



Special Notice N00014-19-S-SN05

Special Program Announcement for FY-2020 Office of Naval Research Research Opportunity: Advanced Targeting Concepts Development Study

I. INTRODUCTION

This announcement describes a research thrust, entitled Advanced Targeting Concepts Development Study, to be launched under the Office of Naval Research (ONR) Broad Agency Announcement (BAA) N00014-19-S-B001, as amended, and titled “Long Range Broad Agency Announcement (BAA) for Navy and Marine Corps Science and Technology,” which can be found at <https://www.onr.navy.mil/en/work-with-us/funding-opportunities/announcements>. The research opportunity described in this announcement specifically falls under the Electronics, Sensors, and Networks Research Division (Code 312) within the Information, Cyber, and Spectrum Superiority Department (Code 31) at ONR. The submission of proposals, their evaluation and the placement of research contracts will be carried out as described in the ONR BAA.

The purpose of this announcement is to focus attention of the scientific and defense community on (1) the area to be studied, (2) Industry Day for dialogue amongst those interested in this research topic, and (3) the planned timetable for the submission of white papers and proposals.

II. TOPIC DESCRIPTION

The proposed topic seeks studies, recommendations, and an architectural framework for ONR and the U.S. Navy on which future Research and Development (R&D) investments are needed to conduct advanced Over-the Horizon (OTH) targeting of multiple adversary at-sea and airborne contacts. These studies will inform ONR and US Navy on how to best overcome technology limitations and provide recommendations to fuse together information from various military and national sensors to fashion a network of systems for long-range targeting. The aspiration of this

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network of systems is to hold adversary assets continually at risk, providing persistent, fire-control quality data on multiple, emitting and non-emitting, airborne, and at-sea surface targets within contested and GPS-denied environments, all at ranges well beyond current capabilities. It is envisioned that the system will continually present a prioritized list of targeting solutions to the Task Force Commander to conduct a variety of kinetic and non-kinetic actions.

Background:

Currently, US Naval Battle Groups operate in environments where numerous long-range anti-ship missiles asymmetrically threaten surface ships and carriers. This puts the US Navy at risk inside the ranges of these weapons. The US Navy is rapidly evolving its maritime operations to a distributed network of platforms and systems to enable Task Force Commanders to take action against an adversary in contested environments including GPS denial. The new concept is to distribute targeting and tracking functions across various platforms that can be networked together to perform OTH targeting and promptly execute the kill-chain against adversary targets.

Objective:

ONR is interested in receiving white papers and proposals that provide recommendations on how to best invest R&D efforts over the next 4 to 6 years to achieve this targeting capability. If funded, Offerors are required to develop a framework/architecture for achieving persistent, long-range targeting capability to enable the kill-chain using a system-of-system (SoS) framework. Offerors are required to provide a technology roadmap that captures the current state of technology, using DOD's Technology Readiness Levels (TRL) and how this technology can be matured to a TRL 6 or 7.

Specific Technical Areas:

Offerors' whitepapers/proposals are expected to contain a section for each of the following areas.

1. Concept of Employment (CONEMP). Propose to ONR how the US Navy can employ this capability into their current order of battle and a future order of battle. Demonstrate an understanding of current maritime environment war-fighting practices and how warfare missions will change with this new capability.
2. Concept of Operations (CONOPs). Propose to ONR how the US Navy could actually operate this network of systems in a relevant environment to achieve the Task Force Commander's intents. This CONOPs is expected to show a thorough grasp of surface and air maritime operations, the impacts of bringing this capability to the fleet, and any other relevant issues the US Navy needs to consider.
3. Sensors. Propose to ONR how their solution will overcome the technological challenges associated with detection, identification, finding, fixing, and obtaining persistent, fire-control quality tracks of an adversary in a contested and GPS denied environment.
4. Communications. Propose to ONR how their solution will overcome the technological challenges associated with maintaining communications links between various platforms. The communications links are expected to be available and secure to allow for real-time targeting of an adversary surface or air target.

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5. Kill Chain Allocation. Propose to ONR how their solution uses best practices of systems engineering and provide a functional allocation of the kill chain to the elements of the proposed solution. Offerors should clearly show how their solution provides the necessary persistence, robustness, availability and reliability throughout the entire kill chain.

III. INDUSTRY DAY

The ONR Code 312 will conduct a classified briefing for potential Offerors on Friday May 17, 2019. The purpose of this meeting will be to provide a better understanding of the scope of the ONR Code 312 Program and objectives of this notice. The briefing will be held at the Office of Naval Research Bobby Junker Executive Conference Center (BJECC) on the 14th floor. Check-in will be from 0730 - 0900. A classified briefing and a question and answer period will run from 0900-1200.

ADVANCED REGISTRATION IS REQUIRED, WALK-IN REGISTRATIONS WILL NOT BE PERMITTED

All attendees are required to register and submit visitor clearances by 1600 EDT on 10 May 2019. Please see the below registration website:

<https://www.onlineregistrationcenter.com/ATCSIndustryday>

IV. SUBMISSION Plan of Action

White papers are 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 notifications 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.

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 4 single-sided pages, exclusive of cover page and the resume of the 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 MS Office 2016.

The cover page should be labeled “White Paper for ONR FY-2020 Research Opportunity: Advanced Targeting Concepts Development Study” and include the following information: title of the proposed effort, technical point of contact, contracting/finance point of contact, telephone numbers, fax numbers, and e-mail addresses.

The 4-page body of the white paper should include the following information:

- (1) Principal Investigator;
- (2) Relevance of the proposed effort to the technical areas described in Section II;
- (3) Technical objective of the proposed effort;
- (4) Technical approach that will be pursued to meet the objective;
- (5) A summary of recent relevant technical breakthroughs; and
- (6) A funding plan showing requested funding per fiscal year.

A resume of the principal investigator, not to exceed 1 page, should also be included after the 4-page body of the white paper.

Given the complexity of this topic, teaming arrangements between offerors is allowed and is encouraged. However, teams shall only submit one white paper/proposal from each team. The white paper/proposal shall clearly articulate the leading organization and shall include one single page resume from the principal investigator or co-investigator.

To ensure full, timely consideration for funding, white papers should be submitted no later than 1600 EDT 14 June 2019. White papers received after that date will only be considered as time and availability of funding permit.

The planned date for notifying organizations selected to give oral presentations is 02 July 2019. Oral presentation slides are due on 16 July 2019 and the oral presentations are scheduled for 23 July 2019. Oral presentations will be evaluated for the soundness of their technical approach and for an understanding of the scope of proposed effort. These presentations along with the white papers will be evaluated by ONR to determine if a full proposal is requested.

Detailed Full Proposals (Technical and Cost volumes) will be subsequently encouraged from those offerors whose proposed technologies have been identified as being of “particular value” to the Government. However, any such encouragement does not assure a subsequent contract award.

V. FULL PROPOSAL SUBMISSION AND AWARD INFORMATION

Full proposals should be submitted under N00014-19-S-B001 by 30 August 2019. Full Proposals received after that date will be considered as time and availability of funding permit.

ONR anticipates that only contracts or other Transaction agreements will be issued for this effort.

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Full proposals for contracts should be submitted in accordance with the BAA instructions at Section III, Appendix 2 Requirements Applicable to Contracts and Other Transaction Agreements. Technical Proposal/Content shall be single spaced and not exceed 15 pages. The cover page, resumes, bibliographies, and table of contents are excluded from the page count.

For this announcement, ONR plans to allocate approximately 3 Million dollars for efforts related to the Technical Areas in this Special Notice. It is anticipated that multiple awards will be made based on the quality of the proposed efforts. The Period of Performance (POP) for this effort is expected to be 6-12 months. Offerors should expect to conduct a Kickoff meeting at the start, a Technical Interchange Meeting (TIM) midway through the POP, and prepare a Final Report. ONR requests that a draft CONEMP and draft CONOPS be provided by end of May 2020. Based on the quality and feasibility of the whitepapers/proposals, ONR intends to execute future solicitations over the next 1-5 years to mature these concepts into working prototypes. White papers are encouraged for all offerors seeking funding.

Although ONR expects the above described program plan to be executed, ONR reserves the right to make changes according to program priorities and funding availability.

Selected proposers will be notified by 30 July 2019. Selected projects will have an estimated award date of December 2019.

VI. SIGNIFICANT DATES AND TIMES

Event	Date	Time
Registration and RSVPs for Industry Day and Visit Requests Due to ONR	10 May 2019	1600 EDT
Industry Day	17 May 2019	0730-1200 EDT
White Paper Submission Date	14 June 2019	1600 EDT
Notification of White Paper Selections and Requests for Oral Presentations*	02 July 2019	1600 EDT
Oral Presentation Slides Due Date	16 July 2019	1600 EDT
White Paper Oral Presentations*	23 July 2019	
Notification of Selection: Full Proposals *	30 July 2019	1600 EDT
Full Proposal Submission Date	30 August 2019	1600 EDT
Awards *	December 2019	

Note: * These are approximate dates.

VII. POINTS OF CONTACT

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

Technical Points of Contact:

Dr. Brad Binder, Code 312 Project Officer, Office of Naval Research, bradley.binder@navy.mil

Please copy:

Steve Plonka, Contractor Support: steven.g.plonka.ctr@navy.mil

Shauna Weinhold, Program Analyst Contractor Support: shauna.weinhold.ctr@navy.mil

Business Point of Contact:

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

VIII. ADDRESS FOR THE SUBMISSION OF WHITE PAPERS AND FULL PROPOSALS FOR CONTRACTS

Unclassified white papers and full proposals should be submitted electronically to steven.g.plonka.ctr@navy.mil and shauna.weinhold.ctr@navy.mil by 1600 EDT on 14 June 2019 (white papers) and 30 August 2019 (full proposals). Files exceeding 10MB in size shall not be emailed, but instead transmitted via AMRDEC: <https://safe.amrdec.army.mil/safe/guide.aspx>

Classified White Papers/ Full Proposals:

Classified white papers and proposals should be sent to steven.g.plonka.ctr@navy.smil.mil by 1600 EDT on 14 June 2019 (white paper) and 30 August 2019 (full proposals). Classified white papers and/or proposals shall not exceed General Service (GENSER) SECRET classification level. Classified white papers and/or proposals exceeding 10MB shall be sent overnight on CD-ROM or DVD via FEDEX, UPS, or USPS. Ensure the delivery date is NOT a weekend or holiday.

Ensure the disc is double wrapped, the outer envelope shall NOT have classification markings and needs to be addressed to:

Office of Naval Research
Attn: Document Control
875 N. Randolph St.
Arlington, VA 22203

The inner envelope needs to be correctly marked with appropriate classification and addressed to:

Office of Naval Research
Attn: Dr. Brad Binder Code 312
875 N. Randolph St.
Arlington, VA 22203

IX. 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 Special Notice may be addressed in the form of an Amendment to this Special Notice and will be posted to the following web pages:

- Federal Business Opportunities (FEDBIZOPPS) Webpage – <https://www.fbo.gov/>
- Grants.gov Webpage – <http://www.grants.gov/>
- ONR Special Notice Webpage - <https://www.onr.navy.mil/en/work-with-us/funding-opportunities/special-notices>

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.