NAVSEA Naval Engineering Education Consortium (NEEC) Program Description and Guidance Document

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14. ABSTRACT

This publication describes the Naval Sea Systems Command (NAVSEA) Naval Engineering Education Consortium (NEEC) program objectives, structure, process, and activities and provides guidance to the Warfare Center Divisions on the roles and responsibilities of NEEC participants at all program levels. Through grants to selected projects, the NAVSEA NEEC program funds academic research intended to attract students to Navy-related engineering programs at the Warfare Centers to ensure that a workforce of qualified scientists and engineers will be available to address future Navy engineering and science challenges. The NEEC program generates and sustains a "technology knowledge base" to support all aspects of the engineering of current and future ships, submarines, and their complex systems. Project-based research and development performed in the academic environment under this program is designed to encourage working relationships between researchers in academia, their students, and Navy scientists and engineers. The appendixes describe three applicable internship and student programs and give the form required for outside funding. The 10 participating NAVSEA Warfare Centers are Naval Surface Warfare Center (NSWC) Carderock Division, NSWC Corona Division, NSWC Crane Division, NSWC Dahlgren Division, NSWC Indian Head Division, NSWC Panama City Division, NSWC Philadelphia Division, NSWC Port Hueneme Division, Naval Undersea Warfare Center (NUWC) Division Newport, and NUWC Division Keyport.

15. SUBJECT TERMS

Naval Engineering Education Consortium (NEEC); Naval Research Enterprise Intern Program (NREIP); Pathways internship; Science, Mathematics, and Research for Transformation (SMART) student; Science, Technology, Engineering and Mathematics (STEM) internship, Student Temporary Employment Program (STEP)

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LIST OF ABBREVIATIONS AND ACRONYMS

3D	three-dimensional
AM	additive manufacturing
BAA	broad agency announcement
BH	branch head
BS	bachelor of science
CCA	Competition & Contracting Act
CD	Carderock Division
CO	Corona Division
CS	computer science
CTO	chief technology officer
DC	direct cite
DD	Dahlgren Division
Div.	division
DMS	Document Management System
DoD	Department of Defense
DON	Department of Navy
EE	electrical engineering
EPA	educational partnership agreement
ERP	Navy Enterprise Resource Planning
FFRDC	federally funded research and development center
Fin	financial
FODA	financial outside document acceptance
GPA	grade point average
HBCU	historically Black colleges and universities
HQ	headquarters
HQ 0UT	NAVSEA Warfare Centers Headquarters Undersea Technology
HR	human resources

IT	information technology
ME	mechanical engineering
METCAL	metrology and calibration
MI	minority institution
MS	master of science
N	No
NAVSEA	Naval Sea Systems Command
NEEC	Naval Engineering Education Consortium
NISE	Naval Innovative Science and Engineering
NREIP	Naval Research Enterprise Intern Program
NSWC	Naval Surface Warfare Center
NUWC	Naval Undersea Warfare Center
OAW	opportunity awareness
ONR	Office of Naval Research
OPM	Office of Personnel Management
OPSEC	operational security
PD	Port Hueneme Division
PhD	doctor of philosophy
PI	principal investigator
PIEE	Procurement Integrated Enterprise Environment
POC	point of contact
POP	period of performance
PR	purchase request
PRW	purchase request worksheet
R&D	research and development
REIMB or REIM	reimbursement
ROM	rough-order-of-magnitude
S&T	science and technology
SCC	service cost center
SCEP	Student Career Experience Program
SMART	Science, Mathematics, and Research for Transformation (Program)
SOW	statement of work
STEM	science, technology, engineering and mathematics
STEP	Student Temporary Employment Program
SWaP	size, weight, and power-consuming
Tech	technical
UARC	university affiliated research center
USC	United States Code
WAWF	DoD Wide Area Workflow
WC	warfare center
Y	Yes
ZFD	(Navy funding document type)

1.   INTRODUCTION

The Naval Sea Systems Command (NAVSEA) and the NAVSEA Warfare Centers—the Naval Surface Warfare Center (NSWC) and the Naval Undersea Warfare Center (NUWC)—have a requirement to ensure that a workforce of qualified scientists and engineers will be available to address future Navy engineering and science challenges. To meet this requirement, the Naval Engineering Education Consortium (NEEC) was established to fund academic research and attract students to Navy-related engineering programs at the Warfare Centers. The NEEC program will generate and sustain a "technology knowledge base" to support all aspects of the engineering of current and future ships, submarines, and their complex systems. Project-based research and development (R&D) performed in the academic environment under this program is designed to encourage working relationships between researchers in academia, their students, and Navy engineers.

1.1   PURPOSE

This publication describes the NEEC program objectives, structure, process, and activities and provides guidance to the Warfare Center Divisions on the roles and responsibilities of NEEC participants at all levels of the program. The appendix describes three applicable internship and student programs.

1.2   PARTICIPATING WARFARE CENTERS

The 10 participating Divisions of the NAVSEA Warfare Centers are

    Naval Surface Warfare Center, Carderock Division
    Naval Surface Warfare Center, Corona, Division
    Naval Surface Warfare Center, Crane Division
    Naval Surface Warfare Center, Dahlgren Division
    Naval Surface Warfare Center, Indian Head Division
    Naval Surface Warfare Center, Panama City Division
    Naval Surface Warfare Center, Philadelphia Division
    Naval Surface Warfare Center, Port Hueneme Division
    Naval Undersea Warfare Center Division, Newport
    Naval Undersea Warfare Center Division, Keyport

Other Navy commands and facilities are encouraged to participate, using their own internal funding.

1.3   PROGRAM OBJECTIVES

The objectives of the program are to

1. Hire talented students who successfully participate in the program into the civilian workforce;

2. Acquire research results generated by academic researchers and the assigned students, who may be motivated to seek future civilian employment with the Navy;

3. Develop strong relationships between key academic institutions and the Warfare Centers.

2. PROGRAM STRUCTURE AND ACTIVITIES

To work with universities and colleges, the NEEC program will solicit proposals through a Broad Agency Announcement (BAA) that will be posted annually on the Grants.gov website. The BAA will identify technical naval topics of interest for which universities and colleges may submit proposals. The proposals will be evaluated, and the schools submitting selected proposals will be awarded grants for one year with options for second and third years.

Each university and college chosen will work with a specific NAVSEA Warfare Center (WC) Division. Each NAVSEA WC Division has its own NEEC director and mentors. It is recommended that proposers contact the individual NAVSEA WC NEEC directors, prior to the BAA closing, on specific topics of interest.

The BAA will generally be released in the late summer and typically will close in mid-October. Proposers will be notified (grants awarded or not) after January. The intent is for all grants to start on April 1st. Details of the process are shown in figure 1.

2.1 BROAD AGENCY ANNOUNCEMENT (BAA)

The BAA is a tool used by US government agencies to solicit proposals from outside groups for basic and applied research. In the case of NEEC, the Government agency is the group of NAVSEA Warfare Centers, and the BAA is administered by the Naval Surface Warfare Center (NSWC), Dahlgren Division (DD).

The NEEC BAA is open only to universities and colleges. (For reference, see "NSWC-DD-BAA-N00178-24-0002" at https://www.grants.gov/web/grants/search-grants.html .)

BAAs are broad in their subject matter and focus on advancing science. They are not intended for acquisition. Work funded under a BAA may include basic research, applied research, and some advanced technology development research that is not related to the development of a specific system or hardware procurement.

Proposals received in response to the announcement are evaluated through a systematic review process. An award under the BAA meets the statutory requirement in the Competition in Contracting Act[*] for full and open competition. Contracts and grants and other assistance agreements made under BAAs are for scientific study and experimentation directed toward advancing the state of the art and increasing knowledge or understanding in the topic of interest.

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[*] Competition in Contracting Act of 1984, Title 41, U.S. Code, Sec. 253, 1 January 2011, https://www.gsa.gov/reference/statutes/41-usc-253 .
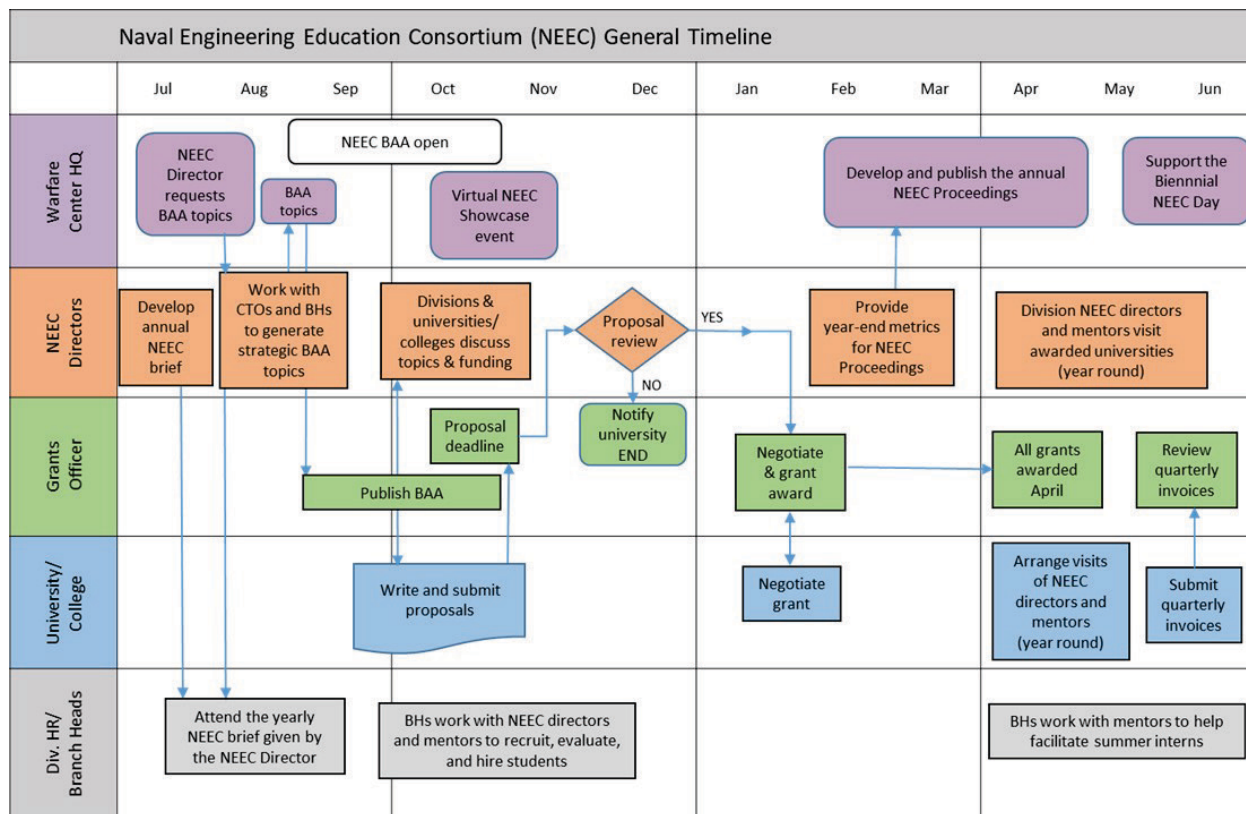
Figure 1.   NEEC General Timeline

2.1.1   Technical Topics

The participating NAVSEA WC Divisions will annually solicit research of interest through a process managed by NAVSEA HQ and administered by NSWC Dahlgren Division. Each NAVSEA WC Division may provide one or more technical topics that align with their Division's program goals and mission areas. (It is recommended that proposers contact the applicable NEEC director—contact information will be provided in the BAA—to discuss their proposals prior to the BAA deadline.)

For example, NSWC Carderock Division (CD), given its mission, may be interested in proposals for research under the topic labeled CD1 in the list below. The other three examples are topics for research that might be solicited by NSWC Corona Division (CO), NSWC Dahlgren Division (DD), and NSWC Port Hueneme Division (PD), respectively. (Note that the first two letters of the topic labels match the NAVSEA WC Division abbreviations.) These examples of research topics are summarized as follows:

- CO1 – <u>Metrology & Calibration (METCAL) for Additive Manufacturing (AM)/3D Printing Technologies</u>: Low-cost, low-SWaP (size, weight and power-consuming), deployable, metallic or nonmetallic 3D printers with in-situ performance (measurement accuracy and calibration) monitoring sensors; standardization, qualification, and

certification of AM processes and parts produced/printed thereof; inspection methods applicable to AM technologies.

- DD1 – <u>Emerging Software Development</u>: Includes Scalable Linux and real-time virtualization support for multicore hardware, automated testing, cyber security, model-based development, software certification, software verification, data analytics, computational science, big data exploitation techniques.

- PD1 – <u>Resilient and Cybersecure Shipboard Control Systems</u>: Hardware and software security for embedded systems and industrial control systems that provide resilience and cybersecurity for shipboard cyber-physical systems such as machinery control systems, propulsion systems, cooling systems, and electrical generation and distribution systems.

2.1.2 Grants

The Government may make multiple awards. The Government reserves the right to select for negotiation all, some, one, or none of the proposals received in response to the BAA and to make awards without discussions with proposers.

The funded amount and period of performance of each proposal selected for award may vary depending on the research area and the technical approach to be pursued by the offeror selected. The amount of resources made available to the BAA will depend on the quality of the proposals received and the availability of funds. Awards are made of approximately $50K to $150K per year.

2.1.3 Eligibility Information

Organizational eligibility to submit proposals under this BAA is restricted as follows:

1. All responsible sources from academia may submit proposals under this BAA. Historically Black colleges and universities (HBCUs) and minority institutions (MIs) are encouraged to submit proposals and to join others in submitting proposals. However, no portion of the BAA will be set aside for HBCU and MI participation because of the impracticality of reserving discrete or severable items of research for exclusive competition among such entities.

2. Federally funded research & development centers (FFRDCs), including the Department of Energy National Laboratories, are not eligible to submit proposals under this BAA.

3. Navy laboratories, NAVSEA WC Divisions, and other Department of Defense (DoD) and civilian agency laboratories, are not eligible to submit proposals under this BAA.

4. University-affiliated research centers (UARCs) are not eligible to submit proposals under this BAA.

2.1.4 Proposal Process

Interested proposers may submit full technical and cost proposals in response to any of the topic areas identified in the BAA. Interested proposers may submit proposals under more than one topic of interest, and there is no limit to the number of technical proposals that a single interested proposer may submit. However, interested proposers may not submit the same technical proposal to more than one Warfare Center or activity identified in this BAA.

Proposers shall submit full proposals in accordance with the instructions detailed in the BAA. Proposals submitted under the BAA must be unclassified and also assigned a DoD distribution statement (stated on the cover) per DoD Instruction 5230.24.[*] The technical proposals are limited to 10 pages. The cover page, table of contents, and resumes are excluded from the page count. Technical proposals shall include the following:

- technical approach and justification,
- project schedule and milestones,
- reports,
- management approach,
- qualifications, and
- rough-order-of-magnitude (ROM) cost proposal.

Detailed instructions on how to submit a grant proposal through Grants.gov will be provided in the BAA.

2.1.5 Evaluation Criteria

Awards under the BAA will be made to proposers based on the evaluation criteria listed below and the program balance will provide the best overall value to the Government. NSWC DD reserves the right to request any additional necessary documentation once it makes the award instrument determination. NSWC DD reserves the right to remove proposers from award consideration should the parties fail to reach agreement on award terms, conditions, and cost/price within a reasonable time, or if the proposer fails to provide requested additional information in a timely manner. The preliminary screening of each technical proposal will be performed by an evaluator at the NAVSEA WC Division or activity identified in the BAA for that topic to determine whether the proposal falls under the topic under which it was submitted.

After this screening process, evaluations will be conducted using the following evaluation criteria:

1. Technical evaluation criteria.

2. Overall scientific and technical merits of the technical proposal and statement of work (SOW).

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[*] "Distribution Statements on Technical Documents," DoD Instruction 5230.24.

3. Potential Naval relevance and contributions of the effort to the Navy's specific mission.

4. The proposer's capabilities, related experience, facilities, and techniques, or unique combinations of these, that are integral factors for achieving the proposal objectives.

5. The qualifications, capabilities, and experience of the proposed principal investigator (PI), team leader, and key personnel who will be critical to achieving the proposal objectives.

6. Student participation evaluation criteria.

7. Educational value of the students' participation in the NAVSEA WC Division project

8. Number of participating students and the education levels they are pursuing (all students must be US citizens and eligible to obtain a US secret clearance).

9. Eligibility of proposed students for Navy internship programs, as potential hires into the Navy's civil service, and for the requisite security clearance.

The primary criteria for selecting proposals for award shall be technical, importance to agency programs, and student participation. Cost realism and reasonableness may be considered to the extent considered appropriate by the Government at its sole discretion.

2.2   GRANT AWARD PROCESS

The NEEC Grants Officer will notify the recipients of grants to be awarded under the BAA in response to proposals chosen by the WC Division. The start of each award will be April 1st. (See figure 1 for an overview of the award process.)

The universities and colleges that are awarded grants will work with the NEEC director at the awarding NAVSEA WC Division; a Navy lab mentor will be assigned and serve as the liaison between the WC Division and the university or college. The roles and responsibilities of the NEEC personnel are explained in section 3.

2.2.1   Grant Funding

Funding for the NEEC grants comes from either the NAVSEA WC Division allocation or direct sponsor funding. The NAVSEA WC Divisions are allocated an annual NEEC budget from NAVSEA Headquarters based on the WC size (number of employees), i.e., larger WC Divisions receive a larger budget. This budget is negotiated yearly. Funding may also come directly from a NAVSEA WC Division sponsor. There is no cap on the amount of funding received from sponsors. For direct or outside sponsor funding, the individual NAVSEA WC Division must create its own purchase request (PR) in Enterprise Resource Planning (ERP); otherwise the process is the same. (See appendix B for the NEEC form to document outside funding plus examples of funding scenarios and reimbursement reminders.)

The Office of Naval Research (ONR) administers the grant payment and closeout process. For a detailed description of the grant process, please visit this ONR website: https://www.onr.navy.mil/work-with-us/manage-your-award/manage-grant-award . A high-level summary of the grant process taken from the website is provided in section 2.2.2.

2.2.2   Grant Payment Process

The DoD Wide Area Workflow (WAWF) in the Procurement Integrated Enterprise Environment (PIEE) serves as the DoD's primary system for electronically processing invoices. All NEEC grant recipients must register to participate in the WAWF program. The WAWF application allows the grant recipients to submit invoices and receive reports and vouchers in a secure web-based electronic environment.

NEEC grant recipients can help to ensure the success of their programs by following these general invoice guidelines:

- Ensure that allowable, allocable expenditures are promptly recorded in their financial management system.

- Have an internal system in place that identifies programs that are not recording an anticipated level of expenditures, and provide early notification to the agency of significant issue.

- Ensure that billings are done on the correct form utilizing the WAWF website, are complete and accurate, and are sent to the right place.

- Bill at least quarterly (with a copy to the NAVSEA WC Division NEEC director).

- For reimbursable billings, ensure that the billing process takes place in a timely fashion after the recording of costs.

Expenditures in research programs are carefully reviewed by ONR, DoD, and others to monitor satisfactory program performance. One measurement that is always assessed is current information on billings and payments for expenditures recorded. Programs that do not reflect expenditures commensurate with expectations are subject to reduction of future funding levels or termination.

2.2.3   Closeout of Awards

The ONR regional offices handle the final administrative closeout of grants and cooperative agreements for universities and nonprofits as outlined in sections 2.2.3.1–2.2.3.3.

Generally, award closeout is the process of documenting and assuring the fulfillment of the terms and conditions of the award, of certifying awardee compliance with applicable regulations and terms and conditions, and making final disposition of all award by-products, such as final vouchers, reports, patent disclosures, and property.

2.2.3.1 When Does the Closeout Start?

Once the award is physically complete (i.e., the period of performance has expired), the "clock begins ticking" for submission by the awardee of final deliverables. The NEEC Grants Officer will prompt the awardee in accordance with the BAA with a letter or other communication (such as an email) indicating the requirement to submit final deliverables, or otherwise reminding the awardee of its closeout-related obligations.

2.2.3.2 What Is Required?

Final deliverable requirements are usually identified in the individual award terms and conditions. They may appear as an appendix, a data requirements list, or as a simple attachment. The final deliverable requirements will generally include instructions relative to the distribution destination of these final deliverables, including numbers of copies and mailing addresses. In research and development, a final technical/performance deliverable may be, for example, a research report, data, software or, more rarely, a prototype of some sort.

2.2.3.3 Specific Deliverables (Formats, Forms and Other Information)

Final technical performance closeout is generally due 60 to 90 days after the period of performance has expired, but the awardee should refer to the specific terms and conditions of the award and its governing regulations. Grantees must submit their final technical reports with a complete Report Documentation Page (Standard Form 298) as the last page of each copy of every scientific and technical report prepared under their grants. The form contains instructions for preparation.

3. ROLES AND RESPONSIBILITIES

The personnel in the NEEC program include the NAVSEA WC HQ NEEC Director; the NEEC Grants Officer; the individual NAVSEA WC Division NEEC directors at NSWC Carderock, NSWC Corona, NSWC Crane, NSWC Dahlgren, NSWC Indian Head, NSWC Panama City, NSWC Philadelphia, NSWC Port Hueneme, NUWC Keyport, and NUWC Newport; the WC Division mentors, and the participating faculty and students at the universities and colleges. The roles and responsibilities of these personnel are described in the following subsections.

3.1 NAVSEA WC HQ NEEC DIRECTOR

The NAVSEA WC HQ NEEC Director is responsible for managing the NAVSEA NEEC program, for which the mission is to educate and develop the skills of world-class naval engineers and scientists to become part of the Navy's civilian science and engineering workforce. The HQ NEEC Director will coordinate the NAVSEA WC-level activities of the program and work in collaboration with the NEEC directors at the 10 NAVSEA WC Divisions. The specific responsibilities of the HQ NEEC Director include the following:

- Budget: Work with NAVSEA WC HQ to acquire the appropriate budget for each WC Division NEEC program.

- BAA: Work with the NEEC Grants Officer to direct the development and scheduling of the BAA, to be published with topics relevant to the Technical Capabilities of the respective NAVSEA WC Divisions.

- Outreach:

  – Represent and promote the NEEC program to internal and external entities. For example, brief the NEEC program at the Naval Opportunity Awareness (OAW) Workshop held by ONR for the Department of Navy Historically Black Colleges and Universities/Minority Institutions (HBCU/MI) Program.

  – Brief the NAVSEA HQ leadership on the NEEC program annually, and support HQ actions.

  – NEEC Facebook page (https://www.facebook.com/GoNEEC/): Maintain and update the NEEC Facebook page. Request the NEEC WC Division directors to encourage all the NEEC students to 'like' the page. The NEEC Facebook page is intended to display relevant Division information and to promote working at a NAVSEA WC Division.

- NEEC annual report: Publish annually a "NEEC Proceedings" document that outlines the current NEEC projects and highlights project accomplishments. Send a template of the required format to the NEEC directors at the NAVSEA WC Divisions for Division input to the report (see template in figure 2). Provide printed copies for distribution to potential participants and supporting organizations.

- NEEC days: Support NEEC days at both the national and local (NAVSEA WC Division) levels.

- NEEC Virtual Showcase: Organize and run a NEEC Virtual Showcase annually for the graduating (undergraduate and graduate) NEEC students. The showcase is run in Microsoft Teams, and each graduating student will have one slide and will present for 5 minutes. All hiring managers are invited to attend.

- Meetings:

  – Lead a monthly meeting in a Microsoft Teams conference with the WC Division NEEC directors to review project objectives and status.

  – Host the annual NEEC leadership (directors) meeting.

- Metrics: Develop and track NEEC program metrics as appropriate. Develop and update the NAVSEA websites with current NEEC information.

- Coordinate: Support the onsite WC Division NEEC directors as needed.

3.2   NEEC GRANTS OFFICER

The NEEC Grants Officer is responsible for publishing the BAA and administering the funding. The specific responsibilities of the Grants Officer include the following:

- Publish the BAA with the topics provided by the HQ NEEC Director.

- Administer the BAA and facilitate the question and answer process.

- Coordinate the proposal review process with each NAVSEA WC Division (the WC Division will review the proposals).

- Administer notifications and awards. Once the proposals are chosen, the WC Division NEEC directors will notify the Grants Officer at NSWC DD. The Grants Officer will make the appropriate grant awards.

- Notify WC Division NEEC directors of their yearly grant options and award the option modifications.

- Participate in the monthly meetings with the WC Division NEEC directors.

- Attend the annual NEEC leadership (directors) meeting, the National NEEC Day, and local NEEC days when possible.

3.3   NAVSEA WC DIVISION NEEC DIRECTOR

The NAVSEA WC Division NEEC directors are responsible for managing the NEEC programs at their respective Divisions. The specific responsibilities of the WC Division NEEC directors include the following:

- BAA:

  - Generate science and technology (S&T) topics for publication in the annual BAA that (1) support the mission of the WC Division and (2) have been approved for public release.

  - Work with the other WC Division NEEC directors to determine whether there is mutual interest in supporting research under certain BAA topics.

  - Create and coordinate a panel of evaluators at the WC Division to provide a fair review of all of the proposals.

    o Prior to release of the proposals, each evaluator must complete the online CON 0072 Source Selection class. The class can be found here: https://icatalog.dau.edu/onlinecatalog/courses.aspx?crs_id=12350 . Evaluators who have already taken the class (or its predecessor, CLC 007) are not required to take it again.

- Qualified evaluators screen the technical proposals (see section 2.1.5) and then review and evaluate the full proposals.

  – Work with the WC Division CTO and the appropriate S&T community to choose the winning proposals based on the panel's evaluation and the funding available.

  – Communicate with interested proposers (universities/colleges) and provide guidance on potential NEEC projects.

- Outside funding: If funding is available from other sources (aside from the allocated NAVSEA overhead funding), work with these potential sponsors to collect and collate topics to be included in the NAVSEA BAA. Facilitate interactions with potential sponsors whenever possible.

- Mentors:

  – Find appropriate mentors for the winning proposals. The goal is to have mentors with a strong interest in the project and perhaps a connection to the school.

  – Solicit Naval Innovative Science and Engineering (NISE) Program funding, where appropriate, to support the project mentors.

  – Once the awards are made, support the mentors in creating and maintaining successful relationships with the students.

- University and college engagement:

  – Establish an educational partnership agreement (EPA) with each NEEC school.

  – Ensure that the schools invoice on a quarterly basis and review the invoices.

- Hiring:

  – Work with the WC Division Human Resources (HR) program to recruit at NEEC schools.

  – Encourage all mentors to seek out a diverse pool of students to participate in the program.

  – Work with the mentors and the WC Division hiring manager (branch head) for each project to evaluate all of the participating NEEC students as potential civil service hiring candidates.

- Briefings: Hold an annual briefing for the NEEC hiring managers for the WC Division, and include the opportunity to discuss BAA topics and the types of engineers that are needed.

- Metrics:

  - Work with the mentors to collect appropriate metrics, including the titles of journal articles, conference presentations/posters, and patents. See the example form in figure 3.

  - Maintain a list of students, sorted by the level of their academic degrees (BS, MS, or PhD), who are offered jobs, with the list annotated to show whether or not they accept the offers and, if applicable, their reason(s) for not accepting.

  - Update annually the employee status of former NEEC students.

- Meetings:

  - Support monthly meetings of the NAVSEA WC HQ NEEC Director with the other WC Division NEEC directors.

  - Attend the annual NEEC leadership (directors) meeting.

- NEEC days:

  - Attend the national NEEC day.

  - Host a local NEEC day biennially (every other year).

3.4 WC DIVISION MENTOR

The mentors are the WC Division NEEC program link with the universities and colleges (schools). The specific responsibilities of NEEC mentors include the following:

- Kickoff meeting: Working with the WC Division NEEC director, set up a kickoff meeting with school personnel—deans, faculty, students—working on each project.

- Overview: Provide to each student and supervising professor a view of the "big picture" of the technology area of the research project, with a briefing on the overall WC Division program objectives and requirements that must be met with state-of-the-art technology, an outline of how the NEEC project is expected to help meet these requirements, and why it is important to the Navy to increase capabilities or advance the technology in the subject area.[*]

- Visit schools: Visit participating schools at least once a year during the project to meet students and professors and visit their lab spaces and classrooms.

- Engage the students' professors:

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[*] Technical briefings meant to interest and educate students and professors without the requisite security clearance and "need to know" must be approved for public release by Operational Security (OPSEC) at the WC.

- – Engage the professors in technical discussion on project progress.[*]

- – Remind the professors to invoice on a timely basis (quarterly).

- – Engage the professors in discussion about which students would be good candidates for hiring into the WC Division (or possibly a different WC Division).[4]

- Talk to students: Discuss internships and employment opportunities with the students. Encourage the students to apply to the Naval Research Enterprise Intern Program (NREIP) internship program (see the NREIP information in appendix A).

- Leadership: Manage and lead the NEEC student interns during summer internships in the NREIP program and, if applicable, in the Science, Mathematics, and Research for Transformation (SMART) program and the Pathways program (see internship information in appendix A).

- Hiring: Work with WC Division hiring managers on behalf of talented students by requesting student resumes and liaising with HR to hire the students.

- NEEC days: Attend local and national NEEC days.

3.5 UNIVERSITY OR COLLEGE PROFESSOR

The university and college professors are the NEEC program's link with the NAVSEA WC Divisions. The specific responsibilities of NEEC mentors include the following:

- Confirm and review the timeline and expected research for the NEEC project with both the participating students and the WC Division mentor.

- Visit the participating WC Division at least once during the project.

- Host the WC Division mentor at least once each year to review the project and meet with the students.

- Provide a metrics report (see the example form in figure 3).

- Discuss with the mentors (1) the potential availability of student summer internships (see appendix A) and (2) the tasks to be performed by the students during the 10-week internship.

- Communicate regularly with the mentor.

- Encourage participating students to apply for Navy internships. (Note that WC Division internships require that students must be able to obtain a US secret clearance.)

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[*] Technical discussions must adhere to security classification guidance applicable to the project.

- Help the Navy identify the right students for WC Division employment.

- Ensure that all graduating NEEC students participate in the NEEC Virtual Showcase.

- Make progress on the project research.

- Attend the NEEC annual and local meetings.

- Submit invoices to the NAVSEA NEEC Grants Office quarterly; avoid any backlog of invoices.

3.6   STUDENTS

The students are the key to the success of the NEEC program. The specific responsibilities of NEEC students include the following:

- Review and understand the objectives of the project.

- Working at the WC for at least 10 weeks of each summer during the project is strongly recommended. See appendix A for a synopsis of the NREIP summer internship program. Please note that the deadline for applications is quite early in the fiscal year, usually in late October or very early November for a summer internship.

- Meet or have a conference call with the project's supervising professor and the Navy mentor to discuss the tasks to be performed during the 10-week period of the potential NREIP summer internship.

- Provide a resume to the WC mentor at least 1 year prior to the NEEC project completion date.

- Inquire about hiring status during the summer internship with the WC mentor.

- Graduating NEEC students are to participate in the NEEC Virtual Showcase.

- Attend the annual NEEC Day and be prepared to present current research work if asked. The opportunity to present research work and results is most important for those in the final year of a project.

- Work hard and learn as much as possible! Ask the hard questions! Challenge the status quo!

1. **School name:**

   School logo (submit separately)

2. **Professor name(s):**

3. **Project Title:**

4. **Project Description:** Should describe the project at a high level (for people not familiar with the topic), and it should also include some type of potential naval application **(i.e., why it may be important to the Navy)**. Two to three paragraphs is fine. Spell out all acronyms. **Keep word count to 350 words or less.**

5. **Pictures**: two or three photos, with captions (submitted separately), preferably of students working on their projects

6. **Metrics:**

6.1 **Students:**

   Total number of students participating in the program.

   Numbers and majors of PhD, MS, and BS students (e.g., 1 PhD CS, 1 PhD EE, 2 MS ME).

6.2 **NEEC Documentation (fill in all sections that are applicable)**

   Peer-reviewed journal articles:

   - Number
   - Title(s)

   Presentations at conferences:

   - Number
   - Title(s)

   Thesis or dissertation completed:

   - Number
   - Title(s)

   Capstone projects:

   - Number
   - Title(s)

   Competition projects:

   - Number
   - Title(s)

Figure 2.   **Annual NEEC Proceedings Template for Universities**

NEEC DIVISION ANNUAL METRICS REPORT—[YEAR]

[YEAR] NEEC Director and Division Name: _____

1. Total number of projects: ___

___ - Number of NAVSEA-funded projects

___ - Number of direct sponsor-funded projects

2. Retention:

___ - How many NEEC hires have left your Division? IMPORTANT: Explain reasons below, if known.*

Reasons for NEEC hires leaving your Division: _____

_____

_____

*For example, "better offer from industry/academia," "lack of job satisfaction," "lack of advancement opportunity."

3. Please maintain a list of all the NEEC hires and call them once a year to follow up. Are the NEEC hires engaged in leadership positions, given new projects or assignments ("good news" stories)?

_____

_____

_____

4. NEEC New hires and summer interns:

___ - Males/Diversity hires

___ - Females/Diversity hires

5. NEEC projects completed (give project title(s))?_____

_____

_____

6. Summary of any technology or people (new hires) transitioned?_____

_____

_____

Figure 3.   Example NEEC Annual Metrics Form

4. NEEC WC POINTS OF CONTACT

Contact information for the NAVSEA NEEC Director and the Business POC is given below:

NAVSEA Headquarters NEEC Director: Sally Sutherland-Pietrzak
NAVSEA Headquarters, Naval Undersea Warfare Center
Sally.Sutherland@navy.mil

Business POCs: Daniel C. Belcher, Grants Officer
Timothy C. Kawamoto, Contract Specialist
Naval Surface Warfare Center
Dahlgren Division

The directors of the NEEC programs at the participating NAVSEA Warfare Center Divisons are listed below:

Naval Undersea Warfare Center
Division Newport – Elizabeth A. Magliula
https://www.navsea.navy.mil/Home/Warfare-Centers/NUWC-Newport/

Naval Undersea Warfare Center
Division Keyport – Thai B. Tran
https://www.navsea.navy.mil/Home/Warfare-Centers/NUWC-Keyport/

Naval Surface Warfare Center
Indian Head Division – Trevor D. Hedman
https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Indian-Head/

Naval Surface Warfare Center
Dahlgren Division – Karen C. Smith
https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Dahlgren/

Naval Surface Warfare Center
Carderock Division – John Barkyoumb
https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Carderock/

Naval Surface Warfare Center
Crane Division – Bryan D. Woosley
https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Crane/

Naval Surface Warfare Center
Corona Division – Karon A. Myles
https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Corona/

Naval Surface Warfare Center
Panama City Division – Matthew J. Bays
https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Panama-City/

Naval Surface Warfare Center
Philadelphia Division – Stephen A. Mastro
https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Philadelphia/

Naval Surface Warfare Center
Port Hueneme Division – Armen Kvryan
https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Port-Hueneme/

For updated contact information, check the NAVSEA website at
https://www.navsea.navy.mil/Home/Warfare-Centers/Partnerships/NEEC/ .

APPENDIX A — INTERNSHIPS AND STUDENT PROGRAMS

NEEC students may be eligible for one or more of three internship programs that provide opportunities for Government-funded work at NAVSEA Warfare Centers:

1. Naval Research Enterprise Intern Program (NREIP)
2. The Science, Mathematics, and Research for Transformation (SMART) program
3. Pathways (which also includes information for recent graduates)

A.1 Naval Research Enterprise Internship Program (NREIP)

The Naval Research Enterprise Intern Program (NREIP) provides an opportunity for undergraduate and graduate students to participate in research at a Department of Navy (DON) laboratory during the summer.

The goals of the NREIP are to (1) encourage college students to pursue science and engineering careers, (2) further their education via mentoring by laboratory personnel and participation in research, and (3) raise awareness of DON research and technology efforts, which can lead to employment within the DON.

The NREIP provides competitive research internships to approximately 200 college students each year: 139 undergraduate students and 61 graduate students. Participating students typically spend 10 weeks during the summer doing research at participating DON laboratories (there are usually 12 laboratories). Students receive a stipend.

A.1.1 Eligibility

NREIP applicants must meet the following eligibility requirements:

- attendance at the NEEC annual and local meetings,

- enrolled at an eligible university or college (there are approximately 166 participating institutions),

- a university or college junior, senior, or university graduate student in good standing when applying,

- pursuing a major that is relevant to the research interests of the DON laboratories (science and engineering), and

- able to obtain an interim security clearance.

NREIP students will be selected based on academic achievement, personal statements, recommendation, and career and research interests.

A.1.2 How To Apply

For more information concerning NREIP and for application information, please visit https://www.nre.navy.mil/education-outreach/undergraduate-graduate/nreip-naval-internship.

A.2 SCIENCE, MATHEMATICS, AND RESEARCH FOR TRANSFORMATION (SMART) STUDENTS

The Science, Mathematics, and Research for Transformation (SMART) Scholarship for Service Program was established by the Department of Defense (DoD) to support undergraduate and graduate students pursuing degrees in science, technology, engineering, and mathematics (STEM) disciplines. The program aims to increase the number of civilian scientists and engineers working at DoD laboratories.

This is a summer program for college students pursuing a bachelor's, master's, or doctoral degree in a STEM discipline. The students receive a full scholarship from the DoD that includes living expenses, tuition, and fees; and they commit to working at a NAVSEA Warfare Center on completion of their degrees. The DoD pays the full scholarship plus a stipend during the full-time summer internship at a NAVSEA WC Division.

A.2.1 Eligibility

SMART Scholarship applicants must meet the following eligibility requirements:

- US citizenship,

- a student in good standing with a minimum cumulative grade point average (GPA) of 3.0 on a 4.0 scale (as calculated by the SMART application),

- pursuing an undergraduate or graduate degree in one of the disciplines listed on the SMART Scholarship website,

- committed to accept postgraduate employment with the WC providing the internship or with another interested WC under certain conditions, and

- able to obtain an interim security clearance.

A.2.2 How to Apply

For more information concerning the SMART Scholarship program and the application guidelines, please visit http://smartscholarship.org/ .

A.3 PATHWAYS
A.3.1 Pathways Internship Program

The Pathways Internship Program replaces the Student Career Experience Program (SCEP) and Student Temporary Employment Program (STEP). The Pathways program is designed to

provide students enrolled in a wide variety of educational institutions, from high school to graduate level, with opportunities to work in Government agencies and explore federal careers while they are still in school *and* are being paid for the work performed. Students who successfully complete the program may be eligible for conversion to a permanent job in the civil service.

Additional information about the Pathways Internship Program can be found at USAJOBS online (https://www.usajobs.gov/Help/working-in-government/unique-hiring-paths/students/). Key provisions of the program are summarized in the following subsections.

A.3.1.1   Eligibility

Applicants must currently be students in good standing in

- an accredited high school or college (including 4-year universities/colleges, community colleges, and junior colleges);

- a professional, technical, vocational, or trade school;

- an advanced degree program; or

- another qualifying educational institution in pursuit of a qualifying degree or certificate.

A.3.1.2   Program Administration

The Pathways Internship Program is primarily administered by each hiring agency. Agencies may hire interns on a temporary basis for up to 1 year for an initial period or for an indefinite period to complete the educational requirement. Interns may work either part-time or full-time. Each agency must sign a Participant Agreement with the intern that sets forth the expectations for the internship. The intern's job will be related to the intern's academic career goals or field of study.

Agencies provide the US Government Office of Personnel Management (OPM) with information regarding their internship opportunities and also post information publicly on the USAJOBS website (https://www.usajobs.gov/Help/working-in-government/unique-hiring-paths/students/) about how to apply for specific positions.

A.3.2   *Pathways Recent Graduates Program*

The Pathways Recent Graduates Program affords developmental experiences in the Federal Government intended to promote possible careers in the civil service to individuals who have recently graduated from qualifying educational institutions or programs. To be eligible, applicants must apply within 2 years of degree or certificate completion (except for veterans precluded from doing so due to their military service obligation, who have up to 6 years after degree completion to apply). Successful applicants are placed in a dynamic, developmental program with the potential to lead to a civil service career in the Federal Government. The program lasts for 1 year (unless the training requirements of the position warrant a longer and

more structured training program). Key provisions of the Pathways Recent Graduates Program are summarized in the following subsections.

A.3.2.1 Eligibility

Applicants must meet the following eligibility requirements:

- recent graduates who have completed, within the previous 2 years, a qualifying associate's, bachelor's, master's, doctoral, professional, vocational, or technical degree or certificate from a qualifying educational institution; or

- veterans who are unable to apply within 2 years of receiving a qualifying degree—i.e., associate's, bachelor's, master's, doctoral, professional, vocational, or technical degree or certificate from a qualifying educational institution—because of a military service obligation and therefore have as much as 6 years after degree completion to apply.

A.3.2.2 Program Administration

The Recent Graduates Program is administered primarily by each hiring agency. Each agency must sign a Participant Agreement with the recent graduate that sets forth the expectations for the program.

Agencies provide the US Government OPM with information regarding their opportunities and also post information publicly on USAJOBS (https://www.opm.gov/policy-data-oversight/hiring-information/students-recent-graduates/#url=graduates) about how to apply for specific positions.

A.3.2.3 Training and Development

After hiring, the recent graduates are trained with respect to the program in the following ways:

- orientation program;

- mentorship throughout the program;

- individual development plan to create and track recent graduates' career planning, professional development, and training activities; and

- at least 40 hours of formal, interactive training in each year of the program.

A.3.2.4 After Program Completion

Positions in this program offer opportunities for career advancement. Recent graduates hired into the program may be converted to a permanent position (or, in some limited circumstances, a term appointment lasting 1–4 years). To be eligible for conversion, the recent graduates must have

- successfully completed at least 1 year of continuous service in addition to all the requirements of the program,

- demonstrated successful job performance, and

- met the qualifications for the position to which the recent graduate will be converted.

APPENDIX B — NEEC FUNDING FROM OUTSIDE SPONSORS

For outside funds, the NAVSEA WC Division NEEC directors must work with their sponsors and the NSWC DD financial team. Figure 4 is an example of the form that will be sent to the sponsor to facilitate the award process. Figures 5–7 are examples of NEEC internal and external funding scenarios. Figure 8 is an example of the direct cite (DC) 1300 PR header text giving the information required for internal sponsors. Figure 9 is an example of a reimbursement reminder.

Naval Engineering Educational Consortium (NEEC) Outside Fund Document Acceptance (FODA) Form

NEEC Director Name:
Warfare Center: Choose One
University Name:
University Address:
University Phone:
Vendor SAM Cage Code/DUNS #:   *(if unknown, Tim will locate)*
ERP Vendor #   *(if unknown, Tim will locate)*
Grant Title:
Sponsor Organization (who is funding the grant):
Sponsor POC Name:
Sponsor POC Email:
Sponsor POC Phone:
Grant #:   *or* "New" Grant: ☐
Amount $:
Type of funds:
Will these funds expire this FY? YES ☐   NO ☐
Funds Expiration Date:
Funding Frequency
Incrementally: ☐   Frequency: Choose One
How much will be incrementally funded each time?
Period of Performance Dates:
$$ Ceiling on Grant (this is so that if they are incrementally funding the grant, we know where they are with each funded amount) *(if unknown, Tim will obtain info from Jessica, Kristen or Sally)* :
PLEASE SEND COMPLETED FORM TO:

Figure 4.   **NEEC Financial Outside Document Acceptance (FODA) Form**

Scenario 1 for funding: *INTERNAL TO ERP*
- Internal to ERP REIMB **1400 PR #** (for DD fees):
  - Fund document #
  - In the PR, please cross reference the DC 1300 PR #
  - This REIMB doc is to cover the ___ **% SCC fee** to award the DC funds.
    - ___ % of the total DC funds
  - REIMB total amount: $
- Internal to ERP DC **1300 PR #**:
  - In the PR, please cross reference the REIMB 1400 PR #
DC funding amount: $

Figure 5. **NEEC Funding Example: Scenario 1—Funding Internal to ERP**

Scenario 2 for funding: *INTERNAL TO ERP BUT DAHLGREN IS TO CREATE 1300 PR*
- REIMB **1400 PR #**:
  - Fund document #
  - This REIMB doc is to cover the ___ **% SCC fee + (___ % or $ ___ processing fee whichever is less)** to process & award the DC funds.
  - REIMB total amount: $
- **DC ZFD Addendum**
Uploaded in 1400 PR DMS

Figure 6. **NEEC Funding Example: Scenario 2—Funding Internal to ERP But Dahlgren Division Creates 1300 PR**

Scenario 3 for funding: *OUTSIDE FUNDING (does not use ERP)*
- **REIMB fund document #**
  - This REIMB doc is to cover the ___ **% SCC fee + (___ % or $ ___ processing fee whichever is less)** to process & award the DC funds.
  - Please cross reference the two document numbers
- **DC fund document #**
  - DC funding document #
  - DC funded amount: $
Please cross reference the two document numbers

Figure 7. **NEEC Funding Example: Scenario 3—Outside Funding (Does Not Use ERP)**

Example of the **DC 1300 PR Header text** info for internal sponsors:

N00178-2X-XXXXX
1. Contract Action Description: Funding provided for NEEC BAA **(UNIVERSITYNAME)** from **(POP DATE)** XX/XX/202X– XX/XX/202X . Fulling Funding and/or **(EFFORT)**
2. Requesting Fin POC: **EMAIL,PHONE#**
3. Requesting Tech POC: **EMAIL,PHONE#**
4. Contracting Fin POC: Matthew Faulds, matthew.w.faulds.civ@us.navy.mil,(540)653-7147
5. Contracting Tech POC: Daniel Belcher, 540-487-5799, daniel.c.belcher3.civ@us.navy.mil
6. Contract Specialist POC: Tim Kawamoto timothy.c.kawamoto.civ@us.navy.mil, (540) 742-8781
7. Severable or Non-severable: Severable
8. Planning PR (Y/N): N
9. 1517 Authority Transfer: The total of all direct cite funding constitutes a 31 USC 1517 limitation when the purchasing officer or contracting activity is a separate entity not under the immediate supervision of the commanding officer issuing the request.
10a. Funding Frequency (full, partial or incremental): Full Funding
10b. Contracting Fee Doc(Y/N): Yes/REIMDoc# *(example)N0017 824WX00001*
10c. WAWF Info: AdministrativeofficereferencedinBlock23aoftheGrant
10l. Contingent Liability Description and PR # if applicable: No
10m. IT Approval # or CCA Compliance: NA
10o. CROSSOVER Action (y/n): N
11. Work Completion Date: NA Indirect
12. Funds Expiration Date: NA Indirect
13. DTO Justification: NA

Figure 8.   Example of DC 1300 PR Header Text: Information for Internal Sponsor of NEEC Project

REIMB REMINDER:

REIMB Contracting Fee Doc: All DC funds will be charged SCC fees of ___ %,

In addition, if **NSWCDD is creating the PR** for the DC funding, please **add ___% or $ ___ processing fee whichever is less**   to the ___ % REIMB document.

IF a 1300 PR for the DC is **created by the sponsor, only** the ___ **% 1400 PR** is needed in order to process. Matt will let contracts dept know what the 1300 DC PR # is and the Contracts dept will put the funds on contract (no PRW needed).

Figure 9.   Example of NEEC Project Reimbursement Reminder

APPENDIX C — TD 12,376A REVISION CHANGE LOG

Revision	Author (Code), Date	Description
A	Sally Sutherland-Pietrzak (Code HQ 0UT) 9 November 2023	• BAA release and closing dates • BAA administered by NSWC Dahlgren Division • Current BAA number • WC Division directors to provide year-end metrics • Participating students must be US citizens and eligible for US secret clearance • NEEC FODA form to be filed to document the acceptance of funds from outside sponsors • Copy quarterly billing to WC Division NEEC director • NEEC annual report (1) prepared per template and (2) printed copies to be available for promotion • Annual NEEC Virtual Showcase • NEEC Facebook page • Monthly directors meetings held by Teams conference • Proposal evaluators required to (1) complete federal source selection class and (2) submit conflict-of-interest statements • University/college professors to provide metrics report per "Annual NEEC Proceedings Template for Universities" • NEEC business POCs at NSWC DD • NEEC directors at NSWCIH, NSWCDD, NSWCCD, and NSWCPD • Website for NREIP application • All NEEC graduating students will participate in the NEEC Virtual Showcase

INITIAL DISTRIBUTION LIST

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External
Defense Technical Information Center (DTIC)

Total: 2