

2-Step Funding Opportunity Announcement

Overview Information

NAICS Code: 541715

Federal Agency Name: Air Force Research Laboratory, Aerospace Systems Directorate, Wright Research Site

Funding Opportunity Announcement Title: Structural Integrity Research Collaborations for Aircraft (SIRCA)

Funding Opportunity Announcement (FOA) Type: This is the Initial Announcement.

Funding Opportunity Announcement Number: FA8650-19-S-2002

Catalog of Federal Domestic Assistance (CFDA) Number(s): 12.800 AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM

Proposal Due Date and Time: N/A – Open call for whitepapers. **THIS WILL BE A TWO-STEP SOLICITATION:**

First Step: WHITE PAPER DUE DATE AND TIME: White papers may be submitted at any time upon issuance of this FOA until 23 October 2023.

Second Step: PROPOSAL DUE DATE AND TIME: To be provided in response to the Requests for Proposals sent to offerors that submit White Papers considered to meet the needs of the Air Force based upon the review criteria as set forth in Section V.

NOTE: Any white paper or proposal received at the Government Office designated in this FOA after the established date and time above is “late” and will not be considered except at the Grants Officer’s (GO) discretion. It should be noted that this installation observes strict security procedures to enter the facility. These security procedures are NOT considered an interruption of normal government processes, and proposals received after the above stated date and time as a result of security delays will be considered “late.” Furthermore, note that if offerors utilize commercial carriers in the delivery of proposals, they may not honor time-of-day delivery guarantees on military installations. Early proposal submission is encouraged.

Solicitation Request: Air Force Research Laboratory, Aerospace Systems Directorate, Wright Research Site is soliciting whitepapers with potential for technical and cost proposals on the research effort described below. Proposals should be addressed to the grants Point of Contact (POC) stated in Section VII of the Full Text Announcement. This is a restricted solicitation. The NAICS Code for this acquisition is 541715 (Research and Development in the Physical, Engineering,

and Life Sciences (except Biotechnology), and the small business size standard is 1,500 employees. Proposals submitted shall be in accordance with this announcement. *There will be no other solicitation issued in regard to this requirement.* Offerors should be alert for any FOA amendments that may permit extensions to the proposal submission date.

Annual Updates: It is noted that for the ease of reference this FOA will be republished at yearly intervals.

System for Award Management (SAM) Registration: SAM is the primary government repository for prospective federal awardee information and the centralized government system for certain contracting, grants, and other assistance related processes. It replaces CCR/FedReg, On-line Representations and Certifications (ORCA) and the Excluded Parties Lists System (EPLS). By submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the SAM database prior to award, during performance, and through final payment of any cooperative agreement resulting from this solicitation. Potential recipients may obtain information on registration and annual confirmation requirements via the SAM accessed through <https://www.acquisition.gov> or by calling 866-606-8220.

Type of Contract/Instrument: The Air Force intends to award cooperative agreements as a result of this solicitation. Cooperative agreements are governed by Department of Defense Grant and Agreement Regulations (DODGARS) and/or 2CFR 200 and are not subject to the requirements of the Federal Acquisition Regulation (FAR).

Estimated Program Cost: \$4.950M.

Number of Awards Anticipated: The Air Force anticipates multiple awards as a result of this solicitation, most likely as Cooperative Agreements. Awarded projects are anticipated to be 24 months in length, though different length projects may be proposed, with agreement values ranging from \$50k-750k. The Air Force reserves the right to award larger or smaller dollar research agreements.

Also, the Air Force reserves the right to award zero, one, or more awards for all, some or none of the solicited effort based on the offeror's ability to perform desired work.

Brief Program Summary:

Air Force Research Laboratory, Aerospace Systems Directorate is soliciting white papers and potentially technical and cost proposals under this announcement to foster innovative research in the area of aircraft structural integrity. This initiative targets higher education program in engineering at colleges and universities located in the United States, and will encourage students and professors to perform fundamental research and development (R&D) directly related to the technical objectives of AFRL/RQV. The objective of the Structural Integrity Research Collaborations for Aircraft (SIRCA) program is to enable collaborative research partnerships between AFRL, Academia, and Industry, in areas relevant to aircraft to, structural integrity including, but not limited to, risk and reliability, metal fatigue and fracture, and composite damage modeling. These technical

areas are necessary for developing critical war-fighting technologies for the nation's air, space and cyberspace forces, as well as commercial derivatives.

By including all US institutions with graduate degree programs in relevant engineering fields, this program will strengthen the supply of specialized workforce talent, not only for the AF and DoD, but also Industry and Academia. This program intends to engage multiple collegiate institutions and to develop scientists and engineers in specific research areas of interest to AFRL/RQ that will provide the Air Force and Industry with a broad range of highly unique technology advances; and, for Academia, pertinent concepts and experience for the future workforce. Teaming arrangements with Industry and other Academic Institutions are highly encouraged.

Communication Between Prospective Offerors and Government Representatives:

Dialogue between prospective offerors and Government representatives is encouraged until submission of proposals. Discussions with any of the points of contact shall not constitute a commitment by the Government to subsequently fund or award any-proposed effort. Only Grants Officers are legally authorized to commit the Government.

Address technical questions to:

Project Engineer – Kristina Langer, AFRL/RQVS, 2790 D Street, Bldg 65, WPAFB OH 45433-7402, (937) 656-8814, kristina.langer@us.af.mil

Address Agreement questions to:

Primary – Carter Coleman, AFRL/RQKPC, 2130 8th Street, Bldg 45, Wright-Patterson AFB OH 45433, (937) 713-9946, carter.coleman@us.af.mil

Alternate– John McClellan, AFRL/RQKPC, 2130 8th Street, Bldg 45, Wright-Patterson AFB OH 45433, (937) 713-9944, john.mcclellan.2@us.af.mil;

Full Text Announcement

I. Program Description: Air Force Research Laboratory, AFRL/RQKPC, is soliciting white papers (and later technical and cost proposals) on the following research effort:

Structural Integrity Research Collaborations for Aircraft (SIRCA)

1. Statement of Objective/Needs:

Statement of Objectives (SOO) is attached to the FOA as Attachment 1. Please refer to the Statement of Objectives in creating your white paper.

2. Deliverable Items:

a. Annual Reports.

Technical Status Report: The technical status report will detail the technical progress to date and report all problems, technical issues or major developments during the reporting period.

b. Quarterly Reports

1) Business Status Reports: The business status report shall provide summarized details of the resource status of this agreement. It shall provide the monthly accounting actual and projected expenditures with a discussion of proposed action to address the deviations.

2) Collaboration Reports: The collaboration report will detail the collaborations that have taken place and any issues in executing the collaboration plan during the reporting period.

c. Final Report: Within 90 days of completion or termination of this technical portion of this agreement, the recipient shall submit a Final Report consisting of two parts, one addressing the technical achievements and the second recapping the business/financial aspects of the agreement. The technical portion of the report should be suitable for publication and is to provide a recap of the program, discussing program accomplishments. The business portion of the report shall contain separate discussion of total costs incurred and any deviations from the original plan.

d. Software: As required, source code developed during the cooperative agreement to be used as per data rights requirements.

e. Hardware: None

3. **Schedule:**

a. Overall effort: This is a five (5) year open FOA. Awards made under this announcement are anticipated to be 24 months for each technical effort, plus an additional three months to complete the final report, unless otherwise negotiated.

b. Data Items: See I.2.a

c. Software/Hardware: N/A

4. **Other Requirements:** Articles will be incorporated to cover specific requirements.

a. Program security classification: Unclassified

b. OPSEC: See attached SOO for OPSEC guidance.

- c. Export Control: Information involved in this research effort **MAY** be subject to Export Control (International Traffic in Arms Regulation (ITAR) 22 CFR 120-131, or Export Administration Regulations (EAR) 15 CFR 710-774). A Certified DD Form 2345, Militarily Critical Technical Data Agreement, will be required to be submitted with proposal if identified in the Request for Proposal.
- d. Export-Controlled Items: Not Applicable

5. **Other Information:**

- a. Government Furnished Property (GFP) availability: None anticipated.
- b. Base Support/ Network Access: Will be identified by individual effort
- c. Data Rights Desired:
 - (1) Technical Data: Unlimited Rights
 - (2) Non-Commercial Software (NCS): Unlimited Rights
 - (3) NCS Documentation: Unlimited Rights
 - (4) Commercial Computer Software Rights: Customary License

The Air Force Research Laboratory is engaged in the discovery, development, and integration of warfighting technologies for our air, space, and cyberspace forces. As such, rights in technical data and NCS developed or delivered under this agreement are of significant concern to the government. The Government will therefore carefully consider any restrictions on the use of technical data, NCS, and NCS documentation which could result in transition difficulty or less-than full and open competition for subsequent development of this technology.

In exchange for paying for development of the data, the Government expects technical data, NCS, and NCS documentation developed entirely at Government expense to be delivered with Unlimited Rights.

Technical data, NCS, and NCS documentation developed with mixed funding are expected to be delivered with at least Government Purpose Rights. Offers that propose delivery of technical data, NCS, or NCS documentation subject to Government Purpose Rights should fully explain what technical data, NCS, or NCS documentation developed with costs charged to indirect cost pools and/or costs not allocated to a Government contract will be incorporated, how the incorporation will benefit the program, and address whether those portions or processes are segregable. The Government expects that delivery of technical data, NCS, and NCS documentation subject to Government Purpose Rights will fully meet program needs.

Offers that propose delivery of technical data, NCS, or NCS documentation subject to Limited Rights, Restricted Rights, or Specifically Negotiated

License Rights will be considered. Proposals should fully explain what technical data, NCS, or NCS documentation developed with costs charged to indirect cost pools and/or costs not allocated to a government contract will be incorporated and how the incorporation will benefit the program.

II. Award Information

1. Anticipated funding for the program

FY19 / \$750K; FY20 / \$1050K; FY21 / \$1050K; FY22 / \$1050K;
FY23 / \$1050K

This funding profile is an estimate only and not a contractual obligation for funding. All funding is subject to change due to government discretion and availability. Potential offerors should be aware that due to unanticipated budget fluctuations funding in any or all areas may change with little or no notice.

III. Eligibility Information

- 1. Eligible Offeror:** This is an unrestricted solicitation. Small businesses are encouraged to propose on all or any part of this solicitation.
- 2. Cost Sharing or Matching:** Cost Sharing is not required but is highly encouraged, and will be considered favorably.
- 3. Federally Funded Research and Development Centers:** The following guidance is provided for Federally Funded Research and Development Centers (FFRDCs) contemplating submitting a proposal, as either a prime or subrecipient against this FOA. There is no regulation prohibiting an FFRDC from responding to a solicitation. However, the FFRDC's sponsoring agency must first make a determination that the effort being proposed falls within the purpose, mission, general scope of effort, or special competency of the FFRDC, and that determination must be included in the FFRDC's proposal. In addition, the non-sponsoring agency (in this case AFRL) must make a determination that the work proposed would not place the FFRDC in direct competition with domestic private industry. Only after these determinations are made would a determination be made concerning the FFRDC's eligibility to receive an award.
- 4. Government Agencies:** If a government agency is interested in performing work, contact the Program Office identified in the FOA. If those discussions result in a mutual interest to pursue your agency's participation, the effort will be pursued independent of this announcement.
- 5. Other:**

- a. Foreign participation: Foreign participation is excluded at the prime contractor level. See below for additional information.
- b. Export Control: Information involved in this research effort may be subject to Export Control (International Traffic in Arms Regulation (ITAR) 22 CFR 120-131, or Export Administration Regulations (EAR) 15 CFR 710-774). If effort may be subject to export control, then a Certified DD Form 2345, Militarily Critical Technical Data Agreement, will be required to be submitted with proposal.
- c. There are no limits to the number of white pages/proposals an offeror may submit.
- d. You may be ineligible for award if all requirements of this solicitation are not met on the white paper (and later on the technical and cost proposal) due date as identified above.

IV. Proposal and Submission Information

1. **Overview:** This Announcement consists of a Two-Step Process described in detail below. White Papers/Proposals submitted shall be in accordance with this announcement. *There will be no other solicitation issued in regard to this requirement.* The Government intends to review white papers/proposals and award some, all, or none of the proposals received without negotiation/discussion; however, the Government reserves the right to negotiate with those offeror(s) whose proposal is selected for funding. **ONLY WHITE PAPERS ARE BEING SOLICITED AT THIS TIME.** Offerors should be alert for any FOA amendments. There is no additional information to be provided. The government intends to evaluate proposals and award some, all, or none of the proposals received without negotiation/discussion; however, the government reserves the right to negotiate with those offeror(s) whose proposal is selected for funding.

Offerors should be alert for any FOA amendments that may permit extensions to the proposal submission date.

For additional information, a copy of the Broad Agency Announcement (BAA) Guide for Industry is located at <http://www.wpafb.af.mil/Portals/60/documents/afri/AFRL-broad-agency-announcement-guide.pdf>. This guide is specifically designed to assist the offeror in understanding the BAA proposal process which is similar to the FOA proposal process which does not have its own guide.

2. First Step (White Paper) Instructions:

- a. General: The *FIRST STEP* requests a white paper (to include a quad chart) and a rough order of magnitude (ROM) cost. The white paper shall include a discussion of the nature and scope of the research and the offeror's proposed technical approach. The Government will review the

white papers in accordance with the FIRST STEP review criteria, set forth in Section V. below. Based on this review, the Government will determine which have the potential to best meet the Air Force's needs. Offerors will be notified of the disposition of their white paper. It is anticipated that Government review of the white papers submitted will take 45 working days. Those offerors submitting white papers assessed as meeting Air Force needs will be asked to submit a technical and cost proposal. Those offerors not requested to submit a technical and cost proposal will be notified as such but may, however, still elect to submit a technical and cost proposal. 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 agreement; however, it may be an allowable expense to the normal bid and proposal indirect cost.

- b. Page Limitation: The White Paper shall be limited to 4 pages plus 1 for quad chart, prepared and submitted in Word format. Font shall be standard 10-point business font Arial. Character spacing must be "normal," not condensed in any manner. Pages shall be double-spaced (must use standard double-space function in Microsoft Word), double-sided (each side counts as one page), 8.5 by 11 inches, with at least one-inch margins on both sides, top and bottom. Lines between text lines must also be 10-point. All text, including text in tables and charts, must adhere to all font size and line spacing requirements listed herein. Font and line spacing requirements do not have to be followed for illustrations, flowcharts, drawings, and diagrams. These exceptions shall not be used to circumvent formatting requirements and page count limitations by including lengthy narratives in such items. Pages shall be numbered starting with the cover page being Page 1, and the last page being Page 6. The page limitation covers all information including indices, photographs, foldouts (counted as 1 page for each 8.5 by 11 portion) tables, charts, appendices, attachments, resumes, etc. The Government will not consider pages in excess of these limitations. Offerors should submit 1 original and 2 hard copies of the White Paper via mail to the Contracting POC, identified in Section VII. A CD with the WORD version of your White Paper must be submitted with the hard copies of the White Paper, and must match the hard copy.
- c. Format: The white paper will be formatted as follows: Section A: Title of Program, Name of Company, Company's Commercial and Government Entity (CAGE) number, Dun & Bradstreet (D&B) Data Universal Numbering System (DUNS) number, Contracting POC and Technical POC with appropriate telephone numbers, fax numbers, and email addresses for the POCs; Section B: Period of Performance and Task Objectives; Section C: Technical Summary; Section D: Quad Chart and Section E: Cost of Task (Rough Order of Magnitude (ROM)).
- d. Technical Portion: The technical portion of the white paper shall include a discussion of the nature and scope of the research and the offeror's proposed technical approach/solution. It may also include any proposed

deliverables. Resumes, descriptions of facilities and equipment, a proposed Statement of Work are not required at this point. Following is the instructions for populating the quad chart template (Attachment 2 to the FOA):

- i. Enter Project Title, Principal Investigator (PI), organization, and intended Thrust Area at the top center of the Quad Chart. Use Arial 24 point.
 - ii. Complete **all** the sections of the Quad Chart.
 - iii. Upper Left: Objective, Description of Effort
 - iv. Lower Left: Program/Technical Approach, Challenges, Benefits of Proposed Technology
 - v. Upper Right: List accomplishments, research efforts and contracts related to the proposed effort
 - vi. Lower Right: Major Goals/Milestones by FY, Cost by FY, Contact Information (PI name, organization, phone & e-mail address)
 - vii. Provide an estimate of annual cost in thousands of dollars (\$K) per proposed year of effort. Programs/Projects can range from 1 to 2 years.
 - viii. Except for the title, all text should be Arial 12 point (or larger).
 - ix. Submit the quad chart with the white paper. If the white paper is selected for a full proposal, you will be asked to modify the quad chart to better reflect the proposal content.
- e. Cost Portion: The cost portion of the white paper shall include a ROM cost estimate. No detailed price or cost support information should be forwarded; only a time-phased bottom line figure should be provided.
 - f. Other Information: Multiple white papers within the purview of this announcement may be submitted by each offeror. If the offeror wishes to restrict its white papers, they must be marked with the appropriate restrictive language.
 - g. White Paper/Proposal Content Summary: You may be ineligible for award if all requirements of this solicitation are not met on the proposal due date. Reference Section VIII for a checklist of the requirements.
 - h. White Paper Due Date and Time: See Overview Information at the beginning of the Solicitation.

3. Second Step - Proposal Instructions:

(Second Step) Proposals for Grants and Cooperative Agreements

- a. Grant Opportunity: Go to <http://Grants.Gov> to find the grant opportunity. The initial screen will provide the synopsis for that specific grant opportunity. To view the entire opportunity open the "Full Announcement" box in the upper center of the synopsis page and select from the documents available under "Announcement Group." NOTE: <http://Grants.Gov> has tools and guiding documents in the left margin

under "Applicant Resources" to help you find and apply for grant opportunities. Grants.gov requires Adobe Reader version 8.13 to open, download, save, and submit an application electronically. Adobe Reader version 8.13 is available for free from Grants.gov under "Applicant Resources," "Download Software."

- b. Proposal Cover Page – SF 424 (R&R) Form: All proposals for assistance must include an SF 424 (R&R) (Application for Federal Assistance) as the cover page. To evaluate compliance with Title IX of the Education Amendments of 1972 {20 U.S.C. A§ 1681 Et. Seq.}, the Department of Defense is collecting certain demographic and career information to be able to assess the success rates of women who are proposed for key roles in applications in STEM disciplines, consequently a SF 424 Research & Related Senior/Key Person Profile (Expanded) and a SF 424 Research & Related Personal Data must also be submitted. The SF 424 (R&R) forms should be downloaded from the "Application" box in the upper right hand corner of the synopsis page. Click on "download" under the column "Instructions and Application." Select "Download Application Package" and complete the SF 424 (R&R) forms. For the SF 424 Research and Related Senior/Key Person Profile (Expanded) form the Degree Type and Degree Year fields will be used by DoD as the source for career information. In addition to the required fields on the form, applicants must complete these two fields for all individuals that are identified as having the project role of PD/PI or Co-PD/PI. Additional senior/key persons can be added by selecting the "Next Person" button. The Research and Related Personal Data form will be used by DoD as the source of demographic information, such as gender, race, ethnicity, and disability information for the Project Director/Principal Investigator and all other persons identified as Co-Project Director{s)/Co-Principal Investigator(s). Each application must include this form with the name fields of the Project Director/Principal Investigator and any Co-Project Director(s)/Co-Principal Investigator(s) completed; however, provision of the demographic information in the form is voluntary. If completing the form for multiple individuals, each Co-Project Director/Co-Principal Investigator can be added by selecting the "Next Person" button. The demographic information, if provided, will be used for statistical purposes only and will not be made available to merit reviewers. Applicants who do not wish to provide some or all of the information should check or select the "Do not wish to provide" option.
- c. Certifications: All proposals for assistance must include the requisite certifications. To access the requisite Certifications, select the "Application" box in upper right hand corner of the synopsis page. Click on "Instructions and Application" and select "Download Application Instructions" to view the Certifications. To complete the Certifications you must check Block 18 of the SF 424 (R&R), and by signing it you are certifying that you have read and agree to abide by the terms in the

Certifications. You do not need to submit any additional documentation unless you have lobbying activities to disclose on an SF -LLL.

- d. Proposals for Grants or Assistance Instruments: Proposals for grants or assistance instruments must be submitted either directly with a hard copy to the agreements POC listed in this announcement.
- e. For Hard Copy Submission: The original proposal and the number of copies specified in this announcement must be delivered directly to the agreements POC at the time and date specified in this announcement.
- g. Submitting the Electronic Proposal
 - i. Application forms and instructions are available at Grants.gov. To access these materials, go to <http://grants.gov>. Select "Apply for Grant", and then select "Download Application Package". Enter the CFDA number (typically 12.800). You should also enter the FOA number, and then follow the prompts to download the application package.
 - ii. The applicant will receive a confirmation page upon completing the submission to Grants.gov. This confirmation page is a record of the time and date stamp that is used to determine whether the proposal was submitted by the deadline. A proposal received after the deadline is "late" and will not be considered for an award except at the Agreements Officer's discretion.

**Section 5 below "Content and Form of Proposal Submission"
Cooperative Agreement (in hard copy or electronic).**

4. Second Step - Proposal Instructions:

a. Technical/Management Proposal:

- i. General: The *SECOND STEP* consists of offerors submitting a technical and cost proposal. Upon notification from the government of interest in the submitted white paper, the offeror should submit a technical and cost proposal within 60 working days of the proposal request. After receipt, proposals will be evaluated in accordance with the award criteria in Section V. below. Proposals will be categorized and subsequently selected for negotiations.
- ii. Page Limitations: The following describes the page limitations on the proposal submittal:
 - a) The Technical/Management Proposal shall be limited to 15 pages, prepared and submitted in Microsoft Word format.
 - b) Font shall be standard 10-point business font Arial

- c) Character spacing must be "normal," not condensed in any manner.
 - d) Pages shall be double-spaced (must use standard double-space function in Microsoft Word), double sided (each side counts as one page), 8.5 by 11 inches, with at least one-inch margins on both sides, top and bottom.
 - e) All text, including text in tables and charts, must adhere to all font size and line spacing requirements listed herein. Font and line spacing requirements do not have to be followed for illustrations, flowcharts, drawings, and diagrams. These exceptions shall not be used to circumvent formatting requirements and page count limitations by including lengthy narratives in such items.
 - f) Pages shall be numbered starting with the cover page being Page 1, and the last page being no greater than Page 15. The page limitation covers all information including indices, photographs, foldouts (counted as 1 page for each 8.5 by 11 portion) tables, charts, appendices, attachments, resumes, etc.
 - g) The proposal page limit does not include the offeror's proposed Statement of Work (SOW); however, the same formatting rules apply to the SOW, which is limited to 3 pages.
 - h) **Please note:—the government will check the proposal and SOW for conformance to the stated requirements. Any pages in excess of the stated page limitation after the format check will not be considered for evaluation purposes.**
- iii. The Technical/Management proposal shall include a discussion of the nature and scope of the research and the technical approach. Additional information on prior work in this area, descriptions of available equipment, use of base support (if desired), data and facilities and resumes of personnel who will be participating in this effort should also be included as attachments to the technical proposal. This volume shall include a SOW detailing the technical tasks proposed to be accomplished under the proposed effort and suitable for agreement incorporation. **Do not include any proprietary information in the SOW.** If Government Furnished Property (GFP) is requested, other than the GFP listed in the attached GFP list, you are required to submit the following information with your offer—
- a) A list or description of all government property that the offeror or its subrecipients propose to use on a rent-free basis. The list shall identify the accountable contract under which the property is held and the authorization

- for its use (from the contracting officer having cognizance of the property);
- b) The dates during which the property will be available for use (including the first, last, and all intervening months) and, for any property that will be used concurrently in performing two or more contracts, the amounts of the respective uses in sufficient detail to support prorating the rent;
 - c) The amount of rent that would otherwise be charged; and
 - d) The voluntary consensus standard or industry leading practices and standards to be used in the management of government property, or existing property management plans, methods, practices, or procedures for accounting for property.
- iv. Any questions concerning the technical proposal or SOW preparation shall be referred to the Grants POC in the Overview Information.
 - v. Reporting requirements: Recipients remotely conducting research on the proposed topic from their respective research institution(s), will regularly report status to AFRL at intervals deemed appropriate by the principle investigator (recommend updates per semester/trimester/quarter).
 - vi. Publishing restrictions: Research results may be published in journals and presented at conferences/symposia, but only after receiving approval from the AFRL sponsor in coordination with the AFRL Public Affairs process.

b. Cost/Business Proposal:

- i. Separate the proposal into a business section and cost section.
 - a) The business section should contain all business aspects to the proposed agreement, such as type of instrument, etc. Provide rationale for exceptions.
 - b) Identify any technical data that will be delivered with less than unlimited rights.
 - c) Cost/Business proposals have no page limitations; however, offerors are requested to keep cost proposals to 25 pages as a goal.
 - d) The Cost section shall be furnished with supporting schedules and shall contain a person hour breakdown per task. Refer to the BAA Guide for Industry for detailed proposal instructions.
 - (i) The costs shall be broken out by offeror and government cost. If the FOA provides the schedule of estimated Government funding, the proposal shall show how the proposed plan is compatible with the Government

funding schedule. If it is not compatible, the offeror shall explain how the incompatibility is to be remedied.

- (ii) The government will be determining the Cost Realism and reasonableness of your proposal. To facilitate this, offerors are required to provide, as a part of their Cost section, information determined as necessary by the offeror to demonstrate/support the submission of realistic costs for the technical effort proposed.
 - (iii) Of importance in this cost section is the offeror's analysis demonstrating the relationship between the cost information submitted and the business and technical effort set forth.
 - (iv) Direct labor proposed should include a breakout of the number of labor hours for each proposed labor category and indicate the basis for proposed rates (Forward Pricing Rate Agreement (FPRA) or Recommendation (FPRR), an estimating model, historical projections or some other reasonable method for projecting costs. All costs proposed must be supported and clearly described. Do not use internal cost codes which are meaningless outside of your organization (such as labor category 301) and provide no description of the labor type nor cost being proposed. Instead use meaningful labor descriptors such as "Senior Material Scientist".
 - (v) Travel proposed should include the number of trips, travelers, days, destinations, necessity, and timeframe. Note that proposed travel costs are to be included in appropriate area of Cost Proposal Spreadsheet too.
 - (vi) The Material and Equipment cost element should include a breakdown of the types and quantities proposed and the basis that was used to derive the cost estimate such as purchase orders, vendor quotes, engineering judgment, or historical data. Note the Material and Equipment cost elements are to be included in the Cost Proposal spreadsheet too.
- e) Any proposed subawards (subcontracts or Subrecipients) should address why the proposed subcontract or subrecipient is necessary for the effort and how the price was determined reasonable. Proposed Subcontracts or Subrecipients cost proposals shall be at the same level of detail required for the prime recipient's cost proposal.
 - f) The material solicited in this volume will facilitate the government's evaluation of price reasonableness and determination of cost realism. The receipt of information from offerors is more relevant to an analysis of resources proposed for the technical program tendered than

uncorrelated and voluminous data (i.e., your analysis should address the specific complexities of the work proposed and the rationale for the specific resources required to complete the program).

- g) The offeror shall also state in this section whether its accounting/financial systems have previously been audited by a government agency or independent auditor.

5. **Content and Form of Proposal Submission:** The paragraphs below identify proposal format and content. Proposals should be addressed via mail to the agreements Point of Contact (POC) identified in Section 6.

A. General Instructions:

Offerors should consider proposal instructions contained in the Broad Agency Announcement (BAA) Guide for Industry, which can be accessed online <http://www.wpafb.af.mil/Portals/60/documents/afri/AFRL-broad-agency-announcement-guide.pdf>. This guide is specifically designed to assist the offeror in understanding the BAA proposal process, and is appropriate for use for an FOA.

Technical/management and cost volumes should be submitted in separate volumes, and must be valid for 180 days.

1. Proposals must reference the announcement number FA8650-19-S-2002
2. For offerors who choose Hard Copy Submission, Offerors must submit one original and one hard copy of their proposals via mail to the Grant POC, identified in Section VII.
3. For offerors who choose Hard Copy Submission, Offerors must include 2 CDs in Microsoft WORD Format containing all electronic versions of required submittals (Technical/Management Proposal/SOW/Cost/Business Proposal). All electronic versions must match the hard copies.
 - a) Technical/Management proposals and Statements of Work must be provided in Microsoft WORD.
 - b) The cost file(s) spreadsheets must include the formulas for calculating cost element bases (i.e., G&A, O/H, etc.)
 - c) The CDs should be labeled with the company name and proposal title.
4. Offerors are advised that only grants officers are legally authorized to bind or otherwise commit the government.
5. The cost of preparing proposals in response to this FOA is not considered an allowable direct charge to any resulting or any other agreement.
6. No classified technical proposals or cost volumes are expected. Offerors are encouraged to keep all elements of the proposal package unclassified. In the rare case where an offeror has a need to submit a

classified appendix, please contact the technical POC listed in Section VII for delivery instructions.

B. Proposal Content Summary: You may be ineligible for award if all requirements of this solicitation are not met on the proposal due date. Reference Section VIII for a Checklist of the requirements.

6. **Intergovernmental Review:** None

7. **Funding Restrictions:** The AFRL funding may be used for the following:

- a. Travel for faculty and students to Wright-Patterson AFB, OH.
- b. Travel for faculty and students to technical conferences.
- c. Qualified research material and supplies.

8. **Other Submission Requirements:** Proposals must be submitted to: John McClellan, AFRL/RQKPC, 2130 Eighth Street, Bldg 45, Wright-Patterson AFB OH 45433, (937) 713-9944. E-mailed or faxed copies will not be accepted.

V. White Paper / Proposal Evaluation Criteria

1. **FIRST STEP – White Paper Review Criteria:** The Government will Review White Papers to determine which of them have the potential to best meet the Air Force’s needs based on the following review criteria, and are of equal importance:

- a. Is the technical approach consistent with the technologies listed in the FOA?
- b. Is the research of interest to the Government?
- c. Is appropriate funding available?

2. **SECOND STEP – Proposal Evaluation Criteria:** The selection of one or more sources for award will be based on an evaluation of each offeror’s proposal (both technical and cost/price aspects) in accordance with the following:

- a. **Technical:** Subject to funding availability, per DoDGARS 22.315, all proposals will be evaluated under the following two primary criteria which are of equal importance:
 1. Technical merits of the proposed research and development; and
 2. Potential relationship of the proposed research and development to Department of Defense missions.

- b. **Cost/Price:** Realism of the proposed cost, proposed cost share and consideration of proposed budgets and funding profiles. Cost Realism will ensure proposed cost is realistic for work to be performed, reflects a clear understanding of the requirements, and is consistent with the offerors' technical proposals. Cost sharing is not required but is highly encouraged, and will be considered favorably.
3. **Risk:** Proposal risk will be assessed as part of the evaluation of the above criteria. Proposal risk relates to the identification and assessment of the risks associated with an offeror's proposed approach as it relates to accomplishing the proposed effort. Tradeoffs of the assessed risk will be weighed against the potential payoff.

4. **Review and Selection Process**

- a. **Categories:** The technical and cost proposals will be evaluated at the same time and categorized as Selectable or Not Selectable (see definitions below).
 - i. **Selectable:** Proposals are recommended for acceptance if sufficient funding is available.
 - ii. **Not Selectable:** Even if sufficient funding existed, the proposal should not be funded.

Note: The Government reserves the right to award some, all, or none of proposals. When the Government elects to award only a part of a proposal, the selected part must be categorized Selectable, though the proposal as a whole may not merit such a categorization.

- b. No other evaluation criteria will be used.

VI. Award Administration Information

- 1. **Award Notices:** Offerors will be notified whether their whitepaper is recommended for proposal, or whether their proposal is recommended for award, by letter or e-mail, within 2 months after submitting their white paper. The notification is not to be construed to mean the award of an agreement is assured, as availability of funds and successful negotiations are prerequisites to any award.
- 2. **Administrative and National Policy Requirements:** See Section I

VII. Other Information

1. **Support contractors:** Only government employees will evaluate proposals for selection. Offerors are advised that employees of commercial firms under contract to the government may be used to administratively process proposals, monitor agreement performance, or perform other administrative duties requiring access to the recipients' proprietary information. These support contracts include nondisclosure agreements prohibiting their contractor employees from disclosing any information submitted by recipients or using such information for any purpose other than that for which it was furnished.
2. **Informal Feedback Sessions:** When requested, an informal feedback session will be provided. This process will follow the time guidelines in the notification letter.
3. **Wide Area Work Flow:** Any agreement award resulting from this solicitation will require the recipient to request payment by reimbursement by electronically submitting Standard Forms (SF) 270, Requests for Advance or Reimbursement, through Wide Area Work Flow (WAWF), <https://wawf.eb.mil>. WAWF has been designated as the Department of Defense (DoD) standard for electronic invoicing and payment.
4. **Reporting Executive Compensation and First-Tier Sub-contract/Sub-recipient Awards:** Any agreement award resulting from this announcement may contain the award term set forth in 2 CFR, Appendix A to Part 25 <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=c55a4687d6faa13b137a26d0eb436edb&rqn=div5&view=text&node=2:1.1.1.4.1&idno=2#2:1.1.1.4.1.2.1.1>
5. **Forward Pricing Rate Agreements:** Offerors who have forward pricing rate agreements (FPRA's) and forward pricing rate recommendations (FPRR's) should submit them with their proposal.
6. **Updates of Publicly Available Information Regarding Responsibility Matters:** Any award that exceeds \$550,000.00; and when an offeror has current active Federal contracts and grants with a total value greater than \$10,000,000.00 will contain an Article, Updates of Publicly Available Information Regarding Responsibility Matters."
7. **Proposal Content Checklist:** You may be ineligible for award if all requirements of this solicitation are not met on the proposal due date.
 - a. Proposals are due to the Contracting POC.
 - b. Proposals are due no later than the due date and time specified in this announcement.

- c. Proposal page limits are strictly enforced. See Section IV.3.c.i.a of the solicitation for page limits.
- d. The Cost/Business Proposal must contain all information described in the Content and Form of Proposal Section.
- e. For any sub-awards proposed, the Cost/Business Proposal must contain an analysis for any subrecipients or subcontractor proposals.
- f. Proposals must be submitted in the format specified in Section IV.

VIII. White Paper/Proposal Content Checklist: You may be ineligible for award if all requirements of this solicitation are not met on the proposal due date.

- a. Step One: White Papers are due to the Contracting POC.
- b. Step One and Step Two: White Paper and Proposal page limits are strictly enforced. See Section IV.2.b. and IV.3.b of the solicitation for page limits.
- c. Step One and Step Two: Proposals and White Papers must be submitted in the format specified in Section IV.
- d. Step Two: The Cost/Business Proposal must contain all information described in Section IV.C.(4).
- e. Step Two: Offerors who have Forward Pricing Rate Agreements (FPRA's) and Forward Pricing Rate Recommendations (FPRR's) should submit them with their proposal.
- f. If export control is applicable, offerors must submit a Certified DD Form 2345, Militarily Critical Technical Data Agreement, with proposal.

Attachment 1 Statement of Objectives
Attachment 2 Quad Chart
Attachment 3 Model Cooperative Agreement