Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
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 0605518N *I CONVENTIONAL PROMPT STRIKE (CPS)*

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	747.354	1,325.232	1,205.041	-	1,205.041	1,286.159	1,531.412	1,603.114	1,094.103	Continuing	Continuing
3334: *Conventional Prompt Strike (CPS)*	0.000	742.527	1,320.232	1,205.041	-	1,205.041	1,286.159	1,531.412	1,603.114	1,094.103	Continuing	Continuing
9999: *Congressional Adds*	0.000	4.827	5.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.827

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 197

A. Mission Description and Budget Item Justification

Conventional Prompt Strike (CPS) warfighting capability will enable precise and timely strike in contested environments across multiple platforms. In coordination with the Army, the Navy CPS Program is designing a common All Up Round (AUR) comprised of a Common Hypersonic Glide Body (C-HGB) and a 34.5" two-stage booster. The Navy is responsible for the design of the C-HGB, while the Army leads that production. The Navy will design, develop, and produce the missile booster, as well as integrate the missile booster with the C-HGB. Each service will use the common hypersonic missile while developing individual weapon control systems and launchers tailored for launch from sea or land. Development efforts under this program element lead to a weapon system capability that: (1) is non-ballistic over the majority of the flight path; (2) controls stage drop; (3) provides positive control and precision accuracy from launch to impact; (4) provides adequate cross-range/maneuverability to avoid over-flight issues; (5) provides prompt lethal effects on targets; and (6) is man-safe and deployable for surface and submerged platforms.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	766.637	1,373.521	0.000	-	0.000
Current President's Budget	747.354	1,325.232	1,205.041	-	1,205.041
Total Adjustments	-19.283	-48.289	1,205.041	-	1,205.041
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-53.289			
• Congressional Rescissions	-	-			
• Congressional Adds	-	5.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.000	1.181			
• SBIR/STTR Transfer	-19.283	0.000			
• Program Adjustments	0.000	0.000	0.000	-	0.000
• Rate/Misc Adjustments	0.000	-1.181	0.000	-	0.000
• Adjustments to Budget Year	-	-	1,205.041	-	1,205.041

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
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 0605518N *I CONVENTIONAL PROMPT STRIKE (CPS)*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Project: 9999: *Congressional Adds*		
Congressional Add: *Neutron Radiographic Inspection of Cartridge and Propellant Actuated Devices*	4.827	0.000
Congressional Add: *Cross-service hypersonic testing capabilities through adv. concepts tech. eval.*	0.000	5.000
Congressional Add Subtotals for Project: 9999	4.827	5.000
Congressional Add Totals for all Projects	4.827	5.000

Change Summary Explanation

In FY 2021, this funding was transferred from Program Element 0604659N Precisions Strike Weapons Development Program.

The CPS budget previously showed all Science and Technology / Advanced Capabilities (STAC) efforts under the Weapon System Integration budget category. The program has broken these costs into their own budget category in order to provide greater transparency.

FY 2023 funding increase reflects the fact that the FY 2022 President’s Budget request did not include out-year funding.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	Project (Number/Name) 3334 / *Conventional Prompt Strike (CPS)*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3334: *Conventional Prompt Strike (CPS)*	0.000	742.527	1,320.232	1,205.041	-	1,205.041	1,286.159	1,531.412	1,603.114	1,094.103	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 197

A. Mission Description and Budget Item Justification

The Conventional Prompt Strike (CPS) Weapon System will deliver a hypersonic conventional offensive strike capability through a depressed boost-glide trajectory to prosecute deep- inland, time-critical, soft and medium-hardened targets in contested environments. The Navy CPS Weapon System will enhance U.S. conventional power projection through longer range, shorter time of flight, and higher survivability against enemy defenses compared to current capabilities. The Navy CPS weapon system or major elements of the weapon system will be deployed onboard multiple launch platforms. The CPS program is a joint effort between services. Specifically, the Navy and Army are collaborating to design and deliver a common All Up Round (AUR) in accordance with an inter-service Memorandum of Agreement. To meet Navy requirements and Army priorities, the Navy is responsible for design and development of the Common Hypersonic Glide Body (C-HGB) and 34.5" Booster, and integration of the C-HGB with the 34.5" Booster to create a common AUR. The Army is
responsible for production of the Navy-designed C-HGB. To enable weapon system integration to meet Navy mission requirements, near-term design, development, and experimentation will be required for boosters; thermal protection systems; navigation, guidance and control systems; enhancements; payload modules; weapon control systems and
interfaces to existing fire control systems; support equipment; and launcher systems. Component and subsystem technology maturity will be demonstrated, and risk reduction accomplished, through Modeling and Simulation (M&S) assessments, Hardware-in-the-Loop (HWIL) / Software-in-the-Loop (SWIL) testing, ground-based testing, in-air and underwater launch testing, and flight tests. Furthermore, with each platform deployment, risk continues to be reduced for weapon subsystems and components until prototyping efforts culminate in an initial operational Blk V VIRGINIA Class submarine weapon system capability. The program will capitalize on commonality between platform implementations.

CPS supports the National Defense Strategy by supporting modernization initiatives for hypersonic technologies and enabling a more lethal force. The CPS program plan: (1) Provides rapid delivery of capability through multiple acquisition increments and configurations; and (2) Provides flexibility to allow for additional capability phases as the weapon system and warfighter requirements evolve. In order to meet current Top Level Requirements (TLR) and future warfighter needs, the program has developed a Technology Insertion (TI) strategy with pre-planned insertion points to enable the program to regularly insert baseline upgrades and mature advanced technologies to support capability improvements into the Navy and Army systems. To support the TI Strategy, the program has developed a Science and Technology / Advanced Capability (STAC) process to mature advanced technology and fill Navy and Army warfighting capability gaps to ensure continued battlefield dominance.

The FY 2023 budget exhibit reflects no change to the FY 2022 cost categories, however, all STAC efforts previously under the Weapon System Integration budget category were broken out into their own budget category to provide greater level of detail. These categories reflect how the CPS Program Office currently structures its major contracts and manages major efforts while providing high fidelity financial data for each work performer. Budget exhibit data is based on annual task planning

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

efforts to evaluate current and future year budget requirements. This cost data is continuously updated based on actual execution data and negotiations with prime contractors.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Weapon System Integration	104.475	165.173	103.200	0.000	103.200
Articles:	-	-	-	-	-
Description: The Weapon Systems Integration (WSI) category accommodates all efforts associated with systems engineering, logistics, and program management support for the Blk 1 Weapon System (WS) and future TIs. ***FY 2022 Plans:*** FY 2022 Plans: - Continued support of the development, transportation, logistics, and training for the CPS Weapon System (WS). - Continued the development and production of Shipping and Storage Containers (SSC) to support Insensitive Munitions/ Hazardous Classification (IM/HC) testing and design and development of full size tactical SSC for storage and transportation of the All Up Rounds + Canisters (AUR+C). - Continued to support systems engineering efforts for the assured performance, accuracy, integration, and compatibility of the CPS system and related auxiliary systems by establishing system-level requirements; defining interfaces between subsystems, launch platforms, and facilities; and initiating policy/design tenets to ensure overall system performance and interoperability. - Upgraded the Weapon System (WS) to include establishing system and sub-system level requirements, and initiating policy and program level design tenets to ensure overall system performance and interoperability. Continued working with Prime and all Subcontractors to define and refine the WS interfaces between and within the AUR, Canister, Weapon Control System, and launch platforms. - Expanded industrial base capacity to prepare for increased AUR and Advance Payload Module (APM) production needed to support delivery of 24 AURs and 5 APMs per year by FY 2025 associated with adding hypersonic capability on ZUMWALT Class destroyers and Army 2nd and 3rd batteries. It enables the Prime Contractor and sub-tier suppliers to add additional tooling, casting pits, and dedicated machines for solid rocket motor production; add proper tooling, test equipment, electrical / mechanical ground support equipment					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
at integration, assembly, test, and checkout facilities; establish dedicated production lines at manufacturing facilities; expand capacity for production of nose fairing, release assembly, payload adapter, and inter-stage sections; obtain additional, qualified secondary sources of supply; and expand workforce hiring/training. - Completed fielding and maintained a classified digital infrastructure across industry and government sites to enable coordination, rapid development, and communication between multiple locations. - Continued to execute Safety Management Plans, cybersecurity plans, quality assurance assessments, and related testing.					
FY 2023 Base Plans: - Continue support of the development, transportation, logistics, and training for the CPS WS. - Continue the development and production of SSC to support IM/HC testing and design and development of full size tactical SSC for storage and transportation of the AUR+C. - Begin development of the CPS WS Capabilities Development Document (CDD). - Continue to support systems engineering efforts for the assured performance, accuracy, integration, and compatibility of the CPS system and related auxiliary systems by establishing system-level requirements; defining interfaces between subsystems, launch platforms, and facilities; and initiating policy/design tenets to ensure overall system performance and interoperability. - Continue upgrading the WS to include establishing system and sub-system level requirements, and initiating policy and program level design tenets to ensure overall system performance and interoperability. Continue defining and refining with Prime and all Subcontractors the interfaces between and within the AUR, Canister, and Weapon Control System and Launch platforms. - Maintain and grow the classified digital infrastructure across industry and government sites to enable coordination, rapid development, and communication between multiple locations.					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Execute Schedule Management, Risk Management, Safety Management, Software Engineering, Program Protection, cybersecurity, and quality assurance in support of FY23 activities and future CPS Program milestones. - Continued efforts to expand industrial base capacity to prepare for increased AUR and APM production needed to support delivery of 24 AURs and 5 APMs per year. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The FY 2022 to FY 2023 decrease of $61.973M is due to the industrial base capacity expansion efforts ramping down in FY 2023.					
Title: Flight Subsystem	304.867	545.372	572.902	0.000	572.902
Articles:	-	-	-	-	-
Description: The Flight Subsystem category accommodates all efforts for Blk 1 and future TIs associated with the Missile Body and C-HGB, design, development, fabrication, test, and transition to production; development and test of navigation, guidance, and control flight software; Thermal Protection System (TPS) efforts; and hardware procurements for Insensitive Munitions (IM) testing. ***FY 2022 Plans:*** - Designed, developed, fabricated, and tested the Blk 1 C-HGB, featuring a new C-HGB Autonomous Flight Termination System (AFTS) and new thermal batteries and complementary power control avionics. - Developed and refined technical data packages to transition production of prototype Blk 1 C-HGB and associated knowledge to industry partners. - Continued fabrication of C-HGB simulators to support JFC-1, including the Blk 1 Dedicated Test Asset (DTA), and the necessary avionics for one Sandia HWIL and one Sandia software test rack. - Completed fabrication of a first stage and second stage solid rocket motor in support of static fire testing, and continued fabrication of 3 solid rocket motors (1 first stage and 2 second stage) in support of static fire testing.					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Completed the final design of the TI-22 AUR, which will incorporate changes necessary to support Navy platform integration and advanced capability. - Designed, developed, fabricated, and tested four full Electrical Ground Support Equipment (EGSE) and three Mechanical Ground Support Equipment (MGSE) Blk 1 compatible systems, which are portable, for use as electrical and mechanical checkout tests of Blk 1 C-HGBs. - Continued to transition fabrication and testing of the Blk 1 C-HGB flight articles to industry partners. - Matured Navigation, Guidance, and Control flight software so support transition from Joint Flight Campaign (JFC)-1 Pad Launch to JFC-2 Ground-based Platform Launch. - Continued AUR integration testing with Weapons Control Systems via Test Line-1 (TL-1) and TL-2. - Continued Government National Team design, development, fabrication and testing of flight articles for JFC 2, 3, 4, and 5. Efforts are focused on the development and integration of individual missile components including the C-HGB and the missile body, and on the overall integration of the missile into a weapon system. - Continued design, development, fabrication, and testing of two Inert Test Vehicles (ITVs) to support In-Air Launch (IAL) testing and two ITVs to support Underwater Launch (UWL) testing. - Continued fabrication of test articles and initiated the Insensitive Munitions and Hazard Classification (IM/HC) test series in support of Blk 1 AUR deployment. Completed C-HGB Fast Cook-Off, Sympathetic Reaction, Net Explosive Weight for Quantity-Distance (NEWQD), and 40' horizontal drop testing. - Continued design, development, fabrication, and testing of five TI-22 AUR Simulators (AURSIMs) for assembly proofing, Box Launcher, and ZUMWALT Class DDG integration testing. - Continued support of flight system software, including the development of requirements and performance metrics, hardware integration and test, verification and validation testing, and hardware-in-the-loop simulation support for Blk 1 maturation, and TI-22 design.					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Continued TPS material characterization, development, and testing. Continued fabrication of fiberglass engineering units and flight-worthy Carbon-Carbon TPS units to support IM/HC testing, flight experiments, and prototype production. - Continued analytical support for thermo-structural, computational fluid dynamics, roll prescription analysis, modeling & simulation, and flight worthiness analysis, as well as a Design of Experiments to gain a physics-based understanding on constituent TPS materials and processing to select cost-effective TPS materials with reduced production times. ***FY 2023 Base Plans:*** - Continue the Blk 1 AUR effort as it transitions from component qualification, software verification and validation testing, Weapon System integration testing, and initial to final flight testing and deployment. Conduct AUR Hazard of Electromagnetic Radiation to Ordnance (HERO) testing, and system-level Electromagnetic Interference (EMI), Electromagnetic Compatibility (EMC), and Environmental testing. - Continue the TI-22 AUR effort as it transitions from final design to component qualification testing, flight software verification and validation testing, and weapon system integration testing. - Continue the Blk 1 AUR system level integration testing and commence TI-22 subsystem level AUR integration testing with Navy Weapons Control Systems via Test Lines (TL-1 and TL-2). - Continue Government National Team efforts to design, develop, fabricate, and test C-HGB and missile body flight articles for JFC 3, 4, 5, and 6. Efforts are focused on the development and integration of individual missile components including the C-HGB and the missile body, and on the overall integration of the missile into a weapon system. - Conduct IAL testing with two ITVs to demonstrate integrated weapon system in-air launch capability. - Continue the design, development, fabrication, and testing of two ITVs to support UWL testing. - Continue fabrication of test articles for IM/HC test series in support of Blk 1 AUR deployment. Complete C-HGB bullet impact and fragment impact IM/HC testing.					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Continue design, development, fabrication, and testing of five TI-22 AURSIMs in support of assembly proofing, and Box Launcher and ZUMWALT-Class DDG integration testing. - Begin glide body and missile body procurements of long lead time material associated with the first three ZUMWALT-Class assets. - Continue support of flight system software, including the development of requirements and performance metrics, hardware integration and test, verification and validation testing, and hardware-in-the-loop simulation support for Blk 1 completion and TI-22 maturation. - Continue analytical support for thermo-structural, computational fluid dynamics, roll prescription analysis, modeling & simulation, and flight worthiness analysis, as well as a Design of Experiments to gain a physics-based understanding on constituent TPS materials and processing to select cost-effective TPS materials with reduced production times. - Continue the TI-24 AUR effort as it transitions from requirements and architecture definition to preliminary design. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The FY 2022 to FY 2023 increase of $27.53M is due to the fabrication of flight-worthy components for JFC-3 AUR in support of efforts to complete Block 1 AUR development, certification, and Army deployment, and increased procurements in support of JFC-4/5/6 flight testing and engineering pathfinding and integration units. These efforts include assembly, integration, and pre-flight system and subsystem tests.					
Title: Platform Integration	262.815	471.482	363.655	0.000	363.655
Articles:	-	-	-	-	-
Description: The Platform Integration category accommodates all non-recurring engineering (NRE) efforts associated with CPS payload hosting on Block V VIRGINIA platforms. This encompasses all efforts required to develop and test a launcher system including: modification of and maintaining the IAL test facility; conducting in-air launcher testing; construction of the UWL test facility and fabrication of major UWL specialty equipment for outfitting of the UWL test facility in sequence with construction to facilitate testing planned in FY 2025; design,					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
development, test, and certification of Pier Side Support Equipment (PSSE) to on-load and off-load Advanced Payload Modules (APMs), AUR+Cs, and fired/expended canisters; and host platform system modifications. The effort also includes development and test of the Weapon Control System (WCS) including: prototype hardware and software in support of range based test launches, software and hardware to support mission planning (on-and off-board), and hardware and software to ensure host platform system modifications. The design, development, and test of WCS elements, APM, and PSSE must support Army fielding and ZUMWALT Class DDG integration timelines, as applicable. ***FY 2022 Plans:*** - Restarted construction of the UWL test facility that was deferred from FY21 and began fabrication of major UWL specialty equipment for integration during construction (outfitting). The facility will be constructed by NAVFAC under 10 USC 2353 authority. - Continued design and development of the WCS software and conducted sub-system level testing. This effort is directly related to the integration of the WCS listed in the WSI category. - Continued development of algorithms for trajectory generation and the Mission Data Load generator for use in CPS Mission Planning, both at geographic combatant commanders through integration into the Theater Mission Planning Center, and onboard platforms as part of the WCS. Performed requirements refinement, CPS Mission Planning System Requirements Review, and software design, development, and integration. This effort is directly tied to the integration of the WCS listed in the WSI category. - Delivered initial mission planning capability in support of Army testing and fielding. - Continued design and development of the CPS launcher system including APM and canister subsystems. Continued fabrication of material for all elements of the system and delivered prototype launcher components and the launcher test asset to the in-air launch test site to conduct further testing in support of system deployment. - Continued design and development, and proceeded to fabrication of PSSE.					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Restarted design and development of the box launcher test asset, and commenced fabrication. ***FY 2023 Base Plans:*** - Restart non-recurring engineering (NRE) efforts required to modify the Block V VIRGINIA Class design to support the integration of CPS. - Continue construction of UWL test facility and fabrication of major UWL specialty equipment for integration during construction (outfitting). Facility will be constructed by NAVFAC under 10 USC 2353 authority. - Deliver final mission planning capability in support of Army deployment. - Continue design and development of the WCS software and sub-system level testing. This effort is directly related to the integration of the WCS listed in the WSI category. - Continued development of algorithms for trajectory generation and the Mission Data Load generator for use in CPS Mission Planning, both at geographic combatant commanders through integration into the Theater Mission Planning Center, and onboard platforms as part of the WCS. Performed requirements refinement, CPS Mission Planning System Requirements Review, and software design, development, and integration. This effort is directly tied to the integration of the WCS listed in the WSI cost category. - Continue design and fabrication of PSSE. - Continue fabrication of the Box Launcher test asset. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The FY 2022 to FY 2023 decrease of $107.827M is due to the majority of UWL test facility construction efforts by NAVFAC and UWL specialty equipment integration being funded in FY 2022.					
Title: Test & Evaluation	51.773	80.291	62.734	0.000	62.734
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Description: The Testing and Evaluation (T&E) category provides system level test plans and the execution of JFC test events. The Test and Evaluation category additionally supports in-air launch test execution demonstrating platform integration of AUR Canister, APM, and WCS capabilities. ***FY 2022 Plans:*** - Executed JFC-1 and JFC-2 flight tests. T&E efforts supported launch operations & test plan to include test equipment, assembly tooling, handling hardware, relevant subcomponent ground testing, pathfinders, field activity support, and data collection and analysis. - Resumed launcher tests at the IAL test site to support technology development required to meet the operational demonstration schedule for the rapid prototyping phase of the CPS weapon system Middle Tier Acquisition (MTA) strategy. - Executed 2 Solid Rocket Motor Static Fire tests, modal frequency response testing, and wind-tunnel testing to validate models and fully characterize the performance envelope. - Supported test planning and reviews for further flight tests and evaluation, including JFC-3, JFC-4, and JFC-5. Two years in advance of the test event, the T&E program begins test requirements analysis phase, followed by initial and detailed planning phases, an execution readiness review, and finally a mission readiness review to ensure all aspects of the test are ready to support commencing test count down. - Increased sustained broad ocean area flight test collection capability through the procurement and build-out of data collection assets for use in JFC-1 and JFC-2, and commenced incremental upgrades of these data collection assets to improve the ability to verify lethality requirements. ***FY 2023 Base Plans:*** - Execute JFC-3 flight test. Test and evaluation (T&E) efforts support launch operations & test planning to include test equipment, assembly tooling, handling hardware, relevant subcomponent ground testing, pathfinder activities, and field activity support. Upon test completion, support data collection and analysis. JFC-3 will demonstrate the final WS configuration that will be fielded as the Army's first battery. - Continue test planning and reviews for further flight tests and evaluation, including JFC-3, JFC-4, JFC-5, and JFC-6. Two years in advance of the test event, the T&E program begins test requirements analysis phase,					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
followed by initial and detailed planning phases, an execution readiness review, and finally a mission readiness review to ensure aspects of the test are ready to support commencing test count down. - Continued utilization of broad ocean area flight test data collection assets, supporting JFC-3. Continued incremental upgrades of data collection assets to improve the ability to verify threshold lethality requirements. - Execute two solid rocket motor static fire tests to validate performance models. - Execute warhead live fire testing for maturation and certification of lethality models supporting CPS fielding with the Army's first Battery and ZUMWALT. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The FY 2022 to FY 2023 decrease of $17.557M is due to execution of only a single flight test in FY 2023 (JFC-3) instead of two flight tests in FY 2022 (JFC-1, JFC-2).					
Title: Science and Technology / Advanced Capabilities (STAC)	18.597	57.914	102.550	0.000	102.550
Articles:	-	-	-	-	-
Description: The STAC budget category identifies, develops, tests, matures, and transitions new technologies and Weapon System capabilities to close Navy and Army warfighting gaps. The STAC program executes internal development and liaises with the broader DoD Science and Technology (S&T) community to identify emerging technologies, and then develops component or subsystem capabilities needed to improve performance against existing and emerging threats. The STAC program consists of three supporting elements: 1) Technology and advanced capability identification and development; 2) Technology maturation including component level experimental testing (wind tunnel, ground, sled, and flight) to demonstrate capability 3) Technology evaluations to validate readiness levels for transition into the Weapon System STAC focuses on those technologies that improve the CPS WS's capabilities against the following program Top Level Requirement (TLR) categories:					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
1) Priority targets; 2) Emerging threat environments; 3) Flight effectiveness; 4) Accuracy; and 5) Command, Control and Communications (C3) interoperability. Details are available at a higher classification level. ***FY 2022 Plans:*** - Continued to identify and refine STAC development priorities in accordance with OPNAV, INDOPACOM, and STRATCOM requirements. - Continued to perform in depth analysis using Modeling and Simulation suites to understand the current CPS Weapon System capabilities and gaps in lethality, survivability, performance envelope, and CONOPS. - Initiated development of SWIL and HWIL test capabilities at NSWC Crane to provide 1) a development capability resource for emerging technology providers and small business and 2) independent assessments of technical maturation progress against technology maturation plans. - Continued development of advanced warhead lethality and produceability improvements. Details are available at a higher classification level. - Continued development of advanced communication capabilities. Details are available at a higher classification level. - Continued development of alternate navigation technologies to improve performance in identified threat environments. Details are available at a higher classification level. - Continued development of position, navigation, and timing accuracy improving technologies and approaches. Details are available at a higher classification level. - Initiated terminal sensor development efforts. Details are available at a higher classification level.					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Developed and delivered technologies and executed experimental sounding rocket (Hot for Hypersonic (H4H)) flight tests for advanced capability maturation as part of a cost-effective, coordinated approach for multi-service and multi-agency technology demonstrations. Demonstrated technology readiness for technologies to transition to TI-22. ***FY 2023 Base Plans:*** - Transition technologies and capabilities planned for TI-22. Specifically, advanced communications. - Continue to use modeling and simulation analysis to understand the CPS capabilities and gaps in lethality, survivability, performance envelope, and CONOPS. - Assess potential next generation warhead capability improvements to expand lethality against a broader set of targets. Details are available at a higher classification level. - Continue to develop alternate navigation technologies to improve performance in identified threat environments. Details are available at a higher classification level. - Continue development of technologies for improving navigation in GPS denied environments. - Continue development of a terminal sensor. Details are available at a higher classification level. - Continue experimental sounding rocket-H4H testing for advanced capability maturation. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The FY 2022 to FY 2023 increase of $44.636M accelerates technology maturation and demonstration of system and component level advanced capabilities associated with apertures incorporated into the HGB for seeker technologies prior to the TI-24 Acquisition Decision Authority (ADA) decision. Additionally the program realigned technology demonstration sounding rocket-H4H test funding from the test and evaluation activity to the STAC activity in support of technology development and maturity assessments prior to incorporating into TIs.					
Accomplishments/Planned Programs Subtotals	742.527	1,320.232	1,205.041	0.000	1,205.041

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Conventional Prompt Strike (CPS) program is a phased acquisition program currently in its Middle Tier of Acquisition (MTA) Rapid Prototyping phase of development for the baseline Navy CPS Weapon System, which also provides a common AUR for the Army's use in the Long Range Hypersonic Weapon (LRHW). System design, prototyping, and early fielding utilize the MTA, as authorized by Section 804 of the Fiscal Year (FY) 2016 National Defense Authorization Act (NDAA) and amended in FY 2017 NDAA (codified at 10 U.S.C. sub sec 2302 note), with the goal of transitioning to a Major Defense Acquisition Program (MDAP) at Milestone C. The Rapid Prototyping path of MTA provides for the use of innovative technologies to rapidly develop fieldable prototypes to demonstrate new capabilities and meet emerging military needs. The current CPS Rapid Prototyping Phase will demonstrate a hypersonic cold gas launched missile prototype capability by FY 2024. In furtherance of this objective, in FY 2022, the CPS program will demonstrate the initial prototype missile, and will conduct testing to prove the launch system concept. In FY 2023, testing continues to mature integration objectives to support on-time Army deployment by the end of the FY and Navy integrated system demonstration in the following year. The next acquisition phase, MTA Rapid Fielding, will initiate in FY 2024 to support the ZUMWALT Class DDG deployment of the CPS system by FY 2025. In FY 2023, the CPS program will initiate the incremental funding for 5 All Up Rounds (AURs) by procuring long lead material with the remainder of the procurements, assembly, integration, and test occurring in FY 2024 and FY 2025. Incremental funding for 9 AURs that initiated in previous years will also persist in FY 2023 to enable continued assembly, integration, and test for joint flight campaign test articles, missile simulator test articles, and safety test articles with tests occurring in FY 2023 and FY 2024.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Flight Subsystem	MIPR	US Army Combat Capabilities Development Com : Picatinny Arsenal, NJ	0.000	22.660	Oct 2020	0.000		0.000		-		0.000	0.000	22.660	-
Flight Subsystem	MIPR	US Army Combat Capabilities Aviation & Missile Cen : Huntsville, AL	0.000	0.163	Oct 2020	13.137	Nov 2021	7.398	Nov 2022	-		7.398	Continuing	Continuing	Continuing
Flight Subsystem	SS/CPFF	Draper : Boston, MA	0.000	14.551	Oct 2020	1.784	Nov 2021	0.000		-		0.000	0.000	16.335	-
Flight Subsystem	C/BA	GSA : Arlington, VA	0.000	0.180	Oct 2020	0.000		0.000		-		0.000	0.000	0.180	-
Flight Subsystem	MIPR	Lawrence Livermore National Laboratory : Livermore, CA	0.000	2.990	Oct 2020	2.030	Dec 2021	3.560	Nov 2022	-		3.560	Continuing	Continuing	Continuing
Flight Subsystem	SS/CPIF	Lockheed Martin Corporation : Denver, CO	0.000	226.361	Oct 2020	459.610	Oct 2021	378.100	Oct 2022	-		378.100	Continuing	Continuing	Continuing
Flight Subsystem	MIPR	National Security Agency : Not Specified	0.000	0.138	Oct 2020	0.000		0.000		-		0.000	0.000	0.138	-
Flight Subsystem	MIPR	Sandia National Laboratory : Albuqueque, NM	0.000	33.310	Oct 2020	24.184	Dec 2021	34.178	Nov 2022	-		34.178	Continuing	Continuing	Continuing
Flight Subsystem	MIPR	US Army Space and Missile Defense Command (SMDC) : Redstone Arsenal, AL	0.000	0.032	Oct 2020	0.035	Oct 2021	13.700	Oct 2022	-		13.700	Continuing	Continuing	Continuing
Flight Subsystem	MIPR	US Air Force Research Laboratory (USAFRL) : Wright-Patterson Air Force Base, OH	0.000	0.000		0.134	Oct 2021	0.000		-		0.000	0.000	0.134	-
Flight Subsystem	MIPR	Dynetics : Hunstville, AL	0.000	0.000		31.961	Jan 2022	122.325	Dec 2022	-		122.325	0.000	154.286	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Flight Subsystem	MIPR	Southern Research : Birmingham, AL	0.000	0.000		6.067	Oct 2021	4.178	Oct 2022	-		4.178	0.000	10.245	-
Platform Integration	SS/CPIF	Lockheed Martin Corporation : Denver, CO	0.000	155.058	Oct 2020	273.165	Jan 2022	213.977	Jan 2023	-		213.977	Continuing	Continuing	Continuing
Platform Integration	WR	NAVAIR (PMA 281) : Patuxent River, MD	0.000	12.309	Oct 2020	20.955	Oct 2021	14.736	Nov 2022	-		14.736	Continuing	Continuing	Continuing
Test and Evaluation	MIPR	Yuma Proving Ground (YPG) : Yuma, AZ	0.000	0.242	Oct 2020	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Science & Technology / Advanced Capabilities	MIPR	Air Force Life Cycle Management Center : Wright-Patterson Air Force Base, OH	0.000	0.145	Oct 2020	0.000		0.000		-		0.000	0.000	0.145	-
Science & Technology / Advanced Capabilities	SS/CPFF	US Army Combat Capabilities Aviation & Missile Cen : Huntsville, AL	0.000	0.000		0.000		5.528	Nov 2022	-		5.528	Continuing	Continuing	Continuing
Science & Technology / Advanced Capabilities	C/CPFF	John Hopkins University/Applied Physics Laboratory : Laurel, MD	0.000	2.109	Oct 2020	3.541	Oct 2021	7.291	Oct 2022	-		7.291	Continuing	Continuing	Continuing
Science & Technology / Advanced Capabilities	C/CPFF	Lockheed Martin HEAT : Denver, CO	0.000	0.000		3.775	Oct 2021	0.000		-		0.000	0.000	3.775	-
Science & Technology / Advanced Capabilities	SS/CPFF	Draper : Boston, MA	0.000	8.436	Oct 2020	15.349	Nov 2021	11.928	Nov 2022	-		11.928	0.000	35.713	-
Science & Technology / Advanced Capabilities	MIPR	Lawrence Livermore National Laboratory : Livermore, CA	0.000	0.786	Oct 2020	3.121	Oct 2021	7.649	Oct 2022	-		7.649	0.000	11.556	-
Science & Technology / Advanced Capabilities	MIPR	Sandia National Laboratory : Albuqueque, NM	0.000	4.070	Oct 2020	16.163	Dec 2021	38.234	Dec 2022	-		38.234	0.000	58.467	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Science & Technology / Advanced Capabilities	C/BA	Southern Research : Birmingham, AL	0.000	0.000		0.000		4.242	Dec 2022	-		4.242	0.000	4.242	-
		Subtotal	0.000	483.540		875.011		867.024		-		867.024	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Flight Subsystem	C/CPFF	John Hopkins University/Applied Physics Laboratory : Laurel, MD	0.000	0.826	Oct 2020	1.590	Oct 2021	2.075	Oct 2022	-		2.075	Continuing	Continuing	Continuing
Flight Subsystem	WR	NSWC, Crane Division : Crane, IN	0.000	2.866	Oct 2020	2.563	Oct 2021	5.454	Oct 2022	-		5.454	Continuing	Continuing	Continuing
Flight Subsystem	WR	NSWC, Dahlgren Division : Dahlgren, VA	0.000	0.737	Oct 2020	2.178	Oct 2021	1.934	Oct 2022	-		1.934	Continuing	Continuing	Continuing
Platform Integration	C/CPFF	John Hopkins University/Applied Physics Laboratory : Laurel, MD	0.000	1.967	Oct 2020	4.003	Oct 2021	3.364	Oct 2022	-		3.364	Continuing	Continuing	Continuing
Platform Integration	WR	NSWC, Crane Division : Crane, IN	0.000	11.054	Oct 2020	11.092	Oct 2021	15.001	Oct 2022	-		15.001	Continuing	Continuing	Continuing
Platform Integration	WR	NSWC, Dahlgren Division : Dahlgren, VA	0.000	1.426	Oct 2020	1.877	Oct 2021	1.658	Oct 2022	-		1.658	Continuing	Continuing	Continuing
Platform Integration	WR	NSWC, Indian Head Division : Indian Head, MD	0.000	0.546	Oct 2020	0.540	Oct 2021	0.467	Oct 2022	-		0.467	Continuing	Continuing	Continuing
Platform Integration	WR	NSWC, Carderock Division : Carderock, MD	0.000	0.000		0.000		0.139	Oct 2022	-		0.139	0.000	0.139	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Platform Integration	WR	NUWC, Newport Division : Newport, RI	0.000	9.837	Oct 2020	0.000	Oct 2021	18.015	Oct 2022	-		18.015	Continuing	Continuing	Continuing
Platform Integration	Various	PMS 425 : Washington DC	0.000	5.188	Oct 2020	0.000	Oct 2021	3.252	Nov 2022	-		3.252	Continuing	Continuing	Continuing
Platform Integration	Various	PMS 392 : Washington DC	0.000	0.100	Oct 2020	0.000	Oct 2021	0.000		-		0.000	0.000	0.100	-
Platform Integration	Various	PMS 450 : Washington DC	0.000	15.306	Oct 2020	0.000	Oct 2021	7.000	Oct 2022	-		7.000	Continuing	Continuing	Continuing
Platform Integration	MIPR	Sandia National Laboratory : Albuqueque, NM	0.000	0.736	Oct 2020	1.127	Dec 2021	0.116	Dec 2022	-		0.116	Continuing	Continuing	Continuing
Platform Integration	C/CPFF	BAE : Washington DC	0.000	0.040	Oct 2020	0.206	Oct 2021	0.000		-		0.000	0.000	0.246	-
Platform Integration	MIPR	Lawrence Livermore National Laboratory : Livermore, CA	0.000	0.000		0.000		0.769	Oct 2022	-		0.769	0.000	0.769	-
Test and Evaluation	WR	NUWC, Newport Division : Newport, RI	0.000	0.271	Oct 2020	0.000	Oct 2021	0.595	Oct 2022	-		0.595	Continuing	Continuing	Continuing
Test and Evaluation	MIPR	US Army Space and Missile Defense Command (SMDC) : Redstone Arsenal, AL	0.000	0.000		0.511	Oct 2021	0.000		-		0.000	0.000	0.511	-
Test and Evaluation	MIPR	Vandenberg AFB, 30th SW : Vandenberg Air Force Base, CA	0.000	0.116	Oct 2020	0.000		0.000		-		0.000	0.000	0.116	-
Weapon System Integration	C/CPFF	BAE SYSTEMS : Falls Church, VA	0.000	0.253	Oct 2020	0.508	Oct 2021	0.714	Oct 2022	-		0.714	Continuing	Continuing	Continuing
Weapon System Integration	C/CPFF	Emcube : Alexandria, VA	0.000	0.000		1.000	Oct 2021	0.959	Oct 2022	-		0.959	0.000	1.959	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	Project (Number/Name) 3334 / *Conventional Prompt Strike (CPS)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Weapon System Integration	C/CPFF	JHU/APL : Laurel, MD	0.000	5.883	Oct 2020	6.616	Nov 2021	6.866	Nov 2022	-		6.866	Continuing	Continuing	Continuing
Weapon System Integration	MIPR	Lawrence Livermore National Laboratory : Livermore, CA	0.000	1.755	Oct 2020	2.456	Jan 2022	4.689	Jan 2023	-		4.689	Continuing	Continuing	Continuing
Weapon System Integration	SS/CPIF	Lockheed Martin Corporation : Denver, CO	0.000	44.345	Oct 2020	96.882	Jan 2022	25.962	Jan 2023	-		25.962	Continuing	Continuing	Continuing
Weapon System Integration	MIPR	NIWCATL : Charleston, SC	0.000	0.056	Oct 2020	0.000		0.000		-		0.000	0.000	0.056	-
Weapon System Integration	WR	NSWC, Crane Division : Crane, IN	0.000	13.889	Oct 2020	16.974	Nov 2021	20.299	Nov 2022	-		20.299	Continuing	Continuing	Continuing
Weapon System Integration	WR	NSWC, Dahlgren Division : Dahlgren, VA	0.000	0.053	Oct 2020	0.241	Jan 2022	0.000		-		0.000	0.000	0.294	-
Weapon System Integration	WR	NSWC, Indian Head Division : Indian Head, MD	0.000	1.138	Oct 2020	1.153	Nov 2021	0.639	Nov 2022	-		0.639	Continuing	Continuing	Continuing
Weapon System Integration	WR	NUWC, Newport Division : Newport, RI	0.000	0.861	Oct 2020	0.000	Nov 2021	1.536	Nov 2022	-		1.536	Continuing	Continuing	Continuing
Weapon System Integration	C/CPFF	Penn State University / Applied Research Laboratory : Penn State, PA	0.000	0.825	Oct 2020	0.784	Oct 2021	2.077	Oct 2022	-		2.077	Continuing	Continuing	Continuing
Weapon System Integration	Various	SPCIO : Washington DC	0.000	0.750	Mar 2022	0.450	Mar 2022	1.540	Apr 2023	-		1.540	Continuing	Continuing	Continuing
Weapon System Integration	C/CPFF	Techpride : Blacksburg, VA	0.000	0.058	Oct 2020	0.058	Oct 2021	0.058	Oct 2022	-		0.058	Continuing	Continuing	Continuing
Weapon System Integration	SS/CPFF	Draper : Boston, MA	0.000	0.000		0.000		0.367	Oct 2022	-		0.367	0.000	0.367	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	Project (Number/Name) 3334 / *Conventional Prompt Strike (CPS)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Weapon System Integration	C/BA	GSA : Arlington, VA	0.000	0.000		0.000		0.926	Nov 2022	-		0.926	0.000	0.926	-
Weapon System Integration	WR	NSWC, Corona : Corona, CA	0.000	0.000		0.000		0.888	Oct 2022	-		0.888	0.000	0.888	-
Weapon System Integration	C/CPFF	Peraton : Herndon, VA	0.000	0.000		0.000		0.052	Oct 2022	-		0.052	0.000	0.052	-
Weapon System Integration	MIPR	Washington Headquarters Services (WHS) : Arlington, VA	0.000	0.000		0.000		0.909	Dec 2022	-		0.909	0.000	0.909	-
Weapon System Integration	WR	NSWC, Port Hueneme : Port Hueneme, CA	0.000	0.000		0.000		0.289	Oct 2022	-		0.289	0.000	0.289	-
Science & Technology / Advanced Capabilities	MIPR	CECOM : Aberdeen Proving Ground, MD	0.000	0.401	Oct 2020	3.557	Oct 2021	0.000		-		0.000	0.000	3.958	-
Science & Technology / Advanced Capabilities	WR	NSWC, Crane Division : Crane, IN	0.000	2.651	Oct 2020	12.408	Oct 2021	27.679	Oct 2022	-		27.679	0.000	42.738	-
		Subtotal	0.000	123.934		168.774		156.288		-		156.288	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Platform Integration	C/CPFF	BAE : Falls Church, VA	0.000	0.449	Oct 2020	0.465	Oct 2021	0.000		-		0.000	0.000	0.914	-
Platform Integration	SS/IDIQ	Jacobs : Dallas, TX	0.000	0.833	Oct 2020	1.700	Nov 2021	2.814	Nov 2022	-		2.814	Continuing	Continuing	Continuing
Platform Integration	WR	Naval Air Warfare Center Weapons Division (China L : China Lake, CA	0.000	40.106	Oct 2020	83.192	Oct 2021	64.258	Oct 2022	-		64.258	Continuing	Continuing	Continuing
Platform Integration	WR	NAVFAC : Crane, IN	0.000	7.587	Oct 2020	73.160	Oct 2021	18.088	Dec 2022	-		18.088	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	Project (Number/Name) 3334 / *Conventional Prompt Strike (CPS)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Platform Integration	WR	NSWC, Crane Division : Crane, IN	0.000	0.273	Oct 2020	0.000		0.000		-		0.000	0.000	0.273	-
Test and Evaluation	MIPR	45th Space Wing : Patrick Air Force Base, FL	0.000	0.000		4.398	Oct 2021	1.516	Oct 2022	-		1.516	Continuing	Continuing	Continuing
Test and Evaluation	MIPR	Arnold Engineering Development Complex (AEDC) : Arnold Air Force Base, TN	0.000	1.199	Oct 2020	0.000		0.000		-		0.000	0.000	1.199	-
Test and Evaluation	WR	Naval Air Force, US Pacific (COMNAVAIRPAC) : San Diego, CA	0.000	0.164	Oct 2020	0.000		0.000		-		0.000	0.000	0.164	-
Test and Evaluation	C/CPFF	Hana : Honolulu, HI	0.000	0.345	Oct 2020	0.564	Feb 2022	0.449	Feb 2023	-		0.449	Continuing	Continuing	Continuing
Test and Evaluation	C/CPFF	JHU/APL : Laurel, MD	0.000	1.698	Oct 2020	3.703	Oct 2021	3.292	Oct 2022	-		3.292	Continuing	Continuing	Continuing
Test and Evaluation	MIPR	Lawrence Livermore National Laboratory : Livermore, CA	0.000	2.997	Oct 2020	7.017	Oct 2021	10.874	Oct 2022	-		10.874	Continuing	Continuing	Continuing
Test and Evaluation	SS/CPIF	Lockheed Martin Corporation : Denver, CO	0.000	11.846	Oct 2020	15.921	Oct 2021	7.834	Oct 2022	-		7.834	Continuing	Continuing	Continuing
Test and Evaluation	MIPR	NASA Goddard Space Flight Center Wallops Flight Fa : Greenbelt, MD	0.000	1.369	Oct 2020	1.684	Oct 2021	1.720	Oct 2022	-		1.720	Continuing	Continuing	Continuing
Test and Evaluation	Various	NAVAIR COMMAND : Patuxent River, MD	0.000	1.577	Oct 2020	0.000		0.000		-		0.000	0.000	1.577	-
Test and Evaluation	WR	Naval Air Warfare Center Weapons Division (China L : China Lake, CA	0.000	0.000		0.187	Oct 2021	3.758	Oct 2022	-		3.758	0.000	3.945	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	Project (Number/Name) 3334 / *Conventional Prompt Strike (CPS)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	Sub Allot	NOTU : Cape Canaveral, FL	0.000	0.121	Oct 2020	0.000		0.000		-		0.000	0.000	0.121	-
Test and Evaluation	WR	NSWC, Carderock Division : Carderock, MD	0.000	0.695	Oct 2020	0.000		0.000		-		0.000	0.000	0.695	-
Test and Evaluation	WR	NSWC, Crane Division : Crane, IN	0.000	1.240	Oct 2020	3.252	Oct 2021	2.872	Oct 2022	-		2.872	Continuing	Continuing	Continuing
Test and Evaluation	WR	NSWC, Dahlgren Division : Dahlgren, VA	0.000	4.375	Oct 2020	22.655	Dec 2021	13.029	Oct 2022	-		13.029	Continuing	Continuing	Continuing
Test and Evaluation	MIPR	Pacific Missile Range Facility : Hawaii	0.000	4.977	Oct 2020	0.000		12.410	Oct 2022	-		12.410	Continuing	Continuing	Continuing
Test and Evaluation	MIPR	Sandia National Laboratory : Albuqueque, NM	0.000	9.401	Oct 2020	16.269	Oct 2021	4.385	Oct 2022	-		4.385	Continuing	Continuing	Continuing
Test and Evaluation	WR	Surface Combat Systems Center Wallops (SCSC) : Wallops Island, VA	0.000	0.142	Oct 2020	0.388	Oct 2021	0.000		-		0.000	0.000	0.530	-
Test and Evaluation	Various	various : range : Not Specified	0.000	9.000	Oct 2020	3.742	Oct 2021	0.000		-		0.000	0.000	12.742	-
Weapon System Integration	MIPR	Missile and Space Intelligence Center (MSIC) : Redstone Arsenal, AL	0.000	0.420	Oct 2020	0.608	Oct 2021	0.466	Oct 2022	-		0.466	Continuing	Continuing	Continuing
Weapon System Integration	MIPR	National Air and Space Intelligence Center : Wright-Patterson Air Force Base, OH	0.000	0.000		0.404	Oct 2021	0.350	Oct 2022	-		0.350	Continuing	Continuing	Continuing
Weapon System Integration	MIPR	National Ground Intelligence Center (NGIC) : Charlottesville, VA	0.000	0.000		0.134	Oct 2021	0.000		-		0.000	0.000	0.134	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Weapon System Integration	WR	NSWC, Carderock Division : Carderock, MD	0.000	0.039	Oct 2020	0.319	Oct 2021	0.000		-		0.000	0.000	0.358	-
Weapon System Integration	WR	NSWC, Dahlgren Division : Dahlgren, VA	0.000	4.522	Oct 2020	8.415	Dec 2021	8.266	Dec 2022	-		8.266	Continuing	Continuing	Continuing
		Subtotal	0.000	105.375		248.177		156.381		-		156.381	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Flight Subsystem	C/CPFF	Peraton : Herndon, VA	0.000	0.052	Oct 2020	0.100	Oct 2021	0.000		-		0.000	0.000	0.152	-
Weapon System Integration	C/CPFF	EMCUBE : Alexandria, VA	0.000	0.160	Oct 2020	0.000		0.000		-		0.000	0.000	0.160	-
Weapon System Integration	C/CPFF	JHU/APL : Laurel, MD	0.000	2.009	Oct 2020	1.224	Oct 2021	0.724	Oct 2022	-		0.724	Continuing	Continuing	Continuing
Weapon System Integration	SS/CPIF	Lockheed Martin Corporation : Denver, CO	0.000	14.028	Oct 2020	15.182	Feb 2022	11.327	Feb 2023	-		11.327	Continuing	Continuing	Continuing
Weapon System Integration	WR	NSWC, Crane Division : Crane, IN	0.000	9.809	Oct 2020	6.263	Oct 2021	7.560	Oct 2022	-		7.560	Continuing	Continuing	Continuing
Weapon System Integration	C/CPFF	Delta Resources, INC (VTG) : Chantilly, VA	0.000	3.620	Oct 2020	5.501	Mar 2022	5.737	Mar 2023	-		5.737	Continuing	Continuing	Continuing
		Subtotal	0.000	29.678		28.270		25.348		-		25.348	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	742.527		1,320.232		1,205.041		-		1,205.041	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	Project (Number/Name) 3334 / *Conventional Prompt Strike (CPS)*	

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

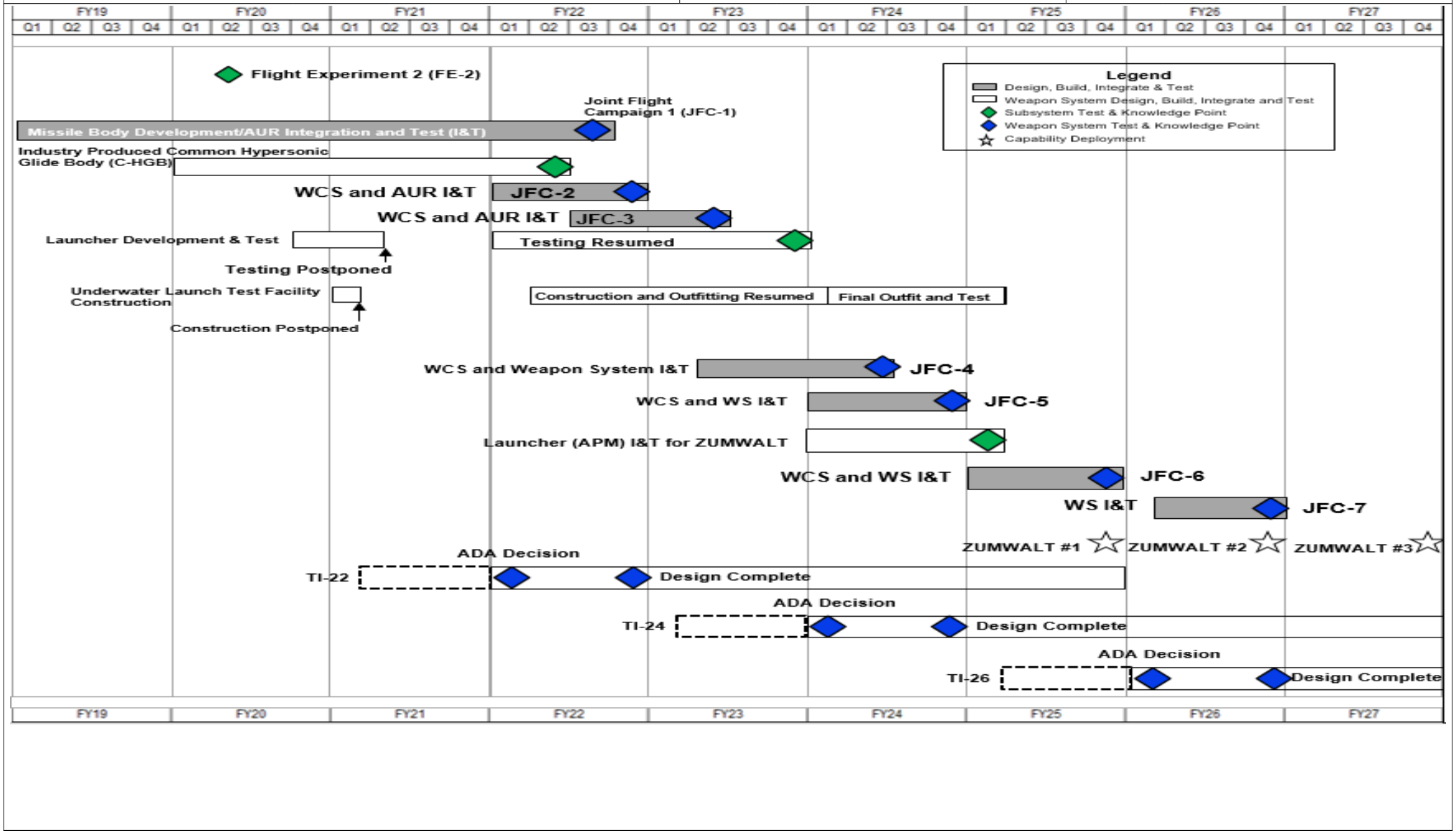

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3334				
Missile Body Development/AUR I&T	1	2021	3	2022
Industry Produced Common Hypersonic Glide Body (C-HGB)	1	2021	2	2022
Launcher Development & Test	1	2021	2	2021
Underwater Launch Test Facility Construction	1	2021	2	2021
TI-22	2	2021	4	2025
TI-22 ADA Decision	1	2022	1	2022
WCS & AUR I&T Build 2	1	2022	4	2022
Launcher Development & Test Resumed	1	2022	4	2023
Underwater Launch Test Facility Construction and Outfitting Resumed	2	2022	1	2025
JFC-1	3	2022	3	2022
WCS & AUR I&T Build 3	3	2022	2	2023
TI-22 Design Complete	4	2022	4	2022
JFC-2	4	2022	4	2022
WCS and Weapon System I&T Build 4	2	2023	2	2024
TI-24	2	2023	4	2027
JFC-3	2	2023	2	2023
WCS and WS I&T Build 5	1	2024	4	2024
Launcher (APM) I&T for ZUMWALT	1	2024	1	2025
TI-24 ADA Decision	1	2024	1	2024
JFC-4	2	2024	2	2024
JFC-5	4	2024	4	2024

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TI-24 Design Complete	4	2024	4	2024
WCS and WS I&T Build 6	1	2025	4	2025
TI-26	2	2025	4	2025
JFC-6	4	2025	4	2025
ZUMWALT #1 Capability Deployment	4	2025	4	2025
TI-26 ADA Decision	1	2026	1	2026
WS I&T Build 7	2	2026	4	2026
ZUMWALT #2 Capability Deployment	4	2026	4	2026
JFC-7	4	2026	4	2026
TI-26 Design Complete	4	2026	4	2026
ZUMWALT #3 Capability Deployment	4	2027	4	2027

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	Project (Number/Name) 9999 / *Congressional Adds*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
9999: *Congressional Adds*	0.000	4.827	5.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.827
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Neutron radiography (N-ray) is a critical nondestructive inspection technique used to complement X-ray. N-ray and X-ray are used to detect defects and proper assembly of a variety of energetics, including Cartridge and Propellant Actuated Devices (CAD/PADs). The US Navy intends to continue to employ neutron radiographic inspection to support energetics programs for the foreseeable future. Historically, nuclear reactors have been the only sources to perform high quality, high throughput neutron radiography. The energetics supply chain has been heavily reliant on a single commercial nuclear reactor that has been operating since the 1950s with closure imminent This congressional add allows research and development to provide a site survey and preparatory improvement of facilities to support a high energy ion accelerator capability.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022
Congressional Add: Neutron Radiographic Inspection of Cartridge and Propellant Actuated Devices ***FY 2021 Accomplishments:*** N/A ***FY 2022 Plans:*** N/A	4.827	0.000
Congressional Add: Cross-service hypersonic testing capabilities through adv. concepts tech. eval. ***FY 2021 Accomplishments:*** N/A ***FY 2022 Plans:*** - Accelerates development of SWIL and HWIL test capabilities at NSWC Crane to provide 1) a development capability resource for emerging technology providers and small business and 2) independent assessments of technical maturation progress against technology maturation plans. - Accelerates development of alternate navigation technologies to improve performance in identified threat environments. Details are available at a higher classification level.	0.000	5.000
Congressional Adds Subtotals	4.827	5.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 9999 / *Congressional Adds*

D. Acquisition Strategy

CAD/PAD JPO and NSWC IHD are performing site and facility assessments, developing requirements, and performing a safety analyses for an accelerator-based neutron radiography capability to be located at NSWC IHD other partner location.

In parallel to the government work above, a contract is planned to award for engineering support to perform modeling and safety analyses to ensure the system is safe to operate in the Navy facility, as well as assist the Navy with any regulatory submittals required to own and operate the system. System component hardware procurement will be phased in once requirements are defined.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 9999 / *Congressional Adds*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C675	WR	NSWC : Indian Head	0.000	1.866	Jul 2021	0.000		0.000		-		0.000	0.000	1.866	-
C675	TBD	Pheonix, LLC : Wisonsin	0.000	2.961	Apr 2022	0.000		0.000		-		0.000	0.000	2.961	-
C763	WR	NSWC, Crane Division : Crane, IN	0.000	0.000		2.000	May 2022	0.000		-		0.000	0.000	2.000	-
C763	MIPR	Sandia National Laboratory : Livermore, CA	0.000	0.000		3.000	May 2022	0.000		-		0.000	0.000	3.000	-
		Subtotal	0.000	4.827		5.000		0.000		-		0.000	0.000	9.827	N/A

	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	4.827		5.000		0.000		-		0.000	0.000	9.827	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 9999 / *Congressional Adds*

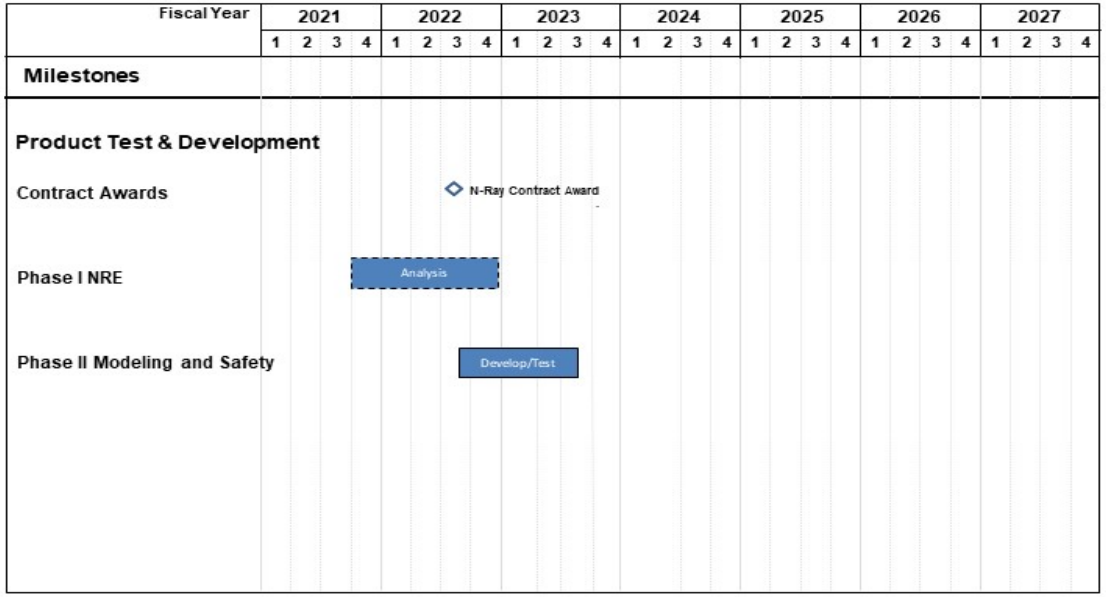

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0605518N / *CONVENTIONAL PROMPT STRIKE (CPS)*	**Project (Number/Name)** 9999 / *Congressional Adds*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
CAD/PAD N-RAY				
Product Development: Contract Awards: FY21 PHEONIX, LLC CONTRACT	3	2022	3	2022
Product Development: PHASE I NRE: PHASE I NRE	4	2021	4	2022
Product Development: PHASE II MODEL SAFETY: PHASE II MODEL SAFETY	3	2022	4	2022