

BAA Call N0001424SBC03
Special Program Announcement for Office of Naval Research
Research Opportunity:
“Power and Propulsion Systems for Unmanned Undersea Vehicles”

I. INTRODUCTION

This announcement describes an Ocean Engineering and Marine Systems technology area, entitled “Power and Propulsion Systems for Unmanned Undersea Vehicles” under the N0001424SB001, FY24 Long Range Broad Agency Announcement for Navy and Marine Corps Science and Technology which can be found at <https://www.nre.navy.mil/work-with-us/funding-opportunities/announcements>. The submission of proposals, their evaluation and the placement of research grants and 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) the Industry Day scheduled on 4 MAR 2024 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 proposed topic will explore and exploit the lack of underwater propulsion systems that can efficiently work across a wide variety of speeds over long distances. In particular, this effort is interested in a propulsion system able to transition between low and high speeds, to include the ability to stop and re-start at any time. Other desired characteristics will be briefed at the event. The program will pursue technologies and systems that support development and demonstration of a system that can propel an underwater vehicle in the ways listed. Further mission profile details will be provided at the Industry Day.

Background:

Deployed unmanned undersea systems require higher and higher levels of endurance and maneuverability as they execute their missions. The Echidna Innovative Naval Prototype (INP) program has several lines of effort, one of which focuses on power and propulsion. Another thrust focuses on Materials Science, and so prospective performers should also consider how materials are important to the proposed work. The Office of Naval Research is looking for innovative designs and concepts to enable extremely long-duration missions through energy harvesting, storage, and management, as well as the efficient use of the available power.

Objective:

The Office of Naval Research (ONR) is interested in receiving proposals on technologies that enable underwater propulsion systems to work across a large speed envelope, in addition to stop/start functionality. This requires new types of architectures, power systems, fuels, and propulsor designs.

III. Industry Day

ONR will hold an Industry Day on 4 MAR 2024 at the Bobby Junker Executive Conference Center (BJECC) at ONR. There is no registration fee for participation. The Industry Day will serve to provide specific information that will be required knowledge when submitting white papers. An overview of the Echidna INP program will be provided along with opportunities for Q&A. Industry Day attendance, while optional, is highly encouraged for any parties interested in submitting white papers and/or full proposals.

Note: This announcement is neither a contract, nor a request for proposal, nor a promise to contract, nor a commitment of any kind. The Government assumes no liability for costs incurred by any participant for travel or participation.

ADVANCED REGISTRATION IS REQUIRED.

The Industry Day will be held on 4 MAR 2024, at the following location:

Office of Naval Research
Bobby Junker Executive Conference Center - 14th Floor
One Liberty Center
875 North Randolph Street Arlington, VA 22203

The Industry Day will be held at the SECRET/NOFORN level.

All parties interested in attending the Industry Day must submit their SECRET visit request via Defense Information System for Security (DISS) no later than **1700 Eastern Standard Time (EST) 16 FEB 2024:**

- SECRET SMO Code: N000144
- Meeting Name: Echidna Industry Day
- Date: 4 MAR 2024
- Degree of Access: SECRET
- ONR Security Point of Contact: Ms. Yezabeth Cuevas, ONR.NCR.054.list.Security-Division@navy.mil
- Technical Point of Contact: Jason Boxerman, Office of Naval Research, Jason.s.boxerman.civ@us.navy.mil
- Meeting Contact: Mike Egan, Proteq, mlegan@proteq.com

In addition, NON-CAC holders must coordinate with the Technical Point of Contact listed above and ensure that they are entered into the Visitor Management System (VMS) and approved to attend. A Photo-ID will also be required to enter the Industry Day.

NO CLEARANCES WILL BE VERIFIED ON THE DAY OF THE MEETING. IF YOU HAVE NOT CONFIRMED THAT YOUR CLEARANCE HAS BEEN VERIFIED YOU WILL NOT BE PERMITTED INTO THE ROOM.

Check-in will begin at 0800 Eastern Standard Time (EST) and the meeting will begin at 0900 EST.

All briefings will be classified SECRET. All participants must be U.S. citizens holding a valid security clearance at the time of the meeting. A formal agenda will be provided to confirmed attendees. No time will be allocated for industry briefings at this venue; however, there will be time allocated for questions and answers. Questions of a technical nature submitted in advance of the Industry Day will be answered at this event and made available to all participants.

The review is classified at the SECRET level. Cameras, tablets, laptops, cell phones/blackberry, smart phones, portable electronic devices, Wi-Fi or Mi-Fi devices, personal digital assistants (PDA), electronic books or readers, voice recorders, pagers, radios, scanners, global positioning satellite devices (GPS), thumb drives, or any electronic device that has the ability to transmit or receive, such as a Bluetooth enabled watch or Bluetooth hands free earpiece are not permitted in the classified session. A plastic bin for small electronics will be provided for storage outside the meeting room. Briefcases and backpacks must also remain outside the meeting room. Space will be available for storage outside the meeting room.

IV. 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) may 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.nre.navy.mil/work-with-us/how-to-apply/submit-contract-proposal> for contract submissions and at <https://www.nre.navy.mil/work-with-us/how-to-apply/submit-grant-application> for grant 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.
- 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 N0001424SB001. Do not send ZIP files. Password protected files are discouraged.

To ensure full, timely consideration for funding, white papers should be submitted **no later than 01 APR 2024**. 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 APR 2024**.

V. FULL PROPOSAL SUBMISSION AND AWARD INFORMATION

Full proposals should be submitted under N0001424SB001 by **10 JUNE 2024**. Full Proposals received after that date will be considered as time and availability of funding permit.

ONR anticipates that up to five (5) grants and/or contracts will be issued for a total funding amount of \$3M.

Full proposals for contracts should be submitted in accordance with the Appendix 2 of the N0001424SB001. Full proposals for grants should be submitted via Grants.gov in accordance with Appendix 1 of N0001424SB001.

The period of performance for projects may be from 1-3 years.

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

Funding decisions should be made by **01 AUG 2024**. Selected projects will have an estimated award date of **20 DEC 2024**.

VI. SIGNIFICANT DATES AND TIMES

Event	Date	Time
Recommended White Paper Submission Date*	01 APR 2024	2359 (EDT)
Notification of White Paper Evaluation*	29 APR 2024	2359 (EDT)
Recommended Full Proposal Submission	10 JUN 2024	2359 (EDT)
Notification of Selection: Full Proposals *	01 AUG 2024	2359 (EDT)
Awards *	20 DEC 2024	2359 (EDT)

Note: * These are approximate dates.

VII. 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.civ@us.navy.mil with the subject line, “BC N0001424SBC03”. Provide this information:

- 1) Company Name and Website
- 2) Individual (POC) name and POC email address
- 3) Business Size and socio-economic category
- 4) Brief Technology Description (no more than 3 sentences)
- 5) 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 be available to the public.

VIII. POINTS OF CONTACT

In addition to the points of contact listed in N0001424SB001, the specific points of contact for this announcement are listed below:

Technical Point of Contact:

Jason Boxerman
Program Officer for Maritime Mining
Jason.s.boxerman.civ@us.navy.mil

Business Point of Contact/Contracting Officer:

Matthew Murray
Contracting Officer
matthew.murray18.civ@us.navy.mil

VIII. 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.nre.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.

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