

## **ADVANCED RESEARCH ANNOUNCEMENT (ARA) WITH CALLS**

**FA9453-21-S-0001**

**Air Force Research Laboratory/Space Vehicle Directorate**

### **ANNOUNCEMENT OVERVIEW**

**CALL 008**  
**04 May 2023**

**NAICS Code:** The NAICS Code for this acquisition is **541715** for Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology), and the small business size standard is **1,000** employees.

**Federal Agency Name:** Air Force Research Laboratory, Space Vehicles Directorate and Directed Energy, Phillips Research Site

**ARA Title:** Space Technology Advanced Research-Fast-tracking Innovative Software and Hardware (STAR-FISH) Announcement, procurement for experimentation of spaceflight and space-related signal, energy, and transportation technologies.

**ARA Number:** FA9453-21-S-0001

**Call Type:** Two-step process, initial announcement

- a. CALL Title:** Topic Area 1, Space Strategic Technology Institute (SSTI): In-Space Operations (ISO)
- b. CALL Number:** 008

**White Papers Due Date and Time:** The Government is requesting White Papers at this time for the Topic Area identified above. White Papers addressing any other technology area identified in the basic Advanced Research Announcement (ARA) will not be accepted at this time unless a CALL for that specific area is posted.

**Brief CALL Summary:** See Attachment I, Statement of Objective “In-Space Operations (ISO)”

**Submission:** Two-Step Process

- First Step: The due date and time for White Papers submitted in response to this CALL is **no later than (NLT) 14 June 2023, 1200 Mountain Daylight Saving Time (MDT)**.
- Second Step: Proposal Due Date and Time – To be provided in “Requests for Proposals (RFP)” sent to offerors whose white papers are selected.

**Announcement Request:** Air Force Research Laboratory, Space Vehicles Directorate, Kirtland Air Force Base is soliciting white papers on the research effort described in Attachment I Statement of Objectives pursuant to the authority of 10 U.S.C. 4023, Procurement for Experimental Purposes.

**Announcement Modifications:** this announcement is subject to updates, revisions, or additional topic areas. Therefore, Offerors are highly encouraged to continually monitor <https://sam.gov> to ensure they receive the latest guidance for this announcement. The Government shall provide updates to this announcement no less than annually. Updates may include changes to topic areas, submission requirements, administrative changes, evaluation criteria, solicitation methods, etc. (not an inclusive list).

**Type of Contract/Instrument:** The Government reserves the right to award the instrument best suited to the nature of the research proposed.

**Anticipated Number of Awards:** The Air Force anticipates awarding one or more awards. However, the Air Force does reserve the right to make one award, more than one award, or no awards pursuant to this CALL.

**System for Award Management (SAM) Registration:** Reference ARA with CALLS, FA9453-21-S-0001, Announcement Overview.

**Points of Contacts:**

**Program Manager (Primary):** Lt Col Scott Zetterstrom, USSF/CTIO, [scott.zetterstrom@spaceforce.mil](mailto:scott.zetterstrom@spaceforce.mil)

**Program Manager (Secondary):** Dr. Eunsook Hwang, SF/CTIO, [eunsook.hwang.1@us.af.mil](mailto:eunsook.hwang.1@us.af.mil)

**Program Manager (Alternate):** Mr. Michael Lopez, AFRL/RVS, [michael.lopez.44@spaceforce.mil](mailto:michael.lopez.44@spaceforce.mil)

**Contract/Agreements Specialist (Primary):** Mr. Stephen Whalen, AFRL/RVKE, [stephen.whelen.1@spaceforce.mil](mailto:stephen.whelen.1@spaceforce.mil)

**Contracting/Agreements Officer: (Alternate)** Ms. Samantha Pierson AFRL/RVKE, [samantha.pierson.2@spaceforce.mil](mailto:samantha.pierson.2@spaceforce.mil)

## **ADVANCED RESEARCH ANNOUNCEMENT (ARA) WITH CALLS**

**FA9453-21-S-0001**

**Air Force Research Laboratory/Space Vehicle Directorate**

### **FULL TEXT ANNOUNCEMENT**

#### **CALL 008**

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**Federal Agency Name:** Air Force Research Laboratory, Space Vehicles Directorate and Directed Energy, Phillips Research Site

**ARA Title:** Space Technology Advanced Research-Fast-tracking Innovative Software and Hardware (STAR-FISH) Announcement, procurement for experimentation of space-flight and space-related signal, energy, and transportation technologies.

**ARA Number:** FA9453-21-S-0001

**CALL Type:** Two-step process, initial announcement

- a. CALL Title:** Topic Area 1, Space Strategic Technology Institute (SSTI): In-Space Operations (ISO)
- b. CALL Number:** 008

**White Papers and/or Proposal Due Date and Time:** The Government is requesting White Papers at this time for the Topic Area identified above. White Papers addressing any other technology area identified in the basic Advanced Research Announcement (ARA) will not be accepted at this time unless a CALL for that specific area is posted.

**Brief CALL Summary:** See attachment I, Statement of Objective “In-Space Operations (ISO)”

**Submission:** Two-Step Process

- First Step: White Papers submitted in response to this CALL are due **no later than (NLT) 14 June 2023, 1200 MDT**. White Papers received after this time will not be accepted.
- Second Step: Proposal Due Date and Time – To be provided in “Requests for Proposals (RFP)” sent to offerors whose white papers are selected.

**Program Description:**

## **Statement of Objectives/Description of Technical Areas:**

### **Area from the ARA with CALLS, FA9453-21-S-0001, Full Text:**

**Topic Area 1. Space Vehicle functionality and logistics:** Enhance core spacecraft components and subsystems to enable game-changing improvements in agility, resilience, affordability, and performance for DoD spacecraft.

See Attachment I: Statement of Objectives “Space Strategic Technology Institute (SSTI): In-Space Operations (ISO)”

**Announcement Modifications:** This announcement is subject to updates, revisions, or additional topic areas. Therefore, Offerors are highly encouraged to continually monitor <https://sam.gov> to ensure they receive the latest guidance for this announcement. The Government shall provide updates to this announcement no less than annually. Updates may include changes to topic areas, submission requirements, administrative changes, evaluation criteria, solicitation methods, etc. (not an inclusive list).

#### **1. Deliverable Items:**

See Attachment IV: Deliverables and Reporting Requirements

#### **2. Other Requirements:**

- a. Program Security Classification: It is anticipated that this effort will be performed at the Controlled Unclassified Information (CUI) level. ARA CALL 008 to FA9453-21-S-0001 page 6 of 10.
- b. OPSEC: Reference ARA with CALLS, FA9453-21-S-0001, Full Text, Section 4, paragraph b.
- c. Export Control: Reference ARA with CALLS, FA9453-21-S-0001, Full Text, Section 4, paragraph c.
- d. Export-Controlled Items: Reference ARA with CALLS, FA9453-21-S-0001, Full Text, Section 4, paragraph d

#### **3. Other Information**

- a. Government Furnished Property (GFP): GFP is not anticipated on this call. However, Government Property may be provided upon written request and if required. Reference ARA with CALLS, FA9453-21-S-0001, Full Text, Section 5, paragraph a.
- b. Base Support: Base Support is not anticipated on this CALL. However, Base Support may be provided upon written request and if required. Reference ARA with CALLS FA9453-21-S-0001, Full Text, Section 5, paragraph b.
- c. Available Base Facilities: Available Base Facilities is not anticipated on this CALL. However, Base Facilities may be provided upon written request and if required. Reference ARA with CALLS, FA9453-21-S-0001, Full Text, Section 5, paragraph c.
- d. Overseas Performance: Overseas Performance is not anticipated on this call.

- e. Data Rights Desired: The Government desires Unlimited Rights. Reference ARA with CALLS, FA9453-21-S-0001, Full Text, Section 5, paragraph e.
- f. Cost Principles. Costs must be allowable, allocable, and reasonable in accordance with the applicable Federal cost principles referenced in 2 CFR part 200 and/or FAR Part 31.
- g. Pre-Award Costs. Pre-award costs are incurred at the offeror's risk. The Government is under no obligation to reimburse such costs if for any reason the offeror does not receive an award or if the award is made for a lesser amount than the offeror expected.
- h. Foreign Travel. Foreign travel costs are not allowable under this CALL unless approval has been granted by the Program Manager.
- i. Construction. The Government generally does not fund projects that involve major construction (i.e., construction of new buildings, major renovations, or additions to existing buildings). Offerors are required to obtain written authorization from the Contracting/Agreements Officer before incurring any major construction costs.
- j. Equipment and Supplies. Property disposition reports will be required at the end of a project if the current fair market value of property exceeds \$5,000 in accordance with 2 CFR 200 and FAR Part 45.
- k. Availability of Funds. Funding for all awards and future budget periods are contingent upon the availability of funds appropriation for the purpose of this effort and the availability of future-year budget authority.
- l. Contract Security Classification Specification (DoD Form 254): It is not anticipated that that this award will require Contract security classification specification at the beginning of the period of performance. However, in coordination with the Government's Program Manager and Contracting/Agreements Officer the Offeror may revisit security requirements as capability demonstrations are performed. Upon approval of the DD Form 254, the award will be modified. Until approval of the DD Form 254, the offeror shall not do any classified work, at any level, until the approved DD Form 254 is modified into the award (See Attachment V).
- m. Whitepaper Format: All whitepapers must be in accordance with Attachment II and will be evaluated using the Evaluation Criteria in accordance with Attachment III. Whitepapers not meeting this format will not be considered for evaluation.

## **II. AWARD INFORMATION**

1. **Anticipated Number of awards:** The Air Force anticipates awarding one or more awards. However, the Air Force does reserve the right to make one award, more than one award or no award pursuant to this CALL.
2. **Type of Contract/Instrument:** The Government reserves the right to award the instrument best suited to the nature of the research proposed. Accordingly, the Government may award any appropriate contract, agreement or assistance instrument type under the authorities below:

Federal Acquisition Regulation (FAR)

32 C.F.R. §22.215 – Grants and Cooperative Agreements

NOTE: If a Federal Acquisition Regulation (FAR) type contract is recommended as the award type authority, then the FAR clauses will be referenced within the Request for Proposal. The FAR and FAR supplement provisions and clauses will be incorporated by reference. The full text of these provisions and clauses can be found at <https://www.acquisition.gov>. Cost-type contracts will require successful Offerors to have an accounting system deemed adequate by Defense Contract Management Agency (DCMA) for tracking costs under a cost reimbursable contract (DFARS 242.75). If an Offeror does NOT have a DCAA approved Cost Contracts cannot be awarded. If an assistance instrument (grants or cooperative agreements) is recommended as the award type, then articles and guidance found under DoDGARS, 200 CFR, OMB/DoD Policy shall be used and followed as appropriate.

3. **Anticipated Award Date:** The anticipated award date will be determined through dialogue between prospective Offerors and Government representatives and specified in each individual award.
4. **Anticipated Funding:** Anticipated funding for this CALL (not per award) is as follows:

The Government anticipates a total of \$49,900,000.00 of Federal funding under this CALL, subject to the availability of funds. The Government reserves the right to fund, in whole or in part, any, all, or none of the proposals submitted in response to this CALL. Proposed efforts may vary in size and complexity, however, shall not exceed a period of performance of 60 months in length. All funding is subject to change at the Government's discretion and/or by the availability of funds. Individual award amounts will vary, and the estimated award values not to exceed \$49,900,000.00 (the Government reserves the right to modify, reduce or exceed this amount if necessary). The offeror should carefully consider their proposed cost for total period of performance of five-years. Proposals for smaller or larger amounts may be considered based on funding availability.

The Government anticipates making awards that will run up to 60 months in length,

comprised of multiple budget periods. The overall effort is expected to be made up of numerous projects and/or programs, continuation will be contingent upon several elements, including satisfactory performance and Go/No-Go decision reviews. At the Go/No-Go decision points, the Government may evaluate offeror's performance, schedule adherence, the extent to which milestone objectives are met, compliance with reporting requirements, and overall contribution to the project and/or programs. As a result of this evaluation, the Government may, at its discretion, authorize the following actions:

- Continue to fund the program/project, contingent upon the availability of funds,
- Recommend redirection of proposed effort,
- Place a hold on Federal funding, pending further supporting data, or
- Discontinue funding because of insufficient progress, change in strategic direction, or lack of funding.

**5. Schedule:** The anticipated period of performance for individual awards (base effort) resulting from this **CALL is as follows:**

End of Technical Effort Not to Exceed	60 Months
Plus (+) 3 Months of Final Report	3 Months
Total Period of Performance	63 Months

The Government expects projects to be completed within the proposed performance period. Any requests for no-cost extensions must be fully justified and submitted no later than 90 days before the end of the period of performance. All requests shall be approved by the Contracting/Agreements Officer in coordination with the designated Program Manager.

- 6. Within Scope Award Modifications:** Within Scope Award Modifications: Offerors are advised that due to the inherent uncertainty of research and development efforts, awards resulting from this announcement may be modified during performance to make within scope changes.
- 7. System for Award Management (SAM) Registration:** Before the Government can issue an award, an Offeror must be registered in the System for Award Management (SAM). If an Offeror was previously registered in Central Contractor Registration (CCR), the information has been transferred to SAM. However, it is in the Offeror's interest to visit SAM and ensure that all their data is up to date from SAM and other databases to avoid delay in award. SAM replaced CCR, Online Representations and Certifications Application (ORCA), and the Excluded Parties List System (EPLS). SAM allows firms interested in conducting business with the federal government to provide basic information on business capabilities and financial information. To register, visit <https://www.sam.gov>.
- 8. Points of Contacts:**

**Program Manager (Primary):** Lt Col Scott Zetterstrom, USSF/CTIO,  
[scott.zetterstrom@spaceforce.mil](mailto:scott.zetterstrom@spaceforce.mil)

**Program Manager (Secondary):** Dr. Eunsook Hwang, SF/CTIO,

eunsook.hwang.1@us.af.mil

**Program Manager (Alternate):** Mr. Michael Lopez, AFRL/RVS,  
michael.lopez.44@spaceforce.mil

**Contracting/Agreements Officer:** Ms. Samantha Pierson, AFRL/RVKE,  
samantha.pierson.2@spaceforce.mil

**Contract/Agreements Specialist:** Mr. Stephen Whalen, AFRL/RVKE,  
stephen.whelen.1@spaceforce.mil

### **III. Eligibility Information**

1. **Eligible Offeror:** Reference ARA with CALLS, FA9453-21-S-0001, Section II, paragraph 1.
2. **Cost Sharing or Matching:** Cost Sharing or Matching is not required on this call.
3. **Federally Funded Research and Development Centers:** Reference ARA with CALLS, FA9453-21-S-0001, Section II, paragraph 3.
4. **Government Agencies:** Reference ARA with CALLS, FA9453-21-S-0001, Section II, paragraph 4.
5. **Foreign Participation:** Foreign-Owned Offerors are not authorized to propose to this CALL as prime offeror.

The technology within this topic is restricted under the International Traffic in Arms Regulation (ITAR), 22 CFR Parts 120-130, which controls the export and import of defense related material and services, including export of sensitive technical data, or the Export Administration Regulation (EAR), 15 CFR Parts 730-774, which controls dual use items. U.S. Offerors must disclose any proposed use of foreign nationals (FNs), their countries of origin, the type of visa or work permit possessed, and the statement of work (SOW) tasks intended for accomplishment by the FN(s). Offerors are advised FNs proposed to perform may be restricted under U.S. Export Control Laws due to the nature of the technical data. The Government may also require Offerors to provide additional information to assist the Government in evaluating the FNs.

Reference ARA with CALLS, FA9453-21-S-0001, Section II, paragraph 5

All prime offerors receiving funding under this CALL must be incorporated (or otherwise formed) under the laws of a state or territory of the United States.

Information Regarding Non-U.S. Citizens Assigned to AFRL's Programs or Projects. To continue improving AFRL's security posture, better manage risks to the critical mission areas, and better align offeror access requirements, AFRL will not allow individuals who are non-U.S. citizens to work within AFRL facilities or to have access to US Government IT networks, unless a waiver requested has been granted by the Contracting/Agreements Officer. Individuals requiring access to USAF bases, AFRL facilities, and/or access to U.S. Government Information Technology (IT) networks in connection with the work on the

proposed effort must be U.S. citizens. For the purpose of base and network access, possession of a permanent resident card (“Green Card”) does not equate to U.S. citizenship. This requirement does not apply to foreign nationals approved by the U.S. Department of Defense or U.S. State Department under international personnel exchange agreements with foreign governments. It also does not apply to dual citizens who possess U.S. citizenship, to include Naturalized citizens.

In the event an Offeror is unable to hire a U.S. citizen due to a rare, highly specialized, needed expertise, a waiver request must be submitted from the organization to the Contracting/Agreements Officer. Any waivers to this requirement must be granted in writing by the Contracting/Agreements Officer prior to providing access. Specific format for waiver request will be provided upon request from the Contracting/Agreements Officer. The above requirements are in addition to any other award requirements related to obtaining a Common Access Card (CAC).

For purposes of the paragraph above, if an IT network/system does not require AFRL to endorse a Recipient’s application to said network/system in order to gain access, the organization operating the IT network/system is responsible for controlling access to its system. If an IT network/system requires an U.S. Government sponsor to endorse the application in order for access to the IT network/system; AFRL will only endorse the following types of applications; consistent with the requirements above:

- (1) Offeror employees who are U.S. citizens performing work under this award.
  - (2) Offeror employees who are non-U.S. citizens and who have been granted a waiver.
- Please note that, any additional access restrictions established by the IT network/system owner apply.

6. **Export Control:** Reference ARA with CALLS, FA9453-21-S-0001, Section II, paragraph 6
7. **Offeror Eligibility.** The following types of domestic entities are eligible to participate as offerors and/or sub-contractors/recipients under this CALL:
  - Institutions of higher education
  - For-profit entities
  - Non-profit entities
  - State, local, and tribal governments
  - Small Business enterprises

#### **IV. White Paper and/or Proposal Submission Information**

1. Overview: This Announcement consists of Two-Step Process described in detail below. White papers and full proposals if requested by the Government—shall be submitted in accordance with the ARA with CALLS, FA4953-21-S-0001 and in accordance with the CALL 008. The Government anticipates white papers and proposals will be unclassified. ARA CALL 008 to FA9453-21-S-0001 Page 9 of 10.
2. **Two-Step (White Paper and Proposal) Submission Information**

**a. First Step (White Paper) Instructions:**

**FIRST STEP:** A white paper and a rough order of magnitude (ROM) cost estimate. All white papers may be kept on file for one year. An Offeror submitting a proposal without first submitting a white paper **will not** be eligible for an award. The cost of preparing white papers in response to this Solicitation is not considered an allowable direct charge to any resulting or any other award; however, it may be an allowable expense to the normal bid and proposal indirect cost as specified in FAR 31.205-18.

- i. White Paper Format: White Papers must be prepared using the provided Template (Attachment II), saved as a PDF and submitted via DoD Safe, (<https://safe.apps.mil/>) no later than **(NLT) 14 June 2023, 1200 MDT. No classified white paper submission will be accepted.** White Papers not meeting this requirement will be rejected with no further action from the Government. Do not submit “zipped” files. If files contain links, the links must be intact and maintained through all revisions. Files shall not be read/write/password protected (i.e., must be unlocked, non-password protected, and/or unprotected).
- ii. White Paper ROM Cost: Reference ARA with CALLS, FA9453-21-S-0001, Section III, paragraph 3(c).
- iii. Other Information: Reference ARA with CALLS, FA9453-21-S-0001, Section III, paragraph 3(d).
- iv. White Paper Content Summary: Reference ARA with CALLS, FA9453-21-S-0001, Section III, paragraph 3(e).
- v. White Paper Content Summary: Reference ARA with CALLS, FA9453-21-S-0001, Section III, paragraph 3(f).
- vi. White Paper submission: Please contact Stephen Whalen, Contract/Agreements Specialist via email: [stephen.whelen.1@spaceforce.mil](mailto:stephen.whelen.1@spaceforce.mil) or Samantha Pierson, Contract/Agreements officer via email: [samantha.pierson.2@spaceforce.mil](mailto:samantha.pierson.2@spaceforce.mil) or no later than three (3) business days prior to the submission deadline to receive a DoD Safe drop-off request. A drop-off request is valid for 14 days. Offerors will receive an automated email containing the instructions for uploading the file(s). If you did not receive an automated e-mail message for your drop-off request within 3 business days, request another. Please DO NOT wait until the due date and time for the whitepaper submission to request a DoD Safe drop-off request.
- vii.

**b. Second Step (Proposal) Instructions:** Proposal Due Date and Time – To be provided in “Requests for Proposals (RFP)” sent to offerors whose white papers are selected.

**III. Review Information**

- 1. Evaluation Criteria:** Reference ARA with CALLS, FA9453-21-S-0001, Section IV, paragraph 1.

2. **Relative Importance of Evaluation Criteria:** Reference ARA with CALLS, FA9453-21-S-0001, Section IV, paragraph 2.
3. **White Paper Review and Selection Process:** Reference ARA with CALLS, FA9453-21-S-0001, Section IV, paragraph 3.
4. **Proposal Review and Selection Process:** Reference ARA with CALLS, FA9453-21-S-0001, Section IV, paragraph 4.

**IV. Award Administration Information**

Award Notices: Reference ARA with CALLS, FA9453-21-S-0001, Section V, paragraph 1.

**V. Other Relevant Information**

Paragraphs 1-14: Reference ARA with CALLS, FA9453-21-S-0001, Section VI 2

**VI. Communication Between Prospective Offerors and Government Representatives:**

Dialogue between prospective Offerors and Government representatives is strongly encouraged. Offerors are advised that only Contracting Officers are legally authorized to contractually bind or otherwise commit the Government. All communications should be in writing via email or letter correspondence. Communication will be limited once proposals are requested and during evaluation/review.

**Questions and Answers:**

All questions or requests for clarifications are due in writing via email to the Program Manager(s), Contracting/Agreements Officer and Contract/Agreements Specialist listed below. Questions may be posted on SAM.gov to benefit all interested offerors.

Please do NOT include any proprietary information in the questions. Offerors are encouraged to periodically check SAM.gov during the response period for additional postings. Email questions or request for clarifications for this CALL must use the following subject title: FA9453-21-S-0001 Call 008 Questions

The Government will try to respond to a question within seven (7) calendar days unless a similar question and answer have already been posted on SAM.gov. Questions and comments concerning this CALL shall be submitted via email not later than **19 May 2023**. Questions submitted after that date may not allow the Government sufficient time to respond.

Email questions to:

**Program Manager (Primary):** Lt Col Scott Zetterstrom, USSF/CTIO,  
[scott.zetterstrom@spaceforce.mil](mailto:scott.zetterstrom@spaceforce.mil)

**Program Manager (Secondary):** Dr. Eunsook Hwang, SF/CTIO,  
[eunsook.hwang.1@us.af.mil](mailto:eunsook.hwang.1@us.af.mil)

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**Contracting/Agreements Specialist:** Mr. Stephen Whalen, AFRL/RVKE,  
[stephen.whelen.1@spaceforce.mil](mailto:stephen.whelen.1@spaceforce.mil)

**A questions and answers webinar will be held on 15 May 2023.** Those interested in submitting White Papers are encouraged to participate. The Government will try to respond to a question within seven (7) business days unless a similar question and answer have already been posted on SAM.gov.

**Date and Time:** 15 May 2023, 1300 MDT.

**Registration Link:**

[https://us02web.zoom.us/webinar/register/WN\\_U08\\_4ud1Q5q7lRouFuImoA](https://us02web.zoom.us/webinar/register/WN_U08_4ud1Q5q7lRouFuImoA)

There is no registration deadline. Interested offerors are encouraged to register before the webinar start date and time.

**VII. ATTACHMENTS:**

- I. Statement of Objectives for Topic Area SSTI-ISO
- II. White Paper Template
- III. White Paper Evaluation Criteria
- IV. Deliverables and Reporting Requirements