BAA Call N00014-22-S-C004
Special Program Announcement for Office of Naval Research
Research Opportunity:
MUST-HITS

I. INTRODUCTION

This announcement describes a technology area, entitled "EO/IR Sensors and Sensor Processing," under the N00014-22-S-B001, Long Range Broad Agency Announcement for Navy and Marine Corps Science and Technology which can be found at https://www.onr.navy.mil/work-with-us/funding-opportunities/announcements. The submission of proposals, their evaluation and the placement of research contracts will be carried out as described in the above Long Range Broad Agency Announcement.

The purpose of this announcement is to focus attention of the scientific community on (1) the area to be studied, (2) an industry day for dialogue amongst those interested in this arena, and (3) the planned timetable for the submission of white papers and full proposals.

II. TOPIC DESCRIPTION

The Office of Naval Research (ONR) Department for Information, Cyber and Spectrum Superiority (Code 31) is soliciting proposals for the development and build of supreme high definition (SHD) infrared (IR) imaging arrays with multi-spectral capability to support shipboard targeting applications. The Multi-Spectral, High-resolution Targeting Sensor (MUST-HITS) program is a funded Future Naval Capability (FNC) at ONR starting in Fiscal Year 2023 (FY23). The objective at conclusion of this FNC program is develop a hardware and associated software product to TRL 6 in order to meet mission requirements and transition to a shipboard program of record.

Background:
This FNC program seeks to demonstrate a wide field of view (WFOV) IR system with high spatial resolution, high dynamic range (HDR), adaptable digital sensing, and broad spectral coverage, all within a single camera aperture.

In order to achieve the MUST-HITS deliverables the FNC will pursue three Technical Areas (TA). More specific list of requirements for each TA can be found in the MUST-HITS Requirements Annex.

> TA-1. This TA is the core technology of the FNC and contains the IR focal plane array (FPA), read out integrated circuit (ROIC), imaging optics, and associated camera electronics.

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TA-2. Build of the distributed aperture system, integration of the infrared camera modules in TA-1, visible camera module integration, stabilization of the distributed aperture system, and shipboard mounting methods required to maintain the resolution that will be achieved using the TA-1 cameras.

TA-3. This TA includes the processing hardware necessary for real-time image stitching and rendering, object detection, and target tracking.

Objective:

ONR is interested in receiving proposals for each of the TA's listed above to meet the goals defined in the MUST-HITS Requirements Annex.

Each proposed effort shall include tasking towards the development, testing, and demonstration of the SHD camera modules operating in real time onboard a Naval ship in an operationally relevant environment. The SHD cameras shall be demonstrated as separate, standalone modules as well as grouped together in a distributed aperture configuration.

III.   INDUSTRY DAY

ONR will hold an industry day on 11 March 2022. There is no registration fee for participation. Participation in-person will be limited due to COVID-19 restrictions and is subject to change or cancellation based on current conditions. Assessments will be made the week before the event and any changes will be passed along to registered attendees.

Industry Day will be held at 875 N. Randolph St. Arlington Va.

ADVANCED REGISTRATION IS REQUIRED.

https://www.onlineregistrationcenter.com/industryday2022

IV.   MUST-HITS Requirements Annex

Prior to submitting a proposal, potential Offerors should review the MUST-HITS Requirements Annex, which is available upon request to companies with the proper security and handling classifications.

The request shall be on company letterhead and shall include company name, company cage code, company classified mailing address, a current DoD contract number along with the government Point of Contact (POC) for that contract and the contact information for your Joint Certification Program POC. The ONR will use this information to verify eligibility to receive controlled unclassified information (CUI).

The request shall be sent to Mr. Stephen Hughes at Stephen.t.hughes@navy.mil with a copy to Ben Conley at Benjamin.r.conley4.civ@us.navy.mil.

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V.   WHITE PAPER SUBMISSION

Although not required, white papers are strongly encouraged for all Offerors seeking funding. Each white paper will be evaluated by the Government to determine whether the technology advancement proposed appears to be of particular value to the Department of the Navy. Initial Government evaluations and feedback will be issued via e-mail notification from the Technical Point of Contact. The initial white paper appraisal is intended to give entities a sense of whether their concepts are likely to be funded.

Detailed Full Proposal (Technical and Cost volumes) will be subsequently encouraged from those Offerors whose proposed technologies have been identified through the above referenced e-mail as being of "particular value" to the Government. However, any such encouragement does not assure a subsequent award. Full Proposals may also be submitted by any offeror whose white paper was not identified as being of particular value to the Government or any offeror who did not submit a white paper.

For white papers that propose efforts that are considered of particular value to the Navy but either exceed available budgets or contain certain tasks or applications that are not desired by the Navy, ONR may suggest a full proposal with reduced effort to fit within expected available budgets or an effort that refocuses the tasks or application of the technology to maximize the benefit to the Navy.

White papers should not exceed 5 single-sided pages, exclusive of cover page, references, and resume of principal investigator, and should be in 12-point Times New Roman font with margins not less than one inch. White papers shall be in Adobe PDF format (preferred) or in Microsoft Word format compatible with at least Microsoft Word 2016.

The Cover Page can be found at
https://www.onr.navy.mil/work-with-us/how-to-apply/submit-contract-proposal for contract submissions.
The 5-page body of the white paper should include the following information:

- Technical Concept: A description of the technology innovation and technical risk areas.

- Future Naval Relevance (where applicable) – A description of potential Naval relevance and contributions of the effort to the agency's specific mission.

- Operational Naval Concept (where applicable) – A description of the project objectives, the concept of operation for the new capabilities to be delivered, and the expected operational performance improvements.

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- Operational Utility Assessment Plan (where applicable) – A plan for demonstrating and evaluating the operational effectiveness of the Offeror's proposed products or processes in field experiments and/or tests in a simulated environment.

- Rough Order of Magnitude (ROM) cost estimate

A resume of the principal investigator, not to exceed 1 page, should also be included after the 5-page body of the white paper.

White papers must be submitted through Fedconnect at www.fedconnect.net in accordance with Section D. Application and Submission Information, Section 2. Content and Form of Application Submission, paragraph d. White Paper Requirements, ii. White Paper Submission in N00014-22-S-B001.

To ensure full, timely consideration for funding, white papers should be submitted 18 April 2022. White papers received after that date will be considered as time and availability of funding permit.

The planned date for completing the review of white papers is 29 April 2022**.**

VI.   FULL PROPOSAL SUBMISSION AND AWARD INFORMATION

Full proposals should be submitted under N00014-22-S-B001 by **06 June 2022.** Full Proposals received after that date will be considered as time and availability of funding permit.

ONR anticipates only **contracts** will be issued for this effort. Full proposals for contracts should be submitted in accordance with the Appendix 2 of the N00014-22-S-B001. ONR plans to fund at least one award for each TA and anticipates the total value of all awards at approximately $15M to $19M, using Advanced Technology Development funds. However, lower and higher cost proposals will be considered. Proposers may propose to multiple TA's and in that case may propose a single award covering multiple TA's. Proposers may also submit white papers or proposals that cover sub-aspects of a TA (e.g. read out integrated circuit, optics, etc.).

The period of performance for projects should not exceed 36 months.

Although ONR expects the above described program plan to be executed, ONR reserve the right to make changes.

Funding decisions should be made by 24 June 2022. Selected projects will have an estimated award date of 15 Nov 2022.

VII.   SIGNIFICANT DATES AND TIMES

Event	Date	Time
Industry Day	11 March 2022	8 am ET

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Recommended White Paper Submission Date*	18 April 2022	01:00 pm ET
Notification of White Paper Valuation*	29 April 2022	
Recommended Full Proposal Submission	06 June 2022	01:00 pm ET
Notification of Selection: Full Proposals *	24 June 2022	
Awards *	15 Nov 2022	

Note: * These are approximate dates.

VIII. Small Business Subcontracting

As indicated in ONR Broad Agency Announcements large businesses and non-profit organizations must submit a subcontracting plan along with their research proposal. While large businesses and non-profits are responsible for making these subcontracting arrangements, ONR will help facilitate prime contractor/small business, contracting connections by posting to the ONR external website contact information of small businesses that have indicated their subcontracting interests and technological niche for prime contractor consideration for this program. This is not an endorsement, but an effort by ONR to help bring these parties together to provide superior solutions.

If you are a small business, and your company is interested in subcontracting activities with large businesses and/or non-profits considering your technology for this program, please provide the following information by email, to the ONR Small Business Director at ellen.simonoff@navy.mil with the subject line, N00014-22-S-C004. Provide this information:
1) Company Name and Website
2) Individual (POC) name and contact information (email and/or telephone number)
3) Brief Technology Description (no more than 3 sentences)
4) Technology Key Words (no more than 10 words)

Note: Do not include ANY proprietary information. This information will be posted on the ONR website under this BAA call and will available to the public.

IX.   POINTS OF CONTACT

In addition to the points of contact listed in N0014-22-S-B0001 the specific points of contact for this announcement are listed below:

Technical Points of Contact:
Dr. Ben Conley
Program Officer for EOIR Program in Code 31
Benjamin.r.conley4.civ@us.navy.mil

Business Point of Contact/Contracting Officer:

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Stephen Hughes
Contracting Officer
stephen.t.hughes@navy.mil

Security Point of Contact:
Ms. Yezabeth Cuevas
Industrial Security Specialist
yezabeth.cuevas2@navy.mil

X.   SUBMISSION OF QUESTIONS

Any questions regarding this announcement must be provided to the Technical Points of Contact and/or the Business Point of Contact listed above. All questions shall be submitted in writing by electronic mail.

Answers to questions submitted in response to this BAA Call will be addressed in the form of an Amendment and will be posted to the following web pages:

- Beta.sam.gov Webpage –Contract Opportunities – https://beta.sam.gov/
- Grants.gov Webpage – http://www.grants.gov/
- ONR BAAs, FOAs and Special Program Announcements Webpage - https://www.onr.navy.mil/work-with-us/funding-opportunities/announcements

Questions regarding **White Papers or Full Proposals** should be submitted NLT two weeks before the dates recommended for receipt of White Papers and/or Full Proposals. Questions after this date may not be answered.