



ONR Announcement N00014-23-S-F005

FUNDING OPPORTUNITY ANNOUNCEMENT (FOA) for the Office of Naval Research (ONR) Science, Technology, Engineering and Mathematic (STEM) Program

**Applications must be received no later than
April 2, 2024 Tuesday at 11:59 PM Eastern Time**

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I. Overview of the STEM Opportunity

This publication constitutes a Funding Opportunity Announcement (FOA) as contemplated in the Department of Defense Grants and Agreements regulations (DoDGARS) 32 CFR 22.315(a). The ONR reserves the right to fund all, some, or none of the proposals received under this FOA. ONR provides no funding for direct reimbursement of proposal development costs. Technical and budget proposals (or any other material) submitted in response to this FOA will not be returned. It is the policy of ONR to treat all white papers and proposals submitted under this FOA as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

This FOA is for STEM education programs and activities, which is formal or informal education that is primarily focused on physical and natural sciences, technology, engineering, social sciences, and mathematics disciplines, topics, or issues (including environmental science education or stewardship).

STEM education programs and activities that could be supported by this FOA include one or more of the following as the primary objective:

- Develop learners' knowledge, skill, or interest in STEM.
- Attract students to pursue certifications, licenses, or degrees (two-year degrees through post-doctoral degrees) or careers in STEM fields.
- Provide growth and research opportunities for post-secondary, college and graduate students in STEM fields, such as working with researchers or conducting research that is primarily intended to further education.
- Improve mentor/educator (K-12 pre-service or in-service, post-secondary, and informal) quality in STEM areas.
- Improve or expand the capacity of institutions to promote or foster STEM fields.

This FOA will not consider applications for research, with the exception of those whose primary purpose is intended to further education (as described in third bullet above) and that are not expected to generate intellectual property. Efforts for research, including those supporting STEM, should be submitted under the current fiscal year Long Range BAA.

Hyperlinks have been embedded within this document and appear as underlined, blue-colored words. The reader may “jump” to the linked section by clicking the hyperlink.

A. Overview

1. Federal Awarding Agency Name

Office of Naval Research
One Liberty Center
875 N. Randolph Street
Arlington, VA 22203-1995

2. Funding Opportunity Title

FY 23 Funding Opportunity Announcement (FOA) for the Office of Naval Research (ONR) STEM Program

3. Announcement Type

Initial Announcement

4. Funding Opportunity Number

N00014-23-S-F005

5. Assistance Listings

12.330 Title: Science, Technology, Engineering, & Mathematics (STEM) Education, Outreach, and Workforce Program

6. Key Dates

This announcement will remain open for approximately one (1) year from the date of publication, or until replaced by a successor. FOA proposals may be submitted at any time during this period. Selections for award will be made throughout this FOA open period of April 3, 2023 through April 2, 2024. The Government reserves the right not to review white papers or full proposals submitted after April 2, 2024, or after a successor to this FOA is issued, whichever occurs first. IMPORTANT NOTE: Offerors should consult the cognizant ONR STEM Point of Contact for each technology area regarding the desirability of White Paper submission

IMPORTANT NOTE: White Papers are NOT being solicited but ARE OPTIONAL if you wish to submit before submitting a proposal

7. Grants Officer

The Grants Officer for this announcement is identified in [Section G.2](#).

II. DETAILED INFORMATION ABOUT THE RESEARCH OPPORTUNITY

A. Program Description

ONR seeks a broad range of applications for augmenting existing and/or developing innovative solutions that directly maintain and/or cultivate a diverse, world-class Science, Technology, Engineering and FOA N00014-23-S-F005 FY23 Funding Opportunity Announcement for the Office of Naval Research STEM Program Mathematics (STEM) workforce to maintain the U.S. Navy and Marine Corps' technological superiority. The goal of proposed efforts must provide solutions that establish, build, and/or maintain STEM educational pathways and workforce opportunities for diverse U.S. citizens directly relevant to ONR science and technology areas.

As the capacity of the Department of the Navy (DON) Science and Technology (S&T) workforce is interconnected with STEM education and outreach, ONR recognizes the need to support efforts that can jointly improve STEM student outcomes and align education and outreach efforts with Naval S&T current and future workforce needs. This announcement explicitly encourages projects that improve the capacity of education systems and communities to create impactful STEM educational experiences for students of all ages and the naval-related workforce. Projects must aim to increase engagement in STEM, from students to the current workforce, and enhance people with needed Naval STEM skills, knowledge and abilities. ONR encourages applications to utilize current STEM educational research for informing project design and advancing STEM careers and opportunities of naval relevance.

This FOA is specifically seeking STEM education and outreach projects that address scientific and technical areas identified in the following thrust areas. Project scope may range in size and complexity. While not a formal requirement or program focus of this FOA, applicants are strongly encouraged to consider under-represented and under-served populations including women and minorities in project plans. Special audience priority areas may include, but not be limited to, military connected students, veteran initiatives, and education systems integral to naval science and technology

Specific items to be addressed are:

Cyber Protection – Defense in Depth

Background: Cybersecurity can be deployed at multiple levels often termed “defense in depth”. Levels can be categorized into:

- Application and data security
- Host or device security
- Network security

Opportunities exist to improve security at any or all of those levels.

Goal: The Principal Investigator will present an approach to educate high school students on the opportunities for understanding, deploying and configuring various levels of security. The goal is to enhance students' awareness of the impacts and tradeoffs for various layered security defense implementations. The instruction should not just be tutorials but interactive so that the students learn the types of tools/features and how to properly use them based on circumstances.

Procedure: An email to the ONR Program Officer is encouraged prior to submission of either a white paper or full proposal. Upon the results of such, the proposer will submit a white paper to the Program Officer and await further guidance as to submit a full proposal. Proposals of varying duration and pricing will be considered.

Point of Contact: Dr. Daniel P. Koller, Code 31, daniel.p.koller.civ@us.navy.mil

STEM interests supporting warfighter performance include:

- Human Physiology and Performance
- Medical and Biology
- Bio-centric Technologies
- Artificial Intelligence and Autonomy
- Training and Education
- Social and Cultural
- Command and Control

Point of Contact: Ms. Natalie Steinhauser, Code 34, natalie.b.steinhauser.civ@us.navy.mil

ONR Global STEM interests include:

- Advanced sustainment technologies
- Digital transformation (digital modeling, analysis, engineering, manufacturing, etc.)
- Advanced manufacturing and materials
- Alternate Navigation at High Latitude
- Expeditionary power
- Underwater High Bandwidth Communications
- Undersea Vehicle Technology

ONR Global Points of Contact, Code 600:

Undersea Vehicle Technology / New England area – Dr. James McGee, james.a.mcgee.civ@us.navy.mil

Norfolk VA area - Mr. Raoul Sheridan, raoul.p.sheridan.civ@us.navy.mil

Florida area – Dr. Chris Heagney, christopher.p.heagney.civ@us.navy.mil

San Diego area – Ms. Rebecca Boxerman, rebecca.a.boxerman.civ@us.navy.mil

DoDEA Schools – Mr. Kevin Quinn, kevin.quinn@c7f.tsp.navy.mil

Sustainment technologies – Ms. Tamara Kick, tamara.f.kick.civ@us.navy.mil

ONR STEM interests include:

- Innovative new STEM areas with a strong focus on diversity, equity and/or inclusion.

Point of Contact: Mr. William H. Ellis Jr, Code 31, william.h.ellis.civ@us.navy.mil

Applicants are STRONGLY ENCOURAGED to contact the appropriate Program Officer who is the point of contact for a specific technical area to discuss their research ideas

B. Federal Award Information

1. Eligibility for Competition

Proposals for supplementation of existing projects are eligible to compete with applications for new Federal awards under this FOA.

2. Funded Amount and Period of Performance

The funded amount and period of performance of each proposal selected for award may vary depending on the technology area and the technical approach to be pursued by the offeror selected.

3. Instrument Type

Grants awarded under this announcement will be governed by the award terms and conditions that conform to DoD's implementation of Office of Management and Budget (OMB) guidance applicable to financial assistance. The DoD Terms and Conditions and the ONR Addendum and ONR Programmatic Requirements are located at <https://www.nre.navy.mil/work-with-us/manage-your-award/manage-grant-award/grants-terms-conditions>.

- a. *Grant:*** A legal instrument that, consistent with 31 U.S.C. 6304, is used to enter into a relationship:
 - The principal purpose of which is to transfer a thing of value to the recipient to carry out a public purpose of support or stimulation authorized by a law of the United States, rather than to acquire property or services for the Federal Government's direct benefit or use.
 - Substantial involvement is not expected between the Federal Government and the recipient when carrying out the activity contemplated by the grant.
 - No fee or profit is allowed.

C. Eligibility Information

1. Eligible Applicants

All responsible sources from academia, non-profit organization and industry (for-profit) organizations may submit applications under this FOA. Foreign entities will be considered.

Historically Black Colleges and Universities, Hispanic-serving institutions, Tribal Colleges or Universities, Alaska Native-serving institutions, Native-Hawaiian-serving institutions, Asian American and Native American Pacific Islander-serving institutions, Native American-serving nontribal institutions,

Minority Institutions, and covered educational institutions in 10 USC 2362 are especially encouraged to apply.

Federally Funded Research & Development Centers (FFRDCs), including Department of Energy National Laboratories, are not eligible to receive awards under this FOA. However, teaming arrangements between FFRDCs and eligible principal applicants are allowed so long as they are permitted under the sponsoring agreement between the Government and the specific FFRDC.

Navy laboratories, military universities, and warfare centers as well as other DoD and civilian agency laboratories are also not eligible to receive awards under this FOA and must not submit either white papers or applications in response to this FOA. University Affiliated Research Centers (UARC) are eligible to submit white papers and/or proposals under this FOA unless precluded from doing so by their DoD UARC contract.

2. Cost Sharing or Matching

Cost sharing is not expected and will not be used as a factor during the merit review of any application hereunder. However, the Government may consider voluntary cost sharing if proposed.

D. Application and Submission Information

1. Address to Request Application Package

This FOA may be accessed from the sites below. Amendments, if any, to this FOA will be posted to these websites when they occur. Interested parties are encouraged to periodically check these websites for updates and amendments.

- Grants.gov (www.grants.gov)
- ONR website (<https://www.nre.navy.mil/work-with-us/funding-opportunities>)

2. Content and Form of Application Submission

a) General Information

All submissions will be protected from unauthorized disclosure in accordance with applicable law and DoD/DoN regulations. Applicants are expected to appropriately mark each page of their submission that contains any proprietary information.

Titles given to the submissions should be descriptive of the work they cover and not be merely a copy of the title of this announcement.

White Papers are frequently desired by ONR Program Officers. Offerors should consult the cognizant ONR STEM Point of Contact for each technology area regarding the desirability of White Paper submissions. If White Papers are desired the following format and submission will be followed

b) White Papers

i. Format

- Paper size – 8.5x11-inch
- Margins – 1 inch
- Spacing – single-spaced
- Font – Times New Roman, 12-point
- Page limit – 5 pages, excluding cover page and references

ii. Content

White papers shall include the following:

- Cover Page (MANDATORY): The Cover Page can be found at <https://www.nre.navy.mil/work-with-us/how-to-apply/submit-grant-application> for grant submissions. FedConnect will not accept a white paper unless the Cover Sheet is included. The Program Officer's information is a required field on the cover sheet.

The Program Officer can be found in Section G., Federal Awarding Agency Contacts.

- Technical Concept (no more than one page): A description of the effort for STEM FOA, including the objective and proposed approach, and the technology innovation
- Naval Relevance (no more than one page): A descriptions of potential Naval relevance and contributions of the effort to the agency's specific mission
- Project Schedule (no more than one page): A summary of the schedule of events and milestones.
- Rough Order of Magnitude (ROM) (no more than one page): An estimation of the total project cost for each year of award.
- Evaluation Approach (no more than one page): A description of a set of programs specific measures of performance and measures of effectiveness appropriate to goals of the project. (if needed)

iii. Submissions

ONR utilizes FedConnect for the submission of white papers. FedConnect is a web portal that bridges the gap between government agencies and performers to streamline the process of doing business with the government. Through this portal, performers will be able to review opportunities and submit white papers. To access FedConnect go to <https://www.fedconnect.net/FedConnect/default.htm>.

1. How to register for FedConnect

FedConnect how to guide can be found at

https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect_Ready_Set_Go.pdf.

- a. Register with SAM: All organizations applying online through FedConnect must register with the System for Award Management (SAM) and will receive a unique entity identifier (UEI) number. Failure to register with SAM will prevent your organization from applying through FedConnect. SAM registration must be renewed annually. If you have not registered in SAM, go to <https://www.sam.gov/SAM/>.

If you are the first person in your organization to register in FedConnect, your SAM Marketing Partner ID (SAM MPIN) will also be required. It is the number that is set up by your organization as part of the registration in SAM.gov.

- b. Create a FedConnect account: The next step in the registration process is to create an account with FedConnect.

2. FedConnect Assistance

If you need assistance, the FedConnect Support Team is standing by to assist you.

Email: fcsupport@unisonglobal.com

Phone: 1-800-899-6665

Hours: Monday – Friday, 8 a.m. to 8 p.m. EDT. Closed on Federal holidays.

FedConnect Frequently Asked Questions can be found on the ONR website at <https://www.nre.navy.mil/work-with-us/how-to-apply/frequently-asked-questions>.

Do not use the Message Center within FedConnect to submit questions, please email the technical point of contact identified in Section G Federal Awarding Agency Contacts.

c) *Full Proposals*

Prospective applicants must complete the mandatory forms in accordance with the instructions provided on the forms and the additional instructions below. Files that are attached to the forms must be in Adobe Portable Document Format (.PDF); cannot contain macros; and cannot be password protected. **If your attachments are not PDF, contain macros or are password protected, they will not pass ONR's automated acceptance check and will need to be resubmitted.** Block 2, "Type of Application" on the SF 424 should be marked "New" on the resubmission.

i. **Format for Technical Proposal**

- Paper size – 8.5 x 11 inch
- Margins – 1 inch
- Spacing – single-spaced
- Font – Times New Roman, 12-point
- Page Limit – Technical Proposal: no more than 25.5 pages.

A technical proposal must include the following sections:

- Cover Page
- Table of Contents
- Technical Approach– no more than 13 pages
- Naval Relevance- no more than 2 pages
- Project Schedule and Milestones – no more than 2 pages
- Reports – no more than one-half page
- Evaluation Approach – no more the 2 pages
- Management Approach – no more than 2 pages
- Qualifications – no more than 2 pages
- Responsibilities – no more than 2 pages

NOTE: The following components are excluded from the 25.5 page limit

- Cover page
- Table of contents
- Letters of Support and interest (optional)
- Cited Reference (optional)
- Current/pending project submission

There are no page limitations for the budget.

ii. Content

NOTE: The electronic file name for all documents submitted under this FOA must not exceed 68 characters in length, including the file name extension.

Mandatory SF-424 Research and Related (R&R) Family Forms

The mandatory forms are found at <https://www.grants.gov/web/grants/forms.html>

(1) SF-424 (R&R)

The SF-424 (R&R) form must be used as the cover page for all proposals. Complete all required fields in accordance with the “pop-up” instructions on the form and the following instructions for specific fields. Please complete the SF-424 first, as some fields on the SF-424 are used to auto-populate fields on other forms. Guidance can be found at <https://www.grants.gov/web/grants/forms/r-r-family.html>.

The completion of most fields is self-explanatory with the exception of the following special instructions:

- Field 3 - Date Received by State: Leave Blank
- Field 4a - Federal Identifier: For new proposals, enter N00014. If the application is a renewal or expansion of an existing award, enter the ONR award number. Note: There is a space between the code and the first [and between the , and the First Name. There is no space between the first [

and the last name.

- Field 4b - Agency Routing Number: Enter the three (3) digit Program Office Code and the Program Officer's name, last name first, in brackets (e.g., 331 [Smith, John]). Note: There is a space between the code and the first [and between the , and the First Name. There is no space between the first [and the last name.
 - Where the Program Office Code only has two digits, add a "0" directly after the Code (e.g., Code 31 would be entered as 310)
 - Use Code 600 for ONRG.

Applicants who fail to provide a Program Officer Code identifier may receive a notice that their proposal is rejected.

- Field 4c - Previous Grants.gov Tracking ID: If this submission is for a Changed/Corrected Application, enter the Grants.gov tracking number of the previous proposal submission; otherwise, leave blank.
- Field 5 – Application Information: Email address entered by the grantee on the SF424 application to create the EDA notification profile. ONR recommends that organizations provide a global business address.
- Field 7 - Type of Applicant. Complete as indicated: If the organization is a Minority Institution, select "Other" and under "Other (Specify)" note that the institution is a Minority Institution (MI).
- Field 9 - Name of Federal Agency: List the Office of Naval Research as the reviewing agency. This field is pre-populated in Grants.gov.
- Field 11 – Descriptive Title of Applicant's Project: Include the ONR White Paper Tracking Number provided to the applicant by ONR.
- Field 14 – Project Director/Principal Investigator: Email address entered by the grantee on the SF424 application to create the EDA notification profile
- Field 16 - Is Application Subject to Review by State Executive Order 12372 Process? Choose "No". Check "Program is Not Covered by Executive Order 12372."
- Field 17 – Certification: All awards require some form of certifications of compliance with national policy requirements. By checking "I Agree" on the SF 424 (R&R) block 17 you agree to abide by the following statement: "By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. code, Title18, Section 1001).
- Field 19 – Authorized Representative: Email address entered by the grantee on the SF424 application to create the EDA notification profile.

(2) PROJECT/ABSTRACT

The project summary/abstract must identify the STEM problem and objectives, technical approaches, anticipated outcome of the research, if successful, and impact on DoD capabilities. Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed and there is a one page or 4,000-character including spaces limit whichever is less.

Do not include proprietary or confidential information. The project summary/abstract must be marked by the applicant as “Approved for Public Release”. Abstracts of all funded research projects will be posted on the public DTIC website: <https://publicaccess.dtic.mil/search/#/grants/simpleSearch>

(3) RESEARCH AND RELATED OTHER PROJECT INFORMATION

- Fields 1 and 1a – Human Subject Use: Each proposal must address human subject involvement in the research by completing Fields 1 and 1a of the R&R Other Project Information form. For proposals containing activities that include or may include “research involving human subject” as defined in DoDI 3216.02, prior to award, the Applicant must submit the required documentation under “Use of Human Subjects in Research” (Section F).
- Fields 2 and 2a – Vertebrate Animal Use: Each proposal must address animal use protocols by addressing Fields 2 and 2a of the R&R Other Project Information form. If animals are to be utilized in the research effort proposed, the applicant must submit the documents described under “Use of Animals” (Section F).
- Fields 4a through 4d – Environmental Compliance: Address these fields and briefly indicate whether the intended research will result in environmental impacts outside the laboratory, and how the applicant will ensure compliance with environmental statutes and regulations.

Federal agencies making grant or cooperative agreement awards and recipients of such awards must comply with all applicable environmental planning and regulatory compliance requirements. The National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321 et seq. for example, requires that agencies consider the environmental impact of “major Federal actions” prior to any final agency decision. With respect to those awards which constitute “major Federal actions,” as defined in 40 CFR 1508.18, federal agencies may be required to comply with NEPA and prepare environmental planning documentation such as an environmental impact statement (EIS), even if the agency does no more than provide grant funds to the recipient. Most field research funded by ONR, however, constitute activities covered by a NEPA categorical exclusion that do not require preparation of further environmental planning documentation. This is particularly true with regard to basic and applied scientific research conducted entirely within the confines of a laboratory, if the research complies with all other applicable safety, environmental and natural resource conservation laws. Questions regarding NEPA or other environmental planning or regulatory compliance issues should be referred to the technical point of contact.

- Field 7 – Project Summary/Abstract: Leave Field 7 blank; complete Form SF 424 Project Abstract. If an error message occurs when leaving Block 7 blank, upload the Project Abstract.
- Field 8 – Project Narrative: Clearly describe the STEM FOA, including the objective and approach to be performed, keeping in mind the evaluation criteria. Attach the entire proposal narrative to

R&R Other Project Information form in Field 8. To attach a Project Narrative to Field 8, click on “Add attachment” and attach the technical proposal as a single PDF file. Save the file as “Technical Proposal” as typing in the box is prohibited.

The technical proposal must describe the STEM EFFORT in sections as described below:

- **Cover Page (not included in page limit):** This must include the words “Technical Proposal” and the following:
 - FOA Number: N00014-23-S-F005;
 - Title of proposal;
 - Identity of prime applicant and complete list of subawardees, if applicable;
 - Technical contact (name, address, phone/fax, electronic mail address);
 - Administrative/business contact (name, address, phone/fax, electronic mail address); and
 - Proposed period of performance (identify both the base period and options, if included).
- **Table of Contents (not included in page limit):** An alphabetical/numerical listing of the sections within the proposal, including corresponding page numbers.
- **Technical Approach (included in page limit):** Describe the technical concepts that will be investigated, providing the complete plan for this STEM EFFORT. Describe what is innovative about the proposed approach. Provide the proposed approach compared to alternate approaches other researchers in the field have taken. Given the successful completion, describe the results, new knowledge, or insights.
 - **Future Naval Relevance:** A description of potential Naval relevant and contributions of the effort to the agency’s specific mission.
 - **Project Schedule and Milestones:** A summary of the schedule of events and milestones.
- **Management Approach (included in page limit):** Describe the overall management approach and provide rationale for participation of key team members. Describe the planned relationships with any subawardees or collaborators. This is a single PI award; if there are subawardees or collaborators, explain how the proposed team fits the single PI structure. If appropriate, briefly describe anticipated schedule.
- **Principal Investigator Qualifications (included in page limit):** A discussion of the qualifications of the proposed Principal Investigator and any other key personnel.
- **Responsibility (included in page limit):** Applicants must provide the following information to ONR in order to assist in ONR’s evaluation of the applicant’s responsibility:
 - Describe how you have adequate resources or the ability to obtain such resources as required to complete the activities proposed.
 - Describe how you have the ability to comply with the grant conditions, taking into account all existing and currently prospective commitments of the applicant, nongovernmental and governmental.

- Describe your performance history; specifically, your record in managing Federal awards and the extent to which any previously awarded amounts will be expended prior to future awards.
 - Describe your record of integrity and business ethics.
 - Describe qualifications and eligibility to receive an award under applicable laws and regulations.
 - Describe your organization, experience, accounting, and operational controls and technical skills, or the ability to obtain them (including as appropriate such elements as property control systems, quality assurance measures, and safety programs applicable to the efforts to be performed).
 - In no more than 2 pages, discuss the following:
 - The types of data, software, and other materials to be produced.
 - How the data will be acquired.
 - Time and location of data acquisition, if scientifically pertinent.
 - How the data will be processed.
 - The file formats and the naming conventions that will be used.
 - A description of the quality assurance and quality control measures during collection, analysis, and processing.
 - A description of dataset origin when existing data resources are used.
 - A description of the standards to be used for data and metadata format and content.
 - Appropriate timeframe for preservation.
 - The plan may consider the balance between the relative value of data preservation and other factors such as the associated cost and administrative burden. The plan will provide a justification for such decisions.
 - A statement that the data cannot be made available to the public when there are national security or controlled unclassified information concerns (e.g., “This data cannot be cleared for public release in accordance with the requirements in DoD Instruction 5230.09.”) (DoD Instruction 5230.09 can be found at:
<https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/523009p.pdf?ver=nuEwULZ-197fNysiam2Mnw%3d%3d>)
- Field 9 – Bibliography & Referenced Cited: Upload your Bibliography/Referenced cited as a single PDF.
 - Field 10 – Facilities & Other Resources: Describe facilities available for performing the proposed effort for STEM FOA and any additional facilities the applicant proposes to acquire at its own expense. Indicate government-owned facilities already possessed that will be used. (Additional equipment will not be provided unless the research cannot be completed by any other practical means.)
 - Field 11 – Equipment: Describe any equipment available or any additional equipment the application proposes to acquire at its own expense. Indicate government owned equipment that will be use. Justify the need for each equipment item and provide vendor quotes. (Additional equipment will not be provided unless the research cannot be completed by any other practical means.)

- Field 12 – Other Attachments: Optional, as necessary

Grants do not include the delivery of software, prototypes or other hardware deliverables.

(4) RESEARCH AND RELATED BUDGET

The applicant must use the Grants.gov forms (including the Standard Form (SF) Research and Related (R&R) Budget Form) from the application package template associated with the FOA on the Grants.gov web site located at <http://www.grants.gov/>. If options are proposed, the cost proposal must provide the pricing information for the option periods; failure to include the proposed costs for the option periods will result in the options not being included in the award. The applicant shall provide a detailed cost breakdown of all costs, by cost category.

A separate Adobe .pdf document shall be included in the application that provides appropriate justification and/or supporting documentation for each element of cost proposed and include a link to the current since audit report. This document shall be attached under Section K. “Budget Justification” of the Research and Related Budget form. Click “Add Attachment” to attach.

- **Part 1:** The itemized budget should include the following. All costs should be rounded to the nearest dollar.
- Direct Labor – Individual labor categories or persons, with associated labor hours and unburdened direct labor rates. Provide escalation rates for out years.
- Administrative and Clerical Labor – Salaries of administrative and clerical staff are normally indirect costs (and included in an indirect cost rate). Direct charging of these costs may be appropriate when a major project requires an extensive amount of administrative or clerical support significantly greater than normal and routine levels of support. Budgets proposing direct charging of administrative or clerical salaries must be supported with a budget justification which adequately describes the major project and the administrative and/or clerical work to be performed.

Fringe Benefits and Indirect Costs (Facilities and Administration (F&A), Overhead, G&A, etc.) – The proposal should show the rates and calculation of the costs for each rate category. If the rates have been approved/negotiated by a Government agency, provide a copy of the memorandum/agreement. If the non-Federal entity has never received a negotiated indirect cost rate, they may elect to charge a de minimis rate of 10% of modified total direct costs or provide sufficient detail to enable a determination of allowability, allocability and reasonableness of the allocation bases, and how the rates are calculated. See 2 CFR 200.414(f) regarding the use of a de minimis rate.

- Travel – The proposed travel cost **must** include the following for each trip: the purpose of the trip, origin and destination if known, approximate duration, the number of travelers, and the estimated cost per trip must be justified based on the organizations historical average cost per trip or other reasonable basis for estimation. Such estimates and the resultant costs claimed must conform to the applicable Federal cost principles. Applicants may include travel costs for the Principal Investigator to attend the peer reviews described in Section II of this FOA.
- Subawards/Subcontracts – Provide a description of the work to be performed by the

subrecipient/subcontractor. For each subaward, a detailed cost proposal is required to be submitted by the subrecipient(s) using the R&R budget form. The same requirements for the individual categories identified in this section apply to the subaward/subcontract, including any applicable indirect rate agreement/documentation. Include subrecipient(s) name at the top of the budget justification document. Subaward entities are required to have a UEI number. A proposal and any supporting documentation must be received and reviewed before the Government can complete its cost analysis of the proposal and enter negotiations. ONR's preferred method of receiving subcontract information is for this information to be included with the Prime's proposal. However, a subcontractor's cost proposal can be provided in a sealed envelope with the recipient's cost proposal or via e-mail directly to the Program Officer at the same time the prime proposal is submitted. The e-mail should identify the proposal title, the prime applicant and that the attached proposal is a subcontract.

- Consultants – Provide a breakdown of the consultant's hours, the hourly rate proposed, and any other proposed consultant costs, a copy of the signed Consulting Agreement or other documentation supporting the proposed consultant rate/cost, and a copy of the consultant's proposed statement of work if it is not already separately identified in the prime applicant's proposal.
- Materials & Supplies – Provide an itemized list of all proposed materials and supplies including quantities, unit prices, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).
- Recipient Acquired Equipment or Facilities – Equipment and/or facilities are normally furnished by the Recipient. If acquisition of equipment and/or facilities is proposed, a justification for the purchase of the items must be provided. Provide an itemized list of all equipment and/or facilities costs and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists). General purpose equipment (i.e., equipment not used exclusively for STEM FOA or other technical activities, such as personal computers, laptops, office equipment) should not be requested unless they will be used primarily or exclusively for the project. For computer/laptop purchases and other general purpose equipment, if proposed, include a statement indicating how each item of equipment will be integrated into the program or used as an integral part of the STEM effort. Applicants must provide vendor quotes for any proposed capital equipment costs.
- Other Direct Costs – Provide an itemized list of all other proposed other direct costs such as Graduate Assistant tuition, laboratory fees, report and publication costs, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

The funds provided by ONR (including ONRG), generally may not be used to pay for food or beverages as a direct cost except in exceptional circumstances. The funds shall not be used for food or beverages unless

- a. The grant proposal contains a request for such funding that is fully supported factually in accordance with the cost principles of the relevant OMB Circular, and
 - b. The Grants Officer determines that the funding is a reasonable, allocable, allowable expense under the relevant cost principles.
- Fee/Profit – Fee/profit is unallowable under assistance agreements at either the prime or subaward level but may be permitted on contracts issued by the prime awardee.

(5) RESEARCH AND RELATED SENIOR/KEY PERSON PROFILE (EXPANDED)

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.

The R&R Senior/Key Person Profile (Expanded) form will be used to collect the following information for all senior/key personnel, including Project Director/Principal Investigator and Co-Project Director/Co-Principal Investigator, whether or not the individuals' efforts under the project are to be funded by the DoD:

- Degree Type and Degree Year fields as the source for career information.
- Current and Pending Support shall include a list of all current projects the individual is working on, in addition to any future support the individual has applied to receive, regardless of the source. Upload this document by clicking “Add Attachment.” The following information shall be included for each current or pending project:
 - Title and objectives
 - The percentage per year to be devoted to the other projects
 - The total amount of support the individual is receiving in connection to each of the other STEM projects or will receive if the other proposals are awarded
 - Name and address of the agencies and/or other parties supporting the other research projects
 - Period of performance for the other research projects
- Upload the biosketch/CV/resume to the Biographical Sketch field.

Additional senior/key persons can be added by selecting the “Next Person” button. Note that, although applications without these fields completed may pass Grants.gov edit checks, if ONR receives an application without the required information, ONR may determine that the application is incomplete and may cause it to be returned without further review. DoD reserves the right to request further details from the applicant before making a final determination on funding the effort.

(6) RESEARCH AND RELATED PERSONAL DATA

This form will be used by ONR 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-Director/Co-Principal Investigator can be added by selecting the “Next Person” button. The demographic information may be accessible to the reviewer, but will not be considered in the evaluation. Applicants who do not wish to provide some or all of the information should check or select the “Do not wish to provide” option.

3. Unique Entity Identifier (UEI) and System for Award Management (SAM)

All applicants submitting proposals or applications **must**:

- a) Be registered in SAM prior to submission;
- b) Provide a valid UEI number in each application or proposal it submits to the agency;
- c) Maintain an active SAM registration with current information at all times during which it has an active Federal award or an application under consideration by a Federal awarding agency; and

SAM may be accessed at <https://www.sam.gov/content/home>.

A Federal awarding agency may not make a Federal award to an applicant/offeree until the applicant has complied with all applicable unique entity identifier and SAM requirements and, if an applicant/offeree has not fully complied with the requirements by the time the Federal awarding agency is ready to make a Federal award, the Federal awarding agency may determine that the applicant/offeree is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant/offeree.

4. Submission Dates and Times

See Section A.6 above, “Key Dates” for information.

5. Funding Restrictions

Section 889 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2019 (Public Law 115-232) prohibits the head of an executive agency from obligating or expending loan or grant funds to procure or obtain, extend, or renew a contract to procure or obtain, or enter into a contract (or extend or renew a contract) to procure or obtain the equipment, services, or systems prohibited systems as identified in section 889 of the NDAA for FY 2019.

1. In accordance with 2 CFR 200.216 and 200.471, all awards that are issued on or after August 13, 2020, recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:
 - (1) Procure or obtain;
 - (2) Extend or renew a contract to procure or obtain; or
 - (3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
 - (i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
 - (ii) Telecommunications or video surveillance services provided by such entities or using such equipment.
 - (iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the

National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

2. In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.
3. See Public Law 115-232, section 889 for additional information.

COVERED FOREIGN COUNTRY means the People's Republic of China.

6. Other Submission Requirements

Grants.gov Application Submission and Receipt Procedures

This section provides the application submission and receipt instructions for the Office of Naval Research (ONR) program applications. Please read the following instructions carefully and completely.

a. Electronic Delivery

ONR is participating in the Grants.gov initiative to provide the grant community with a single site to find and apply for grant funding opportunities. ONR applicants shall submit their applications online through Grants.gov.

b. How to Register for Grants.gov

- i. *Instructions:* Read the instructions below about registering to apply for ONR funds. Applicants should read the registration instructions carefully and prepare the information requested before beginning the registration process. Reviewing and assembling the required information before beginning the registration process will alleviate last-minute searches for required information.

Organizations must have an active System for Award Management (SAM) registration, and Grants.gov account to apply for grants. If individual applicants are eligible to apply for this funding opportunity, then you may begin with step 3, Create a Grants.gov Account, listed below.

Creating a Grants.gov account can be completed online in minutes, but SAM registrations may take additional time. Therefore, an organization's registration should be done in sufficient time to ensure it does not impact the entity's ability to meet required application submission deadlines.

Complete organization instructions can be found on Grants.gov here:

<https://www.grants.gov/web/grants/applicants/organization-registration.html>

- 1) *Register with SAM:* All organizations applying online through Grants.gov must register with the System for Award Management (SAM). Failure to register with SAM will prevent your organization from applying through Grants.gov. SAM registration must be renewed annually.

For more detailed instructions for registering with SAM, refer to:

<https://www.grants.gov/web/grants/applicants/organization-registration/step-2-register-with-sam.html>

2) *Create a Grants.gov Account*: The next step in the registration process is to create an account with Grants.gov. Follow the on-screen instructions or refer to the detailed instructions here at:

<https://www.grants.gov/web/grants/applicants/registration.html>

3) *Add a Profile to a Grants.gov Account*: A profile in Grants.gov corresponds to a single applicant organization the user represents (i.e., an applicant) or an individual applicant. If you work for or consult with multiple organizations and have a profile for each, you may log in to one Grants.gov account to access all of your grant applications. To add an organizational profile to your Grants.gov account, enter the UEI Number for the organization in the UEI field while adding a profile. For more detailed instructions about creating a profile on Grants.gov, refer to

<https://www.grants.gov/web/grants/applicants/registration/add-profile.html>

4) *EBiz POC Authorize Profile Roles*: After you register with Grants.gov and create an Organization Applicant Profile, the organization applicant's request for Grants.gov roles and access is sent to the EBiz POC. The EBiz POC will then log in to Grants.gov and authorize the appropriate roles, which may include the Authorized Organization Representative (AOR) role, thereby giving you permission to complete and submit applications on behalf of the organization. You will be able to submit your application online any time after you have been assigned the AOR role. For more detailed instructions about creating a profile on Grants.gov, refer to

<https://www.grants.gov/web/grants/applicants/registration/authorize-roles.html>

5) *Track Role Status*: To track your role request, refer to:

<https://www.grants.gov/web/grants/applicants/registration/track-role-status.html>

- ii. *Electronic Signature*: When applications are submitted through Grants.gov, the name of the organization's AOR that submitted the application is inserted into the signature line of the application, serving as the electronic signature. The EBiz POC **must** authorize individuals who are able to make legally binding commitments on behalf of the organization as an AOR; **this step is often missed and it is crucial for valid and timely submissions.**

c. **How to Submit an Application to the Office of Naval Research via Grants.gov**

White Papers must **NOT** be submitted through the Grants.gov application process. White paper submissions must be submitted through FedConnect.

All attachments to grant applications submitted through Grants.Gov must be in Adobe Portable Document Format. Proposals with attachments submitted in word processing, spreadsheet, or any format other than Adobe Portable Document Format will not be considered for award.

Grants.gov applicants can apply online using Workspace. Workspace is a shared, online environment where members of a grant team may simultaneously access and edit different web forms within an application. For each funding opportunity announcement (FOA), you can create individual instances of a workspace.

Below is an overview of applying on Grants.gov. For access to complete instructions on how to apply for opportunities, refer to:

<https://www.grants.gov/web/grants/applicants/workspace-overview.html>

1) *Create a Workspace*: Creating a workspace allows you to complete it online and route it through your organization for review before submitting.

2) *Complete a Workspace*: Add participants to the workspace, complete all the required forms, and check for errors before submission. The Workspace progress bar will display the state of your application process as you apply. As you apply using Workspace, you may click the blue question mark icon near the upper-right corner of each page to access context-sensitive help.

- a. *Adobe Reader*: If you decide not to apply by filling out web forms you can download individual PDF forms in Workspace so that they will appear similar to other Standard or ONR forms. The individual PDF forms can be downloaded and saved to your local device storage, network drive(s), or external drives, then accessed through Adobe Reader.

NOTE: Visit the Adobe Software Compatibility page on Grants.gov to download the appropriate version of the software at:

<https://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html>

- b. *Mandatory Fields in Forms*: In the forms, you will note fields marked with an asterisk and a different background color. These fields are mandatory fields that must be completed to successfully submit your application.
- c. *Complete SF-424 Fields First*: The forms are designed to fill in common required fields across other forms, such as the applicant name, address, and UEI number. To trigger this feature, an applicant must complete the SF-424 information first. Once it is completed, the information will transfer to the other forms.

3) *Submit a Workspace*: An application may be submitted through workspace by clicking the Sign and Submit button on the Manage Workspace page, under the Forms tab. Grants.gov recommends submitting your application package **at least 24-48 hours prior to the close date** to provide you with time to correct any potential technical issues that may disrupt the application submission.

4) *Track a Workspace*: After successfully submitting a workspace package, a Grants.gov Tracking Number (GRANTXXXXXXXX) is automatically assigned to the package. The number will be listed on the Confirmation page that is generated after submission. Using the tracking number, access the Track My Application page under the Applicants tab or the Details tab in the submitted workspace.

For additional training resources, including video tutorials, refer to:

<https://www.grants.gov/web/grants/applicants/applicant-training.html>

Applicant Support: Grants.gov provides applicants 24/7 support via the toll-free number 1-800-518-4726 and email at support@grants.gov. (Foreign applicants should contact 1-606-545-5035.) For questions related to the specific grant opportunity, contact the number listed in the application package of the grant for which you are applying.

If you are experiencing difficulties with your submission, it is best to call the Grants.gov Support Center and get a number. The Support Center ticket number will assist ONR with tracking your issue and understanding background information on the issue.

d. Timely Receipt Requirements and Proof of Timely Submission

i. Online Submission.

All applications must be received by 11:59 pm Eastern time on April 2, 2024. Proof of timely submission is automatically recorded by Grants.gov. An electronic date/time stamp is generated within the system when the application is successfully received by Grants.gov. The applicant AOR will receive an acknowledgement of receipt and a tracking number (GRANTXXXXXXXX) from Grants.gov with the successful transmission of their application. Applicant AORs will also receive the official date/time stamp and Grants.gov Tracking number in an email serving as proof of their timely submission.

When the Office of Naval Research successfully retrieves the application from Grants.gov, and acknowledges the download of submissions, Grants.gov will provide an electronic acknowledgment of receipt of the application to the email address of the applicant with the AOR role. Again, proof of timely submission shall be the official date and time that Grants.gov receives your application. Applications received by Grants.gov after the established due date for the program will be considered late and will not be considered for funding by the Office of Naval Research.

Applicants using slow internet, such as dial-up connections, should be aware that transmission can take some time before Grants.gov receives your application. Again, Grants.gov will provide either an error or a successfully received transmission in the form of an email sent to the applicant with the AOR role. The Grants.gov Support Center reports that some applicants end the transmission because they think that nothing is occurring during the transmission process. Please be patient and give the system time to process the application.

E. Application Review Information

1. Criteria

The primary basis for selecting proposals for acceptance will be technical merit, importance to agency programs, and fund availability. To the extent appropriate, cost realism and reasonableness will also be considered when selecting proposals. ONR reserves the right to request and require any additional information and documentation after it makes the type of award instrument determination. ONR reserves the right to remove Applicant s from award consideration when the parties fail to reach agreement on award terms, conditions, and cost/price within a reasonable time, or when the Applicant fails to timely provide requested or required additional information.

Applicant's white papers and full proposals will be evaluated against the following criteria:

- 1) Overall scientific and technical merits of the proposal and responsiveness to the topic, i.e., the degree of innovation, soundness of technical concept, Applicant's awareness of the state of the art and understanding of the scope of the problem, significance and originality of the technical approach and effort needed to address/solve the problem, and anticipated scientific impact within the field. The following areas will also be considered: (A) the Applicant's capabilities, related experience, facilities, techniques or unique combinations of these which are integral factors for achieving the proposal objectives, and (B) the qualifications, capabilities and experience of the proposed Principal Investigator (PI), team leader and key personnel who are critical to achieving the proposal objectives.

2) Potential Naval relevance and contribution to the ONR and Department of Navy mission. Contribution to advance STEM education, outreach and workforce opportunities.

3) The availability of funds. *(Not applicable to white papers.)*

In addition, per NDAA 2021 Section 1062, beginning October 1, 2024, DoD may not fund institutions of higher education (as defined by 20 USC 1002) that host a Confucius Institute, other than amounts provided directly to students as education assistance, unless a waiver is provided. A Confucius Institute is defined as a cultural institute directly or indirectly funded by the Government of the People's Republic of China.

Criteria 1, 2, and 3 are equally important.

2. Review and Selection Process

a. Evaluation

Proposals will not be evaluated against each other since they are not submitted in accordance with a common work statement. ONR's intent is to review all proposals received as soon as possible after they arrive; however, proposals may be reviewed periodically for administrative reasons.

The ultimate recommendation for award of proposals is made by ONR's scientific/technical community. Recommended proposals will then be forwarded to the ONR Contracts and Grant Awards Management office. Any notification received from ONR that indicates that the Applicant's full proposal has been recommended does not ultimately guarantee an award will be made. This notice indicates that the proposal has been selected in accordance with the evaluation criteria stated above and has been sent to the Grant's Department to conduct cost analysis, determine the Applicant's responsibility, to confirm whether funds are available, and to take other relevant steps necessary prior to making an award.

b. Options

The Government will evaluate options for award purposes by adding the total cost for all options to the total cost for the basic requirement. Evaluation of options will not obligate the Government to exercise the options during contract or grant performance. The Government reserves the right to exercise options at time of award.

c. Evaluation Panel

Technical and cost proposals submitted under this FOA will be protected from unauthorized disclosure. The cognizant Program Officer and other Government scientific experts will perform the evaluation of technical proposals. Restrictive notices notwithstanding, one or more support contractors may be utilized as subject-matter-expert technical consultants. However, proposal selection and award decisions are solely the responsibility of Government personnel. Each support contractor's employee having access to technical and cost proposals submitted in response to this FOA will be required to sign the ONR Non-Disclosure Agreement (NDA) for Contractor Support prior to receipt of any proposal submissions. This

NDA includes third-party beneficiary language giving the submitter of proprietary information a right of direct action against the contractor employee and/or his/her employer in the event that the NDA is violated.

3. Recipient Qualifications

a. Recipient Qualifications

The Grants Officer is responsible for determining a recipient's qualification prior to award. In general, a Grants Officer will award grant, cooperative agreements, or TIAs only to qualified recipients that meet the standards at 32 CFR 22.415. To be qualified, a potential recipient must:

- i. Have the management capability and adequate financial and technical resources, given those that would be made available through the grant or cooperative agreement, to execute the program of activities envisioned under the grant or cooperative agreement;
- ii. Have a satisfactory record of executing such programs or activities (if a prior recipient of an award);
- iii. Have a satisfactory record of integrity and business ethics; and
- iv. Be otherwise qualified and eligible to receive a grant or cooperative agreement under applicable laws and regulations. Applicants are requested to provide information with proposal submissions to assist the Grants Officer's evaluation of recipient qualification.

b. FAPIIS

In accordance with Office of Management and Budget (OMB) guidance in parts 180 and 200 of Title 2, CFR, it is DoD policy that DoD Components must report and use integrity and performance information in the Federal Awardee Performance and Integrity Information System (FAPIIS), or any successor system designated by OMB, concerning grants, cooperative agreements, and TIA's as follows:

If the total Federal share will be greater than the simplified acquisition threshold on and Federal award under a notice of funding opportunity (see 2 CFR 200.88 Simplified Acquisition Threshold):

- i. The Federal awarding agency, prior to making a Federal award with a total amount of Federal share greater than the simplified acquisition threshold, will review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (currently FAPIIS) (see 41 U.S.C. 2313);
- ii. An applicant, at its option, may review information in the designated integrity and performance systems accessible through SAM and comment on any information about itself that a Federal awarding agency previously entered and is currently in the designated integrity and performance system accessible through SAM;
- iii. The Federal awarding agency will consider any comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as

described in 2 CFR 200.205 Federal awarding agency review of risk posed by applicants.

F. Federal Award Administration Information

1. Federal Award Notices

a) Email

All applicants will receive a notification email advising if their proposal has been selected or not selected for recommendation for award.

Applicants whose proposals are recommended for award may be contacted by a Grant Specialist to discuss additional information required for award. This may include representations and certifications, revised budgets or budget explanations, and/or other information as applicable to the proposed award.

The notification e-mail must not be regarded as an authorization to commit or expend funds. The Government is not obligated to provide any funding until a Government Grants Officer, as applicable, signs the award document.

The award document signed by the Grants Officer is the official and authorizing award instrument.

b) Electronic Document Access (EDA)

Office of Naval Research (ONR) award/modification documents are only available via the Department of Defense (DoD) Electronic Document Access System (EDA) within the Procurement Integrated Enterprise Environment (PIEE) (<https://piee.eb.mil/piee-landing/>).

2. Administrative and National Policy Requirements

a) Export Control

Applicants are responsible for ensuring compliance with all U.S. export control laws and regulations, including the International Traffic in Arms Regulation (ITAR)(22 CFR Parts 120 - 130) and Export Administration Regulation (EAR) (15 CFR Parts 730 – 774), as applicable. In some cases, developmental items funded by the Department of Defense are now included on the United States Munition List (USML) (22 CFR Part 121) and are therefore subject to ITAR jurisdiction. In other cases, items that were previously included on the USML have been moved to the EAR Commerce Control List (CCL). Applicants should address in their proposals whether ITAR or EAR restrictions apply to the work they are proposing to perform for ONR. The ITAR and EAR are available online at <http://www.ecfr.gov/cgi-bin/ECFR?page=browse>. Additional information regarding the President's Export Control Reform Initiative can be found at <https://export.gov/ecr/index.asp>.

Applicants must comply with all U.S. export control laws and regulations, including the ITAR and EAR, in the performance of any award or agreement resulting from this FOA. Applicants shall be responsible for obtaining any required licenses or other approvals, or license exemptions or exceptions if applicable,

for exports of hardware, technical data, and software (including deemed exports), or for the provision of technical assistance.

b) Requirements Concerning Live Organisms:

i. Use of Animals:

The DoD policies and requirements for the use of animals in DoD-supported research are described in the current version of DoD Instruction 3216.01, Use of Animals in DoD Conducted and Supported Research and Training and its implementing instruction, DHA-MSR 6025.02, “The Care And Use Of Animals In DoD Research, Development, Test, And Evaluation (RDT&E) Or Training Programs,” the version of which is current at the time of award. If animals are to be utilized in the research effort proposed, the Applicant must submit a Full Appendix or Abbreviated Appendix (see Guidance link below) with supporting documentation (such as copies of Institutional Animal Care and Use Committee (IACUC) Approval, IACUC Approved Protocol, and most recent United States Department of Agriculture (USDA) Inspection Report) prior to award. For assistance with submission of animal research related documentation, contact the ONR Animal Use Administrator at (703) 696-4318 or suzanne.b.may.civ@us.navy.mil. Guidance: <https://www.nre.navy.mil/work-with-us/how-to-apply/compliance-and-protections/research-protections/animal-use>

ii. Use of Human Subjects in Research:

1. Applicants must protect the rights and welfare of individuals who participate as human subjects in research awarded pursuant to this FOA and must comply with the requirements of the Common Rule at 32 CFR part 219 (the DOD implementation of 45 CFR part 46) and applicable provisions of DoD Instruction 3216.02, Protection of Human Subjects and Adherence to Ethical Standards in DoD-Conducted and -Supported Research (Change 1, (June 29, 2022), the DON implementation of the human research protection program contained in SECNAVINST 3900.39E Change 1, (or its replacement), 10 USC 980 “Limitation on Use of Humans as Experimental Subjects,” and when applicable, Food and Drug Administration (FDA) and other federal and state law and regulations.
2. For proposals containing activities that include or may include “research involving human subjects” as defined in DoDI 3216.02, prior to award, the Applicant must submit documentation of:
 - a. Approval from an Institutional Review Board (IRB) (IRB-approved research protocol, IRB-approved informed consent document, documentation showing the IRB considered the scientific merit of the research and other material considered by the IRB); proof of completed human research training (e.g., training certificate for the principal investigator, and institutional verification that the principal investigator, co-investigators, and research support personnel have received appropriate training to be considered qualified to execute the research); and the Applicant’s Department of Health and Human Services (DHHS)-issued Federal Wide Assurance (FWA#), including notifications of any FWA suspensions or terminations.
 - b. Any claimed exemption under 32 CFR 219.104), including the category of exemption, supporting documentation considered by the Applicant’s institution in making the determination (e.g., protocol, data collection tools, advertisements, etc.). The

documentation shall include a short rationale supporting the exemption determination. This documentation should be signed by the IRB Chair or IRB vice Chair, designated IRB administrator or official of the Applicant's human research protection program.

- c. Any determinations that the proposal does not contain activities that constitute research involving human subjects or contains only activities that are deemed not to be research under 32 CFR 219.102(1), including supporting documentation considered by the Applicant's institution in making the determination. This documentation should be issued by the IRB Chair or IRB vice Chair, designated IRB administrator or official of the Applicant's human research protection program.
- d. Documentation must be submitted to the ONR Human Research Protection Official (HRPO), by way of the ONR Program Officer. The HRPO retains final judgment on whether the documentation satisfies the use of human subjects in research requirements. For assistance with submission of human subject research related documentation, contact the ONR Human Research Protection Official (HRPO) at (703) 696-4318 or suzanee.b.may@us.navy.mil.
- e. Grant awards and any subawards or modifications will include a statement indicating successful completion of the HRPO review. Research involving human subjects must not be commenced under any contract award or modification or any subcontract or grant subaward or modification until awardee receives notification from the Contracting or Grants Officer that the HRPO has approved the assurance as appropriate for the research under the award or modification and that the HRPO has reviewed the protocol and accepted the IRB approval or determination for compliance with Federal, DoD and DON research protection requirements. The Government will not reimburse or otherwise pay for work performed in violation of this requirement. guidance:
<http://www.nre.navy.mil/work-with-us/how-to-apply/compliance-and-protections/research-protections/human-subject-research>

c) *Biosafety and Biosecurity Requirements:*

Applicants must comply with applicable provisions of the current version of DODM 6055.18, Safety Standards for Microbiological and Biomedical Laboratories, including ensuring compliance with standards meeting at least the minimum applicable requirements of the current edition of Centers for Disease Control and Prevention, "Biosafety in Microbiological and Biomedical Laboratories (BMBL)," and National Institutes of Health, "The NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules (NIH Guidelines)" and any applicable FDA requirements.

d) *Research Involving Recombinant (rDNA) or Synthetic Nucleic Acid Molecules:*

Applicants must not begin performance of research within the scope of "The NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules (NIH Guidelines)" until receiving notice from the Contracting or Grants Officer that ONR has reviewed and accepted the Applicant's documentation. In order for ONR to accomplish that review, an applicant must provide the Contracting or Grants Officer, generally as part of an original proposal prior to award, sufficient documentation to enable the review, including:

- (1) A written statement that the Applicant is in compliance with NIH Guidelines or applicable FDA requirements. This statement should be made by an official of the institution other than the Principal Investigator and should be on university or company letterhead.
- (2) Evidence demonstrating that the proposed research protocol has been approved (or determined exempt from the NIH Guidelines) by an Institutional Biosafety Committee

(IBC); and a copy of the Department of Health and Human Services (DHHS) Letter of Approval of the IBC, or the most recent letter from DHHS stating the IBC is in compliance with the NIH Guidelines. For assistance with requirements involving countries outside the United States, please contact the ONR HRPO at (703) 696-4318 or suzanee.b.may.civ@us.navy.mil.

e) Institutional Dual Use Research of Concern:

As of September 24, 2015, all institutions and United States Government (USG) funding agencies subject to [the United States Government Policy for Institutional Oversight of Life Sciences Dual Use Research of Concern](#) must comply with all the requirements listed therein. If your research proposal directly involves certain biological agents or toxins, contact the cognizant Technical Point of Contact. U.S. Government Science, Safety, Security (S3) guidance may be found at <http://www.phe.gov/s3/dualuse/pages/default.aspx>.

f) Department of Defense High Performance Computing Program:

The DoD High Performance Computing Program (HPCMP) furnishes the DoD S&T and RDT&E communities with use-access to very powerful high performance computing systems. Awardees of ONR grants and other assistance instruments may be eligible to use HPCMP assets in support of their funded activities if ONR Program Officer Approval is obtained and if security/screening requirements are favorably completed. Additional information and an application may be found at <https://www.hpc.mil/>.

g) Project Review Meetings and Program Review Meetings:

Individual Project Review Meetings between the ONR sponsor and the performer may be held as necessary. Project Review Meetings typically last approximately one day. Typically, there are 2 in-person Project Review Meetings each year. Additional Project Review Meetings are likely, but these will be accomplished by video telephone conferences, telephone conferences, or web-based collaboration tools.

In addition to Project Review Meetings, Program Review Meetings may be held to provide a forum for reviews of the latest results from individual project experiments and any other incremental project progress towards major demonstrations. Program Review Meetings are generally held once per year and last two to three days.

For cost estimating purposes, applicants should assume 40% of the review meetings will be at or near ONR, Arlington VA, and 60% will be held at other government or non-government facilities within the continental United States.

The Government sometimes finds it advantageous to hold Program Review Meetings at a performer's facility. Applicants interested in hosting such meetings should include an estimated cost and the following language in their proposals, which become part of any award (note: if a contract is awarded, use of the facility will be included as an option): Such meetings may include attendees representing multiple research efforts.

h) Federal Funding Accountability and Transparency Act of 2006:

The Federal Funding Accountability and Transparency Act of 2006 (Public Law 109-282), as amended by Section 6202 of Public Law 110-252 and expanded by the Digital Accountability and Transparency Act of 2014 (Public Law 113-101), requires that all agencies establish requirements for recipients reporting information on subawards and executive total compensation as codified in 2 CFR Part 170. Any company, non-profit agency or university that applies for financial assistance (either grants, cooperative agreements or TIAs) as either a prime or sub-recipient under this FOA must provide information in its proposal that describes the necessary processes and systems in place to comply with the reporting requirements identified in 2 CFR Part 170 Appendix A. Entities are required to meet reporting requirements unless an exception or exemption applies. Please refer to 2 CFR Part 170, including Appendix A, for a detailed explanation of the requirements, exceptions, and exemptions.

i) Financial Assistance Certification:

The Federal Assistance Certifications Report is an attestation that the entity will abide by the requirements of the various laws and regulations; therefore, as applicable, you are still required to submit any documentation, including the SF LLL Disclosure of Lobby Activities (if applicable), and disclosure of any unpaid delinquent tax liability or a felony conviction under any Federal law.

j) Certifications Regarding Restrictions on Lobbying:

Grant awards greater than \$100,000 require a certification of compliance with a national policy mandate concerning lobbying. Grant applicants shall provide this certification by electronic submission of SF424 (R&R) as a part of the electronic proposal submitted via <https://www.grants.gov/> (complete Block 17). The following certification applies likewise to each grant seeking federal assistance funds exceeding \$100,000:

(1) No Federal appropriated funds have been paid or will be paid by or on behalf of the applicant, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the Federal contract, grant, loan, or cooperative agreement, the applicant shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The applicant shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than

\$100,000 for each such failure.

k) Certifications Regarding the Prohibition on Using Funds with Entities that Require Certain Internal Confidentiality Agreements (Grant Information Circular (GIC) 19-02 November 2019) (Supplement to SF424 (R&R), block 17, Financial Assistance Certifications and Representations)

By checking “I Agree” on the SF 424 (R&R) block 17 you agree to abide by the following statement: “By signing this application, I certify (1) to the statements contained in the list certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. code, Title 18, Section 1001).

The certification reads as follows:

By submission of its proposal or application, the applicant represents that it does not require any of its employees, contractors, or subrecipients seeking to report fraud, waste, or abuse to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting those employees, contractors, subrecipients from lawfully reporting that waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

l) Certification Regarding Disclosure of Funding Sources (Supplement to SF424, block 17, Financial Assistance Certifications and Representations)

By checking “I Agree” on the SF 424 (R&R) block 17 you agree to abide by the following statement: “By signing this application, I certify the proposing entity is in compliance with Section 223(a) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 which requires that: (a) the PI and other key personnel certify that the current and pending support provided on the proposal is current, accurate and complete; (B) agree to update such disclosure at the request of the agency prior to the award of support and at any subsequent time the agency determines appropriate during the term of the award; and (c) the PI and other key personnel have been made aware of the requirements under Section 223(a)(1) of this Act. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. code, Title 18, Section 1001).

m) Conflict of Interest

Applicants for assistance are required to comply with 2 CFR 200.318(c), Codes of Conduct, to prevent real or apparent conflicts of interest in the award and administration of any contracts by which a recipient or subrecipient purchases property or services, supported by federal funds.

(1) General Requirement for Disclosure

You and your organization must disclose any potential or actual conflict of interest(s) to us. You must also disclose any potential or actual conflict(s) of interest for any identified sub recipient you include in your application. We may have to ask you more questions if we need more information.

At our discretion, we may ask you for a conflict of interest mitigation plan after you submit your application. Your plan is subject to our approval.

(2) Conflict of Interest

Collaborations on research and development projects are generally the result of close collaboration prior to the submission of applications for support. Accordingly, these collaborations should be considered when considering potential conflicts of interest. The potential conflict is mitigated by the disclosure of these collaborations, and the list of current and pending support you provide for senior and key researchers. Therefore, you must include in your list of current and pending support all collaborators, even if they did not formally provide support.

n) Code of Conduct

Applicants for assistance are required to comply with 2 CFR 200.318(c), Codes of Conduct, to prevent real or apparent conflicts of interest in the award and administration of any contracts supported by federal funds. This provision will be incorporated into all assistance instruments awarded under this FOA.

o) Prohibition on Procurement of Foreign-Made Unmanned Aircraft Systems

Commercial Off The Shelf Unmanned Aircraft Systems (COTS UAS) may not be purchased pursuant to this grant or contract or other transaction agreement for prototype until a waiver per the Deputy Secretary of Defense Memorandum “Unmanned Aerial Vehicle Cybersecurity Vulnerabilities,” May 23, 2018 is obtained by the cognizant ONR Program Officer.

(1) A waiver is not required when the research is supported via a grant award AND it is unclassified and funded with either basic research funds (i.e., 6.1) or applied research funds (i.e., 6.2) and performed on campus by a university. A waiver must be obtained for all other grants and assistance agreements.

(2) Notwithstanding 1.a. above, a waiver is required for all efforts (regardless of award or funding type) that involve interactions with military personnel, DoD property, or DoD facilities; work conducted by US Government laboratories, UARCs, or FFRDCs; or are Public Aircraft Operation (PAO), classified, or explore specific military utility. For these efforts, a Cyber Security waiver or Authority to Operate (ATO) and Cyber Vulnerability Assessment must be obtained.

(3) A waiver is required for all contract awards and other transaction agreements. For these efforts, a Cyber Security waiver or ATO and Cyber Vulnerability Assessment must be obtained.

Prospective performers or current performers are required to notify the cognizant ONR Program Officer of any anticipated COTS UAS purchase that may be subject to waiver at time of white paper, proposal submission or award changes. Performers shall provide documentation specifying the details including the type of drone, effort, location, etc.

Performers will agree to cooperate and provide additional information as requested to support the waiver and cyber vulnerability assessment.

In no event shall federal funding be expended or purchase made pursuant to any award subject to waiver requirement, unless and until performer is notified by ONR that the waiver, cyber vulnerability and other requirements have been met.

3. Reporting

- a.** If the Federal share of any Federal award may include more than \$500,000 over the period of performance, the post award reporting requirements, Award Term and Condition for Recipient Integrity and Performance Matters (2 CFR Part 200 Appendix XII), is applicable as follows:

- i.** Reporting of Matters Related to Recipient Integrity and Performance

- a)** General Reporting Requirement. If the total value of your currently active grants, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds \$10,000,000 for any period of time during the period of performance of this Federal award, then you as the recipient during that period of time must maintain the currency of information reported to the System for Award Management (SAM) that is made available in the designated integrity and performance system (currently the Federal Awardee Performance and Integrity Information System (FAPIIS)) about civil, criminal, or administrative proceedings described in paragraph 2 of this award term and condition. This is a statutory requirement under 41 U.S.C. 2313. All information posted in the designated integrity and performance system on or after April 15, 2011, except past performance reviews required for Federal procurement contracts, will be publicly available.

- ii.** Proceedings about Which You Must Report. Submit the information required about each proceeding that:

- a)** Is in connection with the award or performance of a grant, cooperative agreement, or procurement contract from the Federal Government;
 - b)** Reached its final disposition during the most recent five-year period; and
 - c)** Is one of the following:
 - 1)** A criminal proceeding that resulted in a conviction, as defined in paragraph 5 of this award term and condition;
 - 2)** A civil proceeding that resulted in a finding of fault and liability and payment of a monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more;
 - 3)** An administrative proceeding, as defined in paragraph 5. of this award term and condition, that resulted in a finding of fault and liability and your payment of either a monetary fine or penalty of \$5,000 or more or reimbursement, restitution, or damages in excess of \$100,000; or
 - 4)** Any other criminal, civil, or administrative proceeding if:
 - a.** It could have led to an outcome described in paragraph 2.c. (1), (2), or (3) of this award term and condition;
 - b.** It had a different disposition arrived at by consent or compromise with an acknowledgment of fault on your part; and

- c. The requirement in this award term and condition to disclose information about the proceeding does not conflict with applicable laws and regulations.
- iii. Reporting Procedures. Enter in the SAM Entity Management area the information that SAM requires about each proceeding described in paragraph 2 of this award term and condition. You do not need to submit the information a second time under assistance awards that you received if you already provided the information through SAM because you were required to do so under Federal procurement contracts that you were awarded.
- iv. Reporting Frequency. During any period of time when you are subject to the requirement in paragraph 1 of this award term and condition, you must report proceedings information through SAM for the most recent five-year period, either to report new information about any proceeding(s) that you have not reported previously or affirm that there is no new information to report. Recipients that have Federal contract, grant, and cooperative agreement awards with a cumulative total value greater than \$10,000,000 must disclose semiannually any information about the criminal, civil, and administrative proceedings.
- v. Definitions. For purposes of this award term and condition:
 - a) Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative proceedings, Civilian Board of Contract Appeals proceedings, and Armed Services Board of Contract Appeals proceedings). This includes proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include audits, site visits, corrective plans, or inspection of deliverables.
 - b) Conviction, for purposes of this award term and condition, means a judgment or conviction of a criminal offense by any court of competent jurisdiction, whether entered upon a verdict or a plea, and includes a conviction entered upon a plea of nolo contendere.
 - c) Total value of currently active grants, cooperative agreements, and procurement contracts includes—
 - 1) Only the Federal share of the funding under any Federal award with a recipient cost share or match; and
 - 2) The value of all expected funding increments under a Federal award and options, even if not yet exercised.

b. Post Award Reporting Requirements

The post award reporting requirements can be found under the relevant ONR Addendum to the DoD R&D General Terms and Conditions and ONR Programmatic Requirements located at the following link: <https://www.nre.navy.mil/work-with-us/manage-your-award/manage-grant-award/grants-terms-conditions>.

G. Federal Awarding Agency Contacts

All UNCLASSIFIED communications shall be submitted via e-mail to the Technical Point of Contract (POC) with a copy to the designated Business POC, as designated below.

Comments or questions submitted should be concise and to the point, eliminating any unnecessary verbiage. In addition, the relevant part and paragraph of the Funding Opportunity Announcement (FOA) should be referenced. Questions submitted within 2 weeks prior to a deadline may not be answered, and the due date for submission of the white paper and/or full proposal will not be extended.

1. **Questions of a technical nature** should be submitted to should be submitted to the ONR POC in Section II.A. whose technology area best matches to offeror's field of interest.
2. **Questions regarding Grants proposal submissions** should be submitted to:

Veronica Lacey, Grants Officer
Office of Naval Research
ONR Code 253
One Liberty Center
875 N. Randolph Street
Arlington, VA 22203-1995
Email Address: veronica.y.lacey.civ@us.navy.mil