

Q1 : What is the anticipated date of selection for EVI-6?

A1 : We estimate making a selection for EVI-6 in Q3 of Fiscal Year 2023, i.e., April to June 2023.

Q2 : Is the updated NASA Inflation Index table found in the EVI-6 Library?

A2 : Yes. The NASA Inflation Index table was updated in the EVI-6 Library on the afternoon of April 25, 2022. Proposing teams must ensure they have the latest version.

Q3 : In section 4.5.4 paragraph 2, the PEA states that NASA centers must use a NASA Center Engineering, Safety, and Operations (CESO) burden rate of \$52K per FTE and local WYE. Can the project assume that the funds from this CESO burden line item will be provided to the project for the purpose of paying center overhead costs?

A3 : No, the CESO funds will not be provided in the EVI-6 contract awarded to the selected EVI-6 project(s) because these CESO costs are covered by a separate appropriation to the NASA Center. The CESO burden rate covers certain costs at a Center that are not charged directly to a project (e.g., procurement, legal, Center management and technical authority as well as certain other project support costs related to facilities, IT, and labs). The project may, however, apply other non-CESO overhead costs that they know will be charged directly to the project since SMD can budget for such costs. All NASA Centers are to use an identical CESO burden rate of \$52K (Fiscal Year 2024) per "equivalent head." Consistent CESO overhead costs are included in the PIMMC to enable a level playing field for all proposers.

Q4 : Should the cost of on-orbit operations for EVI-6 investigations, including the costs associated with uplink/downlink of commands and data, be budgeted as part of the PI-Managed Mission Cost (PIMMC)?

A4 : For instrument-based investigations, the instrument operations cost is required to be included within the PIMMC; however, it is expected that the operator of the NASA selected host platform will be responsible for the platform operations.

For SmallSat-based investigations, all observatory (flight systems and instrument) operations costs are required to be included within the PIMMC.

EVI-6 Q&As Draft EVI-6 PEA

Q1 : Partner Missions of Opportunity (PMO) are not solicited for EVI-6 but international collaborations are allowed and encouraged. What is the difference between a PMO and an international collaboration?

A1 : International collaborations for EVI-6 involve collaborations on the instrument or CubeSat, e.g., contributing a portion of an optical system. So long as the value of the contribution does not exceed one-third of the PIMMC (see Section 4.5.5 of the Draft EVI-6 PEA), this type of collaboration is allowed for EVI-6. International collaborations might also involve the participation of scientists from non-US institutions provided that the participation is at no-cost to NASA.

For the SALMON-3 AO, a PMO is a mission in which the proposer offers to participate in a non-NASA space mission that is planned or that has been approved by its sponsoring organization. By funding participation in a non-NASA space mission, NASA seeks to provide opportunities for the NASA community to conduct science investigations of interest to NASA as part of a non-NASA space mission. Non-U.S. governments, other U.S.

Government agencies, or private sector organizations may sponsor such missions. PMOs are not solicited in the Draft EVI-6 PEA. Only Small Complete Missions (SCA) are solicited.

NASA will provide access to space for the selected EVI-6 investigation(s). There are many ways for NASA to provide access to space.

Q2 : How does NASA assess spacecraft and launch vehicles for EVI proposals? Will the government prioritize hosting aboard the ISS, hosting aboard another NASA mission as a rideshare, or potentially reaching out to commercial bus providers?

A2 : After selection, NASA considers a wide range of ways to provide access to space based on suitability, availability, and cost at a given point in time. NASA does not prioritize a specific hosting option in advance.

Q3 : Is there a way for NASA to facilitate teaming of organizations that have an interest in working with other organizations on proposals?

A3 : There is a Teaming Interest page available through the EVI-6 Acquisition Homepage that allows an entry point for organizations having an interest in teaming with other organizations on proposals. Please note that this is simply a list of organizations that have asked to be included on this list and that NASA does not endorse any of these organizations and does not accept responsibility for their capabilities or actions.

Q4 : What are the data latency requirements for EVI-6?

A4 : The data latency requirements for a proposed investigation should be defined and justified according to the science and/or operational needs of the proposed investigation. Barring exceptional circumstances, data latency may not exceed six months. The SEO and OEO provide opportunities for proposers to achieve enhanced data latency but the baseline mission must be sufficient to achieve the baseline science objectives without an SEO or OEO.

Q5 : Does the Open Source Science Policy include ITAR and EAR information and/or proprietary engineering information?

A5 : The Open Source Science (OSS) Policy applies only to science-related information and does not include ITAR or EAR information. The default is to follow the OSS Policy unless justified that certain data or information need to be closely held.

Q06 : What are the TRL requirements for an EVI-6 instrument?

A06 : Section 5.3.5 of the SALMON-3 AO states "Proposed science or exploration investigations are generally expected to have mature technologies, with systems at a Technology Readiness Level (TRL) of 6 or higher when proposed." Requirement 35 of the SALMON-3 AO also states "...proposals that use systems currently at less than TRL 6 when proposed shall include a plan for system maturation to TRL 6 by no later than PDR and a backup plan in the event that the proposed system cannot be matured as planned."

Q07 : Can you comment on the tradeoff between technological risk and innovation for EVI-6?

A07 : EVI-6 solicits Class D Instruments, where higher programmatic and technical risks are tolerated when the potential for high scientific return at low cost has a fair likelihood of being achieved.

Q08 : Is it better to propose an EVI Instrument or CubeSat that can achieve many objectives or one that can achieve more specific objectives?

A08 : The objective of EVI is to answer one or more pressing and important science questions and investigations should be designed to accomplish this objective as efficiently and effectively as possible. If additional scientific objectives are mentioned, the review panel will consider how efficiently and effectively these science objectives can be attained.

Q09 : Does the one-third limitation for international contributions apply to access to space?

A09 : No. The one-third limitation does not apply to access to space, as access to space is not solicited in EVI-6. Access to space will be arranged by NASA after selection.

Q10 : Could the optional NOAA Operational Enhancement Opportunity (OEO) include hardware development?

A10 : No. As described in Section 4.3.2 of the Draft EVI-6 PEA, the NOAA OEO focuses on activities that can potentially improve NOAA's ability to make use of EVI-6 data for operational purposes. The baseline science must be able to be accomplished without an OEO.

Q11 : Will NASA adjust the EVI-6 PIMMC cap to account for potentially higher inflation rates in the future?

A11 : NASA currently has no plans to adjust EVI-6 PIMMC cap to account for potentially higher rates of inflation in the future.

Q12 : Although Requirement TBD-31 specifies the content of the data plan, there is no indication of when the "schedule-based end-to-end data plan" is due. Is this data plan part of the proposal?

A12: Yes, the data plan is part of the proposal. The data plan (Draft EVI-6 PEA Requirement TBD-31) for EVI-6 proposals must also include a data analysis plan (Draft EVI-6 PEA Section 4.6.8.1) and a description of the *Open Source Science* (OSS) strategy (Draft EVI-6 PEA Requirement TBD-32). The data plan must contain the required information so that reviewers can assess Factor B-3 (Merit of the data analysis, data availability, and data archiving and/or sample analysis plan). A detailed Data Plan will be required after selection for the Preliminary Design Review (PDR).

Q13 : Draft EVI-6 PEA Requirement TBD-32, Item 1 requires proposals to create "an open source development plan and commit to open sourcing algorithms early in the project." Please define "early in the project" with respect to a project milestone.

A13 : Code, software, and algorithms must be open sourced beginning in Phase B of the investigation. Note that the open source science policy applies only to science data, not to spacecraft operations nor to Information designated as ITAR or EAR.

Q14 : Draft EVI-6 PEA Requirement TBD-32, Item 4 requires investigations to adhere to ..."open data requirements." Where are the open data requirements and principles specified?

A14: All ESD-funded projects, investigations, and missions are required to comply with the [NASA ESDS Open Data, Services and Software Policy](#).

OSS policy development is an ongoing initiative at NASA Headquarters.

Broadly, ESD Policy dictates that data shall be made available:

- in machine readable formats consistent with ESD standards
- with no period of exclusive access
- with metadata that is compliant with ESD Standards
- with a digital object identifier and/or relevant persistent identifier to support citation

Mission data shall be made publicly available as soon as possible in the appropriate [Distributed Active Archive Center \(DAAC\)](#). Any delay in the data becoming available in real time shall be justified in the [Data Management Plan](#). Missions and projects shall conform to [ESD-approved community standards](#) for data formats, interfaces, and metadata.

Q15 : Since the proposal structure has been revised from EVI-5, can NASA provide an "EVI-6 Proposal Structure and Page Limits" table in the final EVI-6 PEA? (Updated 01/12/2022)

A15 : The final EVI-6 PEA is planned to be released with a requirement that clearly states the updated page limits. Updated 01/12/2022

Q16 : For the NASA Science Enhancement Option (SEO), are there priorities between activities involving other federal agencies at national and international level versus those at local, state, and regional levels (e.g., tribes, Hispanic community, state, and private sector)?

Q16 : All levels from local to international are of interest.

Q17 : For NOAA-related SEO activities, how can they be separated from NOAA OEO activities?

A17 : Neither SEO nor OEO activities are part of the baseline investigation. SEO activities are additional science activities funded by NASA and will be evaluated as part of the EVI-6 review process. OEO activities are for operational enhancements that may be of interest to NOAA and will only be considered by NOAA after NASA makes a selection. Each proposer needs to decide on the best strategy for their proposal. Proposers also may decide to not pursue either option.

Q18 : Would NASA consider augmenting the number of pages for various sections of the proposal?

A18 : No, at this time, NASA is not considering any additional modifications to the section lengths for EVI-6 proposals.

Q19: Can a green-card holder be a PI? Can a green-card holder be a deputy PI?

A19: Yes, a US permanent resident (green-card holder) can be a PI or a Deputy PI.

Q20 : Can algorithm development and data product development be included as part the proposal work plan?

A20 : Sections 4.5.2 and 4.5.3 of the draft EVI-6 PEA states “costs that are within the PIMMC include... development and delivery of functional algorithms and ground processing system (Phases B-D)...” Algorithm development can be included in the work plans for EVI investigations. Note that the goal of EVI is to answer specific and important science questions. Therefore, algorithm and data product development activities must be focused on producing the data sets required so that the EVI investigation team can answer these science questions and publish the results in the peer-reviewed literature.

Q21 : When must a complete System Security Plan (SSP) (as referenced in Section 4.6.7 Cybersecurity) be provided to NASA?

A21 : The SSP is required to be developed and updated during the formulation and implementation of the investigation (refer to Table I-7 of NPR7120.5F). Please note that Requirement TBD-25 of the draft EVI-6 PEA states “Proposals shall demonstrate that adequate resources (including, but not limited to, cost, schedule, technical accommodation, etc.) have been allocated to develop an SSP.”

Q22 : Does NASA intend that the Open Source Science requirement (Requirement TBD-32) to include any and all software produced in the execution of the project?

A22 : Requirement TBD-32 on the Open Source Science Policy applies only to non-proprietary software that is used to produce Level 2 or higher science data products.

Q23 : Does Requirement TBD-32 extend to project documentation, including test procedures and other internal documentation, that are normally produced over the course of a flight project?

A23 : Requirement TBD-32 (Open Source Science) applies only to non-proprietary software that is used to produce Level 2 or higher science data products.

Q24 : Regarding Requirement TBD-32, can we assume that any software used for the investigation, but not developed by the project, is exempt from being made publicly available?

A24 : Open source software used but not developed by the project should be made available to the public. Proprietary software not developed by the project is exempt from Requirement TBD-32.

Q25 : Is the software, code, and documentation of interest and relevant to Requirement TBD-32 exclusively the software, code, and documentation developed by the project that would allow third parties to reproduce the processing of Level 1 data into the various other Level data products produced by the Investigation?

A25 : Yes.

EVI-6 Community Announcement Q&As

Q1 : Will NASA consider selecting a mission with similar science goals from another mission with a different measurement approach?

A1 The EVI-6 PEA is expected to call for investigations addressing any of the science goals in NASA's Earth Science program. However, the extent to which the proposed science investigation addresses unique science areas that are not being addressed by other missions can be an evaluation factor. This applies to both currently operating (both NASA and non-NASA missions) and/or missions expected to be in operation five to ten years from the start of the proposed investigation.

Q2 : Are investigations proposing instruments in the Class C Payload Risk Classification (e.g., ~\$108M Cost Cap in EVI-5) being solicited for EVI-6?

A2 : As explained in the Community Announcement, EVI-6 will only solicit investigations proposing instruments or CubeSat(s) in the Class D Payload Risk Classification. Investigations proposing instruments in the Class C Payload Risk Classification will not be solicited.

Q3 : Is the \$37M FY 2024 EVI-6 Cost Cap for all the investigation Phases A-F including science analysis and publications?

A3 : Yes. The EVI solicitations calls for proposals involving complete PI-led science investigations based on one or more space-based instruments or CubeSats. The term "complete" encompasses investigation phases from project initiation, through development and science operations, to scientific analysis of space-based data and archiving those data in a publicly-accessible and useable format. These space-based data will be used to conduct innovative, integrated scientific question-driven investigations addressing pressing Earth system science issues. The PI and his/her science team are expected to publish the results of the investigation in high-quality, peer-reviewed scientific journals.

Q4 : Why is the EVI-6 cost cap of \$37M much lower than the \$108M for EVI-5?

A4 : The EVI-6 cost cap (\$37M FY2024) is not lower than for EVI-5 cost cap (\$35M FY2022) for the same Class D Payload Risk Classification. The difference is that EVI-6 is only soliciting investigations proposing instruments or CubeSat(s) in the Class D Payload Risk Classification. Investigations proposing instruments in the Class C Payload Risk Classification (\$108M FY 2022 cost cap for EVI-5) will not be solicited.

Q5 : Will the NOAA-furnished Operational Enhancement Opportunity (OEO) component include funding, or will it be in-kind (e.g., infrastructure accommodation, ride share, etc.)?

A5 : The details of the potential OEO component will be explained in the PEA.

Q6 : Will EVI-6 permit proposals for Partner Missions of Opportunity (PMO) as defined in the SALMON-3 AO?

A6: PMOs and international collaborations are not addressed in the Community Announcement so we cannot answer your question at this time. Within limits, international collaborations have been encouraged in past EVI solicitations.

Q7 : The Community Announcement (CA) states that the Final EVI-6 PEA has a target date of November 2021. Is this a No Earlier Than (NET) or a No Later Than (NLT) date?

A7 : The Final EVI-6 PEA is planned to be released NET November 2021. Since many factors affect the release of a Draft and a Final PEA, this date could change.

Q8 : What is the definition of a CubeSat for EVI-6?

A8 : The definitions, requirements, and constraints for EVI-6 investigations proposing to fly CubeSats (and instruments) will be included in the EVI-6 Draft PEA when it is released. Please note that many definitions, requirements, and constraints are found in the SALMON-3 AO.

Q09 : Will alternate platforms for access to space such as secondary payloads on ESPA rings be available for EVI-6?

A09 : NASA determines the access to space for EVI payloads after selection. Proposers can suggest one or more scenarios for access to space but this is not required for EVI. An EVI-6 payload launch on an ESPA ring is a possible method for gaining access to space.

Q10 : Given the increase in availability of 12U launchers for CubeSats, will NASA consider larger form factors than the 6U specified in EVI-5?

A10: EVI-6 will permit CubeSats up to 12U.

Q11 : Would NASA consider expanding EVI-6 to include demonstration of new and innovative CubeSat approaches for continuity science?

A11: Continuity science is the focus of the Earth Venture Continuity solicitations. It is not the focus of EVI solicitations.

Q12 : What are the NOAA mission assurance requirements for EVI-6 hosted payloads on JPSS-4.

A12 : This issue will be addressed in the Draft PEA and the Final PEA.

Q13 : For EVI solicitations, is NASA going to select the instrument investigations separately and match them with the spacecraft/hosting vehicle for launch and operations?

A13: For EVI, NASA selects the access to space after the selection is complete. PIs can offer their opinions and desires about access to space, but this is not considered in the evaluation process.

Q 14 : As a NASA Center, we would like to keep the same team members from a previous solicitation. What needs to be in the proposal to use the same team members for the EVI-6 solicitation?

A 14 : NFS 1872.308 addresses the assembly of the proposal teams by NASA Centers. The SALMON-3 AO Requirement 65 states "Proposals submitted by NASA Centers shall contain any descriptions, justifications, representations, indications, statements, and/or explanations that are required by the regulations in NFS 1872.308." NASA Center proposing teams should consult with the appropriate persons within their Center, e.g., procurement, legal.

Q15 : Given that it is the end of September, are there any updates you can share with the community about EVI-6?

A15 : Unfortunately, we were not able to release the Draft EVI-6 PEA by the September 2021 target date stated in the EVI-6 Community Announcement. Many factors can impact the release date of a PEA. We continue to work towards the release of the Draft EVI-6 PEA.

Q16 : Will there be a follow-up meeting to discuss the EVI-6 solicitation?

A16 : We intend to hold a Prospective Bidders Web Conference following the release of the Draft EVI-6 PEA. We will post the date and time on the EVI-6 Acquisition Homepage following the release of the Draft EVI-6 PEA.

Q17 : Is NASA holding any Town Hall meetings at AGU or AMS regarding the EVI-6 PEA specifically?

A17 : NASA will not hold Town Halls at AGU or AMS regarding the EVI-6 PEA specifically. We will, however, hold a Prospective Bidders Web Conference following the release of the Draft EVI-6 PEA. We will post the date and time on the EVI-6 Acquisition Homepage following the release of the Draft EVI-6 PEA.

Q18 : Will an international collaboration payload launched on a non-US launch vehicle be considered for EVI-6?

A18 : For all EVI solicitations, NASA determines the access to space following selection. An international collaboration payload launched on a non-US launch vehicle is one of many possible methods to gain access to space. The National Space Transportation Policy document, that will be available in the EVI-6 Library, explains the US Government's policy for international collaborations. Such collaborations must be consistent with U.S. law and regulations, national security and foreign policy interests, treaty obligations and international commitments, and nonproliferation and export control policies.

Q19 : The EVI-6 Community Announcement states that "NASA also may explore the ability of flying the selected EVI-6 instrument on the Joint Polar Satellite System – 4 (JPSS-4)". JPSS-4 is not scheduled for launch until 2032, while the JPSS-3 launch is scheduled for 2028. Should the EVI-6 Community Announcement have specified JPSS-3 rather than JPSS-4?

A19 : At this time, NASA ESD is not actively exploring flying the selected EVI-6 instrument on Joint Polar Satellite System (JPSS) platforms.