Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Navy											Date: May 2021	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 0603582N *I Combat System Integration*							
COST ($ in Millions)	**Prior Years**	**FY 2020**	**FY 2021**	**FY 2022 Base**	**FY 2022 OCO**	**FY 2022 Total**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**Cost To Complete**	**Total Cost**
Total Program Element	438.542	16.715	17.764	17.322	-	17.322	-	-	-	-	-	-
0164: *Combat System Integration*	438.542	16.715	17.764	17.322	-	17.322	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

Chief of Naval Operations (CNO) created the Navy's Strike Force Interoperability (SFI) program in 1998 in response to critical shortfalls in the introduction of integrated and interoperable System of Systems (SoS) to deploying Strike Forces. Interoperability concerns still exist today as new systems are introduced to the Fleet, interoperating with older systems, and the complexity of the Systems of Systems integration has continued to increase. These programs help prevent the situation that occurred in 1998 by catching those critical shortfalls before the systems are released to the Fleet. Warfighters depend on these programs on a daily basis to remove or reduce the interoperability risk associated with the systems they are tasked to operate. Commander, Naval Sea Systems Command (COMNAVSEA) acts as management lead for Joint System Command (SYSCOM) system certification policy and guidance and certifies platforms for interoperability within the platform and throughout the enterprise, in accordance with Commander, US Fleet Forces Command/Commander, Pacific Fleet COMUSFLTFORCOM/COMPACFLT) Ins. 4720.3C dated 18 SEP 2017 (C5ISR Modernization Policy). COMUSFLTFORCOM/COMPACFLT INST. 4720.3C also requires that COMNAVSEA act as administrative agent for Naval Information Forces (NAVIFOR) Command and Control, Communications, Computers, Combat Systems, Intelligence, Surveillance and Reconnaissance Modernization Process (C5IMP), and execution agent for Navy Command and Control, Communications, Computers, Combat Systems, Intelligence, and Surveillance and Reconnaissance Modernization Council (NCMC). This program conducts Interoperability Assessments that are required to certify Aircraft Carriers, Amphibious Assault Ships, and Surface Combatants in accordance with the Naval Warfare System Certification Policy (NWSCP) NAVSEAINST 9410.2A, NAVAIR 5230.20, AND SPAWAR 5234.1). The SFI program ensures overall Strike Force Interoperability is characterized and assessed. COMNAVSEA is assigned central United States Navy (USN) responsibility for interoperability, directing the development of policy and architecture for Strike Force Warfare Systems engineering and implementation of common warfare systems engineering processes.

There are three priorities within the Strike Force Interoperability Program:

(1) Support Fleet "as-is" state which includes Navigation System Certification (NAVCERT), Strike Group Interoperability (SGI) Capabilities & Limitations (CAPS&LIMS), and Interoperability Tactical Information Coordinator Technical Aids (TIC TECHAIDs). These functions provide the critical review, assessment and documentation to properly inform the warfighter of the status of the interoperability for the systems they operate.

(2) Support Ship's system modernization (non-HME) including warfighting capability & other C5I upgrades including C5IMP Baseline Management. These functions ensure the warfighter is provided integrated and interoperable fielded systems to fulfill mission success.

(3) Support Ship Warfare System Certification & Force Level Assessments. This includes Warfare Systems Certification, Interoperability Certification, Force Level Interoperability Analysis, & Assessments, Cybersecurity Assessments and recommendations for improvements to the program offices for implementation at the systems'

level. This critical function provides the confidence to the warfighter they are getting the best possible systems and that through the certification process the systems have been properly tested and assessed to ensure the best possible interoperability.

Project 0164 Combat System Integration:
This project consists of four key Pillars executed within the Strike Force Interoperability (SFI) Program:

(1) Command & Control, Communications, Computer, Combat Systems, Intelligence, Surveillance and Reconnaissance (C5ISR) Modernization Process (C5IMP). The C5IMP validates the introduction of new systems and upgrades to existing systems into the fleet and ensures systems' maturity prior to shipboard installation thereby reducing risk and enhancing readiness and effectiveness of deploying ships and strike groups.

(2) Warfare Systems Certification (WSCERT), which is essential to validating the maturity and operational performance of warfare systems prior to Fleet delivery and deployment.

(3) The integrated Navigation System Certification (NAVCERT) program certifies the shipboard integrated navigation suite for safe navigation using the Electronic Charting and Display Information System Navy (ECDIS-N) as the primary plot. To support Strike Force Interoperability and ship's mission requirements, it ensures that the installed integration navigation suite provides accurate and timely navigation information (position, velocity, speed, heading, roll, and pitch) to all navigation data consumers (Warfare/Weapons Systems, Control Systems, and precision approach and landing systems). This ensure the safe maneuver of naval forces to execute missions throughout the full spectrum of conflict.

(4) Interoperability Certification and Assessment (IOP C&A) is the critical independent assessment of strike group warfare systems operational performance. Interoperability assessment examines force level engagement threads, aircraft control, air battle management, and operational displays to ensure the warfighter is being provided the most interoperable systems available. Assessments of deploying ships in strike force configurations are accomplished through the use of the Navy's Distributed Integration and Interoperability Assessment Capability (DIIAC) which supports the Deputy Assistant Secretary of the Navy (DASN) "shift to the left" policy by providing early interoperability testing in the acquisition lifecycle. It is a Commander, U.S. Fleet Forces Command (CFFC) and Commander U.S. Pacific Fleet (COMPACFLT) requirement that all strike forces undergo interoperability assessment testing in the DIIAC prior to deployment. The support for DASN and requirements of the combatant commander cannot be accomplished without the full funding of these programs. Interoperability certification results are used to develop fleet tactical tools (Capabilities & Limitations (C&L) documentation and Tactical Information Coordinator Technical Aids (TIC TECHAIDS)) on which the warfighters rely daily, that ensure that systems' operators understand the interoperability capabilities and limitations of their combat systems, as well as all units within the networked architecture, and have the watch station tools necessary for the execution of their tactical responsibilities. These are Fleet desired and NAVSEA required programs that must be fully funded to ensure the warfighter awareness of Strike Force Interoperability.

Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Navy					Date: May 2021
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*		R-1 Program Element (Number/Name) PE 0603582N *I Combat System Integration*			
B. Program Change Summary ($ in Millions)	**FY 2020**	**FY 2021**	**FY 2022 Base**	**FY 2022 OCO**	**FY 2022 Total**
Previous President's Budget	17.251	17.843	17.991	-	17.991
Current President's Budget	16.715	17.764	17.322	-	17.322
Total Adjustments	-0.536	-0.079	-0.669	-	-0.669
• Congressional General Reductions	-	-0.079			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.536	0.000			
• Rate/Misc Adjustments	0.000	0.000	-0.669	-	-0.669

Change Summary Explanation

FY20: Funding reduced in the amount of $0.536M for Small Business Innovative Research (SBIR) transfer.

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy									Date: May 2021			
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603582N / *Combat System Integration*				Project (Number/Name) 0164 / *Combat System Integration*			
COST ($ in Millions)	**Prior Years**	**FY 2020**	**FY 2021**	**FY 2022 Base**	**FY 2022 OCO**	**FY 2022 Total**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**Cost To Complete**	**Total Cost**
0164: *Combat System Integration*	438.542	16.715	17.764	17.322	-	17.322	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project 0164: Combat System Integration:

This project consists of four key Pillars executed within the Strike Force Interoperability (SFI) Program:

(1) Command & Control, Communications, Computer, Combat Systems, Intelligence, Surveillance and Reconnaissance (C5ISR) Modernization Process (C5IMP). The C5IMP validates the introduction of new systems into the fleet and ensures systems' maturity prior to shipboard installation thereby reducing risk and enhancing readiness and effectiveness of deploying ships and strike groups.

(2) Warfare Systems Certification (WSCERT), which is essential to validating the maturity and operational performance of warfare systems prior to Fleet delivery and deployment.

(3) The integrated Navigation System Certification (NAVCERT) program certifies the shipboard integrated navigation suite for safe navigation using the Electronic Charting and Display Information System Navy (ECDIS-N) as the primary plot. To support Strike Force Interoperability and ship's mission requirements, it ensures that the installed integration navigation suite provides accurate and timely navigation information (position, velocity, speed, heading, roll, and pitch) to all navigation data consumers. This supports the following mission critical functions: pre-launch aircraft alignment, safe aircraft precision approach and landing operations, and accurate warfare/weapon systems targeting.

(4) Interoperability Certification and Assessment (IOP C&A), the independent assessment of strike group warfare systems operational performance. Interoperability assessment examines force level engagement threads, aircraft control, air battle management, and operational displays. Assessments of deploying ships in strike force configurations are accomplished through the use of the Navy's Distributed Integration and Interoperability Assessment Capability (DIIAC) which supports the Deputy Assistant Secretary of the Navy (DASN) "shift to the left" policy by providing early interoperability testing in the acquisition lifecycle. It is a Commander, U.S. Fleet Forces Command (CFFC) and Commander U.S. Pacific Fleet (COMPACFLT) requirement that all strike forces undergo interoperability assessment testing in the DIIAC prior to deployment. Interoperability certification results are used to develop fleet tactical tools (Capabilities & Limitations (C&L) documentation and Tactical Information Coordinator Technical Aids (TIC TECHAIDS)), that ensure that systems' operators understand the interoperability capabilities and limitations of their combat systems and have the watch station tools necessary for the execution of their tactical responsibilities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	**FY 2020**	**FY 2021**	**FY 2022 Base**	**FY 2022 OCO**	**FY 2022 Total**
Title: Navigation System Certification (NAVCERT)	1.117	1.302	1.333	0.000	1.333

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Articles:	-	-	-	-	-
Description: Modern warfare systems installed in US Navy ships require accurate position and time to achieve required effects. At the strike force level, accurate position and time are required to enable interoperability of warfighting systems of systems. The Integrated Navigation Suite Certification (NAVCERT) pillar of SFI certifies the accuracy of ship's position information, and verifies that it is properly distributed to sensors and weapons systems installed in US Navy ships. Certification is required at five-year intervals, following Chief of Naval Operations Availabilities greater than six months, in support of Precision Approach and Landing System (PALS) certification, or when configuration changes have been made to the ships integrated navigation suite. Certification testing verifies the accuracy of sensors that determine heading, velocity, attitude, and position; and validates receipt of navigation data by all- consuming systems including Integrated Warfare (or Mission) Systems, Aircraft Inertial Alignment System, and Control Systems. The scope of the certification includes all inertial navigation system equipment as well as the Electronic Chart Display and Information System - Navy (ECDIS- N). Forecasting out year NAVCERT requirements is based on the projection of expiring certifications, scheduled maintenance availabilities, and modernization of installed integrated navigation systems. Wherever possible, the program leverages integrated navigation suite modernization efforts to reduce overall program costs. ***FY 2021 Plans:*** Conduct 27 scheduled NAVCERTS on USN Surface ships. Continue to minimize costs by leveraging test results from conjunctive alterations to navigation systems during modernization periods, wherever possible. ***FY 2022 Base Plans:*** Conduct 33 scheduled NAVCERTS on USN Surface ships. Continue to minimize costs by leveraging test results from conjunctive alterations to navigation systems during modernization periods, wherever possible. ***FY 2022 OCO Plans:*** N/A ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Increase in funding to account for an increase in planned number of NAVCERTs.					
Title: Command , Control, Communications, Computers, Combat Systems, Intelligence, Surveillance and Reconnaissance (C5ISR) Modernization Process (C5IMP)	2.172	2.208	2.236	0.000	2.236
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Description: Achieving and maintaining Strike Force Interoperability requires disciplined engineering, system integration, and configuration management at both the platform (ship or shore station) and strike force level (Carrier Strike Group/ Amphibious Readiness Group). The Command, Control, Communications, Computers, Combat Systems, Intelligence, Surveillance, Reconnaissance (C5ISR) Modernization Program (C5IMP) pillar of SFI ensures deploying strike force ships receive modernized and interoperable warfighting capabilities in order to meet theater operational requirements. This project funds engineering assessments of proposed C5I capability improvements to determine maturity for installation as well as technical and schedule risk associated with proposed hardware and software changes. This project directly supports requirements of the Fleet C5I Modernization Policy (per COMUSFLTFORCOM/COMPACFLT Inst. 4720.3) which assigns responsibilities to NAVSEA 05H to assess operational risks associated with C5ISR modernization in both afloat and ashore units in support of the Optimized Fleet Response Plan (OFRP). The deliverables of this project are created by determining the maturity, through engineering analysis, of the critical linchpins needed to achieve interoperability for each proposed C5IMP capability improvement item to be installed in a ship's baseline, developing installation recommendations of C5I system upgrades for the Fleet Commanders, and researching and analyzing installation or operating problems. This includes a review of Warfare System Ship Change Documents (SCDs). Failure to achieve required maturity for one system that is part of an interoperable warfare system package can prevent this system from being installed, thus breaking the capability planned for the entire original warfare package, which will impact Strike Group warfighting capabilities. There is close coordination with the FLTCDRs and TYCOMs as well as other members of the C5IMP community to address, coordinate, and resolve C5IMP modernization issues thereby reducing risk and enhancing readiness and effectiveness of deploying ships and strike groups. Focus is on key milestones such as Baseline Locking Events (BLEs) and Planned Not Authorized (PNA) reviews, and SG/ARG Analysis Reports which are Fleet required events. The BLEs, PNA Reviews, and SG/ARG Analysis Reports are the primary work products in the C5IMP process. Additionally, due to emerging warfighting requirements and the development of required hardware and software changes between CNO Availability periods, an electronic change control board has been developed (BFI-CCB) to facilitate the request, review and approval of proposed Baseline changes. Forecasting C5ISR requirements and schedules is based on the projection of ships' operating/maintenance schedules at the particular point in time. Due to changing operational needs, these schedules frequently change causing availability extensions, deferrals, cancellations, or delays. The supporting C5IMP/C5ISR schedules must adjust accordingly, resulting in regular modifications to the numbers of events/requirements projected for C5IMP/C5ISR from period to period. C5ISR Configuration Control is maintained and updated continuously for every ship. Maintenance of the Afloat Master Planning System (AMPS) data for the approximately 285 active					

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Battle Force ships, along with establishing initial configurations for the New Construction ships entering the Fleet each year is essential and a major effort. This data is extracted and formatted to develop the BLE and PNA Review presentations which enable the Fleet commanders and TYCOMs to make informed modernization decisions. Additionally, numerous data calls are requested each month to answer configuration queries and perform studies utilizing AMPS data. CUSFFC/CPF Instruction 4720.3C designates NAVSEA 05H4 as the executing agent for the two NCMCs held each year. This requires C5IMP personnel to make all logistical and administrative arrangements for the 150+ attendees, collect and present all briefs, set up VTC and phone centers for remote attendees, and maintain all associated records for these councils. Fleet Commanders, TYCOMs, SYSCOMs and supporting personnel gather at NCMCs to discuss advance plans, coordinate near term modernization plans, coordinate shore and shipboard installations to ensure support prior to deployments, resolve schedule issues and establish priorities. Action items are recorded and tracked by NAVSEA, and major issues are reported to a joint FFC/CPF flag/SES panel. ***FY 2021 Plans:*** (1) Facilitate reviews, assessments, and execution of C5ISR installations during approximately 74 CNO Availabilities. (2) Support two (2) NCMCs (3) Support twelve (12) Monthly Baseline Locking Events where 64 Ships' Baselines will be reviewed and locked by the respective Fleet Commander representatives and twelve (12) monthly PNA Review Meetings where the PNA status of 60 ships will be reviewed. (4) Evaluate, comment on, and process approximately 2500 proposed Baseline changes via the Electronic Change Control Board process (BFI-CCB). These changes will include requests for addition of new hardware and software to ships, deletion from planned installations and TCD Waiver requests. (Note: Due to existing funding shortfalls, no O-FRP products are currently planned to be produced). ***FY 2022 Base Plans:*** (1) Facilitate reviews, assessments, and execution of C5ISR installations during 75 CNO Availabilities. (2) Review approximately 850 warfare system Ship Change Documents. Assess impact to Interoperability. Create and maintain database entries for approximately 1,400 new software and hardware upgrades to be entered and tracked in the Afloat Master Planning System (AMPS), the fleets authoritative database for C5I modernization. (3) Support two (2) NCMCs (4) Support twelve (12) Monthly Baseline Locking Events where 65 Ships' Baselines will be reviewed and locked by the respective Fleet Commander representatives and twelve (12) monthly PNA Review Meetings where the PNA status of 58 ships will be reviewed.					

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
(5) Evaluate, comment on, and process approximately 2500 proposed Baseline changes via the Electronic Change Control Board process (BFI-CCB). These changes will include requests for addition of new hardware and software to ships, deletion from planned installations and TCD Waiver requests. (6) Establish initial warfare system baselines for 7 new construction ships. (Note: Due to existing funding shortfalls, no O-FRP products are currently planned to be produced). ***FY 2022 OCO Plans:*** N/A ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Increase in funding to account for new warfare system baseline requirements.					
Title: Interoperability Certification and Assessment	11.336	11.626	11.528	0.000	11.528
Articles:	-	-	-	-	-
Description: This warfare critical project funds interoperability assessments via the Distributed Integration & Interoperability Assessment Capability (DIIAC), the technical assessment of interoperable systems to meet mission requirements, the updating of Strike Group Capabilities and Limitations (C&L) and the updating of the Tactical Information Coordinator Technical Aids (TIC TECHAIDs). The project ensures NAVSEA/PEOs are delivering mature and interoperable warfare systems at the platform and Strike Group levels to the warfighter, with NAVSEA providing Strike Force interoperability certification and assessments. This project focuses on force-level impact of new systems and platforms under development. Interoperability Assessments of deploying ships in Strike Force configurations are accomplished through the utilization of the Navy's DIIAC, located at multiple Navy land-based sites located across the country and connected via networking technology, and that provides operational configurations for all naval combat systems. It is a U.S. Fleet Forces Command requirement that all Strike Forces undergo Interoperability Assessment Testing in the DIIAC prior to deployment. The DIIAC provides the only opportunity for comprehensive interoperability testing of combat system and C5I configuration items prior to shipboard delivery for operational use in surface combatant platforms and Strike Groups. DIIAC, with its ability to test systems in a Strike Group environment, is funded to support the warfare system's acquisition community to test their developmental items for interoperability. However, in this instance, while funds are provided to test the item in a Strike Group environment, funds are not provided for subsequent data analysis and risk assessment, as this is the cognizant acquisition program's responsibility. When the acquisition development is complete and corrections are made, DIIAC will then fund for the full interoperability certification testing of the baseline to include the requisite warfare system analysis and risk assessments needed to obtain an Interoperability Certification.					

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Note, this effort also supports and feeds into the development of Fleet Tactical Tools such as Capabilities & Limitations (C&L) and Tactical Information Coordinator Technical Aids (TIC TECHAIDs), which are relied on daily to ensure that operators/warfighters understand the interoperability capabilities and limitations of their combat and C5I systems. C&Ls are published for all Strike Groups, Independent Deployers, and (when funded) their Coalition and Joint partners. TIC TECHAIDS are delivered to deploying Carrier Strike Groups (CSG's), Amphibious Ready Group (ARG's) and Independent Deployers prior to workups and then a final copy is provided prior to deployment. C&L and TIC TECHAIDS are the final report-out to Fleet operators/warfighters of the acquisition community's efforts. They are used on a daily basis and relied upon in every operational theater, as well as in every Navy and Joint Schoolhouse. Note, the DIIAC infrastructure is available, but not funded to support the surface Navy's participation in the Joint Testing Environments as well as the Maritime Theater Missile Defense (MTMD) Coalition Forces interoperability testing. ***FY 2021 Plans:*** (1) Conduct three (3) Interoperability Land-Based test events including the following: -Development interoperability test to support for ACS 9.C2.X (B35); ACS 9.A2.X (B35); DDG 1000 (B8.9); LCS Freedom 3.2 and LUSV -Certification Interoperability test for ACS 9.C2.X (B35); AEGIS 9.A2.X (B35); DDG 1000 (B8.9); LCS Freedom 3.2; and LUSV -Certification Interoperability Risk assessment & Report for ACS 9.C2.2 (B31); ACS 9.C2.X (B35); AEGIS 9.A2.X (B35); DDG 1000 (B8.9); and LCS Freedom 3.2 (2) Complete C&L and TIC TECHAIDS, normally a near constant yearly demand requirement, also address AEGIS Ashore. This will result in updates to Interoperability C&L for: -Twenty-six (26) Deploying Strike Group Ships (from a database containing 215 U.S. Surface Ships) and -Ten (10) Naval Air Squadrons (covering F/A-18s, F-35, E-2Cs, E-2Ds, MH-60Ss, MH-60Rs, EA-6Bs, EA-18Gs, P-3Cs and P-8As). (3) Provide annual deliveries of Initial/Draft/Final TIC TECHAIDS to: -Five (5) Carrier Strike Groups (CSG's) Thirty (30) Ships -Four (4) Amphibious Ready Group's (ARG's) Eight (8) Ships -Thirty-Five (35) BMD Ships -Fourteen (14) Forward Deployed Naval Force (FDNF) Ships - Forty Five (45) Independent Deploying Ships (CVN, CG, DDG, LCC and LCS) -Aegis Ashore Site (Romania and Poland)					

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603582N / *Combat System Integration*	Project (Number/Name) 0164 / *Combat System Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
-Four (4) Fleet Area Control and Surveillance Facilities (FACSFAC's) -Ten (10) Fleet Maritime Operations Centers (MOC's) sites. - Support three (3) Interoperability Land-Based test events					
FY 2022 Base Plans: 1. Conduct six (6) one-week Interoperability Land-Based test events including the following: -Development interoperability test to support for ACS 9.C2.2 (B35); ACS 9.A2.2 (B35); SSDS 10.11.01 (CVN 78); DDG 1000 (B9.4); LCS Freedom 3.2 -Certification Interoperability test for ACS 9.C2.2 (B35); AEGIS 9.A2.2 (B35); SSDS 10.11.01 (CVN 78); DDG 1000 (B9.4); LCS Freedom 3.2 -Certification Interoperability Risk assessment & Report for ACS 9.C2.2 (B31); SSDS 10.11.01 (CVN 78); DDG 1000 (B9.4); and LCS Freedom 3.2 2. Complete C&L and TIC TECHAIDS, normally a near constant yearly demand requirement, also address AEGIS Ashore. This will result in updates to Interoperability C&L for: -Twenty-seven (27) Deploying Strike Groups (from a database containing 231 U.S. Surface Ships) and -Twelve (12) Naval Air Squadrons (covering F/A-18s, F-35, E-2Cs, E-2Ds, MH-60Ss, MH-60Rs, EA-18Gs, P-3Cs and P-8As). 3. Provide annual deliveries of Initial/Draft/Final TIC TECHAIDS to: -Five (5) Carrier Strike Groups (CSG's) Thirty (30) Ships -Four (4) Amphibious Ready Group's (ARG's) Eight (8) Ships -Thirty-Five (35) BMD Ships -Fourteen (14) Forward Deployed Naval Force (FDNF) Ships -Forty Five (45) Independent Deploying Ships (CVN, CG, DDG, LCC and LCS) -Aegis Ashore Site (Romania and Poland) -Four (4) Fleet Area Control and Surveillance Facilities (FACSFAC's) -Ten (10) Fleet Maritime Operations Centers (MOC's) sites. - Support three (3) Interoperability Land-Based test events -12 MK-VI Patrol Boats					
FY 2022 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
N/A ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Increase in funding to account for the increase in planned Capability & Limitation and TicTechAid requirements.					
Title: Warfare Systems Certification	2.090	2.628	2.225	0.000	2.225
Articles:	-	-	-	-	-
Description: Strike Force Interoperability (SFI) begins with properly engineered warfare systems installed in US Navy Ships. The Warfare Systems Certification (WSCERT) pillar of SFI certifies that modernized warfare systems are ready for installation, properly installed, and meet warfighting mission area requirements, to include the systems' interoperability and functional integration within the Strike Force that enables successful mission accomplishment. It funds the collection and independent technical assessment of that interoperability and integration using empirically derived Objective Quality Evidence (OQE) that installed warfare systems meet required performance specifications. Using established evaluation criteria, the project assesses the maturity of proposed warfare system modernizations prior to installation and certifies readiness of modernized warfare systems for operational deployment in ships, either independently or as components of Carrier/Expeditionary Strike Groups. When evaluation criteria are not met, the program funds the development and approval of operational risk assessments. This includes conducting an analysis of all work-arounds documented in Tactics, Techniques, and Procedures (TTPs), Capabilities & Limitations (C&L), and Trouble Reports (TR) to ensure that aggregate deficiencies and work-arounds do not render the warfare system, to include the operator, ineffective. NAVSEA accomplishes these efforts through a sequential series of technical reviews that begin 18-36 months prior to a scheduled modernization of a ship's warfare system, which includes development of a Warfare System Certification Plans (WSCP), conduct of Warfare Systems Certification Readiness Reviews (WSCRR), conduct of Warfare Systems Installation Assessments (WSIA), and prior to deployment, conduct of a Warfare Systems Certification Decisions (WSCD). ***FY 2021 Plans:*** (1) Implement analysis of ten (10) WSCD and seven (7) WSIA areas of assessment and associated critical technical issues Conduct Warfare Systems Certifications Events via analysis of seventeen (17) areas of assessment and associated critical technical issues, for one hundred fifteen (115) ships, including efforts for approximately one hundred thirty (146) Warfare Systems Certification Events (WSIAs, and WSCDs) and development of seventy-three (73) WSCPs for applicable ship classes. (2) Implement secure online tool to create, review, approve, monitor, and track warfare system non-compliances.					

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
(3) Continue to strive for significant WSCERT execution efficiencies through workforce streamlining initiatives, criteria management and consolidation of WSCERT events. ***FY 2022 Base Plans:*** (1) Conduct Warfare Systems Certifications Events via analysis of seventeen (17) areas of assessment and associated critical technical issues for one hundred fifteen(115) ships, including efforts for approximately one hundred thirty one (131) Warfare Systems Certification Events (WSIAs, and WSCDs) and development of twelve (12) WSCPs for applicable ship classes. (2) Continue to strive for WSCERT execution efficiencies through workforce streamlining initiatives, criteria management and consolidation of WSCERT events. ***FY 2022 OCO Plans:*** N/A ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Decrease in funding due to full implementation and assessment of efficiencies identified in FY19 and fewer planned Warfare Systems Certification Events (WSIAs, and WSCDs)and WSCPs.					
Accomplishments/Planned Programs Subtotals	16.715	17.764	17.322	0.000	17.322

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
• OPN 2960: *ICSTF: Integrated Combat System Test Facility*	7.038	5.934	5.829	-	5.829	-	-	-	-	-	-

Remarks

D. Acquisition Strategy

RDTEN funding under this line supports independent certification of the integration of major capability upgrades acquired by Program Executive Offices (PEOs) into host Navy Platforms and Strike Forces. The RDTEN engineering and certification activities at field sites do not involve direct procurement of equipment or engineering services, and hence no acquisition strategy is required. The major capability upgrades evaluated under this program fall under their associated PEOs' acquisition strategies.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy			Date: May 2021
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603582N / *Combat System Integration*	Project (Number/Name) 0164 / *Combat System Integration*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SF Requirements Engineering & Analysis	WR	NSWCs : DN/PHD/ Corona	5.157	0.000		0.000		0.000		-		0.000	-	-	-
SF Requirements Engineering & Analysis	WR	Non-NSWCs : Various	5.295	0.000		0.000		0.000		-		0.000	-	-	-
Platform/Strike Force Certification	WR	NSWCs : DD/ICSTD/ DN/Corona	39.732	0.000		0.000		0.000		-		0.000	-	-	-
Platform/Strike Force Certification	WR	Non-NSWCs : Various	27.843	0.000		0.000		0.000		-		0.000	-	-	-
Fleet Response Plan (FRP)	WR	NSWCs : DD/PHD/ DN	27.030	0.000		0.000		0.000		-		0.000	-	-	-
Fleet Response Plan (FRP)	WR	Non-NSWCs : Various	3.793	0.000		0.000		0.000		-		0.000	-	-	-
Combat Systems Cert ISO Platform Cert	WR	NSWCs : DN/DD/ PHD/Corona	24.640	0.000		0.000		0.000		-		0.000	-	-	-
Combat Systems Cert ISO Platform Cert	WR	Non-NSWCs : Various	1.853	0.000		0.000		0.000		-		0.000	-	-	-
C5IMP & Fleet Readiness	WR	NSWCs : PHD	16.671	2.388	Nov 2019	2.473	Nov 2020	2.420	Nov 2021	-		2.420	-	-	-
C5IMP & Fleet Readiness	C/CPFF	Non-NSWCs : Various	0.438	0.325	Dec 2019	0.372	Dec 2020	0.327	Dec 2021	-		0.327	-	-	-
Warfare Systems Certification	WR	NSWCs : DD/Crane	18.788	0.242	Nov 2019	0.351	Nov 2020	0.200	Nov 2021	-		0.200	-	-	-
Warfare Systems Certification	WR	Non-NSWCs : Various	3.500	0.000		0.000		0.000		-		0.000	-	-	-
CNI/Design Agent	SS/CPAF	General Dynamics : Not Specified	47.926	0.000		0.000		0.000		-		0.000	-	-	-
CNI/Software Engineering	WR	NSWC : Dahlgren	8.383	0.000		0.000		0.000		-		0.000	-	-	-
CNI/Test and Evaluation	WR	CDSA : Not Specified	3.922	0.000		0.000		0.000		-		0.000	-	-	-
CNI/Systems Engineering	WR	NSWC : PHD	2.645	0.000		0.000		0.000		-		0.000	-	-	-
CNI/Miscellaneous	WR	Various : Not Specified	7.529	0.000		0.000		0.000		-		0.000	-	-	-
OA Automated Test and Retest	WR	NSWCs : Various	17.500	0.000		0.000		0.000		-		0.000	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy			Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contract Engineering Support	C/CPFF	Gryphon Technology : VA	41.315	0.000		0.000		0.000		-		0.000	-	-	-
Contract Program Management Support	C/CPFF	Delta Resources Inc. : VA	8.466	0.345	Jan 2020	0.387	Jan 2021	0.315	Feb 2022	-		0.315	-	-	-
Travel	Allot	NAVSEA HQ : Washington, DC	2.390	0.025	Jan 2020	0.026	Jan 2021	0.020	Jan 2022	-		0.020	-	-	-
Interoperability Fixes	WR	NSWCs : Various	1.500	0.000		0.000		0.000		-		0.000	-	-	-
TIC TECHAIDS	WR	CSC : VA	0.000	0.000		0.000		0.000		-		0.000	-	-	-
Warfare Systems Cybersecurity	WR	NSWCs : PHD, Dahlren & Corna	5.408	0.000		0.000		0.000		-		0.000	-	-	-
Capabilities & Limitations	WR	NSWCs : PHD	13.673	2.884	Nov 2019	3.076	Nov 2020	3.092	Nov 2021	-		3.092	-	-	-
Cybersecurity IA	C/CPFF	CSC : VA	0.544	0.000		0.000		0.000		-		0.000	-	-	-
Contract Engineering Support	C/CPFF	Delta Resources Inc. : VA	1.110	3.612	Jan 2020	3.711	Jan 2021	3.690	Feb 2022	-		3.690	-	-	-
		Subtotal	337.051	9.821		10.396		10.064		-		10.064	-	-	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Combat System Integration Testing (CSIT)	WR	NSWCs : DD/ICSTF	5.736	0.000		0.000		0.000		-		0.000	-	-	-
Interoperability Certification Assessment	WR	NSWCs : DD/ SPAWAR/San Diego	26.804	0.000		0.000		0.000		-		0.000	-	-	-
Navigation System Certification	WR	NIWC : Charleston, SC	13.346	1.312	Nov 2019	1.358	Nov 2020	1.359	Nov 2021	-		1.359	-	-	-
DIIAC Engineering and Operations	WR	NSWCs : DD/DN/ SPAWAR	25.576	1.874	Jan 2020	1.949	Jan 2021	1.945	Jan 2022	-		1.945	-	-	-
DEP Engineering and Operations	WR	NSWCs : Various	12.623	0.000		0.000		0.000		-		0.000	-	-	-
Interoperability Cert Assessment	WR	NSWCs : DD/DN/ Corona	10.405	2.394	Nov 2019	2.484	Nov 2020	2.390	Nov 2021	-		2.390	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy			Date: May 2021
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603582N / *Combat System Integration*	Project (Number/Name) 0164 / *Combat System Integration*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Interoperability Cert Assessment	C/CPFF	Non-NSWCS : CNA	4.477	1.314	Jan 2020	1.577	Jan 2021	1.564	Jan 2022	-		1.564	-	-	-
Interoperability Cert Assessment	C/CPFF	CSC : Washington, DC	1.256	0.000		0.000		0.000		-		0.000	-	-	-
Interoperability Cert Assessment	WR	NUWCs : Keyport	1.268	0.000		0.000		0.000		-		0.000	-	-	-
		Subtotal	101.491	6.894		7.368		7.258		-		7.258	-	-	N/A

	Prior Years	FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	438.542	16.715		17.764		17.322		-		17.322	-	-	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*

	FY 2020				FY 2021				FY 2022			
Combat System Integration	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NAVCERT	NAVCERTs (20-1)	NAVCERTs (20-2)	NAVCERTs (20-3)	NAVCERTs (20-4)	NAVCERTs (21-1)	NAVCERTs (21-2)	NAVCERTs (21-3)	NAVCERTs (21-4)	NAVCERTs (22-1)	NAVCERTs (22-2)	NAVCERTs (22-3)	NAVCERTs (22-4)
C5IMP	Monthly Baseline											
		NCMC-1		NCMC-2								
		SG/ARG Analysis Report (2/year)										
	PNA Reviews (12/Year)											
	BFI-C CB Review											
					Monthly Baseline							
						NCMC-1		NCMC-2				
						SG/ARG Analysis Report						
					PNA Reviews (12/Year)							
					BFI-C CB Review							
									Monthly Baseline			
										NCMC-1		NCMC-2
										SG/ARG Analysis Report		
									PNA Reviews (12/Year)			
									BFI-C CB Review			
Interoperability Certification & Assessments	FY20 Event (20-1)	FY20 Event (20-2)	FY20 Event (20-3)		FY21 Event (21-1)	FY21 Event (21-2)	FY21 Event (21-3)		FY22 Event (22-1)	FY22 Event (22-2,22-3)	FY21 Event (22-4)	FY22 Event (22-5,22-6)
Warfare Systems Certification	FY 20 WSC				FY 21 WSC				FY 22 WSC			

Exhibit R-4A, RDT&E Schedule Details: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
COMBAT SYSTEM INTEGRATION				
NAVCERT: FY20 NAVCERTs (3 PCs, 1 DDG, 1 MCM) COMPLETED	1	2020	1	2020
NAVCERT: FY20 NAVCERTs (1 CG, 1 DDG, 2 LHDs, 1 LSD, 1 MCM, 1 PC) COMPLETED	2	2020	2	2020
NAVCERT: FY20 NAVCERTs (4 DDGs, 1 LHD, 1 LSD, 1 PC) COMPLETED	3	2020	3	2020
NAVCERT: FY20 NAVCERTs (1 CG, 1 CVN, 8 DDGs, 2 LCS, 1 LHD, 4 LPDs, 1 LSD, 1 MCM, 1 PC)	4	2020	4	2020
NAVCERT: FY21 NAVCERTs (1 CVN, 5 DDGs, 1 LCS, 1 LPD, 1 MCM)	1	2021	1	2021
NAVCERT: FY21 NAVCERTs (2 CVNs, 1 LCS, 2 LHDs, 2 LSDs, 1 MCM)	2	2021	2	2021
NAVCERT: FY21 NAVCERTs (1 CG, 2 CVNs, 1 DDG, 1 LPD)	3	2021	3	2021
NAVCERT: FY21 NAVCERTs (3 DDGs, 1 LHD, 1 MCM)	4	2021	4	2021
NAVCERT: FY22 NAVCERTs (1 CVN, 3 DDGs, 2 LHDs, 1 MCM)	1	2022	1	2022
NAVCERT: FY22 NAVCERTs (3 CGs, 1 CVN, 5 DDGs, 1 LHD, 1 LCC, 1 PC)	2	2022	2	2022
NAVCERT: FY22 NAVCERTs (1 CVN, 1 LHD, 1 LPD, 1 LSD, 2 PCs)	3	2022	3	2022
NAVCERT: FY22 NAVCERTs (4 DDGs, 1 LPD 3 LSDs)	4	2022	4	2022
C5IMP: FY20 C5IMP Monthly Baseline Lock (12/Year) (54 ships)	1	2020	4	2020
C5IMP: FY20 NCMC - 1	2	2020	2	2020
C5IMP: FY20 NCMC - 2	4	2020	4	2020
C5IMP: FY20 SG/ARG Analysis Report (2/Year - Presented at NCMC)	2	2020	4	2020
C5IMP: FY20 PNA Reviews (12/Year) (49 Ships)	1	2020	4	2020
C5IMP: FY20 BFI-CCB Review,comment on and process approximately 2500 proposed changes throughout the year.	1	2020	4	2020
C5IMP: FY21 C5IMP Monthly Baseline Lock (12/Year) (64 Ships)	1	2021	4	2021
C5IMP: FY21 NCMC - 1	2	2021	2	2021

Exhibit R-4A, RDT&E Schedule Details: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
C5IMP: FY21 NCMC - 2	4	2021	4	2021
C5IMP: FY21 SG/ARG Analysis Report (2/Year - Presented at NCMC)	2	2021	4	2021
C5IMP: FY21 PNA Reviews (12/Year) (60 Ships)	1	2021	4	2021
C5IMP: FY21 BFI-CCB Review,comment on and process approximately 2500 proposed changes throughout the year.	1	2021	4	2021
C5IMP: FY22 C5IMP Monthly Baseline Lock (12/Year) (65 Ships)	1	2022	4	2022
C5IMP: FY22 NCMC - 1	2	2022	2	2022
C5IMP: FY22 NCMC - 2	4	2022	4	2022
C5IMP: FY22 SG/ARG Analysis Report (2/Year - Presented at NCMC)	2	2022	4	2022
C5IMP: FY22 PNA Reviews (12/Year) (58 Ships)	1	2022	4	2022
C5IMP: FY22 BFI-CCB Review,comment on and process approximately 2800 proposed changes throughout the year.	1	2022	4	2022
Interoperability Certification & Assessments: FY20 IOP CERT/DEV Tests (20-1): ACS 9.C2.2 (B30); AEGIS 5.4	1	2020	1	2020
Interoperability Certification & Assessments: FY20 IOP CERT/DEV Tests (20-2): AEGIS B/L 9C2.2 (Build 30); SSDS 10.11.02 (CVN Configuration); SSDS B/L 11.X (ACB 20); and DDG 1000 (B8.7)	2	2020	2	2020
Interoperability Certification & Assessments: FY20 IOP CERT/DEV Tests (20-3): AEGIS B/L 9C2.2 (Build 30); SSDS 10.11.02 (CVN Configuration); SSDS B/L 11.X; and DDG 1000 (B8.7)	3	2020	3	2020
Interoperability Certification & Assessments: FY21 Event (21-1)	1	2021	1	2021
Interoperability Certification & Assessments: FY21 Event (21-2)	2	2021	2	2021
Interoperability Certification & Assessments: FY21 Event (21-3)	3	2021	3	2021
Interoperability Certification & Assessments: FY22 Event (22-1)	1	2022	1	2022
Interoperability Certification & Assessments: FY22 Event (22-2),(22-3)	2	2022	2	2022
Interoperability Certification & Assessments: FY22 Event (22-4)	3	2022	3	2022
Interoperability Certification & Assessments: FY22 Event (22-5),(22-6)	4	2022	4	2022

Exhibit R-4A, RDT&E Schedule Details: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603582N / *Combat System Integration*	**Project (Number/Name)** 0164 / *Combat System Integration*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Warfare Systems Certification: FY20 Warfare Systems Cert (130 Certification Events + 64 WSCPs)	1	2020	4	2020
Warfare Systems Certification: FY21 Warfare Systems Cert (146 Certification Events + 73 WSCPs)	1	2021	4	2021
Warfare Systems Certification: FY22 Warfare Systems Cert (131 Certification Events + 12 WSCPs)	1	2022	4	2022