



**BROAD AGENCY ANNOUNCEMENT (BAA)
DEPARTMENT OF DEFENSE
NATIONAL SECURITY SCIENCE AND ENGINEERING FACULTY FELLOWSHIP
(NSSEFF) PROGRAM
ADMINISTERED BY THE
NAVAL POSTGRADUATE SCHOOL**

INTRODUCTION:

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2), the Department of Defense Grants and Agreements Regulations (DoDGARS) 22.315(a). A formal Request for Proposals (RFP), other solicitation, and/or additional information regarding this announcement will not be issued.

Neither the Naval Postgraduate School (NPS) nor the Contracting Office (Fleet and Industrial Supply Center-San Diego (FISC-SD)) will issue paper copies of this announcement. The government reserves the right to fund all, some or none of the proposals received under this BAA. NPS provides no funding for direct reimbursement of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this BAA will not be returned and will be destroyed. It is the policy of NPS to treat all proposals as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

This announcement will remain open until 3 October 2008 or until replaced by a successor BAA.

Interested parties are responsible for checking GRANTS.GOV (www.grants.gov) or <http://www.nps.edu/Research/WorkingWithNPS.html> for possible amendments to this BAA.

I. GENERAL INFORMATION

1. Agency Name –

Naval Postgraduate School

2. Research Opportunity Title –

National Security Science and Engineering Faculty Fellowship (NSSEFF) Program

3. Program Name –

National Defense Education Program (NDEP)

4. Research Opportunity Number –

NPS BAA 08-005

5. Due Dates -

- Letters of Intent to Nominate (required): 25 June 2008 (1600 PST)
- Nomination letters and White Paper with supporting documentation (required): 11 July 2008 (1600 PST)
- Full Proposal (invited): 3 October 2008 (1600 PST)*

* Note: Those invited to submit full proposals will be required to apply for a security clearance by 5 September 2008.

6. Research Opportunity Description -

The National Defense Education Program (NDEP) supports both basic science and/or engineering research within academia as well as education initiatives that seek to create and develop the next generation of scientists and engineers for the defense and national security workforce.

The focus of the current competition is to provide faculty and staff scientists and engineers from U.S. accredited, degree-granting academic institutions with a career enhancing opportunity through their association with DoD while at the same time they are conducting unclassified basic research in critical areas of interest. Outstanding researchers selected for award and granted Secret security clearances will participate in all NSSEFF activities that are designed to enhance their understanding of critical research needs and interact with DoD senior leaders. Awardees may be exposed to classified information necessary to enhance the objectives, approach and conduct of their basic research. The amount and duration of an award is expected to be sufficient to produce quantifiable results.

The Director of Defense Research and Engineering (DDR&E) encourages faculty and staff members at U.S. accredited, degree-granting academic institutions to participate in its programs. This BAA offers an opportunity by which distinguished faculty or staff are able to actualize DoD-relevant research ideas for the Department of Defense and create breakthroughs. It also provides an opportunity to be sponsored and promoted within the DoD and exposed to mind-bending challenges that are irregular, catastrophic and disruptive. A NSSEFF award is expected to provide the DoD with revolutionary research that is critical to the future success of our national security.

The BAA is for single investigator grant proposals for basic research in one, or combinations of, areas of interest to DDR&E including Enabling Technologies and Desired Capabilities described

in the 2007 Department of Defense Research & Engineering Strategic Plan found at http://www.dod.mil/ddre/doc/Strategic_Plan_Final.pdf or <http://www.nps.edu/Research/WorkingWithNPS.html>. Technical subject categories include: (1) astronomy, astrophysics and space sciences; (2) atmospheric sciences and meteorology; (3) aviation science, astronautics; (4) behavioral and social sciences, including psychology and training; (5) biological and medical sciences, including biochemistry and biotechnology; (6) chemistry (physical, organic, polymer) and chemical engineering; (7) communications and networks; (8) computer and information sciences; (9) earth sciences and oceanography; (10) materials—functional materials, including electronic and bio-inspired materials, textiles, adhesives, etc.; (11) materials—structural materials, metallurgy, ceramics, refractory materials; (12) mathematics; (13) mechanical, industrial, electrical, civil, and marine engineering; (14) physics, including acoustics, fluid mechanics, optics, spectroscopy, nuclear physics, etc.; (15) propulsion, engines, and fuels; (16) robotics, science of autonomy; (17) weapons and military sciences, countermeasures, including counter-WMD and counter-directed weapons science; and (18) other.

Proposed research should focus on innovations that enable revolutionary advances rather than evolutionary improvements to the existing state of practice.

7. Point(s) of Contact –

Questions of a technical nature can be addressed to:

Laura Adolphie
Office of the Director, Defense Research & Education (DDR&E)
703-588-1479 (voice)
laura.adolfie@osd.mil

Questions of a business nature shall be directed to the Contract and Grant Specialist at FISC-San Diego or to Contracts and Grants Support at the Naval Postgraduate School:

Janet Dang
Contract and Grant Specialist
Fleet and Industrial Supply Center-San Diego
Seal Beach Detachment
800 Seal Beach Blvd.
B-239, Code 230
Seal Beach, CA 90740-5000
(562) 626-7683 (voice)
janet.dang@navy.mil

Teri Jay
Contract and Grant Support (Code 91)
Research and Sponsored Programs Office
Naval Postgraduate School
Halligan Hall, Bldg. 234, Room 226
Monterey, CA 93943-5138
(831)656-1044 (voice)
NSSEFFBAA@nps.edu

8. Award Information Summary

- Anticipated type of Award: Grant
- Estimated Number of Awards: Ten (10)
- Duration: Five (5) years to be incrementally funded.
- Anticipated Funding Amount: Total amount of funding for this program for the five years duration of this BAA is estimated to be about \$30 million, subject to the availability of funds. It is anticipated that an individual award to each Fellow will be up to \$3,000,000 in total or up to \$600,000 annually. This is the possible total of direct support to the PI excluding indirect costs. Indirect costs are allowable but are not included in the amount indicated above.
- Awards for FY2009 are expected to be announced in approximately mid-November 2008.

9. Important Websites

Official announcement and amendments (BAA)

<http://www.nps.edu/Research/WorkingWithNPS.html> or www.grants.gov

Submission of full proposals

www.grants.gov

Program overview and information

<http://nsseff.ida.org>

Submission of nomination/commitment letter and white paper

<https://acqtrak.noblis.org/ApplyNSSEFF>

Department of Defense DDR&E Strategic Plan

http://www.dod.mil/ddre/doc/Strategic_Plan_Final.pdf

View information required for security clearance application

http://www.opm.gov/forms/pdf_fill/SF86.pdf

10. Catalog of Federal Domestic Assistance (CFDA) Numbers -

12.300

11. Catalog of Federal Domestic Assistance (CFDA) Titles -

Department of Defense (DoD) Basic and Applied Scientific Research

II. BACKGROUND INFORMATION

Partnerships are critical to a healthy science and technology program. DoD's partnership with academic institutions provides an important source of new ideas and fundamental knowledge. The Defense Science and Technology (S&T) investments in basic research, as an example,

have resulted in the development of superior systems with the capabilities to defeat any adversary on any battlefield.

This Broad Agency Announcement (BAA) seeks outstanding researchers for the National Security Science and Engineering Faculty Fellowship (NSSEFF) program for the purpose of conducting basic research in areas of interest to the DoD and fostering long-term relationships between the science and engineering faculty program fellows and the DoD.

As defined by the DoD, “basic research is systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. It includes all scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical, engineering, environmental, and life sciences related to long-term national security needs. It is farsighted high payoff research that provides the basis for technological progress...” (www.dod.mil/comptroller/fmr/02b/Chapter05.pdf). The DoD basic research program invests broadly in many scientific fields to ensure that it has early cognizance of new scientific knowledge. Areas of research that have produced significant improvement in military capabilities include: electronics, materials science, physics, chemistry, mathematics, computer science, mechanics, biological and life sciences, atmospheric and space sciences, cognitive and neural sciences, terrestrial sciences and ocean sciences.

DoD's basic research investment in this program will also result in the development of the next generation of high performing scientists and engineers who will be educated and trained as a part of the NSSEFF Fellows' work. Ensuring that students are actively engaged in conducting research funded by the DoD is an important strategic priority.

The NSSEFF program ensures that our Nation has an active, long-term and aggressive research and engineering portfolio that attracts the foremost creative, innovative and productive university faculty scientists, engineers and their students. Objectives of the program are to:

- Recruit and retain highly innovative, results-oriented, university researchers that support military needs
- Create a forum to recognize and reward outstanding researchers
- Demonstrate DoD commitment to high quality university researchers
- Familiarize select university researchers and their students with DoD missions, operations, and technology to enhance their understanding of DoD's current and future challenges
- Foster long-term relationships between science and engineering faculty members and the DoD
- Increase the number of exceptionally talented and cleared technical experts that are contributing to DoD's mission and upon which DoD may draw from to serve on advisory boards, panels and groups.

III. AWARD INFORMATION:

Total amount of funding for five years for grants resulting from this BAA is estimated to be about \$30 million, subject to the availability of funds. It is anticipated that an award to each Fellow will be up to \$3,000,000 in total, or up to \$600,000 annually. These amounts exclude indirect costs recovered by the Proposer's home institution. The total grant will include both the aforementioned direct costs to the awardees plus the indirect costs. Awards will be made at funding levels commensurate with the proposed research and in response to the DDR&E

Desired Capabilities S&T Investment Areas or the Enabling Technology Investment Areas as provided in the 2007 Director of DDR&E Strategic Plan as well as other areas of interest. The amount of resources made available under this BAA will depend on the quality of the proposals received and the availability of funds.

Grants will be made to the Fellow's academic institution in accordance with all applicable laws and regulations, but the award is portable with the individual Fellow. The awards will be made at funding levels commensurate with the proposed research. Awards under the BAA will be made to offerors on the basis of the evaluation criteria listed in Section VI and program balance to provide overall value to the Government.

The Government reserves the right to select for negotiation all, some, one, or none of the proposals received in response to this solicitation, and to make awards without discussions with offerors.

IV. ELIGIBILITY INFORMATION

a. Organization:

- Proposals may only be submitted by U.S. accredited, degree-granting academic institutions. Each geographically separate campus of a major university system is considered a separate institution.
- Historically Black Colleges and Universities (HBCUs) and Minority Institutions (MIs) are encouraged to submit proposals. No portion, however, of this BAA will be set aside for these organizations' participation.
- Federally Funded Research & Development Centers (FFRDCs), including Department of Energy National Laboratories, are not eligible to bid on this BAA.

b. Proposer:

- The Fellowship is open to outstanding faculty and staff scientists and engineers from accredited, U.S. degree-granting, academic institutions whose earned Ph.D. or equivalent degree was awarded after 31 December 1982. DDR&E is especially interested in researchers who have not previously been involved in DoD programs. Proposers should either state in their curriculum vitae (CV) that they have not been funded by DoD since receiving their PhD or briefly list the programs and level of effort under which they have been funded during this period.
- Proposers invited to submit full proposals and not holding a current DoD clearance must apply for a security clearance by 5 September 2008 and must be able to obtain and maintain a DoD security clearance at the Secret level.
- Open to single investigators only.

V. APPLICATION AND SUBMISSION INFORMATION

Summary of Application Process: The proposal submission process includes:

- **Letters of Intent to Nominate:** Submission of Letter of Intent to Nominate is required.
- **Nomination Letters and White Papers:** Submission of letter of nomination and white papers are required.
- **Full Proposals:** Submission of full proposals is by invitation.

- **Other:** Interview at location to be determined for Full Proposal Principal Investigators.

Application Process Details

Electronic Submission of Letter of Intent to Nominate (required)

Due Date: 25 June 2008, 1600 PST

Submit to: NSSEFFBAA@nps.edu

Accredited, degree-granting U.S. academic institutions (hereinafter referred to as “academic institutions”) intending to nominate faculty or staff must submit a Letter of Intent (LOI) signed by the President, Chancellor, or highest campus official of the academic institution. If the highest official is unavailable for signature at the time of submission, the highest ranking official available and authorized to sign for the individual designated above may sign. The LOI may include more than one nominee, but to be eligible to submit a white paper, the Proposer must be named in an official LOI. LOI contents must:

- State the name, title, faculty position, department affiliation, email of each intended Proposer
- State the proposed research topic
- State technical subject category most appropriate for the proposed research topic (see Section I.6. above for list of the eighteen (18) technical subject categories)
- Provide Sponsored Program Office/President Office contact info with email

LOIs are not binding on the DoD, the academic institution, or the individual(s) named. Collectively, LOI’s will allow for proper planning of programmatic events. Scanned letters of intent with signatures will be submitted by email to NSSEFFBAA@nps.edu.

Electronic Submission of White Paper and Letter of Nomination/Commitment (required)

Due Date: 11 July 2008 (Time: 1600 PST)

Submit to: <https://acqutrak.noblis.org/ApplyNSSEFF>

At this stage in the process, documents will be submitted in PDF format as two files at: <https://acqutrak.noblis.org/ApplyNSSEFF>. The first file includes the white paper contents (executive summary, white paper narrative, quad chart, and CV) and the second file is the signed Letter of Nomination.

The Proposer will also enter the following information at the portal site: project title, Proposer’s name, date of Ph.D. or equivalent degree, Proposer’s contact information (institution’s name and complete mailing address, e-mail addresses, and facsimile and phone numbers), sponsored program office contact information (point of contact name, e-mail address, phone number), technical area(s) of interest, and whether the Proposer holds a valid U.S. security clearance. Note: a U.S. security clearance is not required to apply for this program.

White papers submitted under this BAA are expected to address unclassified basic research. Proposers are expected to appropriately mark each page of their submission that contains proprietary information. Grants awarded under this announcement will be unclassified.

White paper format:

- Margins – 1 inch

- Spacing – single
- Font – Times New Roman, 12 point
- Number of Pages – no more than five (5) single-sided pages, with page numbers, including all pictures, figures, tables, and charts in a legible size (the executive summary, quad chart, curriculum vitae (CV) will not count toward the 5-page limit).
- Principal Investigator (PI) name and institution in header or footer

The white paper should provide sufficient information on the research being proposed (e.g., hypothesis, theories, concepts, approaches, data measurements and analysis) to allow for an assessment by a technical expert. The white paper will capture the essence of the full five-year research plan and permit a technical expert to assess the potential of a full proposal to meet the objectives of the program. White paper content will be as follows:

- Executive Summary (~half page): The Executive Summary should be a concise description (~half page) of the scientific, technical, and management approach proposed to address areas of interest. The Executive Summary will point out what is innovative about the proposed research approach.
- Technical Content (five (5) page limit):
 - Describe the basic scientific or technical concepts to be investigated
 - Summarize the state of the field and describe what is innovative about the proposed approach
 - Describe the anticipated intermediate research gains that may result
 - Given the successful completion of the five-year course of investigation, what results, new knowledge, or insights, might it afford compared to alternate approaches other researchers in this field have taken
 - Identify the key scientific, technical, or engineering challenges that must be successfully met (and the sequence in which each must occur) to complete this project
 - Describe the plan to mitigate those risks
 - Describe any material, such as unique facilities, specialized probes, or representative test materials that must be provided by the Government to support the proposed research
 - Summary of estimated costs
 - Equipment that may exceed 25 percent of the total grant award
- Curriculum Vitae (CV) (two (2) page limit, single-sided): The CV should include relevant experience, publications, and funding received in the area of interest, and any previous involvement and experiences with the DoD.
- Complete Quad Chart (one (1) page, single-sided): Complete and submit, with the white paper, the self-explanatory quad chart template can be found at: <http://www.nps.edu/Research/WorkingWithNPS.html>

Note: The submission could take several minutes depending on network connection and the size of the files being submitted. Applicants should not wait until the last minute to submit their application. The submitter is responsible for leaving enough time for the upload to complete before the deadline. An e-mail confirmation will be sent upon receipt of the submission.

Letter of Nomination and Commitment from Academic Institution Official

A signed Letter of Nomination and Commitment must be submitted in PDF format when submitting the white paper. The letter must be signed by the President, Chancellor, or highest campus official of the academic institution. If the highest official is unavailable for signature at the time of submission, the highest ranking official available and authorized to sign for the individual designated above is acceptable.

Nomination letters shall name the individual faculty member nominated, the topic of the white paper submitted, and a commitment from the university to comply with the requirements of the Fellowship, if awarded. Nomination letters should briefly address the significance of the proposed research in relation to the frontiers of knowledge in the Proposer's field and the Proposer's overall record of academic and professional accomplishments that make the applicant an outstanding researcher and deserving of the award.

White papers found to be non-compliant will not be reviewed. Approximately twenty (20) white paper Proposers will be invited to submit a full proposal.

Electronic Submission of Full Proposals and Letters of Recommendation (Invited)
Due: 3 October 2008 (Time: 1600 PST)
Submit to: Grants.gov

Content and Format of Full Proposals

Full proposals submitted under this BAA are expected to address unclassified basic research. The full proposal submissions will be protected from unauthorized disclosure in accordance with FAR 15.207, entitled, "Handling Proposals and Information," applicable law, and DoD regulations. Proposers are expected to appropriately mark each page of their submission that contains proprietary information. Grants awarded under this announcement will be unclassified.

Procedure for Submission of Full Proposals via Grants.gov

Registration Requirements for Grants.gov: There are several one-time actions that must be completed in order to submit an application through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), register with the credential provider, and register with Grants.gov). See www.grants.gov, specifically www.grants.gov/GetStarted.

Use the Grants.gov Organization Registration Checklist at <http://www.grants.gov/assets/OrganizationRegCheck.doc> http://www.grants.gov/applicants/register_your_organization.jsp which will provide guidance through the process. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called 'MPIN' are important steps in the CCR registration process. Applicants who are not registered with CCR and Grants.gov, should allow at least 21 days to complete these requirements. It is suggested that the process be started as soon as possible.

Additionally, in order to download the application package, applicants will need to install PureEdgeViewer. This small, free program will allow applicants to access, complete and submit applications electronically and securely. For a free version of the software, visit the following website: www.grants.gov/DownloadViewer. Questions that may arise relating to the

registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov.

Content and Form of Application – SF 424 (R&R)

Complete the mandatory forms and any applicable optional forms in accordance with the instructions on the forms. The mandatory form for this BAA is the SF 424 (R&R), the optional form for this BAA is the SF-LLL Disclosure of Lobbying Activities form.

Mandatory Form SF 424 (R&R)

Complete this mandatory form first to populate data in other forms. Complete all the required fields in accordance with the pop-up instructions on the form. To activate the instructions, turn on the “Help Mode” (Icon with the pointer and question mark at the top of the form).

The following information should be included in the proposal package. Except for the Letters of Recommendation described below, the following information should be included in the proposal package. The package should be scanned into a single PDF file and attached to the SF 424 (R&R) Form at Field number 20 entitled “Pre-Application.”

Full Proposal Format

- Margins – 1 inch
- Spacing – single
- Font – Times New Roman, 12 point
- Number of Pages – no more than twenty (20) single-sided pages, with page numbers, including all pictures, figures, tables, and charts in a legible size (the Letter of Nomination and Commitment, the Executive Summary, quad chart, curriculum vitae (CV) will not count toward the 20-page limit)
- PI name and institution in header or footer

Content for the Proposal Package in order--

- Letter of Nomination and Commitment
- Cover Page
- Executive Summary
- Technical Content
- CV
- Identity of three persons for Letters of Recommendation
- Cost Proposal
- Quad Chart

Letter of Nomination and Commitment

Submit a copy of the signed letter that was submitted with the white paper.

Cover Page

- Include the BAA Number
- Proposal Title

- Proposer's Name
- Proposer's Contact Information: Institution's name and complete mailing address, email addresses, facsimile and phone numbers
- Sponsored Program Office (SPO) Contact Information: POC name, SPO's complete mailing address, email addresses, phone and facsimile numbers

Executive Summary (1 page)

The Executive Summary should be a description of the scientific, technical and management approach proposed to address the topic area(s) over the five year duration of the Fellowship. Describe the major components of the research plan and relevant details about how each component is both necessary and complementary with the others. Point out what is innovative about the proposed research approach.

Technical Content (20 pages)

Describe the research in sections:

- **Technical Goals and Approach / Innovation:** Describe the basic scientific or technical concepts you will investigate, giving your complete five year research plan. Describe what is innovative about your proposed approach. Given the successful completion of the five-year course of investigation, what results, new knowledge, or insights, might it afford? How does your approach compare to alternate approaches other workers in this field have taken?
- **Contribution to NSSEFF Program goals:** Describe how your proposed research contributes to the Desired Capabilities S&T Investment Areas and Enabling Technology Investment Areas and other research topics and areas of interest.
- **Technical and Management Plan:** Identify the key scientific, technical, or engineering challenges that must be met successfully to complete this project. Describe the plan to mitigate those risks. Describe how the total team effort will be managed and provide rationale for participation of key team members. Include development/monitors of graduate students involved in research. If appropriate, briefly describe anticipated schedule and milestones.
- **Relevant Past Experience:** Present previous accomplishments and work in this and any closely related research areas for the principal investigator and any other key personnel on the proposed work.
- **Deliverables and Claims:** Describe any deliverables anticipated under this effort, including data, software, hardware, and reports consistent with the objectives of the research involved. Include in this section all anticipated proprietary claims to results, prototypes, intellectual property, or systems supporting and/or necessary for the use of the research, results, and/or prototype. If there are no proprietary claims, so state. The Government expects to retain, at a minimum, Government Purpose Rights to results of funded efforts. If the nominee plans to restrict licensing rights to software, data or hardware, the rationale for so doing should be explained in full.

- Facilities: Describe key facilities that will be used or are needed in the proposed research. Describe and justify any capital equipment expenditures that will exceed 25% of the total value of the grant.
- Requirements for Government Furnished Resources: Describe all required materials that must be provided by the Government to support the proposed work. Describe any material, such as unique facilities, specialized probes, or representative test materials, which must be provided by the Government to support the proposed research.

Curriculum Vitae (CV) (5 or fewer pages, single-sided): The CV should include relevant experience, publications, and funding received in the area of interest, and any previous involvement and experiences with the DoD.

Complete Quad Chart (one (1) page, single-sided): Completed quad chart will be submitted with the full proposal. The self-explanatory quad chart template found at: <http://www.nps.edu/Research/WorkingWithNPS.html>. The quad chart submitted with the white paper can be utilized, or the Proposer may update what was previously submitted.

Letters of Recommendation:

In this section, identify three (3) persons who have been asked to submit letters of recommendation to the POC indicated below. Also, provide the name, address, email address, telephone and facsimile numbers and professional relationship with these persons. These letters have no format or content requirements, but they should accurately describe relevant information about the nominee with regard to professional abilities, technical skills, research management acumen, integrity, and general ethical fitness to assume national security research.

The following information should be forwarded by the Proposer to each of the persons submitting a Letter of Recommendation. This is the address for submission of the letters of recommendation.

Teri Jay
 Naval Postgraduate School
 Attn: Research and Sponsored Programs Office (Code 91)
 Contract and Grant Support
 Halligan Hall, Bldg. 234, Room 226
 699 Dyer Road
 Monterey, CA 93943-5138
 831-656-1044

Signed copies (pdf) of Letters of Recommendation will be emailed to: NSSEFFBAA@nps.edu. The original with signatures will be mailed to the above address.

Estimated Expenditures (Excel spreadsheet preferred, not counted in 20-page limit)

The words "Cost Proposal" should appear on the cover page in addition to the following information:

- BAA number

- Title of Proposal
- Identity of Proposer
- Technical contact (name, address, phone/fax, electronic mail address)
- Administrative/business contact (name, address, phone/fax, electronic mail address)
- Duration of effort (separately identify basic effort and any proposed options)
- For budgeting purposes use an award start date of 2 January 2009. The cost should be broken down to reflect funding increments of five twelve-month periods.

Detailed breakdown of all costs by cost category by calendar or Government fiscal year:

- Direct Labor – Individual labor category or person, with associated labor hours and unburdened direct labor rates;
- Fringe Benefits – Indicate base amount and rate;
- Indirect Costs – Note: In accord with current law, indirect costs will be reimbursed up to 35% of total cost. See Appendix A and Appendix B for DoD guidance on Indirect Cost Limitation for Basic Research Awards and Explanatory supplement from the Office of Naval Research. The guidance is applicable only to grants funded from the FY08 R&D 6.1 appropriation. It is not known at this time whether awards from this BAA will be funded from FY08 or FY09 R&D 6.1 funds, nor is it currently known if the current 35% limitation will continue into FY09. As such Proposers will budget their direct costs within the amounts allowable per fiscal year (up to \$600k). Indirect Costs should be calculated according to the current DoD guidance attached as Appendix A. Awardees may be required to submit revised cost proposals prior to award depending on DoD indirect cost guidance applicable at time of award and fiscal year funding utilized for award.
- Equipment proposed to be acquired – Provide specifically itemized for equipment greater than \$5k with costs or estimated costs for items such as computer hardware for proposed research projects. An explanation of any estimating factors, including their derivation and application, shall be provided. Where possible, indicate purchasing method (competition, price comparison, market review, etc...)
- Travel – Number of trips, destination, duration, etc.: travel costs will include two trips per year to meet with representatives of the NSSEFF program at military bases and government facilities, plus a trip to Washington, D.C. each year to brief research results.
- Subcontract – Provide brief description, scope, and dollar amount of proposed subcontracts;
- Consultant – Provide consultant agreement or other document which verifies the proposed loaded daily/hourly rate;
- Materials - should be specifically itemized with costs or estimated costs. An explanation of any estimating factors, including their derivation and application, shall be provided. Include a brief description of the procurement method to be used (Competition, engineering estimate, market survey, etc.);
- Other Directs Costs - particularly any proposed items of equipment or facilities. Equipment and facilities generally must be furnished by the recipient. (Justifications must be provided when Government funding for such items is sought). Include a brief description of the procurement method to be used (Competition, engineering estimate, market survey, etc.);
- Grant Specific Costs – Graduate Assistant tuition, laboratory fees, report and publication costs.

Application for DoD Security Clearance: Proposers invited to submit full proposals must apply for a DoD security clearance by 5 September 2008 if they do not hold a current DoD clearance. Specific instructions will be provided to invited Proposers at the time of notification of their status

Full proposals found to be non-compliant will not be reviewed.

Face-to-Face Interviews with individuals invited to submit full proposals will be held on or about 7-10 November 2008. Each invited Proposer will be interviewed in a location to be determined by a panel of highly distinguished and knowledgeable members internal and external to the DoD. Proposers will be expected to make an oral presentation and respond to panelists' questions about their proposed research. Interviews will be approximately 60 minutes in duration.

Summary of Submission Dates and Times

What to submit	Required Form			
		Day	Date	Time
University "intent to nominate" letters (required)	University letterhead, signed by President, Chancellor, or highest official on that campus	Wednesday	25 Jun 08	1600 PST
Formal nomination and white paper deadline (required)	See Section V. full announcement	Friday	11 Jul 08	1600 PST
Invited Proposers application initiation for DoD Security clearance	Online registration to be provided	Friday	5 Sep 08	n/a
Full proposal deadline (Invited Proposers only)	See Section V. full announcement	Friday	3 Oct 08	1600 PST
Interviews at location TBD	To be provided	Friday-Sunday	7-10 Nov-08	TBD

Submission of Late Proposals

Any proposal submitted through Grants.gov after the deadline for proposal submission will be late and will not be evaluated unless the Grants.gov website was not operational on the due date and was unable to receive the proposal submission. If this occurs, the time specified for the receipt of proposals through Grants.gov will be extended to the same time of the day specified in this BAA on the first workday on which the Grants.gov website is operational.

VI. EVALUATION INFORMATION

The following criteria will be used to evaluate both white papers and proposals. The criteria are listed in order of importance.

- Criterion I: Relevance and potential contributions of the proposed research to the advancement of Desired Capabilities S&T Investment areas and Enabling Technology Investment Areas or DoD missions, including the advancement of other areas of interest;
- Criterion II: Scientific, engineering, and technical merit of the proposed research;
- Criterion III: The qualifications of the Proposer, ability to perform the proposed work, and history of performance;
- Criterion IV: Sound technical and managerial approach to the proposed work, including a demonstrated understanding of the critical technologies, challenges, and strategy to address those issues, including a risk mitigation strategy.

The final evaluation will be based solely upon an assessment of programmatic balance and the overall best value to the government in award of the Fellowships.

White Papers and full proposals will be reviewed and evaluated against the four criteria in this section by the NSSEFF Evaluation Panel. The NSSEFF Evaluation Panel consists of government employees and government contractors or consultants. The Government intends to use employees and subcontractors of a support contractor to assist in administering the evaluation of white papers and proposals. These personnel will have signed, and will be subject to, the terms and conditions of binding non-disclosure agreements.

Full proposals will be submitted and reviewed by the NSSEFF Evaluation Panel. Each invited Proposer will be interviewed for approximately one hour by the NSSEFF Interview Panel. Invited Proposers will be given five minutes to provide an overview of their proposal for the NSSEFF Interview Panel. The remaining time will be devoted to a question and answer period.

Following review of the submitted proposals and the interviews, the Interview Panel will recommend NSSEFF Fellows and Alternates to the Selection Authority, who will select and approve NSSEFF Fellows and Alternates.

VII. AWARD ADMINISTRATION INFORMATION

1. Award notices

Approximately twenty (20) Proposers who submit white papers evaluated by the NSSEFF Evaluation Panel as most meritorious will be invited to submit full proposals via written notification. Following individual notifications, there may be a public press release listing the name and sponsoring institution of those selected to submit a full proposal. All other white papers will be destroyed. Feedback on white papers will only be provided to those invited to submit a full proposal.

Invited Proposers who: currently hold a DoD security clearance or who are granted an interim DoD Secret security clearance; whose proposals are selected as most meritorious by the NSSEFF Selection Authority; and who are approved by the DDR&E as a Fellow will receive individual written notification prior to a public press release of their selection. Following receipt

of a final DoD Secret security clearance, the first annual increment of the Fellowship (up to \$600,000) will be transmitted to the Fellow's home institution. Notice of award signed by the Grants Officer is the authorizing document and no pre-award expenditures against the Fellowship are authorized prior to receipt of the first increment. Active participation in all Fellowship activities, satisfactory progress in the proposed research program, fulfillment of reporting requirements, and retention of a DoD Secret security clearance will keep the Fellowship in force for succeeding equal annual increments up to five years.

Invited Proposers not selected as Fellows or Alternates will be debriefed by the Program Manager regarding their proposals and encouraged to continue, voluntarily, the security clearance process leading toward a final Secret clearance. This procedure will permit the Department to call upon their expertise in consultation as required over the next five (5) years.

Alternate selections as Fellows will be made in the event that a named Fellow becomes incapable of executing the Fellowship or is disqualified for failure to meet grant terms and conditions. These Alternates will receive no funding unless notified by the Grants Officer of award.

2. Certifications

Grant awards greater than \$100,000 require a certification of compliance with a national policy mandate concerning lobbying. Grant applicants will provide this certification by signing and submitting the Standard Form (SF) 424 (R&R) as a part of the grant proposal submission (complete Blocks 18 and 19).

3. Reporting

Annually, each Fellow will present the past year's research activities, results, progress toward goals, challenges encountered, intermediate results, recovery plans, new areas of exploration for future years, risk mitigation in practice, financial status, and any other specific information requested by the Program Manager, in person, to DoD leaders, the Program Manager, and Grants Officer. Monthly informal updates will be required by email.

Quarterly, the Fellow's home institution will provide a detailed accounting of the expenditures charged against the Fellowship annual increment to the IGARS system, the Program Manager and the Grants Officer. Quarterly submissions are due not later than ninety (90) days after the end of the "reported quarter."

A final report will be provided at the end of the award period.

At the discretion of the Program Manager, the Fellow will promptly provide any information, reports, presentations, financial status, or other information requested.

VIII. OTHER INFORMATION

1. Government Property/Government Furnished Equipment (GFE) and Facilities

Each Proposer must provide a very specific description of any equipment/hardware needed to perform the work. This description should indicate whether or not each particular piece of equipment/hardware will be included as part of a deliverable item under the resulting award.

Also, this description should identify the component, nomenclature, and configuration of the equipment/hardware that it proposes to purchase for this effort. Maximum use of Government integration, test, and experiment facilities is encouraged in each of the Offeror's proposals.

Government research facilities and operational military units are available and should be considered as potential government-furnished equipment/facilities. These facilities and resources are of high value and some are in constant demand by multiple programs. It is unlikely that all facilities would be used for any one specific program. The use of these facilities and resources will be negotiated as the program unfolds. Offerors should explain as part of their proposals which of these facilities are critical for the project's success.

2. Use of Animals and Human Subjects in Research

If animals are to be utilized in the research effort proposed, the Offeror must complete a DOD Animal Use Protocol with supporting documentation (copies of AALAC accreditation and/or NIH assurance, IACUC approval, research literature database searches, and the two most recent USDA inspection reports) prior to award.

Proposals for research involving human subjects the Offeror must submit prior to award: documentation of approval from an Institutional Review Board (IRB); IRB-approved informed consent form; IRB-approved research protocol; an executive summary of planned research (one-half to one page in length); proof of completed human research training (e.g., training certificate, institutional verification of training, etc.); an application for a DoD Navy Addendum to the Offeror's DHHS-issued Federal Wide Assurance (FWA) or the Offeror's DoD Navy Addendum number. The forms for assurance applications can be found at http://www.hhs.gov/ohrp/assurances/assurances_index.html/. If the research is determined by the IRB to be greater than minimal risk, the Offeror also must provide the name and contact information for the independent medical monitor. [Note: for research involving human subjects that is greater than minimal risk, administrative procedures to protect human subjects from medical expenses (not otherwise provided or reimbursed) that are the direct result of participation in a research project must be addressed.

3. Recombinant DNA

Proposals which call for experiments using recombinant DNA must include documentation of compliance with Department of Health and Human Services (DHHS) recombinant DNA regulations, approval of the Institutional Biosafety Committee (IBC), and copies of the DHHS Approval of the IBC letter.

4. 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 FISC contracts, grants, and assistance instruments may be eligible to use HPCMP assets in support of their funded activities if Technical Program Officer approval is obtained and if security/screening requirements are favorably completed. Additional information and an application may be found at <http://www.hpcmo.hpc.mil/>.

5. Organizational Conflict of Interest

The parties acknowledge that, during performance of the grant resulting from this BAA, the Grantee may require access to certain proprietary and confidential information (whether in its original or derived form) submitted to or produced by the Government. Such information includes, but is not limited to, business practices, proposals, designs, mission or operation concepts, sketches, management policies, cost and operating expense, technical data and trade secrets, proposed budgetary information, and acquisition planning or acquisition actions, obtained either directly or indirectly as a result of the effort performed on behalf of NPS. The Grantee shall take appropriate steps not only to safeguard such information, but also to prevent disclosure of such information to any party other than the Government. The Grantee agrees to indoctrinate personnel who will have access to or custody of the information concerning the nature of the confidential terms under which the Government received such information and shall stress that the information shall not be disclosed to any other party or to personnel who do not need to know the contents thereof for the performance of the grant. Grant personnel shall also be informed that they shall not engage in any other action, venture, or employment wherein this information will be used for any purpose by any other party.

FAQS

Q: May I apply for an NSSEFF grant if I am a scientist or engineer in a non-profit or for-profit research institution that is not a university or college?

A: No. Nominations will be accepted only for faculty or staff at degree-granting, accredited educational institutions.

Q: I am currently working as a faculty member at a foreign university. Am I eligible to apply for a NSSEFF fellowship?

A: No. The NSSEFF program was created for faculty members at U.S. universities. As a faculty member at a foreign university, you would not be eligible to apply.

Q: I am currently working as a faculty member for a U.S. university but at a branch campus that is in another country. Am I eligible to apply for a NSSEFF fellowship?

A: The NSSEFF program is restricted to faculty working at locations in the U.S.

Q: Is collaboration allowed on research projects?

A: Although collaboration is permitted and encouraged, only one Fellow will be selected for any given research project. This is a single investigator award.

Q: What are suitable research topics?

A: This is a basic research program. As defined by the DoD, "basic research is systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. It includes all scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical, engineering, environmental, and life sciences related to long-term national security needs. It is farsighted high payoff research that provides the basis for technological progress.." (www.dod.mil/comptroller/fmr/02b/Chapter05.pdf).

This BAA is for basic research in an area or combinations of areas of interest to DDR&E. The strategic science and technology priorities and desired capabilities of interest are described in the 2007 Department of Defense Research & Engineering Strategic Plan, found at http://www.dod.mil/ddre/doc/Strategic_Plan_Final.pdf. Specific technical subject categories of interest include: (1) astronomy, astrophysics and space sciences; (2) atmospheric sciences and meteorology; (3) aviation science, astronautics; (4) behavioral and social sciences, including psychology, training; (5) biological and medical sciences, including biochemistry and biotechnology; (6) chemistry (physical, organic, polymer) and chemical engineering; (7) communications and networks; (8) computer and information sciences; (9) earth sciences and oceanography; (10) materials-functional materials, including electronic and bio-inspired materials, textiles, adhesives, etc.; (11) materials-structural materials, metallurgy, ceramics, refractory materials; (12) mathematics; (13) mechanical, industrial, electrical, civil, and marine engineering; (14) physics, including acoustics, fluid mechanics, optics, spectroscopy, nuclear physics, etc.; (15) propulsion, engines, and fuels; (16) robotics, science of autonomy; and (17)

weapons and military sciences, countermeasures, including counter-WMD and counter-directed weapons science.

Proposed research should focus on deep understanding of fundamental phenomena and innovations that enable revolutionary advances rather than evolutionary improvements to the existing state of practice.

Before selecting research topic(s), a thorough reading the Strategic Plan is highly recommended. Additional details are available at http://www.dod.mil/ddre/doc/Strategic_Plan_Final.pdf.

Q: How many individuals may a university or college nominate for the Fellowship competition?

A: There is no limit on the number of nominees from each institution. Each geographically separate campus of a major educational system is considered an institution.

Q: Is a separate “intent to nominate” letter necessary for each nominee from the same institution?

A: No. An institution may submit one “intent to nominate” letter that contains the information required for all the candidates it intends to nominate. If more candidates request nomination after the letter is sent, additional “intent to nominate” letter(s) may also be submitted.

Q: Are separate, formal nomination letters necessary for each individual white paper?

A: Yes. Each white paper must be accompanied by a separate formal nomination letter from the author’s institution.

Q: Is possession of a current Secret security clearance required in order to apply for a fellowship?

A: It is not necessary to hold a current Secret security clearance to be nominated and compete for a fellowship. Uncleared semi-finalists will be required to begin the security clearance process as a condition of further competition for award. The security clearance application is an online form called the Questionnaire for National Security Positions. The questionnaire will require detailed information about your personal identification, citizenship, address history, schooling, employment, relatives and friends, spouse, foreign activities, use of alcohol and drugs, police record (if any), and financial history. Knowingly providing false information or concealing information on this form is a felony with substantial penalties. A final Secret security clearance is required to receive a Fellowship.

Q: Must I be granted final Secret security clearance status before selection as a Fellow or is an interim Secret clearance acceptable?

A: Since it can take some time to be granted a final security clearance, individuals with interim Secret security clearances may be selected as Fellows. However, final Secret clearance status must be granted before funds can be disbursed. If final Secret clearance is not granted to a Fellow within one year of the notification of the NSSEFF award, that individual’s Fellowship offer will be rescinded.

Q: When do I submit the Questionnaire for National Security Positions?

A: Only semi-finalists need submit the Questionnaire for National Security Positions. If you receive notification that you have been selected as a semi-finalist, you will receive further instructions on the process of submitting information to obtain a Secret clearance. You will need to submit this information very quickly, within a few business days of notification of your semi-finalist status. Failure to submit this information within the deadline will disqualify you from continuing in the competition.

Q: The BAA states that I must “obtain and maintain” a Secret security clearance. How do I know if I will be able to do that?

A: Review the Questionnaire for National Security Positions, which can be found at http://www.opm.gov/forms/pdf_fill/SF86.pdf. This form contains the questions that semi-finalists will be required to answer, certify, and submit if selected."

Q: Are there any restrictions on publication of research results from this program?

A: No, all work at the university is unclassified and able to be published.

Q: Are there restrictions on the nationality of graduate students working on the program?

A: No.

Q: Are there any restrictions on the use of Fellowship funds?

A: The following restrictions apply to use of the Fellowship funds:

- Changes to research goals expressed in the full proposal require written approval of Grants Officer, Program Manager, and DUSD(LABS)
- No more than 10% of the total Fellowship awarded funds may be used for the salary of the recipient.
- No more than 10% of the total Fellowship awarded funds may be used for facilities construction or improvement.
- Capital expenditures for directly related research equipment are not limited up to the total value of the Fellowship. However, planned expenditure of more than 25% of the total value of the grant on capital equipment must be identified and justified in the full proposal.
- Expenditures for employment of, or stipends supporting, graduate students and post-doctoral students are not limited up to the total value of the Fellowship, provided that this compensation, individually, does not exceed the average salary or stipend paid to similarly situated students at the same institution by more than 10%.
- Expenditures for remission of tuition expenses for graduate students are limited to \$15,000 per student, per year.
- Expenditures for recipient and student travel singularly related to the research work and for DUSD(LABS) planned visits to DoD laboratories, operating commands, and facilities are permitted and governed by appropriate regulations.
- The award is intended to be portable with the faculty member if he or she moves to a different U.S. educational institution.