

Special Notice 15-SN-0005
Special Program Announcement for 2015
Office of Naval Research
Research Opportunity:
Naval Platform Power and Energy

I. INTRODUCTION

This announcement represents a call for basic research topics under the heading “Naval Platform Power and Energy,” to be launched under the Office of Naval Research’s (ONR) Long Range Broad Agency Announcement (BAA) for Navy and Marine Corps Science and Technology 15-001, which may be found at <http://www.onr.navy.mil/en/Contracts-Grants/Funding-Opportunities/Broad-Agency-Announcements.aspx>.

The research opportunity described in this announcement falls under the following sections of ONR BAA 15-001: Section I, entitled “General Information”, sub-section F, entitled “Research Opportunity Description”, the “Sea Warfare and Weapons Department (Code 33)” item, paragraph 1 entitled “Ship Systems and Engineering Research”, and paragraph 1.c entitled “Electrical and Thermal Systems”.

The purpose of this announcement is to (1) focus attention of the scientific community on the research area of interest, (2) encourage dialogue amongst those interested in this research area, and (3) provide a planned timetable for the submission of white papers and proposals.

II. TOPIC DESCRIPTION

ONR has National Naval Responsibility (NNR) programs in five areas; one of these areas is the NNR for Naval Engineering (NNR-NE). Of the six fields within Naval Engineering, the specific field of interest in this Special Notice is Platform Power and Energy. ONR is interested in receiving proposals describing novel scientific research topics that are compelling for future Naval Platform Power and Energy needs. These needs are outlined in recent Department of Defense (DoD) and Navy strategic plans and studies. Some examples are discussed and referenced below, and offerors are encouraged to review these documents prior to formulating and submitting topics.

The Naval Science & Technology (S&T) Strategy¹ addresses particular areas of interest for research in the power and energy focus area. The Naval Power System Technology Development Roadmap² addresses a number of near, mid, and far-term research interests including nanostructured carbon-based conductors and cabling; and advanced dielectric insulation materials research for future cabling, motors, and transformers; and wide bandgap semiconductor materials. The Surface Warfare Enterprise Science and Technology Strategic Plan³ outlines several Science and Technology Objectives (STOs), and identifies STO 12-1 on the topic of “Alternative Fuels, Power Sources, and Power Systems.” The National Academy Press report⁴, “The Science and Technology Foundation for Future Naval Fleets,” discusses ONR’s NNR-NE and the specific responsibilities related to Naval Platform Power and Energy. Recent ASD(R&E) strategic guidance⁵ encourages researchers to “create technology surprise

through science and engineering” and describes a new theme for technology surprise that is less platform-centric and more science/technology-centric.

Many of the research areas identified in the above strategic resources are being addressed through ongoing ONR-sponsored fundamental and applied research programs. Some of the fundamental areas that have received comparably less attention, for example, include nanostructured conductor research, dielectric insulation materials research, and next generation wide bandgap materials research.

The above guidance and reference documents below are meant to assist researchers in understanding DoD and Navy vision in the area of Naval Platform Power and Energy, but do not encompass or address a comprehensive listing of research needs. Offerors are encouraged to submit white papers that could be expected to have a future impact on the strategic goals.

Only Budget Activity 1 (BA 1) basic research funds will be used for the base and option phases.

Applicable reference documents include:

1. 2011 Naval Science & Technology Strategic Plan. Available:
<http://www.onr.navy.mil/About-ONR/science-technology-strategic-plan.aspx>
2. Naval Power System Technology Development Roadmap. Available:
<http://www.navsea.navy.mil/Media/Naval%20Power%20Systems%20Technology%20Development%20Roadmap%20-%20Distribution%20A%20-%202014%20May%202013%20-%20Final.pdf>
3. Surface Warfare Enterprise Science and Technology Strategic Plan. Available:
<http://www.onr.navy.mil/~media/Files/Funding-Announcements/Special-Notice/2013/13-SN-0023-SWE-Plan.ashx>
4. National Academy Press report “The Science and Technology Foundation for Future Naval Fleets”. Available: http://www.nap.edu/catalog.php?record_id=13191
5. ASD(R&E) Strategic Guidance, May 2014. Available:
[http://www.acq.osd.mil/chieftechnologist/publications/docs/ASD\(R&E\)_Strategic_Guidance_May_2014.pdf](http://www.acq.osd.mil/chieftechnologist/publications/docs/ASD(R&E)_Strategic_Guidance_May_2014.pdf)

III. Industry Day

No events are planned

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 fundamental research proposed appears to be of particular value to the Department of the Navy. Detailed full proposals will be subsequently requested from those offerors whose proposed fundamental research has been identified as being of “particular value” to the Navy. However, any such request 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 proposing 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, references, and resume(s) of principal investigator(s), 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 2010.

The cover page should be labeled “White Paper for ONR 2015 Research Opportunity: Naval Platform Power and Energy, SN 15-SN-0005.” The cover page should also include the following information: title of the proposed effort, technical point of contact, telephone number, and e-mail address.

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

- (1) Principal Investigator(s);
- (2) Relevance of the proposed effort to the topic area described in Section II, entitled “Topic Description”;
- (3) Discussion of the status quo in the scientific area of interest;
- (4) Technical objective of the proposed effort with metrics identified and justified;
- (5) Science-based approach that will be pursued; and
- (6) A funding plan showing requested funding per fiscal year.

Resume(s) of the principal investigator(s), not to exceed 1 page per principal investigator, shall be included after the 4-page body of the white paper.

White papers shall be submitted to the ONR 331 via the following secure upload site: <https://onroutside.onr.navy.mil/aspprocessor/331ShipSystems/>. Please use the following naming convention to ensure routing to the appropriate topic author(s):

- Format: 15-SN-0005_ ONR POC_Brief Description_Your Name_Date Submitted
- Example: 15-SN-0005_Coombe_White Papers_JSmith_24Feb2014

To ensure full, timely consideration for funding, white papers shall be submitted in accordance with the schedule in Section VI entitled, “Significant Dates & Times. White papers received after the recommended date and time will be considered as time and availability of funding permit.

V. FULL PROPOSAL SUBMISSION AND AWARD INFORMATION

Full proposals shall be submitted in accordance with the schedule in Section VI, entitled “Significant Dates and Times”. Full proposals received after the recommended date and time will be considered as time and availability of funding permit.

ONR anticipates that only grants will be issued for research efforts funded through this Special Notice.

Full proposals for grants should be submitted in accordance with the requirements of the FY15 Long Range BAA, 15-001. All full proposals for grants must be submitted through www.grants.gov. The following information must be completed as follows in the SF 424 to ensure that the application is directed to the correct individual for review:

Block 4a, Federal Identifier: Enter “N00014”

Block 4b, Agency Routing Number, Enter the three (3) digit Program Office Code and the Program Officer’s name as follows: 331, Lynn Petersen or Harold Coombe

All attachments to the application should also include this identifier to ensure the proposal and its attachments are received by the appropriate Program Office.

ONR plans to fund up to five (5) grants each with an approximate value of \$100k - \$200k for the initial 12- month base period, and \$100k - \$200k per year for two (2) option years. Total performance not to exceed 36 months.

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

VI. SIGNIFICANT DATES AND TIMES

Event	Date	Time
Recommended White Paper Submission Date*	22 December 2014	0900 Eastern Local Time
Notification of White Paper Valuation*	15 January 2015	
Recommended Full Proposal Submission*	16 February 2015	1400 Eastern Local Time
Notification of Selection: Full Proposals *	16 March 2015	
Awards *	15 July 2015	

Note: * These are approximate dates.

VII. POINTS OF CONTACT

In addition to the points of contact listed in ONR’s Long Range BAA 15-001, the specific points of contact for this announcement are listed below:

Technical Points of Contact:

H. Scott Coombe
Program Officer
Code 331
harold.coombe@navy.mil

Lynn J. Petersen
Program Officer
Code 331
lynn.j.petersen@navy.mil

Business Point of Contact:

Kara Stith
Code 252
kara.stith@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 in Section VII above. All questions shall be submitted in writing via electronic mail.

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

- Grants.gov Webpage – <http://www.grants.gov/>
- ONR Special Notice Webpage - <http://www.onr.navy.mil/Contracts-Grants/Funding-Opportunities/Special-Notices.aspx>

Questions regarding White Papers or Full Proposals should be submitted no later than two weeks before the dates recommended for receipt of White Papers and/or Full Proposals. Questions received after these dates may not be answered.