Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605853N *I Management, Technical & Intl Supt*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	0.000	121.210	124.328	137.521	-	137.521	124.687	122.792	122.513	126.183	Continuing	Continuing
0149: *International Coop RDT&E*	0.000	3.186	2.552	3.785	-	3.785	3.710	3.473	3.542	3.617	Continuing	Continuing
1767: *Naval War Col Strategic Studies Supt*	0.000	5.911	6.276	6.367	-	6.367	6.483	6.591	6.722	6.863	Continuing	Continuing
2098: *Navy Postgraduate School (NPS) Studies Support*	0.000	11.905	12.486	12.858	-	12.858	14.126	14.887	15.173	15.416	Continuing	Continuing
2221: *JT Mission Assessment Studies*	0.000	23.914	28.270	27.338	-	27.338	30.113	29.701	29.415	30.035	Continuing	Continuing
3017: *Enterprise Information Systems*	0.000	1.055	1.111	1.142	-	1.142	1.163	1.185	1.209	1.234	Continuing	Continuing
3312: *MTMD-Maritime Theater Missile Defense Forum*	0.000	10.842	11.792	11.617	-	11.617	11.902	12.067	11.655	11.892	Continuing	Continuing
3330: *Naval Research Laboratory (NRL) Facilities Modernization*	0.000	16.227	26.380	37.123	-	37.123	20.002	16.066	16.398	16.743	Continuing	Continuing
3363: *PACOM Initiative*	0.000	28.768	35.461	37.291	-	37.291	37.188	38.822	38.399	40.383	Continuing	Continuing
9999: *Congressional Add*	0.000	19.402	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	19.402

A. Mission Description and Budget Item Justification

PU 0149 International Cooperative RDT&E:

Provide program management, execution, and support to implement a broad range of cooperative Naval Research and Development, Test and Evaluation initiatives to improve coalition interoperability, harmonize US Navy requirements with allied and friendly nations, and identify cooperative international opportunities, and improve coalition interoperability. In addition, it develops coherent approaches, coordinating with partner nations, to sea-based missile defense, command, control, communications, computers and intelligence (C4I), and cooperative acquisition programs while also identifying technology to support the Global Maritime Partnership initiative.

PU 1767 Naval War College Strategic Studies Support:

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy	Date: March 2024
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605853N *I Management, Technical & Intl Supt*

Provides research, analysis and gaming activities which serve as a focal point, stimulus, and major source of strategic and operational thought within the Navy, joint and interagency communities. These efforts generate strategic and operational alternatives, quantitative analysis, war gaming and political military assessments, and provide recommendations regarding the formulation and execution of maritime options . The War Gaming Department plans, designs, executes, analyzes and reports on the Navy's Title 10 war games. These war games provide analytical input to the Navy's Strategic Plan, assessments of future concepts, and recommendations to the Navy's Quadrennial Defense Review, force design, and strategy process. The War Gaming Department also designs, executes and analyzes war games for theater security cooperation plans and operational war fighting issues.

PU 2098 Naval Postgraduate School (NPS) Studies Support:

Navy Postgraduate School (NPS) Naval Research Program (NRP) supports senior decision-makers from the Department of the Navy, the Office of the Chief of Naval Operations, Budget Submission Offices and Fleet Commanders in reaching well-informed, objective decisions on strategic, operational, and programmatic issues through collaborative and interdisciplinary research which integrates traditional research and analysis with advanced decision support tools. Faculty conducted research, student theses and capstone projects are an integral part of this program in support of the critical research and analysis requirements across the Naval enterprise.

PU 2221 Assessment Program:

The Navy Assessment Program provides capability-based planning assessment for Joint Capabilities Integration and Development System (JCIDS), conducts analysis to affect war fighting capability trades and enterprise resources, identifies needs, gaps, and overlaps, and assesses alternative solutions to Joint needs. The program supports both the development and use of modeling, simulation and analytically-based warfare and provides business analyses and analytic tools that provide the basis for decision making with respect to concepts of operations (CONOPS), Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Systems (Information Dominance); warfare systems (Sea Strike, Sea Shield, and Sea Basing) and analytical underpinnings/basis for programmatic decisions of the Navy's top leadership regarding their architectures, force structure, and the Navy's core "organize, train, and equip mission" (the warfare and provider Enterprises). The program provides overarching Planning, Programming, Budgeting and Execution System (PPBES) analyses and guidance for PPBES which provides gap analysis and investment strategy and total obligation authority allocation. It provides independent capability analysis and assists in structuring follow-on Navy analyses. The program coordinates Navy's position for the enhanced planning process and conducts net assessments. It serves as the lead campaign analysis to approve Navy warfare and support requirements. The program supports "A Cooperative Strategy for 21st Century Seapower 21" as modified by the Maritime Strategy which charts a course for the Navy, Coast Guard and Marine Corps to work collectively with each other and international partners to prevent crises from occurring or reacting quickly should one occur to avoid negative impact to the United States. It serves as an independent assessor providing a broad-view perspective across the Navy staff apart from resource sponsors, with an integrated look at both war fighting and war fighting support programs. The program supports the world class modeling efforts to attain a level of Modeling and Simulation (M&S) capability that is world class and establishes the Navy as a leader in the Department of Defense (DoD) M&S community. It provides Navy alternatives in assessing the implications embedded within resource decisions in a quantified context of costs versus capability versus risk. The program provides independent analytic support to Navy leadership in conjunction with various executive level decision forums. It develops tools and analytical methodologies that assist in evaluating Navy programs and provides technical leadership for the analysis functional area of Naval Modeling and Simulation.

PU 3017 Enterprise Information Systems:

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy	Date: March 2024
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605853N *I Management, Technical & Intl Supt*

This project funds the Office of Naval Research (ONR) Next Generation Enterprise Network (NGEN) Information Technology corporate costs.

PU 3312 MTMD - Maritime Theater Missile Defense Forum:

This project funds participation in Maritime Integrated Air and Missile Defense projects with other nations through the Maritime Missile Defense Projects Framework Memorandum of Understanding of 2004 (as amended 2009, 2015, 2016 and 2020). Known as the Maritime Theater Missile Defense (MTMD) Forum, it promotes interoperability with the Navies of twelve participating nations (Australia, Belgium, Canada, Denmark, France, Germany, Italy, Netherlands, Norway, Spain, United Kingdom and the United States). This project provides interoperability assessment and opportunities to Allies that directly contributes to increasing the number of countries capable of supporting NATO Ballistic Missile Defense (BMD). Engineering analysis and data analytics from MTMD activities are provided to European and Pacific Combatant Commands in direct support of theater Integrated Air and Missile Defense (IAMD) priorities. The MTMD Forum addresses challenges associated with integrating maritime Allied Air Defense in Support of Ballistic Missile Defense Operations into joint IAMD command and control. MTMD Forum nations leverage At-Sea Demonstration (ASD) test events, coupled with operational Fleet Exercises (Formidable Shield and Pacific Dragon), to integrate technology and validate national capabilities in operational constructs, supportive of operational force employment.

The MTMD Forum encourages national development of systems and practices that enhance protection and defense against the proliferation of short, medium and long-range Ballistic Missile (BM) and Advanced Anti-Ship Cruise Missile (ASCM) threats through the development of interoperable sea-based Integrated Air and Missile Defense (IAMD) capability among MTMD Forum nations. The MTMD Forum enhances utilization of existing sea-based IAMD systems to protect against current threats, while measuring progressive improvement and development of compatible systems to better counter evolving threats.

This project supports USN participation in a Maritime IAMD Project Arrangement focused on:

(1) Battle Management Command, Control, Communications, Computers, and Intelligence (BMC4I) to define and develop architectures and perform engineering to address coalition capability gaps.
(2) Modeling & Simulation (M&S) to establish and maintain a maritime coalition M&S testbed and to perform legacy and future systems simulation testing.
(3) Hardware-in-the-Loop Testing of Coalition combat systems to assess interoperability within the Coalition Distributed Engineering Plant (CDEP).
(4) Open Architecture (OA) work to develop Interface Standards and Data Models.
(5) Test Planning and Execution (TPEX) to develop Test Plans, oversee exercise participation and conduct post event data analysis and reporting.
(6) Operational Requirements (OR) to identify operational constraints and tactical constructs surrounding coalition maritime integrated air and missile defense activities, and their integration into joint operations.
(7) Reciprocal Use of Test Facilities agreements with other nations to support Maritime IAMD and MTMD Forum-related demonstrations.

PU 3330 Naval Research Laboratory (NRL)Facilities Modernization:

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy	Date: March 2024
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605853N *I Management, Technical & Intl Supt*

This program has been established to provide a systematic and planned approach to improve vital in-house science and technology (S&T) laboratory facilities which are reaching or have reached critical stages of deterioration. The program includes restoration and modernization (R&M) initiatives for about 350,000 net square feet, where the average age of the buildings is 67 years old.

PU 3363 PACOM Initiative:

This project supports the China Strategic Initiative (CSI) and Pacific Multi-Domain Training and Experimentation Capability (PMTEC) efforts. The CSI program is U.S. Indo-Pacific Command's(INDOPACOM) first Asia Rebalance initiative and provides cutting-edge research on adversary approaches to warfare, monitoring and analysis of adversary social media and censorship, unique understanding of effects of U.S. actions at the strategic and operational levels, sponsorship of Track 1.5/2 Strategic Nuclear Dialogue with China, etc. This funding is for a classified effort and details can be provided at a higher classification level.

Pacific Multi-Domain Training and Experimentation Capability (PMTEC) is foundational to meeting Commander, USINDOPACOM's high-end warfighting capability, theater force posture, and Ally & Partner (A&P) objectives through the execution of joint experimentation in the Indo-Pacific. PMTEC is the joint synchronizer and integrator by bringing together OSD, Service RDT&E, other government agencies, industry, and academia with Combatant Commands, Service Components, warfighting units, and A&Ps to expedite experimentations of R&D projects/prototypes and to facilitate more rapid modernization and interoperability.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RESEARCH, DEVELOPMENT, TEST and EVALUATION MANAGEMENT SUPPORT because it supports efforts directed toward sustaining or modernizing installations or operations required for general research, development, test and evaluation.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	109.565	124.328	142.899	-	142.899
Current President's Budget	121.210	124.328	137.521	-	137.521
Total Adjustments	11.645	0.000	-5.378	-	-5.378
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	14.575	0.000			
• SBIR/STTR Transfer	-2.930	0.000			
• Program Adjustments	0.000	0.000	-5.373	-	-5.373
• Rate/Misc Adjustments	0.000	0.000	-0.005	-	-0.005

Change Summary Explanation

Funding: FY23 Increase of 14.575M is related to Section 8132 Internal Reprogramming providing funding to assess and strengthen the domestic industrial base and supply chain for Printed Circuit Boards (PrCBs) & Interconnects.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605853N / *Management, Technical & Intl Supt*				Project (Number/Name) 0149 / *International Coop RDT&E*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
0149: *International Coop RDT&E*	0.000	3.186	2.552	3.785	-	3.785	3.710	3.473	3.542	3.617	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Provides funding for program management, execution, and support activities to implement a broad range of cooperative naval Research and Development, Test and Evaluation (RDT&E) initiatives to improve coalition interoperability, harmonize US Navy requirements with allied and friendly nations, and identify cooperative international opportunities. The funding is used to develop approaches to international cooperation consistent with combatant commanders (COCOMs), Chief of Naval Operations (CNO), and Secretary of the Navy (SECNAV) priorities in the maritime domain.

Various cooperative RDT&E programs, projects and exchanges are pursued to identify cooperative acquisition programs, enhance Overseas Contingency Operations (OCO) efforts, fill capability gaps, improve US/coalition interoperability, and standardize defense capabilities with international partners. Such efforts have resulted in:
1. Negotiating and developing approximately 57 international RDT&E Agreements annually with allied and friendly nations;
2. Executing Information Exchange Annexes (IEAs) with foreign partners;
3. Improving IEA information dissemination with allied and friendly countries and within Department of the Navy (DON);
4. Coordinating Navy inputs to the Office of the Under Secretary of Defense (OUSD) Acquisition and Sustainment (A&S) Foreign Comparative Test (FCT) Program, and Coalition Warfare Program (CWP) as well as the DON Technology Transfer Security Assistance Review Boards (TTSARB).
5. Representing the U.S. Navy in Office of the Secretary of Defense (OSD) directed Armaments Cooperation Forums, including the Conference of North Atlantic Treaty Organization (NATO) Armaments Directors' groups (NATO Naval Armaments Group (NNAG)), and Senior National Representative (SNR);
6. Funding of various international RDT&E support databases including Technical Project Officer (TPO), International Agreement Generators, Information/Data Exchange Agreements, and Project Agreements/Memorandums of Understanding;
7. Funding for Engineering and Scientist Exchange Program (ESEP).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: International Coop RDT&E	3.186	2.552	3.785	0.000	3.785
Articles:	-	-	-	-	-
FY 2024 Plans: -Continue all efforts from prior FYs. -Continue support for an unmanned maritime systems forums with foreign partners, including expansion of international participation in technical discussions. -Continue support for multi-nation Arctic research and development cooperation forum.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 0149 / *International Coop RDT&E*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Continue execution and support in placement of U.S. Navy and partner nation engineers and scientists under OSD's Engineer and Scientist Exchange Program (ESEP), with a focused increase (~4-5 additional/year) on ESEP placements. -Continue to support U.S. Navy execution of approximately 150 Information Exchange Agreements/Data Exchange Agreements (IEA/DEA) with more than 30 countries. -Continue to coordinate U.S. Navy participation in OUSD (A&S) Coalition Warfare Program (CWP) selection processes to meet emerging military capability requirements. -Continue support for International Cooperative Engagement Program for Polar Research (ICE-PPR) -Continue to support NATO Naval Armaments Group (NNAG) and Five Power Groups on cooperative programs. -Provide contract support for Senior National Representative (SNR) and Navy International Programs Office for international outreach, development, and administrative activities. -Provide travel support for SNR participation in Senior Naval National Representative (SNNR) meetings with key foreign partners, and for select NATO meetings in support of CNO priorities.					
FY 2025 Base Plans: -Continue all efforts from prior FYs. -Continue support for an unmanned maritime systems forums with foreign partners, including expansion of international participation in technical discussions. -Continue support for multi-nation Arctic research and development cooperation forum. -Continue execution and support in placement of U.S. Navy and partner nation engineers and scientists under OSD's Engineer and Scientist Exchange Program (ESEP), with a focused increase (~4-5 additional/year) on ESEP placements. -Continue to support U.S. Navy execution of approximately 150 Information Exchange Agreements/Data Exchange Agreements (IEA/DEA) with more than 30 countries. -Continue to coordinate U.S. Navy participation in OUSD (A&S) Coalition Warfare Program (CWP) selection processes to meet emerging military capability requirements. -Continue support for International Cooperative Engagement Program for Polar Research (ICE-PPR) -Continue to support NATO Naval Armaments Group (NNAG) and Five Power Groups on cooperative programs. -Provide contract support for Senior National Representative (SNR) and Navy International Programs Office for international outreach, development, and administrative activities. -Provide travel support for SNR participation in Senior Naval National Representative (SNNR) meetings with key foreign partners, and for select NATO meetings in support of CNO priorities.					
FY 2025 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 0149 / *International Coop RDT&E*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The FY 2025 increase of $1.233M will be used to support expansion of International Cooperative Engagement Program for Polar Research (ICE-PPR), cost-sharing efforts for NATO Fleet Operational Readiness Accuracy Check Site (FORACS), and development initiatives with multiple foreign partners.					
Accomplishments/Planned Programs Subtotals	3.186	2.552	3.785	0.000	3.785

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605853N / *Management, Technical & Intl Supt*	Project (Number/Name) 1767 / *Naval War Col Strategic Studies Supt*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
1767: *Naval War Col Strategic Studies Supt*	0.000	5.911	6.276	6.367	-	6.367	6.483	6.591	6.722	6.863	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Naval War College (NWC) research, analysis and gaming activities serve as a focal point, stimulus, and major source of strategic and operational thought within the Navy, Joint and Interagency communities. These efforts generate strategic and operational alternatives, tactical imperatives, quantitative analysis, war gaming, political-military assessments, and provide recommendations to the Chief of Naval Operations (CNO), Fleet Commanders and numbered Fleet Commanders regarding the formulation and execution of maritime options for the President of the United States.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Strategic Studies	0.744	0.790	0.801	0.000	0.801
Articles:	121	129	134	-	134
Description: Naval War College (NWC) research, analysis and gaming activities serve as a focal point, stimulus, and major source of strategic and operational thought within the Navy, Joint Force, and Interagency. These efforts generate timely and relevant strategic and operational alternatives; tactical imperatives; qualitative analysis; war gaming; quantitative and qualitative political-military assessments; and provide informed recommendations to the Chief of Naval Operations (CNO); Naval Fleet, Component, and Type Commanders; Combatant Commanders; the US Intelligence Community; and other US Government Departments and Agencies regarding the formulation and execution of maritime options for the President of the United States. Naval War College (NWC) conducts research in strategic studies in response to tasking from the Secretary of the Navy (SECNAV); Chief of Naval Operations (CNO); Naval Fleet, Component, and Type Commanders; and Combatant Commanders. NWC research includes strategic documents produced by its Chinese Maritime Studies Institute (CMSI), Russia Maritime Studies Institute (RMSI), Cyber Innovation Policy Institute (CIPI), and the Brodie Group. ***FY 2024 Plans:*** - Conduct research and analysis projects and provide supporting events for OPNAV; Naval Component, Type, and Fleet Commanders; and Combatant Commanders. - Support OPNAV tasked research projects.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 1767 / *Naval War Col Strategic Studies Supt*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Conduct research into Cyber, Chinese, Russian, Iranian, and Future maritime capabilities and affairs to enhance understanding of global developments and provide studies and advice for CNO and Fleet. - Conduct deterrence research on deterrence capabilities with focus on Naval contribution to national nuclear deterrence missions by Naval capabilities ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** funding increase for Deterrence Institute faculty research activities.					
Title: Naval War Gaming Support	4.496	4.777	4.846	0.000	4.846
Articles:	109	108	108	-	108
Description: Naval War College (NWC) conducts strategic and operational war gaming and directed research for Office of the Chief of Naval Operations (OPNAV); Naval Fleet, Component, and Type Commanders; and the Combatant Commanders. Each year, 45-60 major war games and associated events provide support to efforts that explore and analyze military, political, informational and economic aspects of differing strategic and operational scenarios and tactical imperatives. NWC continues to expand its capability and capacity to execute war games of increased scope, magnitude, and complexity. ***FY 2024 Plans:*** - Conduct 42 events supporting the design development and data collection and analysis planning events to refine war game scope, research questions, deliverables to sponsor, execution strategy and subject matter expert coordination.in support of 8 highly classified, complex and large war games supporting the requirements from OPNAV, Numbered Fleet Commanders, and Combatant Commands. Additionally support and execute CNO Fleet Sync conferences. - Enhance and expand cooperative relationships with international partners through use of war gaming, research, analysis and education. - Refine and technically support active learning capstone war gaming exercises that supported the Joint Military Operations curriculum, Maritime Staff Operators Course and International Maritime Staff Operators Course. (34 events)					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 1767 / *Naval War Col Strategic Studies Supt*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Resource and provision life cycle maintenance requirements for networks, communications, and modeling and simulation capacity. - Resource and provision required manpower and equipment for the High Security Research and Wargaming Facility. - Develop cloud-based environment that facilitates better sponsor participation in war game planning events, modeling and simulation system input, advanced adjudication methodologies and product dissemination to stakeholders, sponsors and program managers at the highest classification and across various classified material control systems. - Incorporate as required, additional stakeholders and program information into war games in order to provide a more wholistic information environment to our sponsors and game players. - Further develop and evolve current policy and procedures that better facilitate the effective sharing of war gaming analytical reports and products as well as authoritative program information and allow that information from various competencies within the intelligence community to be more easily incorporated into the development and design of CNO authorized war games. - Improve war game visualization tools in order to provide game players, SMEs and adjudicators increased awareness in the Military, Cyber and Space domains.					
FY 2025 Base Plans: - Continue to foster cooperative relationships with international partners through use of war gaming, research, analysis and education. - Conduct 35 events supporting 8 Executive Committee and CNO approved war games and Navy Title X war games, directed research, and analysis. - Continue to foster cooperative relationships with international partners through use of war gaming, research, analysis and education. - Refine capstone war gaming exercises that supported the International Maritime Staff Operators Course. - Execute Fleet Synchronization Conferences. - Execute capstone war game exercise for the Joint Force Maritime Component Commander (JFMCC) Course. - Resource and provision life cycle maintenance requirements for networks, communications, and modeling and simulation capacity. - Resource and provision required manpower and equipment for the High Security Research and Wargaming Facility.					
FY 2025 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 1767 / *Naval War Col Strategic Studies Supt*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** There is a planned increase in layered classification in the CNO approved war games from FY 2024 to FY 2025.					
Title: Warfare Analysis and Research	0.580	0.616	0.625	0.000	0.625
Articles:	95	97	95	-	95
Description: Naval War College (NWC) supports senior decision-makers from the Department of Defense; Department of the Navy; Naval Fleet, Component, and Type Commanders; and Combatant Commanders in reaching well-informed, objective decisions on strategic, operational and programmatic issues through collaborative research that integrates traditional research and analysis with advanced decision support tools. ***FY 2024 Plans:*** - Conduct major decision events in support of OPNAV; Naval Fleet, Component, and Type Commanders; and Combatant Commanders. - Conduct warfighting analysis requirements for numbered Fleet commanders. - Conduct analytical research on key strategic and operational challenges such as maritime ballistic missile defense, proliferation security initiative, global maritime security, maritime situational awareness, maritime operations headquarters, interconnectivity, and multi-service force deployment. - Support evaluation of concepts and decision events in conjunction with war gaming center. - Conduct research targeted at the strategic and policy level decision making within China, Russia, and Iran. - Provide direct support to NWC student research groups and war gaming. - Execute approximately 20 major decision events in support of these efforts. ***FY 2025 Base Plans:*** - Conduct research and analysis projects and provide supporting events for OPNAV; Naval Component, Type, and Fleet Commanders; and Combatant Commanders. - Support OPNAV tasked research projects. - Conduct research into Cyber, Chinese, Russian, Iranian, and Future maritime capabilities and affairs to enhance understanding of global developments and provide studies and advice for CNO and Fleet. - Conduct deterrence research on deterrence capabilities with focus on Naval contribution to national nuclear deterrence missions by Naval capabilities.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 1767 / *Naval War Col Strategic Studies Supt*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue development of Deterrence Studies Institute with the aim of focusing on extended deterrence, as well as the role of diplomacy, information, economics, and irregular warfare in bolstering a military deterrent effect. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** There is a planned increase from FY 2024 to FY 2025 to add additional gaming capacity to address and analyze Known Operational Problems (KOPs).					
Title: NWC Student Research Projects	0.091	0.093	0.095	0.000	0.095
Articles:	94	92	93	-	93
Description: Selected top performing Naval War College (NWC) students to conduct focused research and analysis of current and future strategic and operational challenges and tactical imperatives. Students are organized under the supervision of the Halsey, Holloway, and CIPI-Gravely Group Advanced Research Programs. ***FY 2024 Plans:*** - Conduct focused research, analysis and war gaming of current and future strategic/operational challenges and tactical imperatives by the Halsey, Holloway, and CIPI-Gravely Group Advanced Research Programs. - Research groups conduct focused research, analysis and free-play war gaming of current and future operational challenges and tactical imperatives arising from regional threats, homeland defense and access denial efforts at the high end of the conflict spectrum in the Indo-Pacific Command (INDOPACOM), European Command (EUCOM), Central Command (CENTCOM) and Northern Command (NORTHCOM) area of responsibility (AOR). Research and analysis efforts continue in those areas and will expand bringing a detailed focus on counter-targeting, operational deception, and countering information denial and missile defense at the theater joint operational level. ***FY 2025 Base Plans:*** - Conduct focused research, analysis and war gaming of current and future strategic/operational challenges and tactical imperatives by the Halsey, Holloway, and CIPI-Gravely Group Advanced Research Programs. - Research groups conduct focused research, analysis and free-play war gaming of current and future operational challenges and tactical imperatives arising from regional threats, homeland defense and access denial efforts at the high end of the conflict spectrum in the Indo-Pacific Command (INDOPACOM), European Command (EUCOM), Central Command (CENTCOM) and Northern Command (NORTHCOM) area of					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 1767 / *Naval War Col Strategic Studies Supt*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
responsibility (AOR). Research and analysis efforts continue in those areas and will expand bringing a detailed focus on counter-targeting, operational deception, and countering information denial and missile defense at the theater joint operational level. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** There is no significant increase from FY 2024 to FY 2025.					
Accomplishments/Planned Programs Subtotals	5.911	6.276	6.367	0.000	6.367

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605853N / *Management, Technical & Intl Supt*	Project (Number/Name) 2098 / *Navy Postgraduate School (NPS) Studies Support*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
2098: *Navy Postgraduate School (NPS) Studies Support*	0.000	11.905	12.486	12.858	-	12.858	14.126	14.887	15.173	15.416	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Navy Postgraduate School (NPS) research and analysis activities serve as a focal point, stimulus, and major source of strategic, tactical and operational thought within the Navy communities. These efforts generate strategic and operational alternatives, tactical imperatives, quantitative analyses, technical developments and assessments, and political-military assessments. Also, provide recommendations to the Chief of Naval Operations (CNO), Fleet Commanders and numbered Fleet Commanders regarding the formulation and execution of maritime options for the President of the United States. Research will be conducted that will enhance graduate education for Naval Officers and potentially provide students with areas of studies for theses and faculty projects. These research activities also serve as a means for OPNAV Resource Sponsors and Major Commands to have analysis and decision support research conducted in the uses of the applied, soft, and hard sciences in solving diverse and complex resource allocation and strategic issues facing the Navy today and envisioned in the future.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Faculty and Student Studies, Analysis and Research	11.905	12.486	12.858	0.000	12.858
Articles:	92	92	92	-	92
Description: Navy Postgraduate School (NPS) Naval Research Program (NRP) supports senior decision-makers from the Department of the Navy, the Office of the Chief of Naval Operations, Budget Submission Offices and Fleet Commanders in reaching well-informed, objective decisions on strategic, operational, and programmatic issues through collaborative and interdisciplinary research which integrates traditional research and analysis with advanced decision support tools. Faculty conducted research, student theses and capstone projects are an integral part of this program in support of the critical research and analysis requirements across the Naval enterprise.					
FY 2024 Plans: Conduct studies in support of the following organizations: - OPNAV N1 - OPNAV N2/N6 - OPNAV N3/N5 - OPNAV N4 - OPNAV N7					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 2098 / *Navy Postgraduate School (NPS) Studies Support*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- OPNAV N8 - OPNAV N9 - US Fleet Forces Command - The Secretary of the Navy Planned studies in the following areas: - Applied Mathematics - Computer Science - Defense Analysis - Defense Management - Electrical and Computer Engineering - Energy Academic Group - Information Sciences - Modeling, Virtual Environments and Simulation - Mechanical and Aerospace Engineering - Meteorology - National Security Affairs - Oceanography - Operations Research - Physics - Space Systems - Systems Engineering - Wargaming and Warfare Analysis					
FY 2025 Base Plans: Conduct studies in support of the following organizations: - OPNAV N1 - OPNAV N2/N6 - OPNAV N3/N5 - OPNAV N4 - OPNAV N7 - OPNAV N8 - OPNAV N9					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 2098 / *Navy Postgraduate School (NPS) Studies Support*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- US Fleet Forces Command - The Secretary of the Navy Planned studies in the following areas: - Applied Mathematics - Computer Science - Defense Analysis - Defense Management - Electrical and Computer Engineering - Energy Academic Group - Information Sciences - Modeling, Virtual Environments and Simulation - Mechanical and Aerospace Engineering - Meteorology - National Security Affairs - Oceanography - Operations Research - Physics - Space Systems - Systems Engineering - Wargaming and Warfare Analysis ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding has increased from FY2024 to FY2025 due to inflationary factors and continuation of analytical studies.					
Accomplishments/Planned Programs Subtotals	11.905	12.486	12.858	0.000	12.858

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 2098 / *Navy Postgraduate School (NPS) Studies Support*

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605853N / *Management, Technical & Intl Supt*				Project (Number/Name) 2221 / *JT Mission Assessment Studies*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
2221: *JT Mission Assessment Studies*	0.000	23.914	28.270	27.338	-	27.338	30.113	29.701	29.415	30.035	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This exhibit has been updated to reflect the establishment of the Navy Analytic Office (NAO), which is responsible for the executive oversight of Navy studies and analysis. The NAO was stood up to better align the annual Analytic Agenda to Chief Naval Operation's (CNO) strategic priorities while also providing for study of the more tactical requirements of the Fleet and Navy writ large. The outcome will be synchronized modeling, simulation, assessments, wargames, experiments and exercises providing rich, shared data to support and refine warfighting concepts and to inform budget decisions.

The Navy Annual Studies Program supports the Analytic Agenda by providing both the development and use of modeling, simulation and analytically-based warfare, business analyses and analytic tools that provide the basis for decision making with respect to concepts of operations (CONOPS), Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Systems; warfare systems, and analytical underpinnings/basis for programmatic decisions of the Navy's top leadership regarding their architectures, force structure, and the Navy's core "organize, train, and equip mission" (the warfare and provider Enterprises). The program provides capability-based planning assessment for Joint Capabilities Integration and Development System (JCIDS), conducts analysis to affect warfighting capability trades and enterprise resources, identifies needs, gaps and overlaps, and assesses alternative solutions to Joint needs. The program provides overarching Planning, Programming, Budgeting and Execution System (PPBES) analyses and guidance for PPBES which provides gap analysis and investment strategy and total obligation authority allocation. It provides independent capability analysis and assists in structuring follow-on Navy analyses. The program coordinates Navy's position for the enhanced planning process and conducts net assessments. It serves as the lead campaign analysis to approve Navy warfare and support requirements. The program supports the Maritime Strategy which charts a course for the Navy, Coast Guard and Marine Corps to work collectively with each other and international partners to prevent crises from occurring, or reacting quickly should one occur to avoid negative impact to the United States. The Studies Program provides a broad-view perspective across the Fleet and Navy staff, with an integrated look at both warfighting and warfighting-support programs. It provides Navy alternatives in assessing the implications embedded within resource decisions in a quantified context of costs versus capability versus risk. The program provides independent analytic support to Navy leadership in conjunction with various executive level decision forums.

This project funds concept development engineering, mission effectiveness analysis, and other analyses for formulation of future surface ship and associated platform force structure along with development of the tools to accomplish these efforts. Advanced platform concept studies and systems technology assessments will be conducted as will the development and upgrade of concept design and engineering tools, methods, and criteria. Concept Formulation (CONFORM)/Concept Development and Experimentation (CDE) for ships, boats and unmanned maritime vehicles must be continuously exercised to remain viable. It takes years to train competent practitioners, and knowledge currency is quickly lost without practice. Evolving threats and technologies drive concepts (and the tools, processes, and skills needed to produce them) towards obsolescence without constant attention. Capability Based Assessments and Analysis of Alternatives (AoA) timelines are insufficient for establishing potential material solution cost versus capability relationships without significant concept formulation work beforehand. Active collaboration between the Office of the Chief of Naval Operations requirement sponsors, Program Offices, and the various System Commands (Naval Sea Systems Command, Naval Air

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 2221 / *JT Mission Assessment Studies*

Systems Command and Space and Naval Warfare Systems Command) engineers is critical for fully exploring the trade space by conducting analysis for affordability, effectiveness and risk. The majority of Total Ownership Cost (TOC) is locked into a design before it is even a program. In the later stages of a program it becomes much more costly to make changes that will significantly impact TOC. Investment up front in concept design can have a high payoff in TOC reduction over the life of a platform class. Outputs include concept costing and performance parameterization for comparative assessment against capability objectives and synthesis to quantify overall (Fleet) capabilities. These products (expressions of cost vs. capability) will serve as the basis of requirements and Joint Capabilities Integration and Development System analysis, define the trade space for AoA efforts, and underpin discussion of force architecture/structure during Quadrennial Defense Review, Long Range Shipbuilding Strategy builds, and Joint Requirements Oversight Council reviews.Perform-2-Plan(P2P) analytical Studies will continue to create a shared understanding of organizational metrics that includes understanding the effort needed to achieve a more complex readiness success, elevating barriers and matters requiring Echelon I leadership action to resolve, fostering a data-driven decision culture and simplifying and standardizing metrics reporting to spotlight issues and improve problem-solving. Utilize the LCS driver tree framework to assess the significance of different variables that may impact the number of LCSs to support operational requirements, develop advanced analytic models using machine learning techniques and Monte Carlo simulation based on the LCS P2P driver tree. The analytical model will forecast the numbers of mission ready LCS, parts shortages, unplanned down days, and/or CASREPs/CANNABs. The analytical model will serve as the basis for prioritizing and assessing how resources can best be allocated to improve LCS readiness as well as identify key actionable drivers that result in a decrease in LCS mission readiness and increase unplanned down days.

Develop a prescriptive analytics model to determine the cost-minimizing driver levels to achieve a greatly increased number of mission ready LCS while reducing unplanned down days. Assess costs associated with various combinations of driver levels that would achieve target levels of performance.

Capabilities-Based Assessment (CBA) is the Joint Capabilities Integration and Development System (JCIDS) analysis process that includes three phases: Functional Area Analysis (FAA), Functional Needs Analysis (FNA), and Functional Solution Analysis (FSA). The results of the CBA are used to develop a joint capabilities document (based on the FAA and FNA) or initial capabilities document (based on the full analysis). CBA funding provides the resource sponsors the means to develop the analytic underpinning required by Chairman of the Joint Chiefs of Staff Instruction 3170.01G to support the determination of Naval warfighting capabilities and force structure needed to support the Joint Requirements Oversight Council (JROC)/JCIDS requirements validation process and to inform Program Objective Memorandum programming decisions. This analysis includes evaluation of integration and interoperability gaps of both current and future Navy platforms and systems capabilities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Navy Studies & Analysis	20.248	22.477	22.324	0.000	22.324
Articles:	-	-	-	-	-
FY 2024 Plans: Continue to develop, update and maintain detailed level Navy Standard scenarios based on DPG (Defense Planning Guidance). -Continue to develop alternative scenarios in support of Defense Review guidance, Joint studies, and Navy resource analyses. -Continue to develop, update and maintain analytic baselines for the MCO (Major combat operation) based on DPG (Defense Planning Guidance).					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 2221 / *JT Mission Assessment Studies*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Continue to develop details required to execute analysis of designated Defense Planning Scenarios and their respective Multi-Service Force Deployment Plans. -Continue to develop and maintain a framework and common set of processes to ensure that essential elements of warfare analyses, including scenarios, operational concepts, tactics, capabilities of platforms and systems (for Navy, Joint, coalition and threat forces), key assumptions and input data are defined and traceable to government approved/provided source material. -Continue to develop scenarios and operational concepts based on government inputs that are sufficiently detailed for use in naval and joint campaign analyses. -At the mission level, continue to script Operational Situations (OPSITS) or Tactical Situations (TACSITS) for use in effectiveness analyses in specific warfare mission areas. -Continue to provide analytically-based decision recommendations to CNO (Chief of Naval Operations) for both warfighting and support areas. -Continue to develop CNO (Chief of Naval Operations) investment strategy recommendations and assessments for Program Review and Program Objective Memorandum. -Continue to perform rigorous, time critical naval and joint campaign and mission-level analyses, usually based on modeling and simulation that illuminated complex warfare issues which support decision-making in the PPBE (Planning, Programming, Budgeting and Execution) process. -Continue to conduct ISR (Intelligence, Surveillance, Reconnaissance) and METOC (Meteorological and oceanographic systems) assessments to determine the optimal mix of Naval ISR ((Intelligence, Surveillance, Reconnaissance) and METOC ((Meteorological and oceanographic systems) sensors, platforms, and processing, analysis and fusion disposition to support MCOs (Major combat operation), the OCO(Overseas Contingency Operations), and intelligence preparation of the environment for both MCOs(Major combat operation) and OCO (Overseas Contingency Operations). -Continue to develop and maintain common baselines from which campaign excursions and mission-level analyses are executed. -Continue to identify, develop and improve data and modeling, and broker agreements upon assumptions, CONOPS (Concepts of Operation), scenarios, and data. -Continue to lead campaign analysis for OPNAV (Office of the Chief of Naval Operations) and lead Navy's participation in OSD/Joint Staff analytic agenda, baseline development, and collection of data. -Continue to conduct modeling and simulation support for ongoing OPNAV missile defense analysis requirements. -Continue to provide analytically-based decision recommendations to OPNAV for joint warfighting and support areas.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 2221 / *JT Mission Assessment Studies*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Continue to develop new analytic models and techniques for informing resource allocation decisions; conduct all campaign and warfare mission-level analyses and develop investment strategies. -Continue to develop and improve the Navy's analysis capabilities which support Joint and Navy analytic agendas and resource-allocation decision making by refining the linkages between cost and performance in performance-modeled programs in support of Navy analysis and assessment. Areas of tool development and improvement included mission and campaign-level warfighting models, active and reserve manpower, afloat and ashore readiness, and medical capabilities. -Continue to focus on integrated analysis capabilities that cut across business and program accounts. Specific efforts address cyber warfare and security, optimizing the training pipeline, integrating ship maintenance and operations price performance models, and improving mission- and campaign-level C5ISR (Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance) models and representations. -Continue to develop medical analysis that links to campaign analysis including movement of injured between care facilities, life-saving treatment of injured and recuperation support of injured to support Navy Medical Program decisions. -Continue to update the high-level readiness model that fully integrates all aspects of warfighting support (operational utilization, training cycles, training centers, depots, etc.) and personnel (recruitment, training, development, deployment, retention, etc.) across the Navy's warfighting platforms (aircraft, ships, submarines, etc.), facilities and personnel development centers. -Continue to conduct ship, boat, and unmanned marine vehicle concept studies in preparation for Capabilities Based Assessments (CBAs) and Analysis of Alternatives (AoAs). Studies will be performed in a continuous manner to support future recapitalization of Surface Combatants, Amphibious Ships, Carriers, Auxiliary Ships and other emerging program requirements. -Continue to collaborate with Warfare Systems design experts to perform continuous Warfare Systems analysis at the ship and fleet level. Warfare Systems effectiveness assessment tools are being continually developed and enhanced as required to address future concepts and to incorporate improvements in information technology systems. Additionally, collaborate with aircraft, C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance), and networks by continuing dialog and collaboration between NAVSEA (Naval Sea Systems Command), NAVAIR (Naval Air Systems Command), and NAVWAR (Naval Warfare Systems Command) systems commands which refines fleet level requirements. -Continue to conduct future force structure concept formulation. Fleet synthesis and analysis will be conducted, which includes capabilities requirements, platform design and cost and quantitative tracking of the long-term					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 2221 / *JT Mission Assessment Studies*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
evolution of the fleet as new platforms are introduced and old ones are retired. Areas to be examined include interoperability concepts, force architecture impact studies, and operational employment concept studies. ***FY 2025 Base Plans:*** - Continue to develop, update and maintain detailed level Navy Standard scenarios based on DPG (Defense Planning Guidance). - Continue to develop alternative scenarios in support of Defense Review guidance, Joint studies, and Navy resource analyses. - Continue to develop, update and maintain analytic baselines for the MCO (Major combat operation) based on DPG (Defense Planning Guidance). - Continue to develop details required to execute analysis of designated Defense Planning Scenarios and their respective Multi-Service Force Deployment Plans. - Continue to develop and maintain a framework and common set of processes to ensure that essential elements of warfare analyses, including scenarios, operational concepts, tactics, capabilities of platforms and systems (for Navy, Joint, coalition and threat forces), key assumptions and input data are defined and traceable to government approved/provided source material. - Continue to develop scenarios and operational concepts based on government inputs that are sufficiently detailed for use in naval and joint campaign analyses. - At the mission level, continue to script Operational Situations (OPSITS) or Tactical Situations (TACSITS) for use in effectiveness analyses in specific warfare mission areas. - Continue to provide analytically-based decision recommendations to CNO (Chief of Naval Operations) for both warfighting and support areas. - Continue to develop CNO (Chief of Naval Operations) investment strategy recommendations and assessments for Program Review and Program Objective Memorandum. - Continue to perform rigorous, time critical naval and joint campaign and mission-level analyses, usually based on modeling and simulation that illuminated complex warfare issues which support decision-making in the PPBE (Planning, Programming, Budgeting and Execution) process. - Continue to conduct ISR (Intelligence, Surveillance, Reconnaissance) and METOC (Meteorological and oceanographic systems) assessments to determine the optimal mix of Naval ISR ((Intelligence, Surveillance, Reconnaissance) and METOC ((Meteorological and oceanographic systems) sensors, platforms, and processing, analysis and fusion disposition to support MCOs (Major combat operation), the OCO (Overseas Contingency Operations), and intelligence preparation of the environment for both MCOs(Major combat operation) and OCO (Overseas Contingency Operations).					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 2221 / *JT Mission Assessment Studies*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue to develop and maintain common baselines from which campaign excursions and mission-level analyses are executed. - Continue to identify, develop and improve data and modeling, and broker agreements upon assumptions, CONOPS (Concepts of Operation), scenarios, and data. - Continue to lead campaign analysis for OPNAV (Office of the Chief of Naval Operations) and lead Navy's participation in OSD/Joint Staff analytic agenda, baseline development, and collection of data. - Continue to conduct modeling and simulation support for ongoing OPNAV missile defense analysis requirements. - Continue to provide analytically-based decision recommendations to OPNAV for joint warfighting and support areas. - Continue to develop new analytic models and techniques for informing resource allocation decisions; conduct all campaign and warfare mission-level analyses and develop investment strategies. - Continue to develop and improve the Navy's analysis capabilities which support Joint and Navy analytic agendas and resource-allocation decision making by refining the linkages between cost and performance in performance-modeled programs in support of Navy analysis and assessment. Areas of tool development and improvement included mission and campaign-level warfighting models, active and reserve manpower, afloat and ashore readiness, and medical capabilities. - Continue to focus on integrated analysis capabilities that cut across business and program accounts. Specific efforts address cyber warfare and security, optimizing the training pipeline, integrating ship maintenance and operations price performance models, and improving mission- and campaign-level C5ISR (Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance) models and representations. - Continue to develop medical analysis that links to campaign analysis including movement of injured between care facilities, life-saving treatment of injured and recuperation support of injured to support Navy Medical Program decisions. - Continue to update the high-level readiness model that fully integrates all aspects of warfighting support (operational utilization, training cycles, training centers, depots, etc.) and personnel (recruitment, training, development, deployment, retention, etc.) across the Navy's warfighting platforms (aircraft, ships, submarines, etc.), facilities and personnel development centers. - Continue to conduct ship, boat, and unmanned marine vehicle concept studies in preparation for Capabilities Based Assessments (CBAs) and Analysis of Alternatives (AoAs). Studies will be performed in a continuous manner to support future recapitalization of Surface Combatants, Amphibious Ships, Carriers, Auxiliary Ships and other emerging program requirements.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 2221 / *JT Mission Assessment Studies*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue to collaborate with Warfare Systems design experts to perform continuous Warfare Systems analysis at the ship and fleet level. Warfare Systems effectiveness assessment tools are being continually developed and enhanced as required to address future concepts and to incorporate improvements in information technology systems. Additionally, collaborate with aircraft, C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance), and networks by continuing dialog and collaboration between NAVSEA (Naval Sea Systems Command), NAVAIR (Naval Air Systems Command), and NAVWAR (Naval Warfare Systems Command) systems commands which refines fleet level requirements. - Continue to conduct future force structure concept formulation. Fleet synthesis and analysis will be conducted, which includes capabilities requirements, platform design and cost and quantitative tracking of the long-term evolution of the fleet as new platforms are introduced and old ones are retired. Areas to be examined include interoperability concepts, force architecture impact studies, and operational employment concept studies. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease of 0.153 from FY24 to FY25 is associated with reduced effort on the Digital Program Objective Memorandum (POM) tool and Littoral Combat Ships (LCS) Performance to Plan (P2P) efforts.					
Title: Joint Mission Assessment Studies	3.666	5.793	5.014	0.000	5.014
Articles:	-	-	-	-	-
Description: Capabilities-Based Assessment (CBA) is the JCIDS analysis process that includes three phases: the Functional Area Analysis (FAA), the Functional Needs Analysis (FNA), and the Functional Solution Analysis (FSA). The results of the CBA are used to develop a joint capabilities document (based on the FAA and FNA) or initial capabilities document (based on the full analysis). CBA funding provides the resource sponsors the means to develop the analytic underpinning required by Chairman of the Joint Chiefs of Staff Instruction 3170.01G to support the determination of Naval war fighting capabilities and force structure needed to support the JROC/ JCIDS requirements validation process and to inform Program Objective Memorandum programming decisions. ***FY 2024 Plans:*** CBA such as advanced Naval Warfare fires and Naval aviation integrated analysis to identify future capability requirements. Develop metrics to describe the effectiveness of solutions, and evaluate current and programmed systems ability to meet capability requirements to determine capability gaps. Expand warfighting gap assessments addressing interaction of mission area kill chain platforms, sensors, and weapons in a system-of-					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 2221 / *JT Mission Assessment Studies*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
system construct. This also includes the off cycle wargame event to provide fleet operators with threat scenarios to determine future gap analysis. ***FY 2025 Base Plans:*** CBA such as advanced Naval Warfare fires and Naval aviation integrated analysis to identify future capability requirements. Develop metrics to describe the effectiveness of solutions, and evaluate current and programmed systems ability to meet capability requirements to determine capability gaps. Expand warfighting gap assessments addressing interaction of mission area kill chain platforms, sensors, and weapons in a system-of-system construct. This also includes the off cycle wargame event to provide fleet operators with threat scenarios to determine future gap analysis. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The FY2024 to FY2025 decrease is due to a reduction in kill chain assessments and gap analysis for the next Fleet Spiral.					
Accomplishments/Planned Programs Subtotals	23.914	28.270	27.338	0.000	27.338

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605853N / *Management, Technical & Intl Supt*	Project (Number/Name) 3017 / *Enterprise Information Systems*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
3017: *Enterprise Information Systems*	0.000	1.055	1.111	1.142	-	1.142	1.163	1.185	1.209	1.234	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project funds the Office of Naval Research (ONR) Next Generation Enterprise Network (NGEN) Information Technology corporate costs.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Next Generation Enterprise Network (NGEN)	1.055	1.111	1.142	0.000	1.142
Articles:	-	-	-	-	-
Description: This project funds the Office of Naval Research (ONR) Next Generation Enterprise Network (NGEN) Information Technology corporate costs. ***FY 2024 Plans:*** Continue to support NGEN Corporate requirements, such as (tech refresh, etc.) ***FY 2025 Base Plans:*** Continue to support NGEN Corporate requirements, such as (tech refresh, etc.) ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** There is no significant funding change from FY 2024 to FY 2025.					
Accomplishments/Planned Programs Subtotals	1.055	1.111	1.142	0.000	1.142

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605853N / *Management, Technical & Intl Supt*				Project (Number/Name) 3312 / *MTMD-Maritime Theater Missile Defense Forum*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
3312: *MTMD-Maritime Theater Missile Defense Forum*	0.000	10.842	11.792	11.617	-	11.617	11.902	12.067	11.655	11.892	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project funds participation in Maritime Integrated Air and Missile Defense projects with other nations through the Maritime Missile Defense Projects Framework Memorandum of Understanding of 2004 (as amended 2009, 2015, 2016 and 2020). Known as the Maritime Theater Missile Defense (MTMD) Forum, it promotes interoperability with the Navies of twelve participating nations (Australia, Belgium, Canada, Denmark, France, Germany, Italy, Netherlands, Norway, Spain, United Kingdom and the United States). This project provides interoperability assessment and opportunities to Allies that directly contributes to increasing the number of countries capable of supporting NATO Ballistic Missile Defense (BMD). Engineering analysis and data analytics from MTMD activities are provided to European and Pacific Combatant Commands in direct support of theater Integrated Air and Missile Defense (IAMD) priorities. The MTMD Forum addresses challenges associated with integrating maritime Allied Air Defense in Support of Ballistic Missile Defense Operations into joint IAMD command and control. MTMD Forum nations leverage At-Sea Demonstration (ASD) test events, coupled with operational Fleet Exercises (Formidable Shield and Pacific Dragon), to integrate technology and validate national capabilities in operational constructs, supportive of operational force employment.

The MTMD Forum encourages national development of systems and practices that enhance protection and defense against the proliferation of short, medium and long-range Ballistic Missile (BM) and Advanced Anti-Ship Cruise Missile (ASCM) threats through the development of interoperable sea-based Integrated Air and Missile Defense (IAMD) capability among MTMD Forum nations. The MTMD Forum enhances utilization of existing sea-based IAMD systems to protect against current threats, while measuring progressive improvement and development of compatible systems to better counter evolving threats.

This project supports USN participation in a Maritime IAMD Project Arrangement focused on:

(1) Battle Management Command, Control, Communications, Computers, and Intelligence (BMC4I) to define and develop architectures and perform engineering to address coalition capability gaps.
(2) Modeling & Simulation (M&S) to establish and maintain a maritime coalition M&S testbed and to perform legacy and future systems simulation testing.
(3) Hardware-in-the-Loop Testing of Coalition combat systems to assess interoperability within the Coalition Distributed Engineering Plant (CDEP).
(4) Open Architecture (OA) work to develop Interface Standards and Data Models.
(5) Test Planning and Execution (TPEX) to develop Test Plans, oversee exercise participation and conduct post event data analysis and reporting.
(6) Operational Requirements (OR) to identify operational constraints and tactical constructs surrounding coalition maritime integrated air and missile defense activities, and their integration into joint operations.
(7) Reciprocal Use of Test Facilities agreements with other nations to support Maritime IAMD and MTMD Forum-related demonstrations.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3312 / *MTMD-Maritime Theater Missile Defense Forum*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: MTMD-Martime Theater Missile Defense Forum	10.842	11.792	11.617	0.000	11.617
Articles:	-	-	-	-	-
FY 2024 Plans: (1) BMC4I will continue to coordinate, collaborate, synchronize, and align with the System Engineering Team (SET) and across MTMD Projects and Working Groups (WG) to improve relationships, achieve mutual goals and objectives, and enhance Integrated Air and Missile Defense (IAMD) interoperability and capabilities in a Coalition Maritime Force integrated into the Joint Battle. Identify crucial interoperability and capability gaps based on test event data analysis, responses to Request for Information (RFI), Special Experts Meetings (SEM) analysis, System Tactical Data Link (TDL) Interoperability Report (STIR), documented Coalition Capability and Interoperability (CCI) Report, and the Capabilities and Limitations (C&L) database. Establish "C&L Fleet Modifiable Tool (FMT)" availability to Forum Nations via the Coalition Federated Battle Laboratory Network (CFBLNet)/MTMD-SEE (Single Encryption Enclave). Provide Information Exchange Requirements (IER) supporting Modeling and Simulation (M&S) Working Group synthetic test efforts, Coalition Distributed Engineering Plant (CDEP) Working Group exercises (e.g., Annual Test Events (ATEs)), and Test Planning and Execution (TPEX) Working Group At-Sea test events and/or Hardware-in-the-Loop (HWIL) activities to validate and demonstrate IAMD objectives. Engage with Open Architecture (OA) Working Group, Force Level Open Architecture Technical Standard (FLOATS) Project, and Force Threat Evaluation and Effects Coordination (FTE2C) Project supporting Force-Level Function (FLF) development and testing facilitated from System Architects models and Object-Oriented designs. Collaborate with Operational Requirements (OR) Working Group by incorporating warfighter Tactics, Techniques and Procedures (TTP). Draft Target Architecture 4 (TA4) objectives and concepts supporting MTMD Forum's IAMD vision. Work with Interoperability and Common Tactical Picture (IaCTP) Project in developing a "CTP Assessment Means" assessing the CTP quantitatively and qualitatively; evolving an "IAMD Maturity Model" by tracking and measuring continued IAMD capability progression/maturity; and outline roles, capabilities, and C2 structure for integration into Joint coalition operations. (2) M&S will continue their cyclical work providing analysis of Target Architectures and conduct further assessments to support recommendations to improve information exchange requirements identified by BMC4I and the Systems Engineering Team (SET). M&S will continue to ensure all associated authorities to operate are in place for continued coalition modeling and simulation. M&S will ensure all coalition partners in the MTMD Forum who participate in the M&S working group have online access as required to M&S modeling and simulation equipment to continue to run simulations in support of these MTMD efforts. M&S will model					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3312 / *MTMD-Maritime Theater Missile Defense Forum*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
future Target Architectures and provide analysis in support of future at-sea demonstrations. The M&S team will continue development of the test bed and add additional computing power to the test environment to provide faster and more powerful analytical capability to the Forum System Engineering Team in order to provide more timely responses to requests for model/simulation data to support recommendations. The M&S Working Group will continue development of Mission Models in support of capability development to illustrate operational impact of proposed solutions to complex Integrated Air and Missile Defense (IAMD) problems. In these ways M&S will provide for further cost avoidance by performing simulations and analysis of these simulations realizing affordability initiatives as fewer costly 'real world' testing events are needed. (3) CDEP will continue to assess interoperability of joint air and land assets in Annual Test Events (ATE) consistent with the MTMD Forum Project Management Framework. CDEP will provide technical expertise to the BMD Integration, FTE2C and IAMD Interoperability/ Common Tactical Picture (CTP) projects within the MTMD Forum. CDEP will continue to assess interoperability of joint air and land assets in Annual Test Event (ATE) 2023 and ATE 2024. Three additional nations have fielded their national Hardware in the Loop (HWIL) capabilities in the last two years, bringing the total capable nations in the MTMD Forum to five, requiring more frequent connection testing by the U.S. CDEP Team. France is joining the CDEP ATEs in 2023 and 2024. CDEP will work with BMC4I to test various Coalition Capabilities and Interoperability (CCI) gaps. CDEP will prepare for and conduct hardware-in-the-loop tests with enabled allied partners, and will provide assessments and recommendations to improve information exchanges required to conduct at-sea demos. (4) Open Architecture group will conduct a series of M&S test series to prove the Force Level Open Architecture Technical Standard (FLOATS), and conduct NATO engagement advocating for the formal adoption of FLOATS as a NATO standard. The group will also deliver FLOATS Versions .7.0, 8.0 and 9.0 and continue engaging acquisition programs for the adoption of FLOATS into national programs to ensure interoperability with our partner nations. Development work of an operational test design to test FLOATS operationally is planned to determine its suitability for implementation and potential deployment. (5) TPEX will continue preparations for MTMD participation and support for ongoing at-sea test event series. Pacific Dragon (PD) 2024 exercise will execute in Q4 of FY24. The exercise is specified and endorsed by COMPACFLT. Target development initiated in FY22 will continue to support the live-fire objectives for PD 24 and future PD exercises. During PD 24, live-fire Integrated Air and Missile Defense (IAMD) events are planned to be conducted with MTMD Forum nations bringing ships, aircraft, and ground based sensors. These at-sea demonstrations will include live tracking events and a combination of live and simulated engagements within a					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3312 / *MTMD-Maritime Theater Missile Defense Forum*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
fleet exercise, focused on interoperability assessment. The MTMD Forum Project will sponsor the targets for these and will leverage 3rd Fleet Rim of the Pacific (RIMPAC) resources to conduct the PD exercise. Planning for At-Sea Demonstrations and follow-on at-sea testing will continue into future years. The data analysis effort contained within the TPEX line of effort provides the linkage and measures of success between various MTMD Forum supported at-sea demonstrations that enable key policy makers and leaders to understand capability gaps / possible solutions with quantified metrics. Future planning in FY24 will include At-Sea Demo/FS-25 in May 2025 and PD26 in August 2026. Formidable Shield exercises are endorsed by Commander U.S. Naval Forces Europe (NAVEUR). (6) Operational Requirements group will continue to provide operator's perspective and recommendations to the engineering and test activity conducted in the other working groups. This critical cooperation with Surface Mine Warfare Development Command (SMWDC) enables allied linkage into the established relationship between SMWDC and Naval Sea Systems Command (NAVSEA).					
FY 2025 Base Plans: (1) BMC4I will continue to coordinate, collaborate, synchronize, and align with the System Engineering Team (SET) and across MTMD Projects and Working Groups (WG) to improve relationships, achieve mutual goals and objectives, and enhance Integrated Air and Missile Defense (IAMD) interoperability and capabilities in a Coalition Maritime Force integrated into the Joint Battle. Identify crucial interoperability and capability gaps based on test event data analysis, responses to Target Architecture 3 (TA3) Request for Information (RFI), Special Experts Meetings (SEM) analysis, Coalition Capability and Interoperability (CCI) Report, and the Capabilities and Limitations (C&L) database. Provide Information Exchange Requirements (IER) supporting Modeling and Simulation (M&S) Working Group synthetic test efforts, Coalition Distributed Engineering Plant (CDEP) Working Group exercises (e.g., Annual Test Events (ATEs)), and Test Planning and Execution (TPEX) Working Group At-Sea test events and/or Hardware-in-the-Loop (HWIL) activities to validate and demonstrate IAMD objectives. Engage with Open Architecture (OA) Working Group, Force Level Open Architecture Technical Standard (FLOATS) Project, and Force Threat Evaluation and Effects Coordination (FTE2C) Project supporting Force-Level Function (FLF) development and testing facilitated from System Architects models and Object-Oriented designs. Collaborate with Operational Requirements (OR) Working Group by incorporating warfighter Tactics, Techniques and Procedures (TTP). Draft Target Architecture 4 (TA4) objectives and concepts supporting MTMD Forum's IAMD vision. Work closely with the Interoperability and Common Tactical Picture (IaCTP) Project in developing a "CTP Assessment Means" assessing the CTP quantitatively and qualitatively; evolving an "IAMD					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3312 / *MTMD-Maritime Theater Missile Defense Forum*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Maturity Model" by tracking and measuring continued IAMD capability progression/maturity; and outline roles, capabilities, and C2 structure for integration into Joint coalition operations. (2) M&S will continue their cyclical work providing analysis of Target Architectures and conduct further assessments to support recommendations to improve information exchange requirements identified by BMC4I and the Systems Engineering Team (SET). M&S will continue to ensure all associated authorities to operate are in place for continued coalition modeling and simulation. M&S will ensure all coalition partners in the MTMD Forum who participate in the M&S working group have online access as required to M&S modeling and simulation equipment to continue to run simulations in support of these MTMD efforts. M&S will model future Target Architectures and provide analysis in support of future at-sea demonstrations. The M&S Working Group will continue development of Mission Models in support of capability development to illustrate operational impact of proposed solutions to complex Integrated Air and Missile Defense (IAMD) problems. In these ways M&S will provide for further cost avoidance by performing simulations and analysis of these simulations realizing affordability initiatives as fewer costly 'real world' testing events are needed. (3) CDEP will assess interoperability of joint air and land assets in Annual Test Events (ATE) consistent with the MTMD Forum Project Management Framework. CDEP will provide technical support and hardware in the loop testing for the BMD Integration, Force Threat Evaluation and Engagement Coordination (FTE2C) and IAMD Interoperability/Common Tactical Picture (CTP) projects within the MTMD Forum. CDEP will continue to assess interoperability of joint air and land assets in Annual Test Event (ATE) 2025. CDEP will work with BMC4I to test various Coalition Capabilities and Interoperability (CCI) gaps. CDEP will prepare for and conduct hardware-in-the-loop tests with enabled allied partners and provide assessments and recommendations for experimental systems and pathways to improve information exchanges while reducing maritime force detectability by potential adversaries. (4) Open Architecture group will conduct a series of M&S test series in conjunction with the to prove FLOATS and continue NATO engagement advocating for the formal adoption of FLOATS as a NATO standard. The group will continue developing FLOATS and will deliver FLOATS v.7.0 and plan for v8.0 and v9.0. The OA members will engage acquisition programs for the adoption of FLOATS into US Navy national programs as well as support other nations national engagements to ensure interoperability with our partner nations. Development work of an operational test design to test FLOATS operationally is planned to determine its suitability for implementation and potential deployment. Support the creation of a FLOATS implementation for integration onto platforms.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3312 / *MTMD-Maritime Theater Missile Defense Forum*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
(5) TPEX will continue preparations for MTMD participation and support for the ongoing at-sea test event series. Formidable Shield 25 (FS25) exercise will execute in Q3 of FY25. The exercise is specified and endorsed by NAVEUR and C6F. Target development initiated in FY22 will continue to support the live-fire objectives for FS25 and future FS exercises. During FS25, live-fire Integrated Air and Missile Defense (IAMD) events are planned to be conducted with MTMD Forum nations bringing ships, aircraft, and ground-based sensors. These at-sea demonstrations will include live tracking events and a combination of live and simulated engagements within a fleet exercise, focused on interoperability assessment. The MTMD Forum Project will sponsor the targets for these and will leverage NAVEUR and C6F resources to conduct the FS exercise. Planning for At-Sea Demonstrations and follow-on at-sea testing will continue into future years and include further IAMD target procurement. The data analysis effort contained within the TPEX line of effort provides the linkage and measures of success between the various MTMD Forum supported at-sea demonstrations that enable key policy makers and leaders to understand capability gaps/possible solutions with quantified metrics. Future planning in FY25 will include Pacific Dragon 26 to be conducted in Q4 2026 and the At-Sea Demo/ Formidable Shield 27 exercise to be conducted in Q3 FY27. Formidable Shield exercises are endorsed by Commander U.S. Naval Forces Europe (NAVEUR) and Pacific Dragon exercises are endorsed by PACFLT. (6) Operational Requirements group will continue to provide operator's perspective and recommendations to the engineering and test activity conducted in the other working groups. This critical cooperation with Surface Mine Warfare Development Command (SMWDC) enables allied linkage into the established relationship between SMWDC and Naval Sea Systems Command (NAVSEA). ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No significant change from FY24 to FY25.					
Accomplishments/Planned Programs Subtotals	10.842	11.792	11.617	0.000	11.617

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3312 / *MTMD-Maritime Theater Missile Defense Forum*

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605853N / *Management, Technical & Intl Supt*	Project (Number/Name) 3330 / *Naval Research Laboratory (NRL) Facilities Modernization*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
3330: *Naval Research Laboratory (NRL) Facilities Modernization*	0.000	16.227	26.380	37.123	-	37.123	20.002	16.066	16.398	16.743	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program provides a systematic and planned approach to improve vital in-house science and technology (S&T) laboratory facilities which are reaching or have reached critical stages of deterioration. The program includes restoration and modernization (R&M) initiatives for Naval Research Laboratory (NRL) facilities, where the average age of the buildings is over 68 years.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: NRL Facilities Modernization	16.227	26.380	37.123	0.000	37.123
Articles:	-	-	-	-	-
Description: Critical Science and Technology research cannot be sustained or succeed in deteriorated facilities. World class research can only be accomplished in facilities that are at a minimum "adequate", but preferably "state-of-the-art." Due to their advanced age and deterioration, funds are planned to restore/modernize various laboratory facilities at the Naval Research Laboratory.					
FY 2024 Plans: The Naval Research Laboratory continues efforts to undertake numerous planned and emergent studies, evaluations, and modernization projects of laboratory facilities and infrastructure modernization of laboratories to meet future technological threats. Facility upgrade and repair projects planned for in FY 2024 include: -Evaluating and repairing the mechanical purge systems for the Tactical Electronic Warfare laboratory spaces. This project is planned to be fully funded in FY2024. -Replacement of exhaust vents and motors on the roof of the Optical Sciences laboratory building. This project is planned to be fully funded in FY2024.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3330 / *Naval Research Laboratory (NRL) Facilities Modernization*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Replacement of transformers and switchgear for the Ocean and Atmospheric Science & Technology and Business Operations Directorates laboratory and office spaces. This project is planned to be fully funded in FY2024. -Roof replacement for the Central Chiller Plant. This project is planned to be fully funded in FY2024. -Heating, Ventilation, and Air Conditioning (HVAC) system upgrades for the Materials Sciences and Ocean and Atmospheric Science & Technology Division laboratory spaces. Note that this project extends previous FY2023 plans and is intended to continue in various phases through FY2025 for multiple science and technology laboratory and research spaces. -Lab-wide modernization of the communication infrastructure (VoIP). This project is planned to be partially funded in FY2024 with BA 6.					
FY 2025 Base Plans: NRL continues efforts to undertake numerous planned and emergent studies, evaluations, and modernization projects of laboratory facilities and infrastructure modernization of laboratories to meet future technological threats. Facility upgrade and repair projects planned for in fiscal year (FY) 2025 include, but is not limited to: -Building renovation plans of the laboratory, office, and research spaces for the Tactical Electronic Warfare Division. -Fire suppression system replacement for the Naval Center for Space Technology laboratory, office, and research spaces. -Heating, Ventilation, and Air Conditioning (HVAC) system upgrades of the laboratory spaces for the Materials Sciences and Technology, and Ocean and Atmospheric Science & Technology Divisions. -Replacement of transformers and switchgear for the Optical Sciences and Tactical Electronic Warfare Divisions laboratory and research spaces. -Installation-wide structural repairs resulting from annual inspections.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3330 / *Naval Research Laboratory (NRL) Facilities Modernization*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Lab-wide modernization of the communication infrastructure (Voice over Internet Protocol). ***FY 2025 OCO Plans:*** None. No Overseas Contingency Operations planned for FY 2025. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The FY 2024 to FY2025 funding increase of $10.736 million will enable NRL to increase the total number of executable projects in FY25 from eight (8) to fifteen (15). The additional seven (7) projects will continue support for the Laboratory's overall facilities modernization and allow for replacement and repair of vital building and structural components of laboratory and research spaces that continue to be severely impacted by failing infrastructure.					
Accomplishments/Planned Programs Subtotals	16.227	26.380	37.123	0.000	37.123

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

None

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605853N / *Management, Technical & Intl Supt*	Project (Number/Name) 3363 / *PACOM Initiative*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
3363: *PACOM Initiative*	0.000	28.768	35.461	37.291	-	37.291	37.188	38.822	38.399	40.383	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

China Strategic Initiative (CSI) became a DoD RDTE program in FY 2014. The CSI program is U.S. Indo-Pacific Command's(INDOPACOM) first Asia Rebalance initiative and provides critical support to planning efforts across the Command addressing Secretary of Defense's # 1 priority. CSI is a command-directed program that provides the Commander, INDOPACOM, and his staff vital support at all levels of planning and decision-making within the INDOPACOM Area Of Responsibility. The CSI program provides: cutting-edge research on adversary approaches to warfare, monitoring and analysis of adversary social media and censorship, unique understanding of effects of U.S. actions at the strategic and operational levels, sponsorship of Track 1.5/2 Strategic Nuclear Dialogue with China, etc. This funding is for a classified effort and details can be provided at a higher classification level.

Pacific Multi-Domain Training and Experimentation Capability (PMTEC) is foundational to meeting Commander, USINDOPACOM's high-end warfighting capability, theater force posture, and Ally & Partner (A&P) objectives through the execution of joint experimentation in the Indo-Pacific. The innovative combinations of new technology, capability, and CONOPS in Joint Exercises will enable integration, warfighting assessment, and rapid capability development. PMTEC is the joint synchronizer and integrator by bringing together OSD, Service RDT&E, other government agencies, industry, and academia with Combatant Commands, Service Components, warfighting units, and A&Ps to expedite experimentations of R&D projects/prototypes and to facilitate more rapid modernization and interoperability.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: INDOPACOM Initiative	13.594	15.361	14.621	0.000	14.621
Articles:	-	-	-	-	-
Description: China Strategic Initiative (CSI): RDTEN funding supports critical classified research that directly advances the core mission and functionality of INDOPACOM's China Strategic Initiative (CSI - a DoD program of record). CSI informs senior U.S. Gov't / DoD policymakers with long-term & strategic insights into the People's Republic of China (PRC) actions/policies across the spectrum, including domestic/foreign policymaking, political thinking, military policies, economic policies, and many other areas. Part of CSI consists of a series of integrated analytical working groups comprised of experts from the U.S. Gov't (Policy, planning, and intelligence), Federally Funded Research and Development Corporations (FFRDCs), academia, and					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3363 / *PACOM Initiative*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
private industry. All INDOPACOM CSI efforts are overseen by a 25-member CSI Review Board (CRB) to ensure all CSI programs are integrated and not redundant. All program efforts are done under direction of OSD and the China Strategic Roundtable, supporting strategic competition with China, DoD's top priority for defense planning. CSI program is DoD/ PACOM's first Rebalance to Asia initiative issue nomination priority. ***FY 2024 Plans:*** - CSI requires continued/sustained support for expanded studies & analysis of operational/intelligence planning against regional adversaries; deepen understanding of PRC crisis management and strategic decision-making; and core analysis and expertise for strategic and operational level emulation efforts across the entire DIMEFIL. The CSI program office and its Community of Interest (COI) comprise a broad range of subject matter expertise which includes supporting Modeling & Simulation services to assist CSI in researching, developing, testing, and demonstrating a theater-level campaign model based on a range of inputs. Developing a modeling plan which details the method to research, develop, test, and demonstrate a theater level campaign model. Developing a campaign model which details a method of scenario creation that supports a broad range of strategic and operational planning efforts, including C4ISR planning and collection at the national and operational levels. Providing gap analysis to identify shortfalls in the baseline model and suggest alternatives for resolution. The outputs and lessons learned from campaign-level modeling and scenarios will be used to inform CSI COI partners including DoD, the Joint Staff, the COCOMs, the Intelligence Community (IC), and the Interagency to enable key stakeholder decision-making processes across a broad range of topics that include strategic and operational planning,					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3363 / *PACOM Initiative*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
national defense systems acquisition research & development, intelligence collection tasking and target prioritization, strategic messaging, and other critical areas of interest. - Improve the China Strategic Initiative's capability to continuously assess how PRC will anticipate, perceive, and react to U.S. action in the INDOPACIFIC. USINDOPACOM China Strategic Focus Group would use the additional funding for eight additional contracted research studies to raise DoD warfighters, planners, and policy makers' awareness on PRC grand strategy, warfighting concepts, and indications/warning.					
FY 2025 Base Plans: - CSI requires continued/sustained support for expanded studies & analysis of operational/intelligence planning against regional adversaries; deepen understanding of PRC crisis management and strategic decision-making; and core analysis and expertise for strategic and operational level emulation efforts across the entire DIMEFIL. The CSI program office and its Community of Interest (COI) comprise a broad range of subject matter expertise which includes supporting Modeling & Simulation services to assist CSI in researching, developing, testing, and demonstrating a theater-level campaign model based on a range of inputs. Developing a modeling plan which details the method to research, develop, test, and demonstrate a theater level campaign model. Developing a campaign model which details a method of scenario creation that supports a broad range of strategic and operational planning efforts, including C5ISR planning and collection at the national and operational levels. Providing gap analysis to identify shortfalls in the baseline model and suggest alternatives for resolution. The outputs and lessons learned from campaign-level modeling and scenarios will be used to inform CSI COI partners including DoD, the Joint Staff, the COCOMs, the Intelligence Community (IC), and the Interagency to enable					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3363 / *PACOM Initiative*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
key stakeholder decision-making processes across a broad range of topics that include strategic and operational planning, national defense systems acquisition research & development, intelligence collection tasking and target prioritization, strategic messaging, and other critical areas of interest. - Improve the China Strategic Initiative's capability to continuously assess how PRC will anticipate, perceive, and react to U.S. action in the INDOPACIFIC. USINDOPACOM China Strategic Focus Group would use the additional funding for eight additional contracted research studies to raise DoD warfighters, planners, and policy makers' awareness on PRC grand strategy, warfighting concepts, and indications/warning. With respect to indications/warning, C-SFG seeks growth for two new projects which seek to identify and deploy new methodologies for conducting indications and warning analysis in support of USINDOPACOM's #1 operational priority. These projects will leverage quantitative methods and machine learning techniques to provide the command with data-driven models for anticipating adversary whole-of-system mobilization in advance of crisis or conflict. This research will also provide foundational information to inform multiple, classified DoD efforts to identify, deter, or counter adversary actions which threaten DoD interests in USINDOPACOM. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The FY25 decrease was due to a reduction in level of effort to the People's Republic of China warning language.					
Title: Pacific Multi-Domain Training and Experimentation Capability (PMTEC)	15.174	20.100	22.670	0.000	22.670
Articles:	-	-	-	-	-
Description: Pacific Multi-Domain Training and Experimentation Capability (PMTEC): PMTEC is foundational to meeting Commander, USINDOPACOM's high-end warfighting capability, theater force posture, and Ally & Partner (A&P) objectives through the execution of joint experimentation in the Indo-Pacific. The innovative combinations of new technology, capability, and CONOPS in Joint Exercises will enable integration, warfighting assessment, and rapid capability development. PMTEC is the joint synchronizer and integrator by bringing together OSD, Service RDT&E, other government agencies, industry, and academia with Combatant Commands, Service Components, warfighting units, and A&Ps to expedite experimentations of R&D projects/prototypes and to facilitate more rapid modernization and interoperability.					

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Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3363 / *PACOM Initiative*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
PMTEC Support provide mission integration of Service capabilities into joint warfighting capabilities and concepts. This is accomplished through theater scale joint field experimentation focused on high-end warfighting, emphasizing a combination of Service exercises, Joint exercises, and stand-alone warfighting experiments. Theater scale joint experimentation will require the design and engineering of integrated Services' capabilities and the associated networking and peering of Services' live, virtual and constructive test and training range facilities. This will be extensible to allies and partners to create the required common joint environment. ***FY 2024 Plans:*** - Design, engineer and execute three joint experimentation venues that matures the FY2023 INDO-Pacific theater joint fires architecture. This will be demonstrated during VALIANT SHIELD 2024 that will be a large scale joint exercise that will span from the Western Pacific to CONUS, a Western Pacific partner nation exercise, and a high end distributed CONUS complex experiment for advanced capabilities. - Incorporate expanded networking and peering of additional CONUS and mid-Pacific ranges to add space, other advanced capabilities such as hypersonics, and combined/ joint/live/virtual/constructive (CJLVC), and high end range instrumentation that provides feedback measurement and analysis to support design of experiments for employment of new warfighting concepts, training, and joint theater battle management. ***FY 2025 Base Plans:*** FY23 completed the PMTEC Regional Joint Training Infrastructure (RJTI) / JLVC gap analysis study, operational demonstration of the Joint Simulation Technical Control Capability (JSTC2) prototype, and the Joint Distributed Exercise Control Cell (JDECC) prototype during Balikatan 23 (BK23). FY24 builds out the RJTI architecture and implementation plan and JSTC2 initial capability delivery supporting Joint Exercise Program (JEP) activities with our allies and partners in Keen Edge 24 (KE24), Balikatan 24 (BK24) and Cobra Gold 24 (CG24). FY25 RDT&E growth supports the physical and virtual infrastructure necessary within RJTI and JSTC2 efforts, this includes cloud investments and continues to advance the central hub at KMT PWC while expanding network linkages/peering within the INDOPACOM AOR. These enhancements of capabilities are critical to the delivery of Combined Joint Live Virtual Constructive (CJVC) to Combined Joint All-Domain Operations (CJADO) across INDOPACOM JEP activities. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 3363 / *PACOM Initiative*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
FY25 establishes investments in RJTI and JSTC2 infrastructure and operational support services to provide joint synthetic environments at key nodes in Hawaii, Japan, Korea, and Guam. The additional RDT&E funds facilitate the design, engineering, test/integration, and implementation of the necessary infrastructure (hardware, software, cloud services) that positions the initial operating capabilities (IOC) to transition into the final operating capability (FOC) in FY26/FY27. In support of Joint Deployable Exercise Control Cell and Regional Joint Training Infrastructure.					
Accomplishments/Planned Programs Subtotals	28.768	35.461	37.291	0.000	37.291

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605853N / *Management, Technical & Intl Supt*	Project (Number/Name) 9999 / *Congressional Add*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
9999: *Congressional Add*	0.000	19.402	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	19.402
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Naval Postgraduate School (NPS) is tasked to establish a consortium for additive manufacturing research and education that will accelerate widespread adoption of additive manufacturing across the Department of Defense. The Consortium will drive the adoption of 3D rapid prototyping method in support of the Tri-Service Maritime Strategy, NPS will serve as a focal point for advancing technology capabilities and education of Naval and Coast Guard forces in support of advancing the adoption of Additive Manufacturing (AM) in support of national naval security. NPS will lead a multi-year, interdisciplinary, umbrella research and education initiative with consortium partners, including USN (NAVSEA, NAVFAC, NAVAIR, NAVWAR), USMC, USA, USAF, USCG commands, Warfighting Labs and active-duty units, as well as Academia, Industry, and Government Laboratory partners. The goals of the effort include conducting a continuous study of user needs; coordinating a diverse portfolio of interdisciplinary research projects that advance basic and applied research domains in concert with education and training; addressing both technical issues and human/personnel issues, i.e., support a full human-technology integration; testing and validation of metal-based AM technologies aboard deployed platforms; and whenever possible, look for sustainability of the efforts, i.e., make sure the foundation is set for long(er)-term self-sustainability.

NSWC CRANE will assess and strengthen the domestic industrial base and supply chain for Printed Circuit Boards (PCBs) & Interconnect. This project facilitates access to reliable, trusted, and affordable Printed Circuit Boards (PCBs) fabrication and assembly products and technologies that meet the quality, performance, and security requirements of the DoD and are necessary to accommodate State-of-the-Art microelectronics products within U.S. Defense systems, including Maritime Missile Defense Systems. This project also facilitates collaboration within and across the DoD to conduct research, development, and sustainment efforts targeting Component-unique requirements.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Proj C783: Consortium for Additive Manufacturing Research and Development	4.827	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
Description: Naval Postgraduate School (NPS) Consortium for Additive Manufacturing Research and Education (CAMRE) is a multi-year umbrella research and education initiative designed to support a diverse portfolio of interdisciplinary research efforts that advance basic and applied research domains focused on accelerating the widespread adoption of additive manufacturing across the Department of Defense. The ultimate objective of CAMREs efforts is to increase the levels of warfighters mission readiness, agility, self-sustainment, reach and overall power projection in its operations on the sea, shore and air.					
FY 2024 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605853N / *Management, Technical & Intl Supt*	**Project (Number/Name)** 9999 / *Congressional Add*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A					
Title: PROJ C783 Printed Circuit Board & Interconnect Technology ***Articles:*** ***FY 2024 Plans:*** N/A ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A	14.575 -	0.000 -	0.000 -	0.000 -	0.000 -
Accomplishments/Planned Programs Subtotals	19.402	0.000	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A