Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Navy	Date: March 2019
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 0604659N *I (U)Precision Strike Weapons Development Program*

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	12.495	20.279	91.833	718.148	-	718.148	1,169.920	1,404.290	1,462.656	994.888	Continuing	Continuing
3334: *Conventional Prompt Strike (CPS)*	0.000	0.000	11.250	593.120	-	593.120	1,061.629	1,303.884	1,387.045	899.420	Continuing	Continuing
3378: *Next Generation Land Attack Weapon (NGLAW)*	12.495	1.644	3.966	19.722	-	19.722	14.499	59.777	69.110	88.845	Continuing	Continuing
3407: *Air Launched Decoy Development*	0.000	18.635	76.617	105.306	-	105.306	93.792	40.629	6.501	6.623	Continuing	Continuing

A. Mission Description and Budget Item Justification

Initial and continuing development of strike weapons consisting of armament, munitions, and weapon subsystems to allow for the horizontal integration among current and future weapon system capabilities to provide enhanced anti-surface and land strike capabilities in a demanding Anti-Access Area-Denial environment. This program provides for the development of weapon and weapon system technologies to address future requirements for enhanced and alternative weapon system capability requirements that include selectable output weapons, low collateral damage weapons, precision lethality weapons, area weapons, alternative warhead technology, Insenstive Munitions (IM), scaled munitions, Department of Defense (DoD) fuzing systems, sensors, extended range weapons and precision guided training round technology.

Prior to FY 2019, Conventional Prompt Strike efforts were solely funded through Defense Wide Research and Development funding. In FY 2020, CPS efforts in this project are to support Navy integration efforts, conduct trade studies of system alternatives and risk reduction technology maturation efforts as the CPS program transitions to Navy in FY 2020.

In FY 2020, CPS efforts in this project are to support Navy integration efforts, conduct trade studies of system alternatives and risk reduction technology maturation efforts.

The Precision Strike Weapons Development Program Element supports the enhancement of Conventional Prompt Strike (CPS) war fighting capabilities. The current program emphasis is on demonstrating component and subsystem technology maturity with risk reduction initiatives highlighted by flight tests. The program funds the design, development, and experimentation of hypersonic subsystems including: boosters, conventional warheads, thermal protection systems, guidance systems, payload modules, launch systems, fire control systems, support equipment, underwater launch (UWL) facility updates, and hypersonic glide bodies. The development efforts shall lead to a flight system that: Is non-ballistic over the majority of the flight path; Controls stage drop; Provides positive control and precision accuracy from launch to impact; Provides adequate cross-range/maneuverability to avoid over-flight issues; and Provides prompt lethal effects on targets. To support these development activities, the program procures modeling and simulation capabilities, ground testing, command and control interfaces, test range support, and launch system infrastructure. Additionally, expert resources address strategic policy and treaty issues. Program timing will be driven by the outcome of flight and ground test events.

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Navy	Date: March 2019
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 0604659N *I (U)Precision Strike Weapons Development Program*

The Precision Strike Weapons Development Program Element (PE) supports the Next Generation Strike Weapon (NGSW) Family of Systems (FoS) based on the NGLAW Analysis of Alternatives (AoA) completed with results briefed out to OSD. NGSW FoS more accurately reflects the surface/submarine capabilities for land-attack and maritime strike that the AoA results identified for the most capable and economic solutions fielding incrementally between 2020 and 2032. NGSW FoS Increments I and II will leverage mature as well as emerging technologies vice developing a single weapon. NGSW funding will maintain the security environment (enclave), facility, and study team to enable continuing analysis efforts across the FoS. The NGSW enclave ensures the Navy is able to maintain the most up to date modeled threats and validate the effectiveness of current US weapons, offensive and defensive, as well as future systems and concepts developed by industry and other DoD organizations. Maintaining this capability allows expedited analysis of systems and fully informed investment decisions.

The Precision Strike Weapons Development Program Element (PE) supports the air-launched electronic warfare (EW) systems capability; through the integration of a Navy variant of the Miniature Air Launched Decoy (MALD). EW is an integral war-fighting effect supporting combatant commander integrated priorities, as well as Joint or Coalition operations. EW systems influence, deceive, disrupt, degrade, deny and destroy threats throughout the electromagnetic spectrum to airborne and air-launched systems and their operations. EW includes air-launched electronic attack (EA) as well as elements of electronic support (ES) and electronic protection (EP). EA provides self-protection capabilities to other weapon systems through active and passive measures that deceive threats to airborne and air-launched systems and their operations by using kinetic and non-kinetic means to defeat threats that rely on the electromagnetic spectrum (Radio Frequency (RF), Electro-Optical (EO), Infrared (IR). The ES capabilities support the collection, analysis, and dissemination of information related to the detection, geo-location, characterization, and identification of threats to airborne and air-launched systems and their operations. An air-launched EW system with stand-in capability increases the range and duration of EW systems while providing flexibility to commanders for employment.

MALD is integral to realizing the National Defense Strategy of combat-credible military forces to deter war, protect the security of our nation and to enable the Joint Force to win should deterrence fail. The development and acquisition of MALD has been structured to be fielded at a pace relevant to maintain overmatch against long-term strategic competition. Specifically MALD directly contributes to building a more lethal force and is a critical enabler for joint lethality in contested environments; deterring adversaries from aggression and evolves innovative operational concepts.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPES because it includes all efforts necessary to evaluate integrated technologies, representative models or prototype systems in a high fidelity and realistic operating environment.

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Navy					Date: March 2019
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 0604659N *I (U)Precision Strike Weapons Development Program*		
B. Program Change Summary ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**
Previous President's Budget	31.315	132.818	455.970	-	455.970
Current President's Budget	20.279	91.833	718.148	-	718.148
Total Adjustments	-11.036	-40.985	262.178	-	262.178
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-40.985			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.250	0.000			
• SBIR/STTR Transfer	-0.554	0.000			
• Program Adjustments	0.000	0.000	262.211	-	262.211
• Rate/Misc Adjustments	0.000	0.000	-0.033	-	-0.033
• Congressional Directed Reductions Adjustments	-10.732	-	-	-	-

Change Summary Explanation

PU 3334

The CPS schedule has been updated to reflect Technology Maturation and Risk Reduction (TMRR) and Engineering Manufacturing and Development (EMD) associated with the design, development, and experimentation of boosters,
conventional warheads, thermal protection systems, guidance systems, test range modernization, and mission planning and enabling capabilities.

FY2020 program increase supports integration efforts associated with the CPS program which shifts from OSD to a Navy program of record as well as the design, development, and experimentation of hypersonic subsystems including:
boosters, conventional warheads, thermal protection systems, guidance systems, payload modules, launch systems, fire control systems, support equipment, underwater launch (UWL) facility updates, and hypersonic glide
bodies.

PU 3378

FY2020 was decreased to invest in offensive hypersonics reducing PB19 funding by $34.5 million in FY20.

PU 3407

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Navy	Date: March 2019
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 0604659N *I (U)Precision Strike Weapons Development Program*

The FY2020 funding request was reduced by $3.0M to account for the availability of prior year execution balances.

FY2020 will continue MALD EMD efforts. Funding includes all components of All Up Round (AUR).

Incorporate Test and Evaluation events.

The FY 2019 to FY 2020 increase of $28.689 provides for MALD-N integration activities and subsystem level testing in support of QRA efforts.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604659N / *(U)Precision Strike Weapons Development Program*	Project (Number/Name) 3334 / *Conventional Prompt Strike (CPS)*	

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
3334: *Conventional Prompt Strike (CPS)*	0.000	0.000	11.250	593.120	-	593.120	1,061.629	1,303.884	1,387.045	899.420	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Precision Strike Weapons Development Program Element supports the enhancement of Conventional Prompt Strike (CPS) war fighting capabilities. The current program emphasis is on demonstrating component and subsystem technology maturity with risk reduction initiatives highlighted by flight tests. The program funds the design, development, and experimentation of hypersonic subsystems including: boosters, conventional warheads, thermal protection systems, guidance systems, payload modules, launch systems, fire control systems, support equipment, underwater launch (UWL) facility updates, and hypersonic glide bodies. The development efforts shall lead to a flight system that: Is non-ballistic over the majority of the flight path; Controls stage drop; Provides positive control and precision accuracy from launch to impact; Provides adequate cross-range/maneuverability to avoid over-flight issues; and Provides prompt lethal effects on targets. To support these development activities, the program procures modeling and simulation capabilities, ground testing, command and control interfaces, test range support, and launch system infrastructure. Additionally, expert resources address strategic policy and treaty issues. Program timing will be driven by the outcome of flight and ground test events.

Prior to FY 2019, Conventional Prompt Strike efforts were solely funded through Defense Wide Research and Development funding. In FY 2020, CPS efforts in this project are to support Navy integration efforts, conduct trade studies of system alternatives and risk reduction technology maturation efforts as the CPS program transitions to Navy in FY 2020.
In FY 2020, CPS efforts in this project are to support Navy integration efforts, conduct trade studies of system alternatives and risk reduction technology maturation efforts.

The CPS schedule has been updated to reflect Technology Maturation and Risk Reduction (TMRR) and Engineering Manufacturing and Development (EMD) associated with the design, development, and experimentation of boosters, conventional warheads, thermal protection systems, guidance systems, test range modernization, and mission planning and enabling capabilities.

FY2020 program increase from FY19 to FY20 supports integration efforts associated with the CPS program which shifts from OSD to a Navy program of record. The FY19 to FY20 increase is largely associated with the design, development, and experimentation of hypersonic subsystems including: boosters, conventional warheads, thermal protection systems, guidance systems, payload modules, launch systems, fire control systems, support equipment, underwater launch (UWL) facility updates, and hypersonic glide bodies.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Conventional Prompt Strike (CPS)	0.000	11.250	593.120	0.000	593.120

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Articles:	-	-	-	-	-

Description: The Precision Strike Weapons Development Program Element supports the enhancement of Conventional Prompt Strike (CPS) warfighting capabilities. Program emphasis is on demonstrating component and subsystem technology maturity with risk reduction initiatives highlighted by flight tests. The program funds the design, development, and experimentation of boosters, payload delivery vehicles (PDVs), non-nuclear warheads, thermal protection systems, guidance systems, test range modernization, and mission planning and enabling capabilities. The development efforts shall lead to a flight system that is non-ballistic over the majority of the flight path, controlled stage drop over Broad Ocean Area, positive control from launch to impact, adequate cross-range/maneuverability to avoid overflight issues, and effects on targets in a very short-period of time from execution order. To support these development activities, the program procures modeling and simulation capabilities, ground testing, command and control interfaces, test range support, and launch system infrastructure. Additionally, expert resources address strategic policy and treaty issues. Program timing will be driven by the outcome of flight and ground test events. Prior to FY 2019, Conventional Prompt Strike efforts were solely funded through Defense Wide Research and Development funding. In FY 2020, CPS efforts in this project are to support Navy integration efforts, conduct trade studies of system alternatives and risk reduction technology maturation efforts as the CPS program begins to transition to Navy in FY 2020.

FY 2019 Plans:
(U) FY 2019 PLAN

(U) ($11.250M)

FY 2019 efforts include:

(U) Conduct trade studies of system alternatives. Evaluations to include: Architecture, Lethality, Survivability, Affordability, Maintainability, Facilitation needs, and sled tests.
(U) Conduct risk reduction technology maturation efforts including: Common weapons launcher integration activity, shipboard/flight systems trade space evaluation and sensitivity analyses, communications analysis, CONOPs evaluations and recommendations, warhead advancements and dual/use capability, and a range of survivability technology advancements.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
(U) Support platform integration activities as needed potentially for sub-surface and/or surface ships and other leading architectures. ***FY 2020 Base Plans:*** (U) FY 2020 PLAN (U) ($593.120M) FY 2020 efforts include: (U) Building off the success of FE-1 in FY 2018, conduct of Flight Experiment (FE-2) to advance the HGB design and aid in technology transition to industry. (U) Leveraging defense-wide research and development funds provided in FY19 (PE 0604165D8Z), FY20 weapon system development and integration activities include the design, development, and experimentation of hypersonic subsystems including: boosters; conventional warheads; thermal protection systems; guidance systems; payload modules; launch systems; fire control systems; support equipment; and UWL facility updates. These development efforts shall lead to a flight system that: Is non-ballistic over the majority of the flight path; Controls stage drop; Provides positive control and precision accuracy from launch to impact; Provides adequate cross-range/maneuverability to avoid over-flight issues; and Provides Prompt lethal effects on targets. (U) Begin missile procurement to support prototyping activities and hypersonic glide bodies (C-HGB). Includes identifying and procuring initial materials and parts for missile test assets required for Navy FE-3 and production ramp-up. FE-3 further enhances the capability of the C-HGB and includes the development and demonstration of the Hypersonic Booster Technology Demonstration (HBTD) booster and associated missile body hardware compatible with deployment from submerged platforms. (U) The program will continue to develop, model, and refine CPS architecture designs, including hardware, software, computer software and computer software documentation and operator requirement allocations and support of external system interfaces. (U) Further develop a CPS weapons systems performance requirements specification and an integrated verification plan. Includes the development, allocation, and verification of all performance, design, and operational requirements at the system, subsystem, element, and lower levels of the CPS weapon system.					

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
(U) Continue to define and document all interfaces for the CPS weapon system and the sea-based platform and between internal Navy CPS weapon system subsystems/elements. (U) Continue to establish a comprehensive System Safety Program in accordance with MIL-STD-882E and develop a CPS System Safety Plan. (U) Continue to establish a comprehensive Integration and Test (I&T) Program that addresses all CPS test activities for component-level, subsystem-level,system-level, interface, integration, environmental, safety, security/cyber, logistics, and flight tests. (U) Conduct Critical Design Review of booster, missile, All-up Round (AUR), Advanced Payload Module (APM), and Weapon Control System in FY20. ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** (U) The CPS schedule has been updated to reflect Technology Maturation and Risk Reduction (TMRR) and Engineering Manufacturing and Development (EMD) associated with the design, development, and experimentation of boosters, conventional warheads, thermal protection systems, guidance systems, test range modernization, and mission planning and enabling capabilities. (U) FY2020 program increase of $581.87M supports integration efforts associated with the CPS program which shifts from OSD to a Navy program of record. The FY19 to FY20 increase is largely associated with the design, development, and experimentation of hypersonic subsystems including: boosters, conventional warheads, thermal protection systems, guidance systems, payload modules, launch systems, fire control systems, support equipment, underwater launch (UWL) facility updates, and hypersonic glide bodies. Detailed additional information available at a higher classification.					
Accomplishments/Planned Programs Subtotals	0.000	11.250	593.120	0.000	593.120

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

The acquisition strategy will be influenced through the completion of trade studies of system alternatives and risk reduction technology maturation efforts through various contracts and warfare centers.

E. Performance Metrics

Program reviews and assessments of R&D testing results.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Conventional Prompt Strike Weapon System	WR	Naval Air Weapons Station : China Lake, CA	0.000	0.000		0.000		84.520	Dec 2019	-		84.520	Continuing	Continuing	Continuing
Conventional Prompt Strike Weapon System	C/CPFF	Systems Planning & Analysis : Alexandria, VA	0.000	0.000		0.000		2.700	Dec 2019	-		2.700	Continuing	Continuing	Continuing
Conventional Prompt Strike Weapon System	MIPR	Lawrence Livermore National Laboratory : Livermore, CA	0.000	0.000		4.610	Feb 2019	0.000		-		0.000	Continuing	Continuing	Continuing
Conventional Prompt Strike Weapon System	SS/CPFF	Lockheed Martin Corporation : Sunnyvale, CA	0.000	0.000		0.000		1.760	Dec 2019	-		1.760	Continuing	Continuing	Continuing
Conventional Prompt Strike Weapon System	MIPR	Missile and Space Intelligence Center : Huntsville, AL	0.000	0.000		0.000		1.040	Dec 2019	-		1.040	Continuing	Continuing	Continuing
Conventional Prompt Strike Weapon System	WR	Naval Undersea Warfare Division : Newport, RI	0.000	0.000		0.000		1.040	Dec 2019	-		1.040	Continuing	Continuing	Continuing
Conventional Prompt Strike Weapon System	C/CPFF	Hana Industries : Honolulu, HI	0.000	0.000		0.000		0.450	Dec 2019	-		0.450	Continuing	Continuing	Continuing
Conventional Prompt Strike Weapon System	MIPR	USAF - Holloman : Alamogordo, NM	0.000	0.000		1.100	Feb 2019	0.000		-		0.000	Continuing	Continuing	Continuing
Conventional Prompt Strike Weapon System	MIPR	United States Army : Various	0.000	0.000		0.000		26.940	Dec 2019	-		26.940	Continuing	Continuing	Continuing
Conventional Prompt Strike Weapon System	WR	Naval Surface Warfare Center Crane : Crane, IN	0.000	0.000		0.000		18.780	Dec 2019	-		18.780	Continuing	Continuing	Continuing
Conventional Prompt Strike Weapon System	SS/CPFF	Johns Hopkins Univ. Applied Physics Lab : Baltimore, MD	0.000	0.000		0.000		16.490	Dec 2019	-		16.490	Continuing	Continuing	Continuing
Conventional Prompt Strike Weapon System	Various	Various : Various	0.000	0.000		1.100	Feb 2019	11.410	Dec 2019	-		11.410	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604659N / *(U)Precision Strike Weapons Development Program*	Project (Number/Name) 3334 / *Conventional Prompt Strike (CPS)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Flight Subsystem	SS/CPFF	Lockheed Martin Corporation : Sunnyvale, CA	0.000	0.000		0.000		171.590	Dec 2019	-		171.590	Continuing	Continuing	Continuing
Flight Subsystem	MIPR	Sandia National Laboratory : Washington, DC	0.000	0.000		0.000		151.900	Dec 2019	-		151.900	Continuing	Continuing	Continuing
Flight Subsystem	C/CPFF	Dynetics : Huntsville, AL	0.000	0.000		0.000		15.850	Dec 2019	-		15.850	Continuing	Continuing	Continuing
Flight Subsystem	WR	Naval Surface Warfare Center : Crane, IN	0.000	0.000		0.000		10.670	Dec 2019	-		10.670	Continuing	Continuing	Continuing
Flight Subsystem	SS/CPFF	Charles Stark Draper Laboratories : Boston, MA	0.000	0.000		0.000		8.290	Dec 2019	-		8.290	Continuing	Continuing	Continuing
Flight Subsystem	WR	Naval Surface Warfare Center : Dahlgren, VA	0.000	0.000		0.000		4.930	Dec 2019	-		4.930	Continuing	Continuing	Continuing
Platform Subsystem	WR	NAVSEA : Washington, DC	0.000	0.000		1.870	Feb 2019	21.760	Dec 2019	-		21.760	Continuing	Continuing	Continuing
Platform Subsystem	SS/CPFF	Lockheed Martin Corporation : Sunnyvale, CA	0.000	0.000		0.000		8.280	Dec 2019	-		8.280	Continuing	Continuing	Continuing
Platform Subsystem	SS/CPFF	Johns Hopkins Univ. Applied Physics Lab : Baltimore, MD	0.000	0.000		0.000		2.590	Dec 2019	-		2.590	Continuing	Continuing	Continuing
Platform Subsystem	WR	Naval Surface Warfare Center : Dahlgren, VA	0.000	0.000		0.000		2.070	Dec 2019	-		2.070	Continuing	Continuing	Continuing
Advanced Research and Development	C/BA	Lawrence Livermore National Laboratory : Livermore, CA	0.000	0.000		2.570	Feb 2019	13.470	Dec 2019	-		13.470	Continuing	Continuing	Continuing
Advanced Research and Development	SS/CPFF	Charles Stark Draper Laboratories : Boston, MD	0.000	0.000		0.000		9.330	Dec 2019	-		9.330	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Advanced Research and Development	MIPR	Sandia National Laboratory : Washington, DC	0.000	0.000		0.000		6.220	Dec 2019	-		6.220	Continuing	Continuing	Continuing
Advanced Research and Development	SS/CPFF	Johns Hopkins Univ. Applied Physics Lab : Baltimore, MD	0.000	0.000		0.000		1.040	Dec 2019	-		1.040	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		11.250		593.120		-		593.120	Continuing	Continuing	N/A

	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		11.250		593.120		-		593.120	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

Fiscal Year	2018				2019				2020				2021				2022				2023				2024			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Project 3334					TMRR				EMD																			
Contract Awards									Δ Contract Award				Δ Contract Award				Δ Contract Award				Δ Contract Award				Δ Contract Award			
					Platform Integration efforts Perform Sled Test Perform Trade Studies				Continue C-HGB Design Conduct FE-2				Continue C-HGB Design Efforts In Air Launch Test				Start Prototyping Efforts For C-HGB UWL Tests Begin Conduct FE-3				Continue Prototyping Efforts For C-HGB Continue UWL Tests				Continue Prototyping Efforts For C-HGB Continue UWL Tests			

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3334 / *Conventional Prompt Strike (CPS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3334				
Project 3334: Technology Maturation and Risk Reduction	1	2019	4	2019
Project 3334: Engineering and Manufacturing Development	4	2019	4	2024

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604659N / *(U)Precision Strike Weapons Development Program*	Project (Number/Name) 3378 / *Next Generation Land Attack Weapon (NGLAW)*	

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
3378: *Next Generation Land Attack Weapon (NGLAW)*	12.495	1.644	3.966	19.722	-	19.722	14.499	59.777	69.110	88.845	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Funding is provided for the Next Generation Strike Weapon (NGSW) Family of Systems (FoS) based on the NGLAW Analysis of Alternatives (AoA) completed with results briefed out to OSD. NGSW FoS more accurately reflects the surface/submarine capabilities for land-attack and maritime strike that the AoA results identified for the most capable and economic solutions fielding incrementally between 2020 and 2032. NGSW FoS Increments I and II will leverage mature as well as emerging technologies vice developing a single weapon. NGSW funding will maintain the security environment (enclave), facility, and study team to enable continuing analysis efforts across the FoS. The NGSW enclave ensures the Navy is able to maintain the most up to date modeled threats and validate the effectiveness of current US weapons, offensive and defensive, as well as future systems and concepts developed by industry and other DoD organizations. Maintaining this capability allows expedited analysis of systems and fully informed investment decisions. Further funding supports investment for technologies which enable Increment II capabilities (additional details are held at a higher classification).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Next Generation Land Attack Weapon (NGLAW)	1.644	3.966	19.722	0.000	19.722
Articles:	-	-	-	-	-
FY 2019 Plans: Efforts include conducting analysis and other activities to refine requirements, identify cost, schedule, and technical risks associated with the concepts identified in the NGLAW Analysis of Alternatives (AoA), conducting analysis in support of DARPA efforts (Upper Cut), beginning efforts for execution of the SLCM-N AoA, and OASuW Integration study efforts. Concurrently, the NGSW Enclave efforts will include annual security and IT updates, and the study team will conduct the annual update of threat systems and US offensive and defensive systems to ensure the enclave remains fully informed to assist senior leadership in investment decisions.					
FY 2020 Base Plans: Continue annual enclave security and IT updates, annual DSS updates for latest threat data and ownship defense, multi-domain assessment, expanding the US capabilities database, mission integration, and lifecycle cost estimate updates as applicable. In support of NGSW FoS and continued Offensive Anti-Surface Warfare (OASUW) analysis, modify TACSITs and threat postures for air launched weapons, identify new launch points					

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3378 / *Next Generation Land Attack Weapon (NGLAW)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
and concepts for employment, mission integration and cost estimate updates as applicable. Conduct an Analysis of Alternatives study in support of Nuclear Missile Sea-launched Cruise Missile (SLCM-N). Also, to support Increment II development, funding will be allocated for technologies to enable capabilities identified in the NGLAW AoA for integration in future systems. Additional details are held at a higher classification. ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** FY 2020 has actually been decreased to invest in offensive hypersonics. However the FY2019 to FY2020 increase directly relates to NGLAW AoA results necessitating a plan/strategy change to NGSW FoS, maintaining the security environment for fully informed investment decisions, including supporting an Analysis of Alternatives for Nuclear Missile Sea-launched Cruise Missile (SLCM-N).					
Accomplishments/Planned Programs Subtotals	1.644	3.966	19.722	0.000	19.722

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

NGSW FoS more accurately reflects the multi-domain capabilities for land-attack and maritime strike that the NGLAW AoA results identified for the most capable and economic solutions fielding incrementally between 2020 and 2032. NGSW FoS Increments I and II will leverage mature as well as emerging technologies vice developing a single weapon. NGSW funding will maintain the security environment (enclave), facility, and study team to enable continuing analysis efforts across the FoS. The NGSW enclave ensures the Navy is able to maintain the most up to date modeled threats and validate the effectiveness of current US weapons, offensive and defensive, as well as future systems and concepts developed by industry and other DoD organizations. Maintaining the enclave allows expedited analysis of systems and fully informed investment decisions.

The SLCM-N recently completed the Navy R3B process and will shortly enter the Knowledge Management and Decision Support System (KMDS) for Joint Staff validation. OSD CAPE is refining their AoA guidance, but will likely direct Navy to investigate options derived from the NGLAW AoA and derivatives. Once approved and received, Navy will begin the AoA.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
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NGSW FoS funding will support Increment II development of technologies to enable capabilities identified in the NGLAW AoA for integration in future systems. Additional details are held at a higher classification.

E. Performance Metrics

Annual enclave security and IT updates, annual DSS updates for latest threat data and ownship defense, multi-domain assessment, expanding the US capabilities database, mission integration, and lifecycle cost estimate updates as applicable. Complete excursion studies and/or AoAs as required.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy		Date: March 2019
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
INC II Technologies	C/CPFF	TBD : TBD	0.000	0.000		0.000		12.300	Mar 2020	-		12.300	0.000	12.300	-
		Subtotal	0.000	0.000		0.000		12.300		-		12.300	0.000	12.300	N/A

Remarks

Development of technologies/components to support NGSW Increment II capabilities for integration in future systems. Additional details are held at a higher classification.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	NAWC-WD : China Lake, CA	2.450	0.025	Nov 2017	0.000		0.112	Dec 2019	-		0.112	Continuing	Continuing	Continuing
Development Support- AIR 4.0M	WR	NAWC-AD : Patuxent River, MD	3.114	0.000		0.000		0.440	Nov 2019	-		0.440	Continuing	Continuing	Continuing
Development Support	SS/CPFF	JHU/APL : Laurel, MD	2.824	0.744	Nov 2017	2.016	Feb 2019	1.210	Dec 2019	-		1.210	Continuing	Continuing	Continuing
Weapons Control System	WR	NSWC-DD : Dahlgren, VA	0.025	0.025	Nov 2017	0.000		0.275	Dec 2019	-		0.275	0.000	0.325	Continuing
Development Support	WR	NSMA : JBAB, DC	3.488	0.825	Dec 2017	1.950	Feb 2019	5.018	Nov 2019	-		5.018	0.000	11.281	Continuing
Development Support	MIPR	NRO : Chantilly, VA	0.569	0.000		0.000		0.165	Jan 2020	-		0.165	0.000	0.734	Continuing
Development Support	WR	NSWC-NPT : Newport, RI	0.025	0.025	Nov 2017	0.000		0.180	Dec 2019	-		0.180	0.000	0.230	Continuing
		Subtotal	12.495	1.644		3.966		7.400		-		7.400	Continuing	Continuing	N/A

Remarks

Annual enclave updates, annual DSS updates, multi-domain assessment, mission integration, support OASUW analysis, conduct SLCM-N AoA study.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604659N / *(U)Precision Strike Weapons Development Program*	Project (Number/Name) 3378 / *Next Generation Land Attack Weapon (NGLAW)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Support	WR	NAWC-AD : Patuxent River, MD	0.000	0.000		0.000		0.022	Nov 2019	-		0.022	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		0.022		-		0.022	Continuing	Continuing	N/A

	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	12.495	1.644		3.966		19.722		-		19.722	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3378 / *Next Generation Land Attack Weapon (NGLAW)*

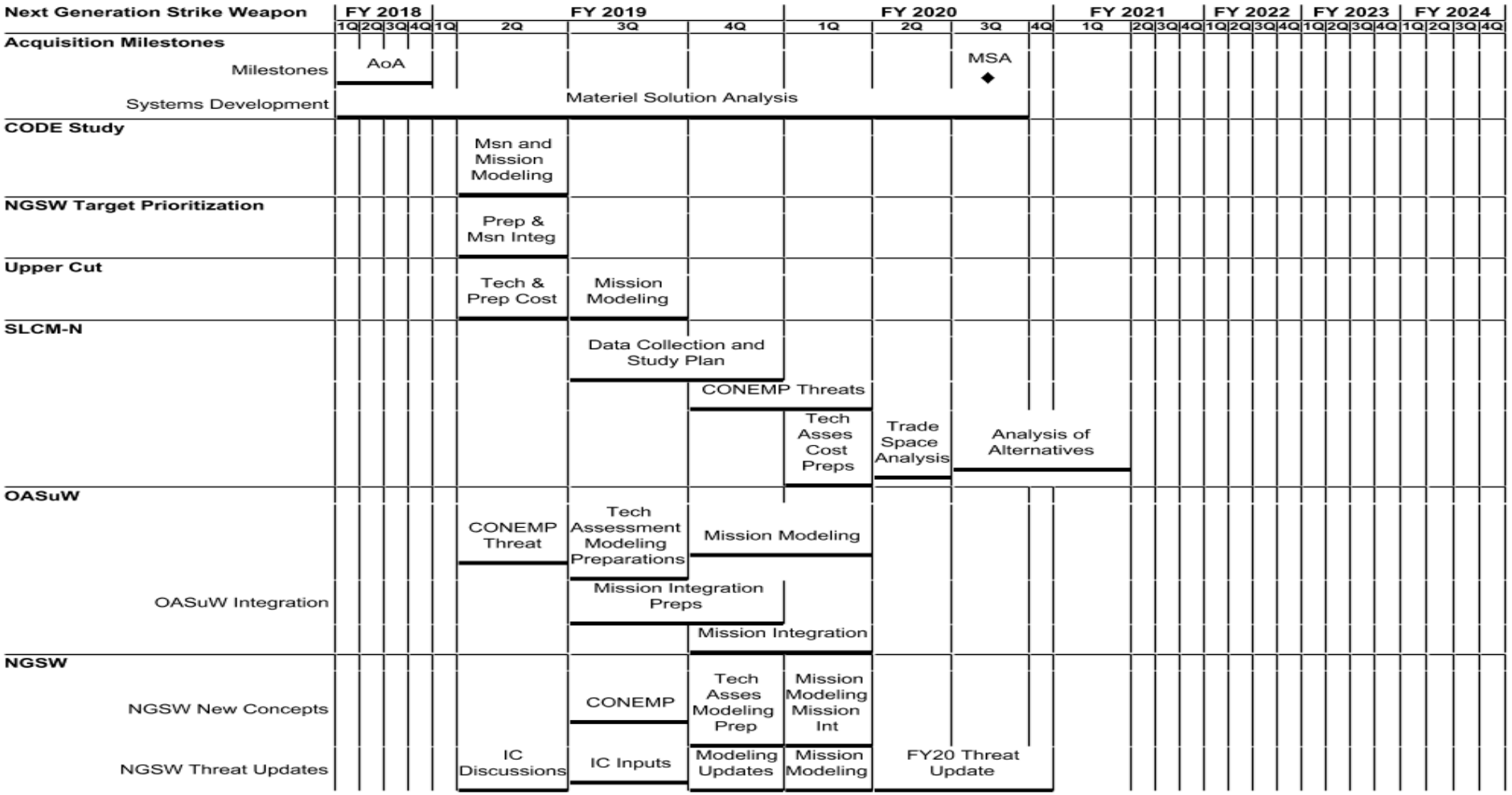

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3378 / *Next Generation Land Attack Weapon (NGLAW)*

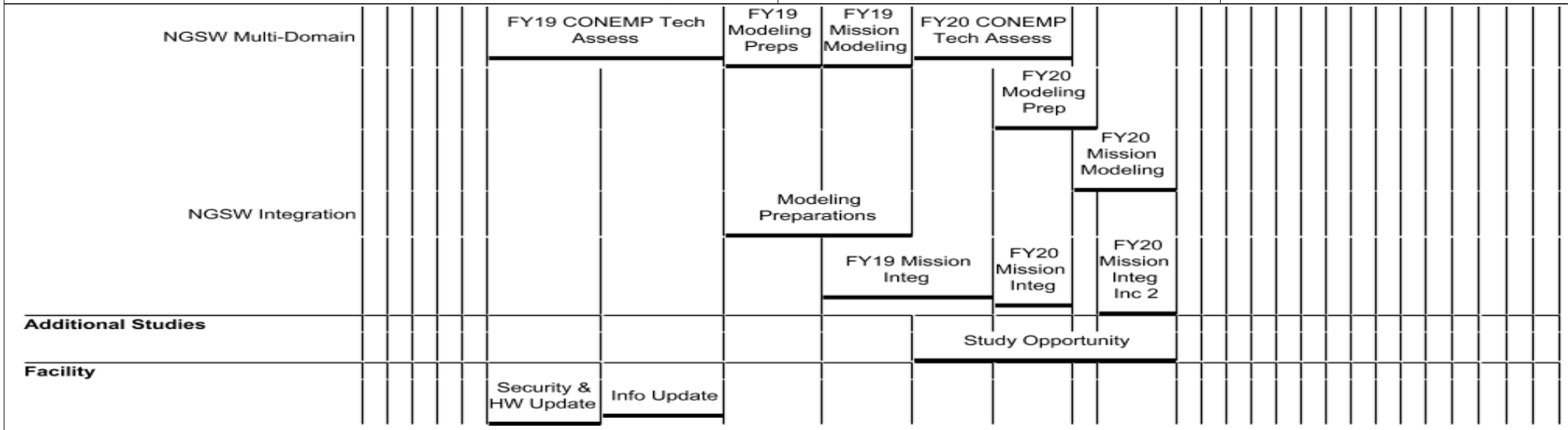

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3378 / *Next Generation Land Attack Weapon (NGLAW)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Next Generation Strike Weapon				
Acquisition Milestones: Milestones: Analysis of Alternatives	1	2018	4	2018
Acquisition Milestones: Milestones: Milestone A	3	2020	3	2020
Acquisition Milestones: Systems Development: Materiel Solution Analysis	1	2018	3	2020
CODE Study: Code Study Msn and Code Study Mission Modeling	2	2019	2	2019
NGSW Target Prioritization: NGSW Target Prioritization Prep and Msn Integ	2	2019	2	2019
Upper Cut: Upper Cut Tech and Prep Cost	2	2019	2	2019
Upper Cut: Upper Cut Mission Modeling	3	2019	3	2019
SLCM-N: SLCM-N CNA Data Collection and Study Plan	3	2019	4	2019
SLCM-N: SLCM-N CNA CONEMP Threats	4	2019	1	2020
SLCM-N: SLCM-N CNA Tech Asses Cost Preps	1	2020	1	2020
SLCM-N: SLCM-N Trade Space Analysis	2	2020	2	2020
SLCM-N: SLCM-N Analysis of Alternatives	3	2020	1	2021
OASuW: OASuW CONEMP Threat	2	2019	2	2019
OASuW: OASuW Tech Assessment Modeling Preparations	3	2019	3	2019
OASuW: OASuW Mission Modeling	4	2019	1	2020
OASuW: OASuW Integration: OASuW Integration Mission Integration Preps	3	2019	4	2019
OASuW: OASuW Integration: OASuW Integration Mission Integration	4	2019	1	2020
NGSW: NGSW New Concepts: NGSW New Concepts CONEMP	3	2019	3	2019
NGSW: NGSW New Concepts: NGSW New Concepts Tech Asses Modeling Prep	4	2019	4	2019
NGSW: NGSW New Concepts: NGSW New Concepts Mission Modeling Mission Int	1	2020	1	2020
NGSW: NGSW Threat Updates: NGSW Threat Updates IC Discussions	2	2019	2	2019

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3378 / *Next Generation Land Attack Weapon (NGLAW)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NGSW: NGSW Threat Updates: NGSW Threat Updates IC Inputs	3	2019	3	2019
NGSW: NGSW Threat Updates: NGSW Threat Updates Modeling Updates	4	2019	4	2019
NGSW: NGSW Threat Updates: NGSW Threat Updates Mission Modeling	1	2020	1	2020
NGSW: NGSW Threat Updates: NGSW FY20 Threat Update	2	2020	4	2020
NGSW: NGSW Multi-Domain: NGSW Multi-Domain FY19 Threats CONEMP Tech Assessment	2	2019	3	2019
NGSW: NGSW Multi-Domain: NGSW Multi-Domain FY19 Modeling Preparations	4	2019	4	2019
NGSW: NGSW Multi-Domain: NGSW Multi-Domain FY19 Mission Modeling	1	2020	1	2020
NGSW: NGSW Multi-Domain: NGSW Multi-Domain FY20 Threats CONEMP Tech Assessment	2	2020	3	2020
NGSW: NGSW Multi-Domain: NGSW Multi-Domain FY20 Modeling Preparations	3	2020	4	2020
NGSW: NGSW Multi-Domain: NGSW Multi-Domain FY20 Mission Modeling	4	2020	1	2021
NGSW: NGSW Integration: NGSW Integration Modeling Preparations	4	2019	1	2020
NGSW: NGSW Integration: NGSW Integration FY19 Mission Integration	1	2020	2	2020
NGSW: NGSW Integration: NGSW Integration FY20 Mission Integration	3	2020	3	2020
NGSW: NGSW Integration: NGSW Integration FY20 Mission Integration Increment 2	1	2021	1	2021
Additional Studies: Study Opportunity	2	2020	1	2021
Facility: Facility Security and HW Update	2	2019	2	2019
Facility: Facility Info Update	3	2019	3	2019

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604659N / *(U)Precision Strike Weapons Development Program*	Project (Number/Name) 3407 / *Air Launched Decoy Development*	

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
3407: *Air Launched Decoy Development*	0.000	18.635	76.617	105.306	-	105.306	93.792	40.629	6.501	6.623	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project develops a Navy variant of the Miniature Air Launched Decoy (MALD). The variant will address current and future advanced Integrated Air Defense System (IADS) threats by bringing an air-launched, stand-in EW capability to Department of the Navy (DON) suppression of enemy air defenses/destruction of enemy air defenses (SEAD/DEAD) and standoff conventional land strike. A Navy variant of MALD with stand-in capability increases the range and duration of EW systems while providing flexibility to commanders for employment. To the maximum extent possible, the Navy will utilize existing technology from the current MALD-J production line and other common components (e.g. navigation, communication, guidance and control, payload) to reduce cost, shorten development timelines and promote interoperability. OPNAV approved requirements in a CDD 2Q2018.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Miniature Air Launched Decoy (MALD)	18.635	76.617	105.306	0.000	105.306
Articles:	-	-	-	-	-
FY 2019 Plans: Continue and complete technical maturation efforts. Begin Engineering, Manufacturing, and Development phase activities. FY 2019 builds upon the FY 2018 technical maturation effort, to take the program through SETR 2.0 and SETR 3.0, and begin planning for SETR 4.0. Component level development will continue into FY 2019, with power and distribution, airframe and container completing by the end of the FY. Tasks scheduled to continue in FY 2019 include but are not limited to: Aircraft Integration/ Air Worthiness to include wind tunnel testing and fit checks specific to F/A-18 E/F; software development of a MALD mission planning module hosted into Joint Mission Planning System (JMPS) and a Navy MALD unique "Airborne Electronic Attack" planning module and material purchases to support development activities. Material purchases in FY 2019 support development of test assets. Long Lead material procurements in FY 2019 support continued development and aircraft integration work and have an 18 month lead time for some AUR components and up to a 24 month lead time for Range Safety/Flight Termination Systems. Funding also provides for Engineering, Logistics and Program Management support.					
FY 2020 Base Plans: FY 2020 builds upon the FY 2019 EMD effort. FY 2020 will complete component maturation through SETR 4.0, Production Readiness Review, to verify production capability prior to Low Rate Initial Production decision and					

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3407 / *Air Launched Decoy Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
prepare for SETR 5.0, Test Readiness Assessment, prior to first free flight test. FY 2020 will begin integration of IOC software. Integrated Test and Evaluation (IT&E) in support of Quick Reaction Assessment (QRA) will begin in FY 2020. ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** FY 2019 to FY 2020 increase of $28.689 provides for increased EMD and I&T activities, subsystems level testing in support of QRA efforts, and integration of IOC software. The FY2020 funding request was reduced by $3.0M to account for the availability of prior year execution balances.					
Accomplishments/Planned Programs Subtotals	18.635	76.617	105.306	0.000	105.306

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• WPN/2285: *Drones and Decoys*	0.000	0.000	20.000	-	20.000	41.291	84.166	133.728	136.403	0.000	415.588

Remarks

D. Acquisition Strategy

The MALD-N Acquisition Category (ACAT) II program is an evolution from the previous United States Air Force (USAF) MALD-J program and is managed by Program Executive Office, Unmanned Aviation & Strike Weapons (PEO(U&W)), PMA-201 Precision Strike Weapons Program Office. PEO(U&W) has been delegated Milestone Decision Authority (MDA) and chairs monthly Executive Steering Boards which ensure timely communications. MALD-N is being implemented as a Model 4 acquisition program to expedite the fielding of capability to the Fleet. The MALD-N program will use event-driven "Knowledge Points" (KP) at key program strategic inflection points to brief progress to stakeholders throughout the program life-cycle. The program met the statutory requirements associated with Milestone B at Knowledge Point 2 (1Q FY2019). A Quick Reaction Assessment (QRA) will be conducted to support an Early Operational Capability (EOC) delivery of a small quantity of Low Rate Initial Production (LRIP) assets in FY 2021. Following EOC, Initial Operational Capabilities (IOC) will be achieved by Initial Operational Test and Evaluation (IOT&E) in FY 2022. MALD-N will use a capabilities-based acquisition approach to characterize performance and evolve an IOC system for Fleet integration.

MALD is integral to realizing the National Defense Strategy of combat-credible military forces to deter war, protect the security of our nation and to enable the Joint Force to win should deterrence fail. The development and acquisition of MALD has been structured to be fielded at a pace relevant to maintain overmatch against long-term strategic competition. Specifically MALD supports greater performance of the acquisition system and is demonstrating the delivery of performance at the speed of relevance; organizational structure that supports innovation with a rapid approach that dramatically decreases the timeline from development to fielding.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3407 / *Air Launched Decoy Development*

E. Performance Metrics

Knowledge Points are defined reviews with the Executive Steering Board comprised of PEO(U&W) (delegated MDA) and the appropriate stakeholders to make program decisions at key points in the program life cycle in place of milestone reviews, but tailored to support the accelerated process. The acquisition program baseline was established at Knowledge Point 2.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy			Date: March 2019
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	SS/CPIF	Raytheon Missle Systems : Tucson, AZ	0.000	12.183	Aug 2018	48.670	Jan 2019	75.424	Nov 2019	-		75.424	Continuing	Continuing	Continuing
		Subtotal	0.000	12.183		48.670		75.424		-		75.424	Continuing	Continuing	N/A

Remarks

The award date on the R-3 identifies when the incrementally funded Product Development contract will be awarded, to includes efforts such as the Quick Reaction Assessment (QRA). The R-4 reflects the timeframe for which actual events/assessments will be performed.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWC AD : Patuxent River, MD	0.000	2.000	Oct 2017	10.204	Nov 2018	10.622	Nov 2019	-		10.622	Continuing	Continuing	Continuing
Government Support	WR	NAWC WD : China Lake, CA	0.000	2.931	Oct 2017	13.677	Nov 2018	13.950	Nov 2019	-		13.950	Continuing	Continuing	Continuing
Government Support	WR	NAWC WD : Point Mugu, CA	0.000	0.515	Oct 2017	3.270	Nov 2018	4.184	Nov 2019	-		4.184	Continuing	Continuing	Continuing
		Subtotal	0.000	5.446		27.151		28.756		-		28.756	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWC AD : Patuxent River, MD	0.000	0.500	Oct 2017	0.333	Nov 2018	0.564	Nov 2019	-		0.564	Continuing	Continuing	Continuing
Government Support	WR	NAWC WD : China Lake, CA	0.000	0.256	Oct 2017	0.171	Nov 2018	0.170	Nov 2019	-		0.170	Continuing	Continuing	Continuing
Project Management Support	C/CPFF	NAWC AD : Patuxent River, MD	0.000	0.200	Mar 2018	0.212	Nov 2018	0.312	Mar 2020	-		0.312	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3407 / *Air Launched Decoy Development*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	Various	NAVAIR : Patuxent River, MD	0.000	0.050	Oct 2017	0.080	Nov 2018	0.080	Nov 2019	-		0.080	Continuing	Continuing	Continuing
		Subtotal	0.000	1.006		0.796		1.126		-		1.126	Continuing	Continuing	N/A

	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	18.635		76.617		105.306		-		105.306	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3407 / *Air Launched Decoy Development*

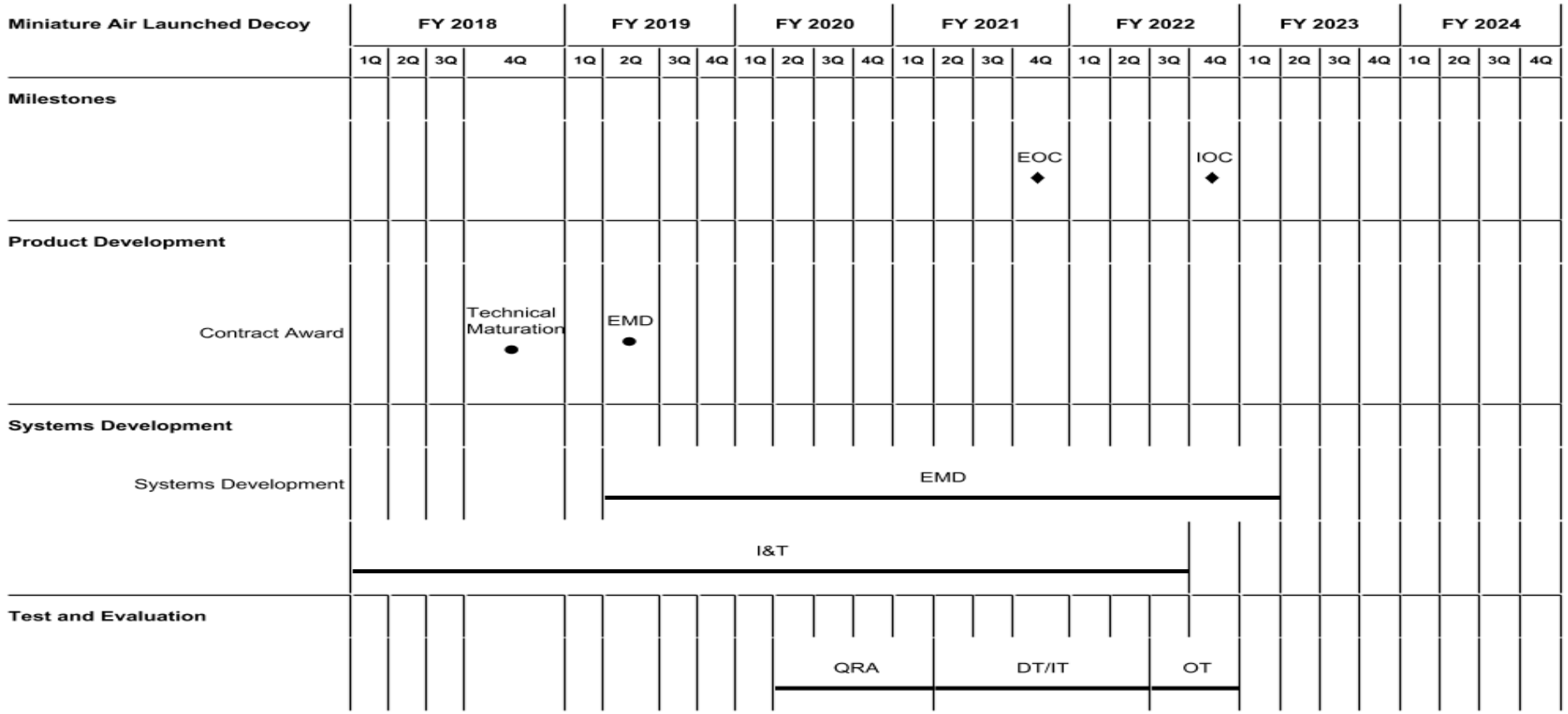

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604659N / *(U)Precision Strike Weapons Development Program*	**Project (Number/Name)** 3407 / *Air Launched Decoy Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Miniature Air Launched Decoy				
Milestones: Early Operational Capability (EOC)	4	2021	4	2021
Milestones: Initial Operational Capablity	4	2022	4	2022
Product Development: Contract Award: Technical Maturation Contract Award	4	2018	4	2018
Product Development: Contract Award: EMD Contract Award	2	2019	2	2019
Systems Development: Systems Development: Engineering and Manufacturing Development	2	2019	1	2023
Systems Development: Systems Development: I&T	1	2018	3	2022
Test and Evaluation: QRA	2	2020	1	2021
Test and Evaluation: DT/IT	2	2021	2	2022
Test and Evaluation: OT	3	2022	4	2022