#), NPR 7120.8A w/Change2”.

June 13, 2022: 12_Available_Spectrum_and_Channel Limits_By_Allocated_Service.pdf posted as NASA and Federal Documents item “12. [*Available Spectrum and Channel Limits By Allocated Service*](#)”.

June 13, 2022: 11_20150020926.pdf posted as NASA and Federal Documents item “11. [*NASA Plan for Increasing Access to the Results of Scientific Research*](#)”.

June 13, 2022: 10_N_PR_2200_002E_.pdf posted as NASA and Federal Documents item “10. [*Requirements for Documentation, Approval and Dissemination of Scientific and Technical Information*](#), NPR 2200.2E”.

June 13, 2022: 09_N_PD_2521_001B__main.pdf posted as NASA and Federal Documents item “9. [*Communications and Material Review*](#), NPD 2521.1B”.

June 13, 2022: 08_N_PR_8705_004A_.pdf posted as NASA and Federal Documents item “8. [*Risk Classification for NASA Payloads*](#), NPR 8705.4A”.

June 13, 2022: 07_N_PR_8715_003D_.pdf posted as NASA and Federal Documents item “7. [*NASA General Safety Program Requirements*](#), NPR 8715.3D”.

June 13, 2022: 06_nasa-std-871914c.pdf posted as NASA and Federal Documents item “6. [*NASA Process for Limiting Orbital Debris*](#), NASA STD 8719.14C”.

June 13, 2022: 05_N_PR_8715_006B_.pdf posted as NASA and Federal Documents item “5. [*NASA Procedural Requirements for Limiting Orbital Debris*](#), NPR 8715.6B”.

June 13, 2022: “04_NASA_SystemsEngineeringHandbookRev2.pdf” posted as NASA and Federal Documents item “4. [*NASA Systems Engineering Handbook*](#), NASA/SP-2016-6105 Rev 2”.

June 13, 2022: 03_WBS_Handbook.docx posted as NASA and Federal Documents item “3. [*NASA WBS Handbook*](#), NASA/SP-20210023927”.

June 13, 2022: 02_N_PR_7123_001C_.pdf posted as NASA and Federal Documents item “2. [*NASA Systems Engineering Processes and Requirements*](#), NPR 7123.1C,”.

June 13, 2022: 01_N_PR_7120_005F_.pdf posted as NASA and Federal Documents item “1. [*NASA Space Flight Program and Project Management Requirements*](#), NPR 7120.5F”.

June 13, 2022: Items posted as Program Specific Documents item “22. Class D Documents”.

June 13, 2022: 22a_SMD_Class_D_Policy.pdf posted as Program Specific Documents item 22“a. [*NASA Science Mission Directorate \(SMD\) Class-D Tailoring/Streamlining Decision Memorandum*](#)”.

June 13, 2022: 22b_Zurbuchen_Robinson_ClassD_TownHall-FINAL_01032018.pdf posted as Program Specific Documents item 22“b. [*Science Mission Directorate Class D Town Hall Presentation*](#)”.

June 13, 2022: 22c_TROPICSSignedProjectPlan-July20173-APPROVEDFORPUBLICRELEASE-noSigs.pdf posted as Program Specific

Documents item 22“c. [*TROPICS Project Plan*](#)”.

June 13, 2022: 22d_TMC_ClassC_ClassDPayloads_final.pdf posted as Program Specific Documents item 22“d. [*TMC Expectations on SMA-related Program Requirements for NASA Class C and Class D Payloads*](#)”.

June 13, 2022: 22e_Cat3_Class3_under150M.pdf posted as Program Specific Documents item 22“e. [*Guidance and Expectations for Small Category 3, Risk Classification D \(Cat3/ClassD\) Space Flight with Life-Cycle Cost under \\$150M*](#)”.

June 13, 2022: 21_CUI_Portion_Marking_Sample.pdf posted as Program Specific Documents item “21. [*CUI Portion Marking Sample*](#)”

June 13, 2022: 20_Scientific Information policy SPD-41.pdf posted as Program Specific Documents item “20. [*Scientific Information policy for the Science Mission Directorate, SPD-41*](#)”.

June 13, 2022: 19_SPD-29 Policy and Requirements for SMD External Web sites.pdf posted as Program Specific Documents item “19. [*Policy and Requirements for SMD External Web sites*](#), SPD-29”.

June 13, 2022: 18_SPD-26B-Signed-TAGGED.pdf posted as Program Specific Documents item “18. [*Policy and Requirements for SMD Communications for Flight Missions*](#), SPD-26B”.

June 13, 2022: 17_2021_nasa_new_start_inflation_index_for_fy22_final.xlsx posted as Program Specific Documents item “17. [*NASA New Start Inflation Index for FY22*](#)”.

June 13, 2022: 16_Budget_Summary_Form.docx posted as Program Specific Documents item “16. [*Heliophysics Explorers Budget Summary, Exhibit A*](#)”.

June 13, 2022: Placeholder posted for Program Specific Documents item “15. *Project Protection Plan (PPP) Template*”.

June 13, 2022: 14A_ModelContractDraftPhasesB-F_ForProfit.pdf and 14B_ModelContractDraftPhasesB-F_NonProfit.pdf posted as Program Specific Documents items “14. *Draft Model Contract for Phases B/C/D/E*

a. [*Model Contract Draft Phases B-F, For Profit*](#)

b. [*Model Contract Draft Phases B-F, Non Profit*](#)” respectively.

June 13, 2022: 13_SPD-19_PI-ledmissions_70JCL.pdf posted as Program Specific Documents item “13. [*Meeting the 70% JCL Requirement in PI-led Missions*](#), SPD-19”.

June 13, 2022: 12_2022-Helio-AO-Tables_13May2022.xlsx posted as Program Specific Documents item “12. [*Microsoft Excel version of the template tables in the AO:*](#)

Table B1: Example Science Traceability Matrix

Table B2: Example Mission Traceability Matrix

Table B3a: Total Mission Cost RY\$ Profile Template [1-Step Selection or Step 2 only]

Table B3b: Total Mission Cost FY\$ Profile Template

Table B5: Master Equipment List”.

June 13, 2022: 11_SMD_Mission_Extension.pdf posted as Program Specific Documents item “11. [SMD Mission Extension Paradigm](#)”.

June 13, 2022: Items posted as Program Specific Documents item “10. TRL 6 Documents”.

June 13, 2022: 10a_TRL_Examples.pdf posted as Program Specific Documents item 10“a. [TRL 6 Examples](#)”.

June 13, 2022: 10b_TRL-example-Ver02.pdf posted as Program Specific Documents item 10“b. [An Example of Demonstrating Systems Level TRL](#)”.

June 13, 2022: 10c_Common-causes-TRL-Weaknesses-Ver03.080118.pdf posted as Program Specific Documents item 10“c. [Assessment of TRL in AO-Based Evaluations and Common Causes of Major TRL Weaknesses](#)”.

June 13, 2022: 09_SPD-31 Student Collaboration - May 2018.pdf posted as Program Specific Documents item “9. [SMD Policy Document on Student Collaboration](#), SPD-31”.

June 13, 2022: “08_SCaN-MOCS-0001-Rev_4_Final.pdf” posted as Program Specific Documents item “8. [Space Communications and Navigation \(SCaN\) Mission Operations and Communications Services \(MOCS\)](#)”.

June 13, 2022: Links posted as Program Specific Documents items “7. *Information on International Space Station Resources*

- a. [International Space Station Capabilities and Payload Accommodations](#)
- b. [Earth and Space Science Accommodations on ISS](#)”

June 13, 2022: Proposer_Requested_ISS_Resource_Table_v5_March_2019.docx posted as Program Specific Documents item 7“c. [Proposer Requested ISS Resource Plan](#)”.

June 13, 2022: 06_453-UG-002905.pdf posted as Program Specific Documents item “6. [Near Earth Network \(NEN\) Users’ Guide Revision 4](#)”.

June 13, 2022: Placeholder posted for Program Specific Documents item “5. [NASA Launch Services Program \(LSP\) Information Summary](#)”.

June 13, 2022: Placeholder posted for Program Specific Documents item “4. *Guidelines and Criteria for the Phase A Concept Study*”.

June 13, 2022: 03_03_SMD_Class_D_MAR_(OSMA_Final)_04-01-21_SMD_Final_rev2.pdf posted as Program Specific Documents item “3. [*Science Mission Directorate Policy: SMD Standard Mission Assurance Requirements for Payload Classification D*](#), SPD-39”.

June 13, 2022: 02_Explorers Program Plan signed.pdf posted as Program Specific Documents item “2. [*Explorers Program Plan*](#), EXP-PLAN-001, Revision C”.

June 13, 2022: 01_2014_HelioRoadmap_Final_Reduced.pdf posted as Program Specific Documents item “1. [*Our Dynamic Space Environment: Heliophysics Science and Technology Roadmap for 2014-2033*](#)”.

June 13, 2022: Link to 2013 Heliophysics Decadal Survey posted as Strategic Documents item “3. The National Research Council 2013 Heliophysics Decadal Survey, *Solar and Space Physics, A Science for a Technological Society (2013)*, may be accessed at <https://www.nap.edu/catalog/13060/solar-and-space-physics-a-science-for-a-technological-society>.”

June 13, 2022: 02_2020-2024 Science.pdf posted as Strategic Documents item “2. [*Science 2020-2024: A Vision of Scientific Excellence*](#)”.

June 13, 2022: 01_N_PD_1001_000D.pdf posted as Strategic Documents item “1. [*2022 NASA Strategic Plan*](#), NPD 1001.0D”.