Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Navy												Date: March 2023
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0702207N *I Depot Maintenance (NON-IF)*							
COST ($ in Millions)	**Prior Years**	**FY 2022**	**FY 2023**	**FY 2024 Base**	**FY 2024 OCO**	**FY 2024 Total**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**Cost To Complete**	**Total Cost**
Total Program Element	353.738	33.870	26.248	23.248	-	23.248	27.977	4.520	2.519	2.572	Continuing	Continuing
3030: *FA-18 SLAP*	277.020	8.277	11.323	9.472	-	9.472	9.296	3.264	2.432	2.482	Continuing	Continuing
3182: *T-45 SLAP*	44.114	4.426	0.320	0.000	-	0.000	0.490	0.238	0.000	0.000	0.000	49.588
3384: *MH-60 SLAP*	32.604	21.167	14.605	13.776	-	13.776	18.191	1.018	0.087	0.090	Continuing	Continuing

A. Mission Description and Budget Item Justification

3030: A significant portion of the F/A-18 and EA-18G airframe is believed to have additional inherent capability and a life extension is possible for many portions of the airframe. The F/A-18 Service Life Assessment Program (SLAP) is assessing the structural and subsystem conditions of the F/A-18 fleet in order to determine what modifications are necessary to extend the aircraft design life limits to allow it to achieve Chief of Naval Operations (CNO) inventory requirements. This effort is required to be conducted for these airframes and subsystems to ascertain what actions and modifications must be taken to safely operate each system beyond its designed life until the targeted end of service life. Without SLAP and the follow on Service Life Extension Program (SLEP), aircraft are retired from the USN inventory when a design service life metric is reached. RDTE funds will support aircraft teardown to validate SLAP analysis, identify unknown fatigue areas and assess the aircraft's material condition.

3182: The T-45 aircraft structure is currently fatigue limited to 14,400 flight hours based on initial full-scale fatigue tests. This service life limit prevents the T-45 fleet from meeting Integrated Production Plan (IPP) past 2025. Studies demonstrate that the 14,400 flight hour service life can be extended, with a Service Life Extension Program (SLEP), to 21,600 flight hours, which will support meeting IPP until 2035. A T-45 Structural Service Life Assessment Program (SLAP) was completed in February 2012. In order for the T-45 to meet IPP until 2035, it is also necessary to assess the subsystems of the T-45 in their ability to remain viable.

In FY13 an initial subsystem assessment, based on the updated fleet aircraft usage spectrum and future predicted training missions of the T-45 aircraft, found 79 dispositions requiring further analysis, teardowns, age explorations, recertification and/or testing . The assessment of the subsystems that make up these 79 dispositions will address all critical subsystems required and their ability to maintain IPP/NTR until 2035, analysis and studies will be conducted to outline improvements, assess manufacturing capabilities, prototype redesign and test of subsystems for trainer aircraft.

3384: MH-60 SLAP is assessing the primary aircraft structure and subsystem condition of the MH-60S fleet in order to evaluate the airframe's ability to meet its designed service life of 10,000 hours. SLAP will determine the efforts necessary to extend the aircraft design life limits to meet CNO operational inventory requirements through FY 2040. The highest flight time MH-60S helicopters are expected to exceed the design life limit in 2024, at which time as many as 30 aircraft per year could be removed from flight status without a SLAP and follow-on SLEP directly impacting Combat Logistics, Surface Warfare (SUW), Combat Search and Rescue (CSAR), Naval Special Warfare (NSW) Support, Airborne Mine Countermeasures (AMCM), and operational capabilities and capacity. MH-60 SLAP is comprised of two distinct assessments: Fatigue Life Assessment (FLA), which will establish the fatigue life of the aircraft and air vehicle systems and Subsystem Life Assessment (SLA), which will examine subsystems that are critical to safe operations and identify risk mitigation strategies for critical components. FLA consists of structural investigations of the cockpit beams, main gearbox beams/frames, upper deck, engine mount, lower tub, main landing gear, tail landing gear, cargo hook, transition splice and tie-down fittings/

structure, tailcone, tail gearbox, intermediate gearbox, stabilator, manufactured joints/splices, and flight controls support structure. SLA will evaluate engines, rotor brake, hydraulic, flight controls, avionics components and infrastructure to identify over-and-above inspections, overhaul intervals or replacement schedules to fly beyond the current design limit assumption. Analysis will be further refined, augmented with aircraft, specific system and wiring teardowns, inspections, and tests; data analysis; and development of models and tools, producing results that will continue inform SLEP ECP development. Engineering for design/development will ramp for Engineering Change Proposals (ECPs) for a phased SLEP solution. Additionally, a plan will be developed to convert the MH-60S Block 1 aircraft to Block 3B aircraft, extending the mission profile for these aircraft and ultimately providing the fleet with more flight hours.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate funding in the current or subsequent fiscal year.

B. Program Change Summary ($ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	35.030	26.248	46.194	-	46.194
Current President's Budget	33.870	26.248	23.248	-	23.248
Total Adjustments	-1.160	0.000	-22.946	-	-22.946
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.160	0.000			
• Program Adjustments	0.000	0.000	-16.100	-	-16.100
• Rate/Misc Adjustments	0.000	0.000	-6.846	-	-6.846

Change Summary Explanation

Cost:

PU 3030: The FY2024 funding request was decreased by $10.000 million for F/A-18E/F technical correction to align funding to Block III Electronic Warfare (EW) capability and by $2.248 million for miscellaneous adjustments.

PU 3182: FY2024 funding decreased by $0.6M to account for miscellaneous adjustments.

PU 3384: FY2024 funding decreased by $0.829M due to miscellaneous adjustments.

Technical:

PU 3030: Not Applicable

PU 3182: Not applicable

Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Navy	Date: March 2023
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0702207N *I Depot Maintenance (NON-IF)*

PU 3384: Not applicable

Schedule:

PU 3030: Revised schedule to allow for agile execution of F/A-18E/F and EA-18G SLAP efforts.
PU 3182: Not applicable
PU 3384: Not applicable

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy			Date: March 2023
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0702207N / *Depot Maintenance (NON-IF)*	Project (Number/Name) 3030 / *FA-18 SLAP*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
3030: *FA-18 SLAP*	277.020	8.277	11.323	9.472	-	9.472	9.296	3.264	2.432	2.482	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The F/A-18 and EA-18G Service Life Assessment Program (SLAP) is assessing the structural and subsystem conditions of the F/A-18 fleet in order to determine what modifications are necessary to extend the aircraft designed life limits to allow it to achieve Chief of Naval Operations (CNO) inventory requirements. The goal of the F/A-18 SLAP program is to identify critical structures and components that can achieve the extended service life limit goals. SLAP consists of structural investigations of the main landing gear, arresting hook and catapult back-up structures, vertical tails, wings and fuselage. A second effort is to evaluate the subsystem components (hydraulics, wiring, actuators, etc) to identify over and above inspections, overhaul intervals or replacement schedules to fly past design life limits. The current life limits for the F/A-18 E/F are 6,000 Flight Hours (FH), 2,250 catapults/arrestments (Cat/Traps) and 15,750 total landings; EA-18G are 7,500 FH, 2,550 CAT/Traps and 17,850 total landings. The F/A-18 SLAP program of record states the SLAP goals as 10,000 FH, 2,917 Cat/Traps and 18,750 total landings. The primary objective of F/A-18 and EA-18G SLAP is to determine if the stated SLAP goals are feasible and to determine what modifications are required, if applicable, to extend the airframe. An increase in total landings and flight hours would allow the F/A-18 aircraft to operate for a prolonged period of time in order to meet CNO inventory requirements. The requirements are integrated with the Joint Strike Fighter planned introduction to ensure mission readiness. This effort is required to be conducted for these airframes and subsystems to ascertain what actions and modifications must be taken to safely operate each system beyond its designed life until the targeted end of service life.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: F/A-18 SLAP	3.515	3.871	3.350	0.000	3.350
Articles:	-	-	-	-	-
Description: The current design life limits do not support USN inventory requirements. Funding supports assessing the structural and component condition of the F/A-18 fleet in order to determine what modifications are necessary to extend the aircraft designed life limits to allow it to achieve CNO inventory requirements.					
FY 2023 Plans: Continue stress/fatigue/structural/crack growth analyses of numerous data points and conduct required Finite Element Model (FEM) runs/correlations, evaluate Composites SLAP and develop a Hotspot repository with analysis findings as well as subsystems efforts with the expectation of extending the current service life of F/A-18E/F from the design limits to the SLAP goals in order to prepare for SLEP execution.					
FY 2024 Base Plans: Continue stress/fatigue/structural/crack growth analyses of numerous data points; conduct required Finite Element Model (FEM) runs/correlations, evaluate SLAP composites and hotspot repository with analysis					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3030 / *FA-18 SLAP*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
findings. Continue subsystems efforts with the expectation of extending the current service life of F/A-18E/F from the design limits to the SLAP goals in order to prepare for SLEP execution. ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Decrease of $0.521 million from FY2023 to FY2024 is due to the completion of Aft fuselage structural analysis.					
Title: EA-18G SLAP	4.762	7.452	6.122	0.000	6.122
Articles:	-	-	-	-	-
Description: The current design life limits do not support USN inventory requirements. Funding supports assessing the structural condition of the EA-18G fleet in order to determine what modifications are necessary to extend the aircraft designed life limits to allow it to achieve CNO inventory requirements. The EA-18G SLAP leverages lessons learned from the F/A-18 A-F SLAP in order to achieve efficiencies in continuity of operations. ***FY 2023 Plans:*** Continuation of ongoing stress/fatigue/structural analysis of numerous data points as well as Finite Element Model (FEM) runs/correlation and subsystems efforts to provide exploitation of complete structural/fatigue and subsystem testing with the expectation of extending the current service life of EA-18G from the design limits to the SLAP goals. Locations encompass the forward, center and aft fuselage, inner and outer wings, as well as landing gear. Sonic and Thermal analysis will be performed on numerous structural and composite skin locations to assess elevated temperatures with the expectation of extending the current life of the EA-18G Growler. Aircraft Teardown assessments continue to be performed to analyze the fatigue and material condition of fleet aircraft to determine what modifications or inspections are required to extend the current life of the aircraft. Crack growth analysis and crack initiation will be performed to determine recurring requirements to extend the platform beyond its current service life limits. These engineering results will address aircraft fuselage and wing structure changes required to meet service life beyond 7,500 hours. ***FY 2024 Base Plans:*** Continuation of ongoing stress/fatigue/structural analysis of numerous data points as well as Finite Element Model (FEM) runs/correlation and subsystems efforts to provide exploitation of complete structural/fatigue and subsystem testing with the expectation of extending the current service life of EA-18G from the design limits to the SLAP goals. Locations encompass the forward, center and aft fuselage, inner and outer wings, as well as landing gear. Sonic and Thermal analysis will be performed on numerous structural and composite skin locations					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3030 / *FA-18 SLAP*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
to assess elevated temperatures with the expectation of extending the current life of the EA-18G Growler. Aircraft Teardown assessments continue to be performed to analyze the fatigue and material condition of fleet aircraft to determine what modifications or inspections are required to extend the current life of the aircraft. Crack growth analysis and crack initiation will be performed to determine recurring requirements to extend the platform beyond its current service life limits. These engineering results will address aircraft fuselage and wing structure changes required to meet service life beyond 7,500 hours. ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Decrease of $1.330 million from FY2023 to FY2024 is due to efficiencies gained from overlapping phases for structures and subsystem efforts between E/F and G.					
Accomplishments/Planned Programs Subtotals	8.277	11.323	9.472	0.000	9.472

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• APN/0525: *F-18 Series (OSIP 020-14)*	327.000	461.118	640.236	-	640.236	724.628	953.615	1,068.998	1,153.697	2,988.897	21,847.456
• APN/0505: *F/A-18EF & EA-18G Modernization & Sustainment*	445.721	552.849	605.416	-	605.416	531.235	573.367	592.884	771.385	5,457.277	9,916.539

Remarks

D. Acquisition Strategy

The Service Life Assessment Program (SLAP) program employs sole source contracts with Boeing, the aircraft prime manufacturer. SLAP further decomposes program of record goals into smaller discrete steps, developing requirements to extend flight hours (FH) from 6,000 to 10,000. These efforts will provide the raw engineering data to develop aircraft modifications to extend total aircraft landings, Cat/Traps, and FH. The F/A-18 and EA-18G SLAP Program consists of two major engineering efforts: the aircraft structural assessment and the aircraft subsystems assessment. Both efforts are broken into multiple phases which develop tools and models, evaluate current aircraft usage and develop concepts to extend aircraft life to meet CNO inventory objectives. The program will utilize structural fatigue testing data and actual fleet usage data with the expectation of extending the service life of the F/A-18 aircraft. Conducting both F/A-18E/F and EA-18G SLAP to study the aircraft lifetime will provide a better estimate of aircraft service life and a follow on Service Life Extension Program (SLEP).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3030 / *FA-18 SLAP*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development SLAP F/A-18 E/F	SS/CPFF	Boeing : St. Louis, MO	170.156	2.156	Dec 2021	2.666	Dec 2022	2.072	Dec 2023	-		2.072	Continuing	Continuing	Continuing
Product Development SLAP EA-18G	SS/CPFF	Boeing : St. Louis, MO	15.949	2.811	Dec 2021	5.847	Dec 2022	4.617	Dec 2023	-		4.617	Continuing	Continuing	Continuing
Prior Year Prod Dev cost no longer funded in FYDP	SS/CPFF	Boeing : St. Louis, MO	28.775	0.000		0.000		0.000		-		0.000	0.000	28.775	28.775
		Subtotal	214.880	4.967		8.513		6.689		-		6.689	Continuing	Continuing	N/A

Remarks

Decrease from FY2023 to FY2024 due to a reprioritization of required stress/fatigue/structures analysis for the EA-18G SLAP product development.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SLAP F/A-18 E/F	WR	NAWCAD : Patuxent River, MD	11.503	0.308	Dec 2021	0.537	Dec 2022	0.599	Dec 2023	-		0.599	Continuing	Continuing	Continuing
SLAP F/A-18 E/F	WR	FRC Southwest : San Diego, CA	8.704	0.705	Dec 2021	0.227	Dec 2022	0.232	Dec 2023	-		0.232	Continuing	Continuing	Continuing
SLAP F/A-18 E/F	WR	FRC Southeast : Jacksonville, FL	0.000	0.039	Dec 2021	0.129	Dec 2022	0.132	Dec 2023	-		0.132	0.134	0.434	-
SLAP EA-18G	WR	NAWCAD : Patuxent River, MD	8.002	0.571	Dec 2021	0.897	Dec 2022	0.783	Dec 2023	-		0.783	Continuing	Continuing	Continuing
SLAP EA-18G	WR	FRC Southwest : San Diego, CA	3.470	1.309	Dec 2021	0.424	Dec 2022	0.433	Dec 2023	-		0.433	Continuing	Continuing	Continuing
SLAP EA-18G	WR	FRC Southeast : Jacksonville, FL	0.297	0.071	Dec 2021	0.179	Dec 2022	0.181	Dec 2023	-		0.181	0.185	0.913	-
Prior Year Support cost no longer funded in FYDP	Various	Various : Various	6.825	0.000		0.000		0.000		-		0.000	0.000	6.825	-
		Subtotal	38.801	3.003		2.393		2.360		-		2.360	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3030 / *FA-18 SLAP*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NAWCAD : Patuxent River, MD	0.157	0.000	Dec 2021	0.106	Dec 2022	0.108	Dec 2023	-		0.108	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	9.396	0.000		0.000		0.000		-		0.000	0.000	9.396	-
		Subtotal	9.553	0.000		0.106		0.108		-		0.108	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	Various	NAVAIR : Patuxent River, MD	0.535	0.075	Oct 2021	0.075	Oct 2022	0.075	Oct 2023	-		0.075	Continuing	Continuing	Continuing
Program Management Support (Seaport-CSS)	C/CPFF	Tekla : Patuxent River, MD	0.158	0.108	Apr 2022	0.109	Apr 2023	0.111	Apr 2024	-		0.111	Continuing	Continuing	Continuing
Program Management Support	C/CPFF	Engility : Patuxent River, MD	1.472	0.124	Dec 2021	0.127	Dec 2022	0.129	Dec 2023	-		0.129	Continuing	Continuing	Continuing
Prior Year Management Services cost no longer funded in FYDP	Various	Various : Various	11.621	0.000		0.000		0.000		-		0.000	0.000	11.621	-
		Subtotal	13.786	0.307		0.311		0.315		-		0.315	Continuing	Continuing	N/A

	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	277.020	8.277		11.323		9.472		-		9.472	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3030 / *FA-18 SLAP*

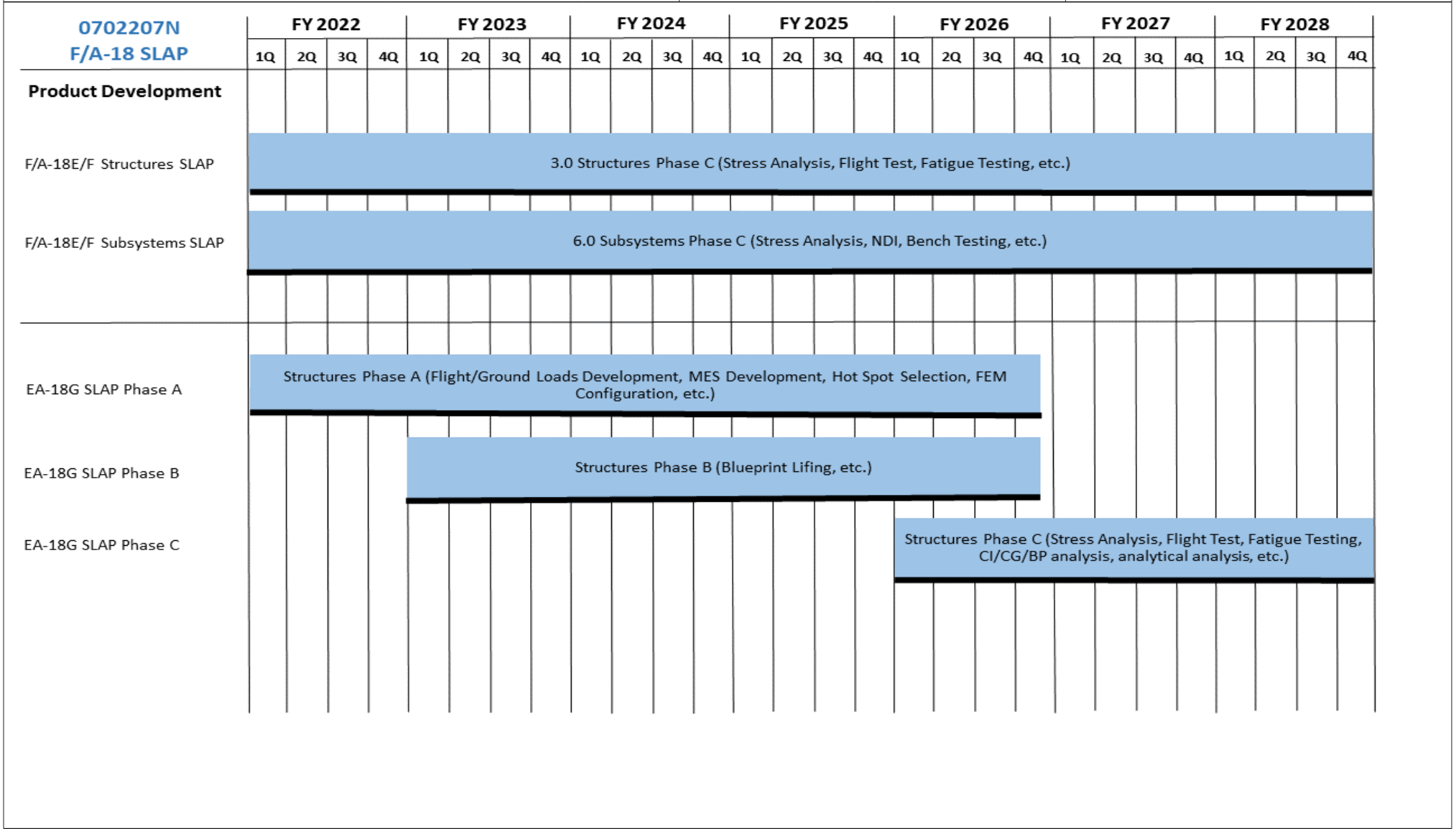


Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3030 / *FA-18 SLAP*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Service Life Assessment Program F/A-18 & EA-18G				
F/A-18E/F SLAP: Structures: 3.0 Structures Analysis Phase C	1	2022	4	2028
F/A-18E/F SLAP: Subsystems: 6.0 Subsystems Analysis Phase C	1	2022	4	2028
EA-18G SLAP: Structures: Analysis Phase A	1	2022	4	2026
EA-18G SLAP: Structures: Analysis Phase B	1	2023	4	2026
EA-18G SLAP: Structures: Analysis Phase C	1	2026	4	2028

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy			Date: March 2023
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0702207N / *Depot Maintenance (NON-IF)*	Project (Number/Name) 3182 / *T-45 SLAP*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
3182: *T-45 SLAP*	44.114	4.426	0.320	0.000	-	0.000	0.490	0.238	0.000	0.000	0.000	49.588
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The T-45 Service Life Assessment Program (SLAP) is assessing the structural and subsystem conditions of the T-45 fleet in order to determine what modifications are necessary to extend the aircraft designed life limits to allow it to achieve Chief of Naval Operations (CNO) inventory requirements. The goal of the T-45 SLAP program is to identify critical structures and components that can extend the aircraft designed service life to support IPP and Naval Flight Officer Training Requirements (NTR) until 2035. This initial subsystem assessment, based on the updated fleet aircraft usage spectrum and future predicted training missions of the T-45 aircraft, found 79 dispositions requiring further analysis, teardowns, age explorations, recertification and/or testing. The assessment of the subsystems that make up these 79 dispositions will address all critical subsystems required and their ability to maintain IPP/NTR until 2035, analysis and studies will be conducted to outline improvements, assess manufacturing capabilities, prototype redesign and test of subsystems for trainer aircraft. The current life limits for the T-45 is 14,400 Flight Hours (FH). The T-45 SLAP program of record states the SLAP goals is 21,600 FH. This effort is required to be conducted for these subsystems to ascertain what actions and modifications must be taken to safely operate each system beyond its designed life until the targeted end of service life.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: T-45 SLAP	4.426	0.320	0.000	0.000	0.000
Articles:	-	-	-	-	-
Description: Funding supports development, integration, test, and certification of a Subsystem SLAP to determine modifications necessary to extend service life through 2035.					
FY 2023 Plans: N/A					
FY 2024 Base Plans: N/A					
FY 2024 OCO Plans: N/A					
FY 2023 to FY 2024 Increase/Decrease Statement: Decrease of $0.596 in FY2024 from labor associated with the T-45 Structural Service Life Assessment Program (SLAP).					
Accomplishments/Planned Programs Subtotals	4.426	0.320	0.000	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3182 / *T-45 SLAP*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• APN/0569: *T-45 Service Life Ext Prg (SLEP) OSIP 022-14*	155.366	199.356	170.357	-	170.357	169.978	182.577	186.029	192.593	165.995	2,997.115

Remarks

D. Acquisition Strategy

The subsystem SLAP is a sole source contract effort with Boeing, the aircraft prime contractor. SLAP consists of an analysis of the aircraft subsystems (e.g., Global Positioning System Inertial Navigation Assembly or Mission Data Processor). The analysis will facilitate the future development of subsystem modifications and/or redesigns necessary to extend their life until 2035.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3182 / *T-45 SLAP*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development SLAP T-45	SS/CPFF	Boeing : St. Louis, MO	27.866	3.584	Feb 2022	0.000		0.000		-		0.000	0.000	31.450	31.594
Product Development SLAP T-45 NACES	C/FFP	Martin Baker : United Kingdom	0.450	0.000		0.000		0.000		-		0.000	0.000	0.450	0.450
		Subtotal	28.316	3.584		0.000		0.000		-		0.000	0.000	31.900	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Technical Support	WR	NAWCAD : Patuxent River, MD	8.458	0.737	Nov 2021	0.320	Nov 2022	0.000		-		0.000	0.728	10.243	-
Engineering Technical Support	WR	NADEP : Jacksonville, FL	2.969	0.105	Nov 2021	0.000		0.000		-		0.000	0.000	3.074	-
Engineering and Logistics Support	WR	NAWCTSD : Orlando, FL	0.081	0.000	Nov 2021	0.000		0.000		-		0.000	0.000	0.081	-
Prior Year Support Costs no longer in FYDP	Various	Various : Various	3.708	0.000		0.000		0.000		-		0.000	0.000	3.708	-
		Subtotal	15.216	0.842		0.320		0.000		-		0.000	0.728	17.106	N/A

Remarks

Decrease of $0.596 in FY2024 for labor associated with the T-45 Structural Service Life Assessment Program (SLAP).

Management Services ($ in Millions)

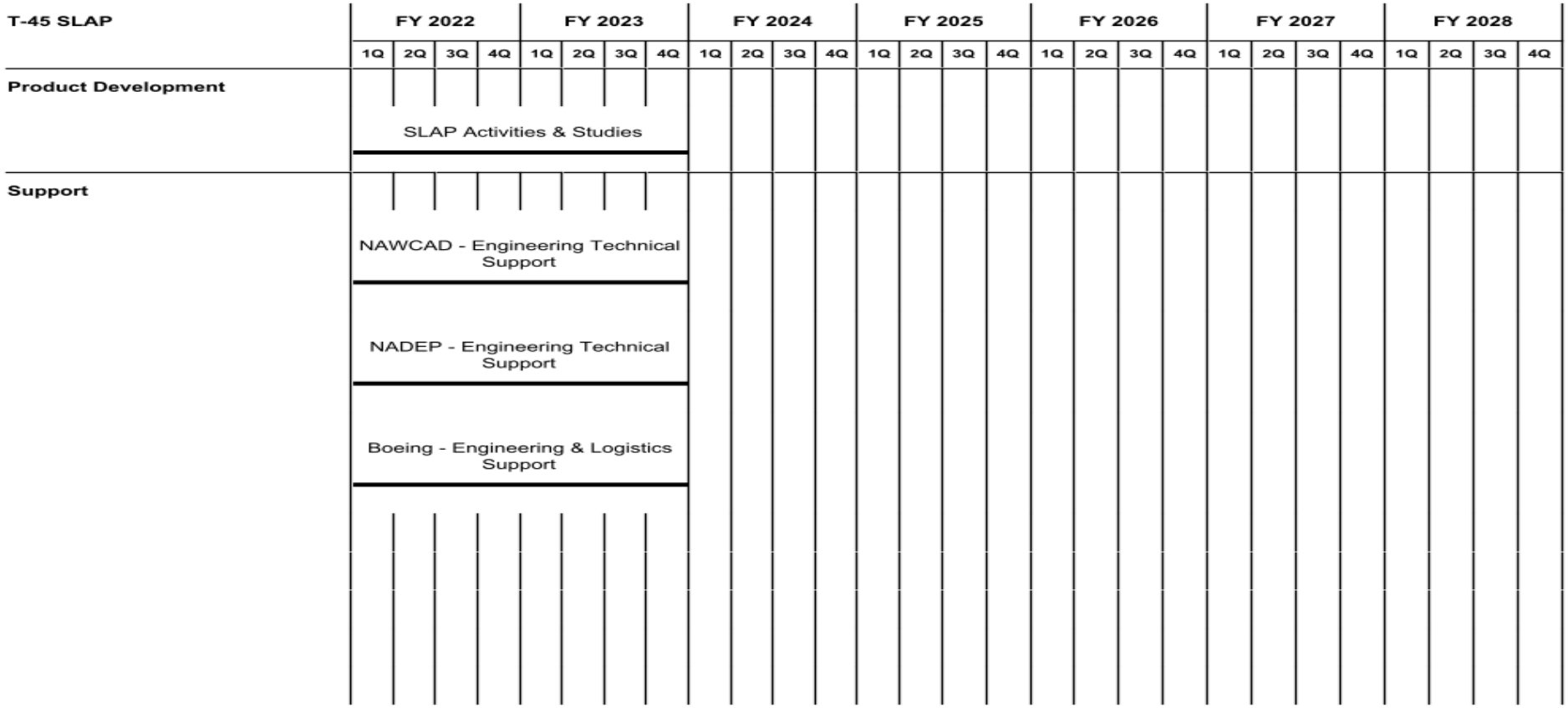
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	Various	NAVAIR : Patuxent River, MD	0.582	0.000	Nov 2021	0.000		0.000		-		0.000	0.000	0.582	-
		Subtotal	0.582	0.000		0.000		0.000		-		0.000	0.000	0.582	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0702207N / *Depot Maintenance (NON-IF)*	Project (Number/Name) 3182 / *T-45 SLAP*	

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	44.114	4.426		0.320		0.000		-		0.000	0.728	49.588	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3182 / *T-45 SLAP*



2024OSD - 0702207N - 3182

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3182 / *T-45 SLAP*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
T-45 SLAP				
Product Development: Subsystem SLAP Activities & Studies	1	2022	4	2023
Support: NAWCAD - Engineering Technical Support	1	2022	4	2023
Support: NADEP - Engineering Technical Support	1	2022	4	2023
Support: Boeing - Engineering & Logistics Support	1	2022	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy			Date: March 2023
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0702207N / *Depot Maintenance (NON-IF)*	Project (Number/Name) 3384 / *MH-60 SLAP*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
3384: *MH-60 SLAP*	32.604	21.167	14.605	13.776	-	13.776	18.191	1.018	0.087	0.090	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

MH-60 SLAP is assessing the primary aircraft structure and subsystem condition of the MH-60S fleet in order to evaluate the airframe's ability to meet its designed service life of 10,000 hours. SLAP will determine the efforts necessary to extend the aircraft design life limits to meet Chief of Naval Operations (CNO) operational inventory requirements through FY 2040. The highest flight time MH-60S helicopters are expected to exceed the design life limit in 2024, at which time as many as 30 aircraft per year could be removed from flight status without a SLAP and follow-on Service Life Extension Program (SLEP). MH-60 SLAP is comprised of two distinct assessments: FLA, which will establish the fatigue life of the aircraft and air vehicle systems and Subsystem Life Assessment (SLA), which will examine subsystems that are critical to safe operations and identify risk mitigation strategies for critical components. FLA consists of structural investigations of the cockpit beams, main gearbox beams/frames, upper deck, engine mount, lower tub, main landing gear, tail landing gear, cargo hook, transition splice and tie-down fittings/structure, tailcone, tail gearbox, intermediate gearbox, stabilator, manufactured joints/splices, and flight controls support structure. SLA will evaluate engines, rotor brake, hydraulic, flight controls, avionics components and infrastructure, etc., to identify over-and-above inspections, overhaul intervals or replacement schedules to fly beyond the current design limit assumption.

FY 2024 budget requests funds to continue the SLAP analysis and engineering development that needs to occur to extend the useful life of the MH-60S until transition to Future Vertical Lift-Maritime Strike (FVL-MS). Design and development engineering will continue for inspection intervals, component replacement intervals, and other strategies that will result in Engineering Change Proposals (ECP's) for the phased SLEP solution. The ECP development effort to convert the MH-60S Block 1 aircraft to Block 3B aircraft, engineering development efforts will be completed, extending the mission profile for these aircraft and ultimately providing the fleet with more flight hours. Preliminary efforts for the MH-60R usage spectrum which would be required for a future Fatigue Life Assessment will be conducted.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: MH-60 SLAP	21.167	14.605	13.776	0.000	13.776
Articles:	-	-	-	-	-
Description: The current design life limits do not support United States Navy inventory requirements to bridge to a follow-on program procurement. The MH-60S will begin reaching conditional 10,000 hour service life limits in 2024. No full-scale fatigue test or comprehensive structural analysis was performed during initial development. Funding will support assessing the structural and subsystem condition of the MH-60S fleet in order to determine what modifications are necessary to extend the aircraft designed life limits to bridge that gap.					
FY 2023 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3384 / *MH-60 SLAP*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Continue to conduct SLEP engineering development and analysis that needs to occur to extend the useful life of the MH-60S until transition to Future Vertical Lift-Maritime Strike (FVL-MS). Continue the Block 3B upgrade, engineering development for tired wiring, and repair and replacement modifications. Continue engineering design and development efforts for Engineering Change Proposals (ECPs) in support of a phased SLEP solution. Initial engineering in support of MH-60R Usage Spectrum. ***FY 2024 Base Plans:*** Continue to conduct SLEP engineering development and analysis that needs to occur to extend the useful life of the MH-60S until transition to Future Vertical Lift-Maritime Strike (FVL-MS). Complete the Block 3B upgrade, engineering development for tired wiring, and repair and replacement modifications. Continue/ramp engineering design and development efforts for Engineering Change Proposals (ECPs) in support of a phased SLEP solution. Initial engineering in support of MH-60R Usage Spectrum. ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** FY2023 to FY24 funding decreased by $0.829M to align with MH-60S ECP development requirements and phased approach schedule.					
Accomplishments/Planned Programs Subtotals	21.167	14.605	13.776	0.000	13.776

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• APN/0530: *MH-60 Series*	0.000	18.996	16.145	-	16.145	17.605	31.051	33.255	55.295	Continuing	Continuing

Remarks

OSIP 001-23 MH-60S SLEP Only relates to PU 3384.

D. Acquisition Strategy

The SLAP program employs a sole source contract with Lockheed Martin; the aircraft prime manufacturer; a sole source contract with General Electric, the engine provider; sole source contracts with MERCER and Eclypse for data analysis and tool development; a sole source contract with STADCO, the alignment fixture provider; and government engineering and logistics expertise at Naval Air Station Patuxent River, MD; H-60 Fleet Support Team at Cherry Point, NC; and Naval Air Station North Island, Coronado, CA. Analyses from the SLAP efforts will provide the engineering data necessary to develop aircraft structural, component, and subsystem modifications to extend service life flight hour limits in order to avoid flight line inventory shortfalls. The MH-60S SLAP consists of two major engineering efforts: the

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3384 / *MH-60 SLAP*

FLA and the aircraft SLA. These efforts are broken into multiple phases which develop tools and models, assess current aircraft usage, and develop concepts to extend aircraft life to meet Chief of Naval Operations objectives. The program will combine exploitation of aircraft deep look inspections and actual historical fleet usage. Conducting MH-60S SLAP to study the aircraft lifetime will define aircraft service life and is required to determine scope of the future follow-on SLEP.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3384 / *MH-60 SLAP*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Fatigue Life Assessment MH-60S	SS/CPFF	Lockheed Martin : Owego, NY	11.569	1.600	Dec 2021	0.000		0.000		-		0.000	0.000	13.169	13.169
MH-60S ECP SLEP Development	SS/CPFF	Lockheed Martin : Owego, NY	0.000	9.160	May 2022	6.748	May 2023	8.440	May 2024	-		8.440	13.486	37.834	37.834
Block Upgrade Development	SS/CPFF	Lockheed Martin : Owego, NY	5.878	6.289	Jan 2022	3.129	Jan 2023	0.500	Jan 2024	-		0.500	0.000	15.796	15.796
Prior Year Prod Dev Cost no longer funded in FYDP	Various	Various : Various	4.240	0.000		0.000		0.000		-		0.000	0.000	4.240	4.240
		Subtotal	21.687	17.049		9.877		8.940		-		8.940	13.486	71.039	N/A

Remarks

FY 2024 decrease of $0.937 in Product Development is to align with MH-60S ECP development requirements and phased approach schedule.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SLAP MH-60S	WR	NAWCAD : Patuxent River, MD	4.471	1.466	Nov 2021	1.834	Nov 2022	1.872	Nov 2023	-		1.872	1.951	11.594	-
SLAP MH-60S	WR	Various : Various	3.086	1.118	Nov 2021	1.140	Nov 2022	1.160	Nov 2023	-		1.160	1.172	7.676	-
Eng & Tech Srvc (Non FFRDC)	Various	Various : Various	0.760	0.189	May 2022	0.250	Nov 2022	0.270	Nov 2023	-		0.270	0.275	1.744	-
SLAP MH-60R Usage Spectrum	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.250	Oct 2022	0.255	Nov 2023	-		0.255	1.000	1.505	-
		Subtotal	8.317	2.773		3.474		3.557		-		3.557	4.398	22.519	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3384 / *MH-60 SLAP*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Support SLAP MH-60S	WR	NAWCAD : Patuxent River, MD	1.379	0.765	Nov 2021	0.721	Nov 2022	0.735	Nov 2023	-		0.735	Continuing	Continuing	Continuing
Mgmt Supt Services (Non FFRDC)	Various	Various : Various	1.164	0.562	May 2022	0.514	May 2023	0.524	Nov 2023	-		0.524	0.532	3.296	-
Travel	Various	NAVAIR : Patuxent River, MD	0.057	0.018	Oct 2021	0.019	Oct 2022	0.020	Nov 2023	-		0.020	0.020	0.134	-
		Subtotal	2.600	1.345		1.254		1.279		-		1.279	Continuing	Continuing	N/A

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	32.604	21.167		14.605		13.776		-		13.776	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3384 / *MH-60 SLAP*

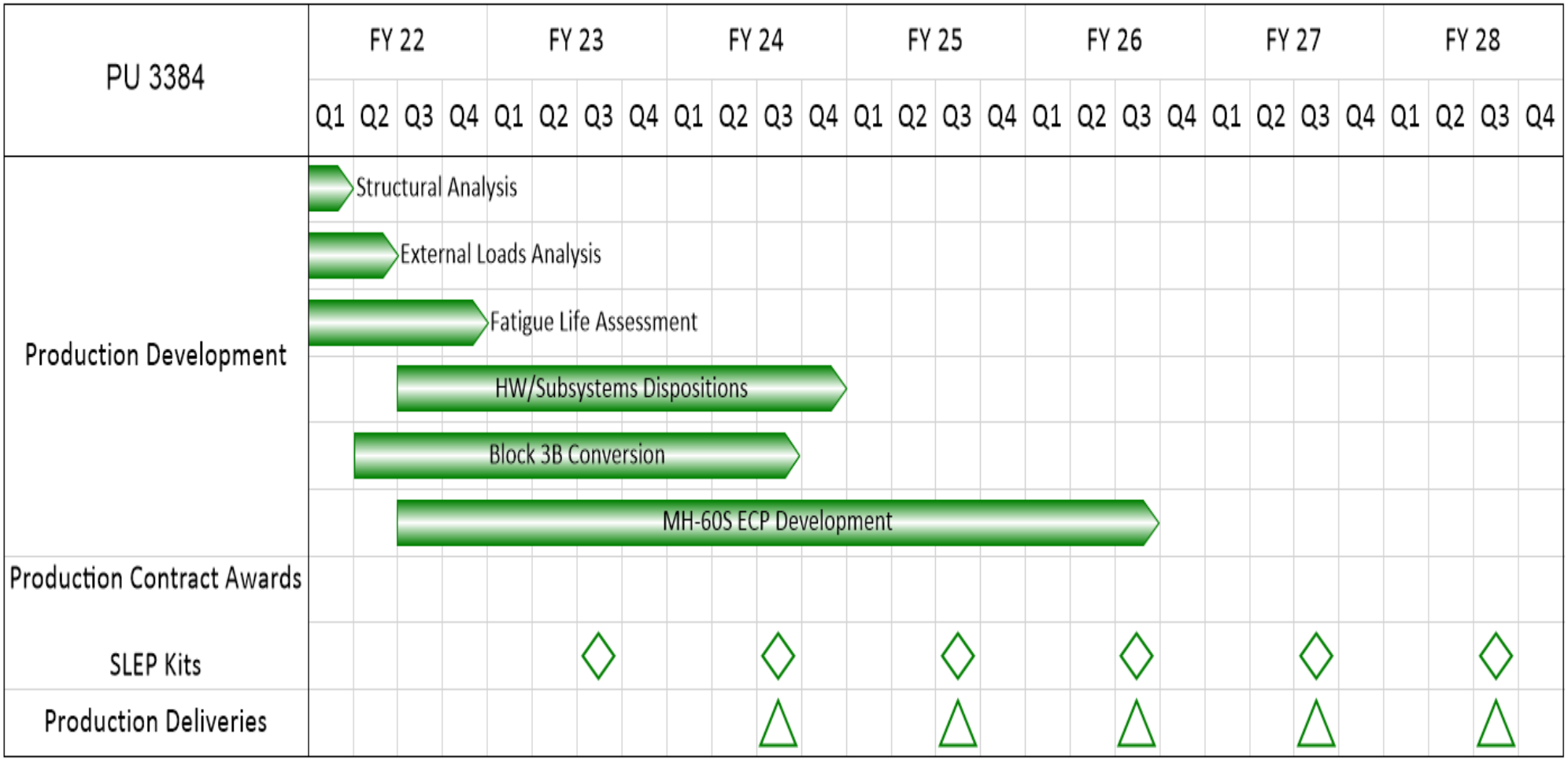


Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0702207N / *Depot Maintenance (NON-IF)*	**Project (Number/Name)** 3384 / *MH-60 SLAP*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3384				
Structural Analysis	1	2022	1	2022
External Loads Analysis	1	2022	2	2022
Fatigue Life Assessment	1	2022	4	2022
HW/Subsystems Dispositions	3	2022	4	2024
Block 3B Conversion	2	2022	3	2024
MH-60S ECP Development	3	2022	3	2026
Production Contract Awards: Block 3B Conv./SLEP Kits	3	2023	3	2023
Production Contract Awards: Production Deliveries	4	2024	4	2024