Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy												Date: March 2024
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	6,045.384	229.157	333.783	374.194	-	374.194	319.567	279.407	276.220	270.169	Continuing	Continuing
1662: *F/A-18 Improvement*	4,922.107	169.733	323.420	367.163	-	367.163	305.333	266.562	264.340	258.045	464.249	7,340.952
2065: *F/A-18 Radar Upgrade*	775.962	10.959	8.683	5.864	-	5.864	13.455	12.046	11.058	11.285	Continuing	Continuing
2071: *F/A-18 Block III*	282.926	32.164	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	315.090
9099: *Physiological Episodes*	9.346	2.787	1.680	1.167	-	1.167	0.779	0.799	0.822	0.839	Continuing	Continuing
9999: *Congressional Adds*	55.043	13.514	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	68.557

A. Mission Description and Budget Item Justification

The F/A-18 is required to perform multiple missions. The continued F/A-18 E/F and EA-18G "Flight Plan" spiral capability development is critical to the baseline of the Super Hornet next generation mission system capability to maintain the platform's tactical relevance in support of Navy Aviation Plan 2030.

Development continues for a platform solution to threat Advanced Electronic Attack (AEA) and Counter-Electronic Attack (CEA). F/A-18 solutions to CEA include upgrades to existing sensors such as F/A-18 Radar Upgrade, Infrared Search and Track Block I/II, development of future tactical data fusion that follows previous Common Tactical Picture (CTP) risk reduction efforts, and power upgrades necessary to electrify those systems. Tactical data fusion capability is the next step in expanding the F/A-18E/F contributions to the force war fighting capability by combining multiple aircraft and sensor inputs, that effectively extends the engagement range while maximizing sensors and weapons. Incremental improvements continue with Multi-System Integration (MSI), Multi-Ship Ranging (MSR), and other algorithm improvements that are driven by sensor advancements, and efforts designed to increase aircraft lethality and kill chain effectiveness. Development and fleet delivery of special purpose integrated solution designated by Speed to Fleet by commanders, such as PACFLT MVP Pod continue with dedicated resources and approved action plan. Software Modernization R&D efforts continue with new operating environment (hardware and software solutions) designed to take advantage of rapid software integration and security improvements that harden and protect the aircraft and weapon systems. The effort includes Model Based Systems Engineering (MBSE) tools that reduce future costs and schedule of technology insertion.

Capabilities of the F/A-18 weapon system and ancillary equipment require upgrades to accommodate, incorporate, and new and enhanced weapons and advances in technology to respond effectively to emerging future threats. Future integrated Carrier Air Wing Concept of Operations (CONOPS) demand changes to the base line Block II Super Hornet. Development and Operational Testing for Block III Super Hornet are required with incremental updates to mission computer software and fusion system will be required as fleet takes delivery of aircraft. Continuation of F/A-18 Block III development and improvements which will be incorporated in the near term with a combination of forward fit production line incorporation and retrofit modifications to the aircraft already planned as part of the Service Life Modification (SLM) Plan. Additionally, Block III system and other technology solution development will support NGAD risk reduction activities.

USMC upgrades to the platform are being developed; to include integration and capability expansion of Active Electronically Scanned Array (AESA) Radar for F/A-18 C/D, evaluation and development of an Automatic Ground Collision Avoidance System (AUTOGCAS) for all F/A-18 variants, development of increased sensor and

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy	Date: March 2024
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0204136N *I F/A-18 Squadrons*

Electronic Warfare (EW) capability for F/A-18 C/D, weapons carriage and employment capability expansion, and enhancement of Mission Computer (MC) processing and memory capability.

Funding for Naval Aviation Physiological Episode (PE) mitigation and root cause investigation in aircraft.

Funding for the Digital Video Map Computer-Upgrade (DVMC-U)/Advanced Crew Station (ACS) Improved Tactical Displays which will enable Panoramic "Big Picture" view of the Battle Space for improved weapons employment and engagement. Leveraging completed work from F/A-18 C/D to include the development of an AUTOGCAS for the F/A-18E/F and EA-18G is a logical extension of the DVMC-Upgrade using modifications to the Terrain Avoidance Warning System (TAWS) resident in the existing DVMC in fatal mishap prevention.

Current F/A-18E/F EW suite will not keep pace against evolving threats. Advanced Electronic Warfare (ADVEW) provides increased survivability and enhanced SA throughout the EM spectrum against current, expanded and complex RF threats/environment. Incremental approach to collaborative detection/jamming initiatives and Common Tactical Picture, Tactical data fusion concepts.

Network Cyber Defense provides for the development of a hardware and software based solution into the Distributed Target Processor - Network (DTP-N) in order for the network cyber defense to provide the F/A-18 E/F and EA-18G with a capability to detect an intrusion and prevent avionics terminals on the data from being corrupted by malicious software and identify when the software is not operating normally.

F-18 modernization Global Lightning development is an integrated F/A-18E/F and EA-18G Beyond Line of Sight (BLOS) communications solution. This effort includes the development of a software defined radio, Global Lightning aperture, and resilient communication enablers. Additionally, this will encompass an aircraft integration effort to support two way data and voice BLOS capability. This capability provides joint, multi-domain connectivity for the distributed battlespace Beyond Line Of Sight (BLOS) tactical communication and puts a common tactical picture into the hands of the pilot. The capability also provides a resilient, real-time gateway between the 4th and 5th generation tactical aircraft with datalinks at the tactical edge with assured C2 and targeting from national and other off board sensors. The data is provided through multiple data paths and supports Long Range Fires in critical environments. Beyond Line Of Site (BLOS) also provides tactical communications for joint, multi-domain connectivity in support of distributed battlespace. This incremental approach allows for rapid, Speed-to-the-Fleet capability insertion as technology and solutions are developed.

The continuum previously known as Next Generation Naval Mission Planning System (NGNMPS) updates legacy Joint Mission Planning System (JMPS) into an integrated capability providing advanced multiple/dissimilar aircraft planning capabilities focused on emerging, high-threat mission areas (including complex, integrated kinetic/non-kinetic effects).

Live Virtual Constructive (LVC) Aircraft funds the testing of F/A-18 and EA-18G aircraft and trainers into the Live, Virtual, Constructive, blended training environment to close the Great Powers Competition training capability gap for mission rehearsal for the high end fight. F/A-18 and EA-18G are a critical part of the Aviation LVC System of Systems (SoS) training environment bringing already-developed capabilities together with new developmental efforts to form a cohesive architecture that accurately

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy	Date: March 2024
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0204136N *I F/A-18 Squadrons*

emulates the high end fight for warfighter training. As a result of the F/A-18 and EA-18G system capability upgrades, electrical power system improvements are required (i.e Generator Converter Unit (GCU), Transformer Rectifier Unit (TRU), Feeder Wire).

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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	235.204	333.783	332.802	-	332.802
Current President's Budget	229.157	333.783	374.194	-	374.194
Total Adjustments	-6.047	0.000	41.392	-	41.392
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.041	0.000			
• SBIR/STTR Transfer	-6.006	0.000			
• Program Adjustments	0.000	0.000	42.564	-	42.564
• Rate/Misc Adjustments	0.000	0.000	-1.172	-	-1.172

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 9999: *Congressional Adds*		
Congressional Add: *Noise reduction research*	3.861	0.000
Congressional Add: *Advanced beacon landing system upgrade*	9.653	0.000
Congressional Add Subtotals for Project: 9999	13.514	0.000
Congressional Add Totals for all Projects	13.514	0.000

Change Summary Explanation

Cost:

The FY2025 funding request increased by $41.392M as follows:

1662: increase of $58.683 for F-18 modernization Global Lightning development, increase of $12.290 million for F/A-18E/F Stores Management Set, reduction of $21.043M for other program adjustments, and reduction of $2.635 million for miscellaneous rate adjustments

2065: reduction of $5.838M for other program adjustments and $.031M for miscellaneous rate adjustments

2071: Not Applicable

9099: reduction of $.034M for miscellaneous rate adjustments
9999: Not Applicable

Technical:
1662: Not Applicable
2065: Not Applicable
2071: Not Applicable
9099: Not Applicable
9999: Not Applicable

Schedule:
PU 1662: MSI/CTP, Cyber, NGNMPS, Flight Plan and ADVEW FY25 and out schedule updated due to the F/A-18 System Configuration Set (SCS) transitioning from a H-Build software model that delivered a major release every two years to a Scaled Agile Framework (SAFe) that will deliver smaller releases more frequently as part of Continuous Integration, Delivery & Deployment (CID&D). Under CID&D, the previous SCS H-builds have been combined into a common baseline that provides release opportunities when capabilities are ready. The F/A-18E/F and EA-18G schedules reflect two release opportunities per Fiscal Year (FY); this is a notional schedule only as the program is not tied to two releases a year, and will determine when to release based on requirements and software readiness. Under CID&D the program will deliver capability to the warfighter with relevance and more quickly than the waterfall construct of H-builds allowed.

- Added Obsolescence Redesign SMS Development to begin Q2 FY25
- Added Obsolescence Redesign SMS Software Integration to begin Q2 FY25
- Added Obsolescence Redesign SMS Engineering Support to begin Q2 FY25
- Revised Obsolescence Redesign FCC Development Testing to begin Q1 FY26
- Added Obsolescence Redesign SMS T&E to begin Q1 FY27
- Revised USMC Upgrades AUTOGCAS DT to complete Q1 FY24
- Revised USMC Upgrades AUTOGCAS IT to complete Q4 FY25
- Added DVMC-U Support line
- Revised DVMC-U Lab DT to complete Q4 FY25
- Revised DVMC-U Lab IT&E to complete Q2 FY26
- Added Cyber Hardware Development to begin Q3 FY23
- Added Cyber Hardware Integration to begin Q3 FY24
- Revised Cyber Integration OT to begin Q4 FY26
- Added BLOS Global Lightning (GL) HW & SW Development to begin Q1 FY24 and complete Q4 FY26
- Added BLOS Global Lightning (GL) HW & SW T&E to begin Q1 FY25 and complete Q4 FY26
- Revised NGNMPS schedule to better align with current program requirements

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy	Date: March 2024
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0204136N *I F/A-18 Squadrons*

2065:
FY25 and out schedule updated due to the F/A-18 System Configuration Set (SCS) transitioning from a H-Build software model that delivered a major release every two years to a Scaled Agile Framework (SAFe) that will deliver smaller releases more frequently as part of Continuous Integration, Delivery & Deployment (CID&D). Under CID&D, the previous SCS H-builds have been combined into a common baseline that provides release opportunities when capabilities are ready. The F/A-18E/F and EA-18G schedules reflect two release opportunities per Fiscal Year (FY); this is a notional schedule only as the program is not tied to two releases a year, and will determine when to release based on requirements and software readiness. Under CID&D the program will deliver capability to the warfighter with relevance and more quickly than the waterfall construct of H-builds allowed.

- Revised Obsolescence Redesign to complete Q4 FY24
- Removed Advanced Development
- Removed 80 Series SW Interoperability
- Revised HGESM/Wideband Development to complete in Q3 FY27
- Added Software Integration, Flight Plan Test and Evaluation and OT releases to align to new agile software release opportunities
- Removed H20 Release
- Removed ASuW Fleet Release and WBR Deliveries.

2071:
- Not Applicable

9099:
- Revised Pressure Testing to complete Q2 FY23

9999:
- Not Applicable

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy									Date: March 2024			
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*				Project (Number/Name) 1662 / *F/A-18 Improvement*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
1662: *F/A-18 Improvement*	4,922.107	169.733	323.420	367.163	-	367.163	305.333	266.562	264.340	258.045	464.249	7,340.952
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The F/A-18 is required to perform multiple missions. The continued F/A-18 E/F and EA-18G "Flight Plan" spiral capability development is critical to the baseline of the Super Hornet next generation mission system capability to maintain the platform's tactical relevance in support of Navy Aviation Plan 2030.

Development continues for a platform solution to threat Advanced Electronic Attack and Counter-Electronic Attack (CEA). F/A-18 solutions to CEA include upgrades to existing sensors such as F/A-18 Radar Upgrade, Infrared Search and Track Block II, Targeting Pods, and development of future tactical data fusion that follows previous Common Tactical Picture (CTP) risk reduction efforts. Tactical data fusion capability is the next step in expanding the F/A-18E/F contributions to the force war fighting capability by combining multiple aircraft and sensor inputs, that effectively extends the engagement range while maximizing sensors and weapons. Incremental improvements continue with Multi-System Integration (MSI), Multi-Ship Ranging (MSR), and other algorithm improvements that are driven by sensor advancements, and efforts designed to increase aircraft lethality and kill chain effectiveness. Development and fleet delivery of special purpose solutions designated by Speed to Fleet by commanders, such as PACFLT MVP Pod, continue with dedicated resources and approved action plan. Software Modernization R&D efforts continue with new operating environment (hardware and software solutions) designed to take advantage of rapid software integration and security improvements that harden and protect the aircraft and weapon systems. The effort includes Model Based Systems Engineering (MBSE) tools that reduce future costs and schedule of technology insertion.

Capabilities of the F/A-18 weapon system and ancillary equipment require upgrades to accommodate, incorporate, and power new and enhanced weapons and advances in technology to respond effectively to emerging future threats. Future integrated Carrier Air Wing Concept of Operations (CONOPS) demand changes to the base line Block II Super Hornet. Development and Operational Testing for Block III Super Hornet are scheduled to begin in FY22, with incremental updates to mission computer software and fusion system will be required as fleet takes delivery of aircraft. Continuation of F/A-18 Block III development and improvements which will be incorporated in the near term with a combination of forward fit production line incorporation and retrofit modifications to the aircraft already planned as part of the Service Life Modification (SLM) Plan. Additionally, Block III system will support NGAD risk reduction activities.

USMC upgrades to the platform are being developed; to include integration and capability expansion of AESA Radar for F/A-18 A-D, evaluation and development of an Automatic Ground Collision Avoidance System (AUTOGCAS) for all F/A-18 variants, development of increased sensor and Electronic Warfare (EW) capability for F/A-18 A-D, weapons carriage and employment capability expansion, and enhancement of Mission Computer (MC) processing and memory capability. The requirement for Automatic Ground Collision Avoidance System (Auto-GCAS and/or AGCAS) is documented in the F/A-18 C/D Automatic Ground Collision Avoidance System Requirement Letter, dated 20 July 2020: "Controlled Flight into Terrain (CFIT) has been the leading cause of F/A-18 aircraft loss and aircrew fatality. Protecting the lives of aircrew, and preserving Marine Corps' assets are vital to combat readiness. The F/A-18 community has consistently placed AGCAS as a top platform safety priority in Naval Aviation Readiness Groups, Operational Advisory Groups, and Systems Safety Working Groups. AGCAS aligns with Section 127 of the FY19 National Defense Authorization Act, which directs the Secretary of the Navy to mitigate the risk of pilot incapacitation posed by physiological episodes. Historically, USAF F-16 squadrons have experienced similar CFIT mishap rates. To address this, the F-16 community developed a variant of AGCAS, and has demonstrated real world success in preventing CFIT with at least eight documented "saves." Due to this capability, the risk of CFIT has been effectively mitigated in the USAF F-16 community. Most

importantly, AGCAS would have prevented multiple fatal F/A-18 CFIT mishaps based on simulation re-enactments of these events. The USMC F/A-18 community requires AGCAS. The system must be capable of providing an Initial Operating Capability no later than the end of Fiscal Year 2022."

Funding for the Digital Video Map Computer-Upgrade (DVMC-U)/Advanced Crew Station (ACS) Improved Tactical Displays which will enable Panoramic "Big Picture" view of the Battle Space for improved weapons employment and engagement. Including the development of an AUTOGCAS for the F/A-18E/F and EA-18G as a logical extension of the DVMC-Upgrade leveraging completed work from F/A-18A-D using modifications to the TAWS resident in the existing Super Hornet/Growler DVMC in fatal mishap prevention.

Funding for Naval Aviation Physiological Episode (PE) mitigation and root cause investigation in aircraft.

Aviation LVC addresses the capability gap for advanced, integrated training for the Great Powers Competition (GPC) high-end fight against a peer adversary. Live execution of the extremely complex GPC scenarios would require tremendous numbers of aircraft operating at ranges and classification levels that far exceed the size and capabilities of existing Tactical Training Ranges (TTR). LVC closes this capability gap with an integrated network of aircrew-operated simulators (Virtual) and computer-generated airborne and surface forces (Constructive) to augment the Live event. This effort will test integrated capabilities with advanced threat and weapon simulation systems, Virtual and Constructive inputs in the Live cockpit, Live and Constructive entities into the simulator cockpit, and modified Operational Flight Programs (OFP) on the F/A-18 and E/A-18G. The F/A-18 effort is associated with the LVC efforts in RDTEN 3093. Electrical Power Systems improvements are required to support increased power loads (i.e GCU, TRU, Feeder Wire).

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. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: F/A-18 Obsolescence Redesign	26.628	17.834	30.226	0.000	30.226
Articles:	-	-	-	-	-
Description: Develop and test modifications to address obsolescence issues. ***FY 2024 Plans:*** FY24 effort will include finalization of Flight Control Computer (FCC) Shop-Replaceable Assembly (SRA) level specification document development and approval, while continuing SRA hardware design & development, software development and Test Plan and Procedure development. The F/A-18E, F/A-18F and EA-18G FCC receives inputs from the aircraft sensors and provides full authority fly-by-wire aircraft control, true airspeed, true angle-of-attack, and relative air density to the Advanced Mission Computer (AMC). F/A-18E, F/A-18F and EA-18G FCCs are interchangeable. The FCC is currently impacted by multiple obsolete components; Processor Module SRA and Mezzanine Card currently have 11 obsolete components. Redesigning mitigates parts obsolescence by leveraging existing industry designs and incorporating more modern hardware and					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
software technologies, incurring significant cost savings to the program by eliminating O&S costs for older systems. The program will include FCC obsolescence mitigation hardware design changes, FCC software update, system and aircraft level testing. Power growth requirements will need to be fulfilled as the current power generation capability has both power and reliability limitations. FY24 effort will include development of a G5 GCU that mitigates those power limitations, and obsolescence concerns. ***FY 2025 Base Plans:*** FY25 funding supports the continued procurement for Flight Control Computer (FCC) Shop-Replaceable Assembly (SRA) hardware redesign, software development and test planning. The F/A-18E, F/A-18F and EA-18G FCC receives inputs from the aircraft sensors and provides full authority fly-by-wire aircraft control, true airspeed, true angle-of-attack, and relative air density to the Advanced Mission Computer (AMC). The FCC is currently impacted by multiple obsolete components; the Processor Module SRA and Mezzanine Card currently have 11 obsolete components. The FCC redesign effort mitigates Processor Module SRA and Mezzanine Card obsolescence and power growth requirements by leveraging existing industry designs and incorporating more modern hardware and software technologies, incurring significant cost savings to the program by eliminating O&S costs for older systems. The program will include FCC obsolescence mitigation hardware design changes, FCC software update, system and aircraft level testing. The FY25 funds support the G5 GCU development to resolve power and reliability limitations, to include electrical power systems improvements to support required power load growth, and mitigate electrical power systems obsolescence concerns. In addition, funds will support the redesign of the Stores Management Set (SMS) to address obsolete components using a new chassis and processing cards. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY2024 to FY2025 of $12.392 million due to the redesign of the Stores Management Set (SMS).					
Title: USMC Capability Upgrades	3.780	15.322	15.833	0.000	15.833
Articles:	-	-	-	-	-
Description: USMC upgrades to the platform are being developed to include evaluation and development of an Automatic Ground Collision Avoidance System (AUTOGCAS) for all F/A-18 variants, development of increased sensor and EW capability for F/A-18 C/D, weapons carriage and employment capability expansion, and enhancement of MC processing and memory capability. AUTOGCAS will provide the F/A-18 with an auto recovery capability that maneuvers the aircraft away from the ground in case of pilot incapacitation from G-Loss					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
of Consciousness or a Physiological Episode (PE) event. This is a significant aircraft safety improvement that could have prevented multiple fatal F/A-18 mishaps over the past two decades. The requirement for Automatic Ground Collision Avoidance System (Auto-GCAS and/or AGCAS) is documented in the F/A-18 C/D Automatic Ground Collision Avoidance System Requirement Letter, dated 20 July 2020: "Controlled Flight into Terrain (CFIT) has been the leading cause of F/A-18 aircraft loss and aircrew fatality. Protecting the lives of aircrew, and preserving Marine Corps' assets are vital to combat readiness. The F/A-18 community has consistently placed AGCAS as a top platform safety priority in Naval Aviation Readiness Groups, Operational Advisory Groups, and Systems Safety Working Groups. AGCAS aligns with Section 127 of the FY19 National Defense Authorization Act, which directs the Secretary of the Navy to mitigate the risk of pilot incapacitation posed by physiological episodes. Historically, USAF F-16 squadrons have experienced similar CFIT mishap rates. To address this, the F-16 community developed a variant of AGCAS, and has demonstrated real world success in preventing CFIT with at least eight documented "saves." Due to this capability, the risk of CFIT has been effectively mitigated in the USAF F-16 community. Most importantly, AGCAS would have prevented multiple fatal F/A-18 CFIT mishaps based on simulation re-enactments of these events. The USMC F/A-18 community requires AGCAS. The system must be capable of providing an Initial Operating Capability no later than the end of Fiscal Year 2024." ***FY 2024 Plans:*** Continue AUTOGCAS Phase 2 Flight Control Computer (FCC) Operational Flight Programs (OFP) Update and platform integration and testing. ***FY 2025 Base Plans:*** Complete AUTOGCAS platform integration flight testing and continue F/A-18 C/D pilot proficiency testing in support of Agile software capability releases. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY2024 to FY2025 of $.511 million due to pilot proficiency testing in support of Agile software capability releases.					
Title: Multi-System Integration (MSI) / Common Tactical Picture (CTP)	69.698	64.461	59.955	0.000	59.955
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Description: Multi-System Integration (MSI), Multi-Ship Ranging (MSR), and IRIS algorithm continue to evolve and progress from baseline H16 SCS that continues incremental approach and improvements designed to optimize the system. Concurrently, H16 Block III Common Tactical Picture (CTP) continues with development and optimization of merge data fusion and sensors from single aircraft to multiple aircraft. Advanced Tactical Data Fusion represents an incremental approach to accelerating kill chains through multi aircraft sensor fusion, improved algorithms, automation, and aircrew decision aids to support Multi-Ship Battlespace Management. System Configuration Set (SCS) methodology of bundling capabilities and modifications into a single fleet mission computer Operational Flight Program (OFP) continue, but at an increased delivery rate to meet rapid speed to fleet demands. This is being accomplished with an incremental modernization of the F/A-18 & EA-18G software lifecycle that includes Scaled Agile Framework. ***FY 2024 Plans:*** Development and Integration of Advanced Tactical Data Fusion for H20 for F/A-18 & EA-18G as well as providing Next Generation Air Dominance (NGAD) risk reduction. This effort includes improvements to mission computer, JMPS UPC, and weapon system software SCS updates associated with each incremental Block (H build) and to include ongoing Software Modernization, Cyber protections, and Speed to Fleet requirements. Advances in Super Hornet Air and Surface Warfare will continue with ongoing integration of weapons and sensors into advanced fusion, Display Improvements to enhance air-to-air and air-to-surface situational awareness and aircrew decision superiority, continued development of third party software applications and protocols for rapid fleet capability delivery, and Counter Electronic Attack enhancements to improve survivability and lethality. ***FY 2025 Base Plans:*** Develop, integrate and test Advanced Tactical Data Fusion solution to support Infrared Search and Track (IRST) capability improvements. Develop requirements for the Advanced Tactical Data Fusion Solution to support air-to-air and air-to-ground capability improvements. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY2024 to FY2025 of $4.506 million due to reduction in support as System Configuration Set (SCS) 31C Fleet Release and H18 Fleet Release 3 deliver Q4FY24.					
Title: Digital Video Map Computer-Upgrade (DVMC-U)	9.052	41.315	28.815	0.000	28.815
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Description: Funds development of Digital Video Map Computer-Upgrade (DVMC-U) (formerly known as Advanced Capability Display Computer - ACDC) to leverage Large Area Displays (LAD) and Advanced Networking Infrastructure (ANI) in Block III to provide greater situational awareness and incorporate Tactical Decision Aids such as Common Tactical Picture. AUTOGCAS will provide the F/A-18 with an auto recovery capability that maneuvers the aircraft away from the ground in case of pilot incapacitation or Controlled Flight Into Terrain (CFIT) incidents. This is a significant aircraft safety improvement that could have prevented multiple fatal F/A-18 mishaps over the past two decades and aligns with Section 127 of the FY19 National Defense Authorization Act directing the Secretary of the Navy to mitigate the risk posed by CFIT. Modifications to the Digital Mapping Computer (DMC), as well as the Terrain Avoidance Warning System (TAWS) and flight control laws to incorporate AUTOGCAS for the F/A-18 C/D Hornet directly port over to incorporate this life-saving capability to the Super Hornet/Growler with reduced program development requirements. Including the development of an AUTOGCAS for the F/A-18E/F and EA-18G leveraging completed work from F/A-18 C/D is scheduled to begin in FY22 as a logical extension of the DVMC-Upgrade using modifications to the TAWS resident in the existing DVMC in fatal mishap prevention. ***FY 2024 Plans:*** Continue design and development for the Digital Video Map Computer-Upgrade (DVMC-U) hardware & software that will enable Larger Area Display surface to be fully utilized with advanced graphical tactical displays and intuitive touch screen interface capabilities. During this time, the hardware design will be more mature so we expect the software development to ramp up. The software development will be for the internal DVMC operational program, aircraft integration via the mission computer, and enhanced displays. Developmental flight test efforts to begin. ***FY 2025 Base Plans:*** Build, integrate and test DVMC-U system. Manage software requirements, projected changes to software size and integration of software components. Assemble DVMC-U system elements together to provide the system for testing in the verification process, integrate the system, and verify compliance with the functional and allocated baselines through developmental test and evaluation. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY2024 to FY2025 of $12.500 million due to completion of detailed hardware design.					
Title: Flight Plan Engineering / System Configuration Set Development and Integration	3.736	3.967	3.747	0.000	3.747

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Articles:	-	-	-	-	-
Description: Continue F/A-18 E/F and EA-18G "Flight Plan" spiral capability development, which is critical to the baseline of the Super Hornet next generation mission system capability. Funding will support the development, test, and integration efforts required to maintain tactical relevance in support of the Naval Aviation Plan 2030. ***FY 2024 Plans:*** Continue Flight Plan Engineering efforts to include F/A-18E/F improvements necessary for Super Hornet relevance and tactical supremacy, Software Modernization and Cyber, Navy Integrated Fire Control-Counter Air system configuration set requirements to support Navy Integrated Air and Missile Defense capability requirements and enhanced F/A-18 Cooperative Engagement Capability. Continue to support Trade Studies expanding technology and integration options in these areas, as well as explore new technologies in areas such as Artificial Intelligence. ***FY 2025 Base Plans:*** Continue Flight Plan Engineering efforts to include F/A-18E/F improvements necessary for Super Hornet relevance and tactical supremacy, Software Modernization and Cyber, Navy Integrated Fire Control-Counter Air system configuration set requirements to support Navy Integrated Air and Missile Defense capability requirements and enhanced F/A-18 Cooperative Engagement Capability. Continue to support Trade Studies expanding technology and integration options in these areas, as well as explore new technologies in areas such as Artificial Intelligence. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY2024 to FY2025 of $.220 million due to misc adjustments.					
Title: F/A-18 E/F/G Network Cyber Defense	10.918	16.132	16.124	0.000	16.124
Articles:	-	-	-	-	-
Description: This funding provides for the development of a hardware and software based solution into the Distributed Target Processor - Network (DTP-N) in order for the network cyber defense to provide the F/A-18 E/F and EA-18G with a capability to detect an intrusion and prevent avionics terminals on the data from being corrupted by malicious software and identify when the software is not operating normally. The capability determines intrusion via traffic analysis. Air crew are alerted to malicious behavior with forensic data for maintenance for post flight repair. The capability quarantines the intrusion for safe failure across data networks					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
and aircraft. This capability provides positive reliable means to ensure mission aircraft systems integrity during a cyber-attack and thus prevents cyber events from reducing aircraft availability. ***FY 2024 Plans:*** FY2024 Network Cyber Defense will perform detailed design and development efforts with a ramp-up in hardware prototyping and integration. Begin coding target system software, developmental test plans and test tool development. ***FY 2025 Base Plans:*** Develop aircraft installation kit. Finish developmental coding. Finish hardware detailed design. Produce test kits for installation on two aircraft. Begin demonstration and developmental testing in the lab and aircraft ground test. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY2024 to FY2025 of $.008 million due to misc adjustments.					
Title: F/A-18 Beyond Line Of Sight (BLOS) Comms	27.900	38.332	68.583	0.000	68.583
Articles:	-	-	-	-	-
Description: This capability provides joint, multi-domain connectivity for the distributed battlespace Beyond Line Of Sight (BLOS) tactical communication and puts a common tactical picture into the hands of the pilot. The capability also provides a resilient, real-time gateway between the 4th and 5th generation tactical aircraft with datalinks at the tactical edge with assured C2 and targeting from national and other off board sensors. The data is provided through multiple data paths and supports Long Range Fires in critical environments. Beyond Line Of Site (BLOS) also provides tactical communications for joint, multi-domain connectivity in support of distributed battlespace. This incremental approach allows for rapid, Speed-to-the-Fleet capability insertion as technology and solutions are developed. ***FY 2024 Plans:*** Provide systems development for Global Lightning (GL), an integrated F/A-18E/F and EA-18G Beyond Line of Sight (BLOS) communications solution. This effort includes the development of a software defined radio, Global Lightning aperture, and resilient communication enablers. Additionally, this will encompass an aircraft integration effort to support two way data and voice BLOS capability. ***FY 2025 Base Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Continue the development and hardware integration of GL on the F/A-18E/F and software integration on the F/A-18E/F and EA-18G. Provide aircraft integration to support two-way data and voice BLOS capability. Continue integration of two-way data and voice communication and an aperture for use over a satellite constellations. Development of a ground test infrastructure to enable complete end-to-end test. This will include system development and on aircraft integration to support testing. Continue Depot Level stand up of the F/A-18 E/F GL capability. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY2024 to FY2025 of $30.251 million due to the development acceleration of BLOS increment 2 to include connectivity to additional satellite constellations to meet Air Wing of the Future North Star objectives. Acceleration brings a key capability increase in survivability, battlespace awareness, targeting, and execution of long-range fires that ensures the Naval Airwings continued air dominance in all operational areas of responsibility. BLOS will continue to use an incremental capability approach that will incorporate two-way data and voice communication over satellite constellations. The increase will directly fund platform integration to include Statement of Requirements (SORs) software configuration set work. Development of a new receiver/transmitter and an aperture is required to meet persistent data and voice communication requirements over satellite constellations. Development of a ground test infrastructure to enable complete end-to-end test. Modification line stand up to support developmental and operational test of GL BLOS increment 2. Development efforts will bring two-way data and voice BLOS capabilities to the F/A-18E/F and EA-18G.					
Title: Next Generation Naval Mission Planning System (NGNMPS) ***Articles:*** ***Description:*** The Continuum, also known as Next Generation Naval Mission Planning System (NGNMPS), updates legacy Joint Mission Planning System (JMPS) into an integrated capability providing advanced multiple/dissimilar aircraft planning capabilities focused on emerging, high-threat mission areas (including complex, integrated kinetic/non-kinetic effects). Legacy Joint Mission Planning System-Maritime (JMPS-M) planning capabilities support individual aircraft and weapon initialization requirements. The emerging, near-peer threat environment is demanding a much more capable system allowing a team of aircraft to cooperate effectively across multiple mission areas, domains, and security levels. The NGNMPS is the product of a Mid-Tier Acquisition, rapid prototyping effort which validates new concepts and design requirements necessary to support the emerging demanding environment. This issue sheet funds the ability to field the new, high-end capabilities within the current Air Wing construct.	1.167 -	20.000 -	20.500 -	0.000 -	20.500 -

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
FY 2024 Plans: Provide support to transition the Airborne Electronic Attack (AEA) Unique Planning Component (UPC) to NGNMPS. Capabilities to be migrated from the Joint Mission Planning (JMPS) to NGNMPS under this effort include the following: JMPS/Next Generation Open Mission Systems (NOMS) data transfer, Order of Battle/ map visuals, ALQ-218/receiver planning, ALQ-99, ALQ-249/jammer planning, mission phase planning, and the associated Developmental Test (DT)/Operational Test (OT) testing for verification and validation. ***FY 2025 Base Plans:*** Continued development efforts to rewriting the F/A-18 UPC & AEA UPC code in Java and transfer it onto the web server, removing the dependency on the JMPS Framework, while still running on a client Windows laptop with the ability to pull the UPC out of the JMPS runtime, pull collaboration data (where available) from the web server, and reduce the friction in going to-and-from the brick. Specifically working the AEA UPC systems development, including software development, JMPS-Continuum data transfer, order of battle and map visuals, mission phase planning, ALQ-218 receiver planning, and ALQ-99/ALQ-249 jammer planning. F/A-18 UPC systems development, including analysis, migration, and execution of Continuum data sources. Continuous/agile integration testing and evaluation. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY2024 to FY2025 of $.500 million due to engineering efforts associated with transition of AEA UPC to NGNMPS.					
Title: Advanced Electronic Warfare (ADVEW)	16.854	101.057	116.363	0.000	116.363
Articles:	-	-	-	-	-
Description: This budget supports development and platform integration of a modernized, fully integrated, multi-spectral Electronic Warfare (EW) system to enhance platform survivability against near-peer threats. This new system called Advanced EW (ADVEW) replaces the outdated ALR-67 radar warning receiver (RWR) and the limited ALQ-214 self-protect jammer into a modern, combined EW suite providing automated EW processing in an Open System Architecture. The suite will enable both offensive and defensive capabilities for the F/A-18E/F, as well as interoperable EW effects across the Carrier Air Wing and joint forces. Funding will support multiple sensor enhancements to include the AN/APG-79 radar Wideband Receiver (WBR) upgrade providing instantaneous bandwidth and integration of EW signals into the ADVEW suite. When fielded in FY27, this system will provide all-aspect, high sensitivity detection of full spectrum complex/agile/cognitive Radio					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Frequency (RF) threats keeping the Super Hornet a highly capable strike fighter asset in the Great Power Competition through platform sundown in 2040. ***FY 2024 Plans:*** Funding will support multiple contracting efforts to include support of a Rapid Prototyping development effort. Funding will provide for government modeling and simulation to validate system performance of vendor prototypes. It will also support development to integrate the radar into the new ADVEW system as well as the radar Wideband Receiver hardware upgrade. ***FY 2025 Base Plans:*** Funding will continue to support multiple contracting efforts to include support of a Rapid Prototyping development efforts. Funding will support government testing and evaluation in lab, chamber, and ground testing. It will also support development to integrate the radar into the new ADVEW system as well as the radar Wideband Receiver (WBR) hardware upgrade. Additionally this funding will support the commencement of Agile Software Continuous Integration, Delivery & Deployment (CID&D) for improvement and integration efforts required to incorporate ADVEW capabilities. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY2024 to FY2025 of $15.306 million due to the increase of testing the ADVEW prototypes as well as the radar Wideband Receiver hardware upgrade.					
Title: Live Virtual Constructive (LVC) Aircraft Integration	0.000	5.000	7.017	0.000	7.017
Articles:	-	-	-	-	-
Description: Aviation LVC addresses the capability gap for advanced, integrated training for the Great Powers Competition (GPC) high-end fight against a peer adversary. Live execution of the extremely complex GPC scenarios would require tremendous numbers of aircraft operating at ranges and classification levels that far exceed the size and capabilities of existing Tactical Training Ranges (TTR). LVC closes this capability gap with an integrated network of aircrew-operated simulators (Virtual) and computer-generated airborne and surface forces (Constructive) to augment the Live event. This effort will test integrated capabilities with advanced threat and weapon simulation systems, Virtual and Constructive inputs in the Live cockpit, Live and Constructive entities into the simulator cockpit, and modified Operational Flight Programs (OFP) on the F/A-18 and E/A-18G. The F/A-18 effort is associated with the LVC efforts in RDTEN 3093.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
FY 2024 Plans: FY 2024 will commence testing of Live, Virtual, Constructive capability of the F/A-18 and EA-18G, including Tactical Combat Training System Increment II (TCTS II) development, and integration of Synthetic Inject to Live (SITL), system security modifications, and advanced integration with constructive inject systems, Navy Continuous Training Environment (NCTE), and other platforms. Additional capabilities tested include LVC integration on the NCTE, using Next Generation Threat System (NGTS), and range live event display and debrief systems. ***FY 2025 Base Plans:*** FY 2025 will develop and test Live, Virtual, Constructive capability of the F/A-18 and EA-18G. This includes development to integrate the Tactical Combat Training System Increment II (TCTS II) pod, transition of demonstrated Synthetic Inject to Live (SITL) technology, system security modifications, and advanced integration with constructive inject systems, the Navy Continuous Training Environment (NCTE), and other platforms. Additional capabilities tested include LVC integration on the NCTE, using Next Generation Threat System (NGTS), and range live event display and debrief systems. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY2024 to FY2025 of $2.017 million due to ramp up in development efforts for TCTS II.					
Accomplishments/Planned Programs Subtotals	169.733	323.420	367.163	0.000	367.163

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APN/0525: *F-18 SERIES*	443.386	640.236	680.613	-	680.613	951.783	1,054.060	1,146.062	1,170.531	3,402.507	23,324.828
• APN/0145: *FA-18E/F*	671.065	41.329	28.554	-	28.554	50.777	0.000	0.000	0.000	0.000	54,084.607
• APN/0505: *F-18E/F and EA-18G Modernization and Sustainment*	544.849	605.416	566.727	-	566.727	629.619	606.013	749.867	777.208	3,770.230	9,072.711

Remarks

D. Acquisition Strategy

The F/A-18 Improvement program consists of extensive spiral development efforts mapped out in the capability-based approach F/A-18 E/F "Flight Plan". These efforts are critical to the baseline of the Super Hornet next generation mission system capability and maintaining tactical relevance in support of the Naval Aviation

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

Plan 2030. The major programs within the F/A-18 Improvement project are based on multiple Weapon System Capabilities including: Net Centric Operations/Battle Space Management, Sensor Integration, Air to Ground and Maritime Attack, and Air to Air Attack. The major efforts included in this project are: Dual Mode Weapons integration; Nirvana (next increment of Common Tactical Picture (CTP)); continued advanced development and F/A-18E/F Flight Plan engineering and analysis; continued enhanced software capabilities development; continued efforts to increase the power load to all aircraft systems via electrical system upgrades (Generator Converter Unit (GCU), Transformer Rectifier Unit (TRU), Feeder Wire); and engineering support to perform technical evaluations, modeling and simulations, and investigative flight testing. Nirvana capability is being developed under the NAWCWD System Configuration Set (SCS) Cost Plus Fixed Fee contract. AUTOGCAS will provide the F/A-18 with an auto recovery capability that maneuvers the aircraft away from the ground through automatic throttle control, flying to a pre-defined waypoint and circling until pilot recovery in case of pilot incapacitation or Controlled Flight Into Terrain (CFIT) incidents. Including the development of an AUTOGCAS for the F/A-18E/F and EA-18G leveraging completed work from F/A-18A-D is scheduled to begin in FY22 as a logical extension of the DVMC-Upgrade (formerly known as Advanced Capability Display Computer - ACDC) using modifications to the Terrain Awareness and Warning System (TAWS) resident in the existing Digital Video Map Computer (DVMC) in fatal mishap prevention.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 1662 / *F/A-18 Improvement*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MSI/CTP Develop Sensor Integration	C/IDIQ	Boeing : St Louis, MO	51.308	16.620	Feb 2023	20.730	Feb 2024	17.405	Feb 2025	-		17.405	128.832	234.895	234.895
MSI/CTP - Develop Sensor Integration	WR	Raytheon : El Segundo, CA	6.079	6.187	Feb 2023	0.000		0.000		-		0.000	0.000	12.266	-
MSI/CTP Develop Sensor Integration	WR	NAWCWD : China Lake, CA	57.268	6.708	Nov 2022	12.491	Nov 2023	7.846	Nov 2024	-		7.846	117.029	201.342	-
MSI/CTP Development Support	WR	NSMA : Washingon, DC	5.500	0.000	Dec 2022	2.781	Dec 2023	1.432	Dec 2024	-		1.432	10.772	20.485	-
MSI/CTP Strike Accelerator ASUW ICP3	WR	NAWCWD : China Lake, CA	14.949	1.316	Nov 2022	3.071	Nov 2023	0.000		-		0.000	0.220	19.556	-
MSI/CTP Engineering Support	WR	NAWCAD : Pax River, MD	0.000	2.258	Nov 2022	0.280	Nov 2023	5.202	Nov 2024	-		5.202	19.474	27.214	-
USMC Upgrades - AUTOGCAS - Software development & Risk Reduction	WR	NAWCWD : China Lake, CA	9.195	0.771	Nov 2022	0.914	Nov 2023	1.000	Nov 2024	-		1.000	0.000	11.880	-
USMC Upgrades - AUTOGCAS	C/CPIF	Boeing : St Louis, MO	23.085	0.000		11.025	Jun 2024	4.882	Jun 2025	-		4.882	44.088	83.080	83.080
USMC Upgrades - AUTOGCAS	WR	NAWCAD : Pax River, MD	3.924	1.913	Nov 2022	0.000		0.993	Nov 2024	-		0.993	6.434	13.264	-
USMC Upgrades - TBD	C/CPFF	TBD : TBD	0.000	0.000		0.000		0.000		-		0.000	30.554	30.554	30.554
DVMC-U Primary HW Development	C/CPIF	Mercury Missions Systems : Andover, MA	0.000	0.000		0.000		3.322	Mar 2025	-		3.322	5.676	8.998	8.998
DVMC-U Software Development	WR	NAWCWD : China Lake, CA	0.286	3.900	Nov 2022	3.802	Nov 2023	2.735	Nov 2024	-		2.735	190.572	201.295	-
DVMC-U (ACS) Improved Tactical Displays Development	C/CPIF	Boeing : St. Louis, MO	25.124	0.250	Feb 2023	25.788	Feb 2024	22.317	Feb 2025	-		22.317	137.704	211.183	211.183
DVMC-U ACS SW Development	C/CPIF	Boeing : St. Louis, MO	0.000	0.000		0.000		0.000		-		0.000	70.261	70.261	70.261
Flight Plan - Development	C/CPFF	Bascom Hunter : Baton Rouge, LA	0.000	0.179	Jun 2023	0.400	Jun 2024	0.000		-		0.000	0.000	0.579	0.579
Fligh Plan Development	C/CPFF	TBD : TBD	0.000	0.222	Jul 2023	0.100	Jul 2024	0.500	Jul 2025	-		0.500	3.500	4.322	4.322

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 1662 / *F/A-18 Improvement*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Obsolescense Redesign (FCC)	C/IDIQ	Boeing : St. Louis, MO	0.000	3.000	Jul 2023	17.344	Jul 2024	17.813	Jul 2025	-		17.813	11.138	49.295	49.295
Obsolescence Redesign - SMS PHD	WR	NAWCAD : Pax River, MD	3.300	0.000		0.000		4.773	Nov 2024	-		4.773	129.104	137.177	-
Obsolescence Redesign - SMS PHD	WR	NAWCWD : China Lake, CA	0.000	0.000		0.000		4.627	Nov 2024	-		4.627	34.225	38.852	-
Obsolescense Redesign - APN-245 MMA	C/CPFF	Sierra Nevada Corp : Sparks, NV	0.000	7.231	Jul 2023	0.000		0.000		-		0.000	0.000	7.231	7.231
Obsolescence Redesign - DMOLS SW	WR	NAWCWD : China Lake, CA	0.000	9.312	Jan 2023	0.000		0.000		-		0.000	0.000	9.312	-
Obsolescence Redesign - OTPS PHD	Various	Various : Various	0.000	0.875	Feb 2023	0.000		0.000		-		0.000	0.000	0.875	-
Obsolescence Redesign - DMOLS PHD	C/CPFF	GTRi : Lexington Park, MD	0.000	2.923	Feb 2023	0.000		0.000		-		0.000	0.000	2.923	2.923
Obsolescense Redesign - AN/ARA-63 Open Arch Landing Sys	C/CPFF	Sierra Nevada Corp : Sparks, NV	3.100	1.824	Jul 2023	0.000		0.000		-		0.000	0.000	4.924	4.924
Network Cyber Defense	C/IDIQ	Boeing : St. Louis, MO	0.000	1.633	Jan 2023	6.614	Jan 2024	3.949	Jan 2025	-		3.949	4.741	16.937	16.937
Network Cyber Defense	C/IDIQ	NAWCWD : China Lake, CA	0.000	7.136	Jan 2023	3.818	Jan 2024	2.500	Jan 2025	-		2.500	3.155	16.609	16.609
Network Cyber Defense	WR	NSMA : Washington, DC	0.000	0.250	Feb 2023	0.000		0.000		-		0.000	0.000	0.250	-
BLOS/PACFLT Development (Antenna)	C/CPFF	Toyon : Goleta, CA	0.000	2.000	Jan 2023	5.390	Jan 2024	8.850	Jan 2025	-		8.850	0.000	16.240	16.240
BLOS/PACFLT Development	C/CPFF	Fuse : San Diego, CA	0.800	2.800	Jan 2023	4.360	Jan 2024	4.360	Jan 2025	-		4.360	0.000	12.320	12.320
BLOS/PACFLT Development (R/T)	C/CPFF	DTIC : Fort Belvoir, VA	0.000	5.225	Jan 2023	8.268	Jan 2024	7.620	Jan 2025	-		7.620	0.000	21.113	21.113
BLOS/PACFLT Development (Minotaur)	C/FFP	PMAT : Norfolk, VA	0.000	0.195	Jan 2023	1.060	Jan 2024	0.000		-		0.000	0.000	1.255	1.255
BLOS/PACFLT Development	WR	NAWCWD : China Lake, CA	0.000	5.666	Nov 2022	0.000		1.400	Nov 2024	-		1.400	0.000	7.066	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 1662 / *F/A-18 Improvement*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
BLOS/PACFLT Development	C/IDIQ	Boeing : St. Louis, MO	2.500	1.200	Jan 2023	3.934	Jan 2024	6.049	Jan 2025	-		6.049	3.200	16.883	16.883
BLOS/Global Lightning PHD	Various	Various : Various	0.000	0.000		0.000		3.680	Mar 2025	-		3.680	0.000	3.680	-
BLOS/PACFLT Development (SCS)	WR	NSWC Crane : Crane, IN	0.000	0.000		0.000		5.800	Nov 2024	-		5.800	0.000	5.800	-
BLOS/PACFLT Development (Ground Station)	TBD	TBD : TBD	0.000	0.000		0.000		5.000	Nov 2024	-		5.000	0.000	5.000	-
BLOS/PACFLT Development	WR	FRCSW : North Island, CA	0.000	0.000		0.000		3.140	Nov 2024	-		3.140	0.000	3.140	-
LVC A/C Integration Phase 1 & TCTS II Acceleration	C/CPFF	Boeing : St. Louis, MO	0.000	0.000		3.001	Feb 2024	4.307	Feb 2025	-		4.307	22.478	29.786	29.786
NGNMPS - Development	C/IDIQ	Boeing : St. Louis, MO	0.000	0.000		8.915	Dec 2023	6.933	Dec 2024	-		6.933	17.156	33.004	30.004
NGNMPS - Development	WR	NAWCWD : Pt. Mugu, CA	0.000	1.167	Jan 2023	6.565	Dec 2023	10.109	Nov 2024	-		10.109	40.830	58.671	-
NGNMPS - Development	WR	NAWCWD : China Lake, CA	0.000	0.000		4.520	Dec 2023	3.458	Nov 2024	-		3.458	7.514	15.492	-
ADVEW - Development	C/CPIF	Raytheon : El Segundo, CA	0.000	0.000		20.000	Jan 2024	16.916	Jan 2025	-		16.916	1.855	38.771	38.771
ADVEW - Development	C/FPIF	Boeing : St. Louis, MO	0.000	0.000		2.300	Jan 2024	2.700	Jan 2025	-		2.700	4.300	9.300	9.300
ADVEW - Development	C/CPFF	NSMA : Washington, DC	0.000	10.000	Jan 2023	44.894	Dec 2023	62.328	Dec 2024	-		62.328	90.359	207.581	207.581
ADVEW - Development	WR	NAWCWD : China Lake, CA	0.000	0.000		0.000		17.840	Nov 2024	-		17.840	30.491	48.331	-
ADVEW - Development	WR	NAWCWD : Pt. Mugu, CA	0.000	0.000		0.000		5.700	Nov 2024	-		5.700	1.800	7.500	-
ADVEW - Development	WR	NAWCAD : Lakehurst, NJ	0.000	0.000		0.000		1.105	Nov 2024	-		1.105	1.020	2.125	-
Prior Year Prod Dev cost no longer funded in FYDP	Various	Various : Various	908.776	0.000		0.000		0.000		-		0.000	0.000	908.776	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			1,115.194	102.761		222.365		278.591		-		278.591	1,168.482	2,887.393	N/A

Remarks

Increase from FY 2024 to FY 2025 for the Stores Management Set (SMS) obsolescence redesign effort beginning in Q2FY25. In addition to the start of the SMS effort, there is an increase in funding for the development of Beyond Line of Sight (BLOS) increment 2. The additional funding will accelerate the development and provide increased BLOS capability in FY 2026. Development of Next Generation Mission Planning Systems (NGNMPS), Advanced Electronic Warfare (ADVEW), Digital Video Map Computer Upgrade (DVMC-U) efforts will continue in FY 2025.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MSI/CTP Development Support - 31C SCS	WR	NSMA : Washington, DC	12.313	0.950	Mar 2023	1.832	Mar 2024	1.866	Mar 2025	-		1.866	13.900	30.861	-
MSI/CTP Government Developmental Engineering Support	WR	Pt. Mugu : Pt. Mugu, CA	0.880	0.037	Nov 2022	0.493	Nov 2023	0.034	Nov 2024	-		0.034	0.234	1.678	-
MSI/CTP Gov't Engineering Support	WR	NAWCAD : Pax River, MD	21.004	1.994	Nov 2022	6.852	Nov 2023	7.488	Nov 2024	-		7.488	113.386	150.724	-
MSI/CTP Gov't Engineering Support	WR	NAWCWD : China Lake, CA	49.419	0.950	Nov 2022	2.531	Nov 2023	0.000		-		0.000	0.000	52.900	-
MSI/CTP Gov't Engineering Support Strike Accelerator	WR	NAWCWD : China Lake, CA	6.787	0.000		1.531	Nov 2023	0.000		-		0.000	0.000	8.318	-
MSI/CTP BIT SAR ASuW	WR	NAWCWD : China Lake, CA	2.000	1.186	Nov 2022	0.000		0.000		-		0.000	0.000	3.186	-
MSI/CTP Engineering Support	MIPR	US Army : Aberdeen, MD	0.311	0.338	Nov 2022	0.318	Dec 2023	0.324	Dec 2024	-		0.324	2.026	3.317	-
USMC Capability Upgrades /AUTOGCAS Gov't Engineering Support	WR	NAWCWD : China Lake, CA	4.290	0.000		0.363	Nov 2023	0.000		-		0.000	0.000	4.653	-
USMC Capability Upgrades /AUTOGCAS Gov't Engineering Support	WR	NAWCAD : Pax River, MD	0.000	0.274	Nov 2022	0.000		0.000		-		0.000	0.000	0.274	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 1662 / *F/A-18 Improvement*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DVMC-U Gov't Engineering Support	WR	NAWCAD : Pax River, MD	0.944	4.040	Nov 2022	0.556	Nov 2023	1.109	Nov 2024	-		1.109	4.662	11.311	-
Flight Plan/SCS Engineering Support	WR	NAWCAD : Pax River, MD	9.709	0.000		0.500	Nov 2023	0.500	Nov 2024	-		0.500	3.000	13.709	-
Flight Plan/SCS Engineering Support	WR	NAWCAD : China Lake, CA	9.527	2.412	Nov 2022	1.450	Nov 2023	1.500	Nov 2024	-		1.500	9.750	24.639	-
Obsolescence Redesign	Various	Various : Various	2.214	1.463	Nov 2022	0.490	Nov 2023	2.344	Nov 2024	-		2.344	12.658	19.169	-
Network Cyber Defense Gov't Engineering Support	WR	NAWCAD : Pax River, MD	0.000	0.329	Nov 2022	0.450	Nov 2023	0.250	Nov 2024	-		0.250	0.500	1.529	-
Network Cyber Defense Gov't Engineering Support	WR	JHU/APL : Laurel, MD	0.000	1.070	Apr 2023	0.000		0.000		-		0.000	0.000	1.070	-
BLOS/PACFLT Engineering/Logistics Support	WR	NAWCWD : China Lake, CA	28.832	10.694	Nov 2022	9.800	Nov 2023	6.058	Nov 2024	-		6.058	0.000	55.384	-
BLOS/PACFLT Egineering Support	WR	NAWCAD : Pax River, MD	0.000	0.000		1.400	Nov 2023	0.000		-		0.000	0.000	1.400	-
BLOS/PACFLT Engineering Support	WR	ONR : Arlington, VA	0.959	0.020	Oct 2022	1.600	Nov 2023	0.485	Nov 2024	-		0.485	0.000	3.064	-
BLOS/PACFLT Engineering Support	Various	Various : Various	0.000	0.000		0.000		2.100	Mar 2025	-		2.100	0.000	2.100	-
LVC A/C Integration Support	WR	NAWCAD : Pax River, MD	0.000	0.000		0.350	Nov 2023	0.400	Nov 2024	-		0.400	2.950	3.700	-
LVC A/C Integration Support	WR	NAWCTSD : Orlando, FL	0.000	0.000		0.250	Nov 2023	0.250	Nov 2024	-		0.250	1.600	2.100	-
LVC A/C Integration Support	WR	NAWCAD : Pt Mugu, CA	0.000	0.000		0.250	Nov 2023	0.250	Nov 2024	-		0.250	2.900	3.400	-
ADVEW Support	WR	NAWCAD : China Lake, CA	0.000	0.000		5.000	Nov 2023	0.000		-		0.000	0.000	5.000	-
ADVEW Support	WR	NSMA : Washington, DC	0.000	0.000		18.000	Feb 2024	0.000		-		0.000	0.000	18.000	-
Prior Year Support costs no longer funded in FYDP	Various	Various : Various	3,128.138	0.000		0.000		0.000		-		0.000	0.000	3,128.138	-
		Subtotal	3,277.327	25.757		54.016		24.958		-		24.958	167.566	3,549.624	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 1662 / *F/A-18 Improvement*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Decrease from FY 2024 to FY 2025 due to reduction in support upon delivery of MSI/CTP System Configuration Set (SCS) Fleet Release Q4FY24. ADVEW support was realigned to Product Development for continued Hardware and Software development.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation (OT&E)	WR	NAWCWD : China Lake, CA	0.000	0.000	Nov 2022	0.000		11.181	Nov 2024	-		11.181	0.000	11.181	-
Operational Test & Evaluation (OT&E)	WR	OPTEVFOR : Norfolk, VA	52.645	23.317	Dec 2022	7.759	Dec 2023	9.249	Nov 2024	-		9.249	51.304	144.274	-
Developmental Test & Evaluation (DT&E)	WR	NAWCAD : Pax River, MD	19.205	8.895	Nov 2022	8.048	Nov 2023	15.125	Nov 2024	-		15.125	61.821	113.094	-
Developmental Test & Evaluation (DT&E)	WR	NAWCWD : China Lake, CA	2.286	7.056	Nov 2022	25.149	Nov 2023	16.151	Nov 2024	-		16.151	48.643	99.285	-
Developmental Test & Evaluation (DT&E)	WR	NAWCWD : Pt. Mugu, CA	2.425	0.000		0.000	Mar 2024	6.000	Nov 2024	-		6.000	25.224	33.649	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	211.164	0.025	Nov 2022	0.000		0.000		-		0.000	0.000	211.189	-
		Subtotal	287.725	39.293		40.956		57.706		-		57.706	186.992	612.672	N/A

Remarks

Increase from FY2024 to FY2025 in support of BLOS developmental & operational test events for the BLOS Inc 2 accelerated schedule and testing the ADVEW prototypes as well as the radar Wideband Receiver hardware upgrade.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MSI/CTP- Program Management Support	WR	NAWCAD : Pax River, MD	11.374	0.524	Nov 2022	1.141	Nov 2023	0.320	Nov 2024	-		0.320	2.070	15.429	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 1662 / *F/A-18 Improvement*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MSI/CTP PMMAC CSS	C/CPFF	Tekla : Pax River, MD	0.189	0.313	Apr 2023	1.239	Apr 2024	1.570	Apr 2025	-		1.570	11.705	15.016	15.016
MSI/CTP VX-9 ETS	C/CPFF	COTF : Norfolk, VA	0.000	0.000		0.000		1.096	Dec 2024	-		1.096	8.309	9.405	9.405
MSI/CTP Travel	Various	NAVAIR : Pax River, MD	7.202	0.315	Nov 2022	0.531	Nov 2023	0.537	Nov 2024	-		0.537	3.336	11.921	-
USMC Capability Upgrades Program Management Support	WR	NAWCAD : Pax River, MD	1.641	0.000		0.006	Nov 2023	0.000	Nov 2024	-		0.000	0.000	1.647	-
USMC PMMAC CSS	C/CPFF	Tekla : Pax River, MD	0.441	0.000		0.734	Apr 2024	0.000	Apr 2025	-		0.000	0.000	1.175	1.175
USMC Travel	Various	NAVAIR : Pax River, MD	0.187	0.010	Jun 2023	0.000		0.000		-		0.000	0.000	0.197	-
DVMC-U Program Management Support	WR	NAWCAD : Pax River, MD	0.191	0.000	Nov 2022	0.645	Nov 2023	0.660	Nov 2024	-		0.660	4.241	5.737	-
DVMC-U PMMAC CSS	C/CPFF	Tekla : Pax River, MD	0.622	0.397	Apr 2023	0.686	Apr 2024	0.404	Apr 2025	-		0.404	2.605	4.714	4.714
DVMC-U Systems Engineering	C/CPFF	SAIC : Lexington Park, MD	0.204	0.225	Feb 2023	0.000		0.000		-		0.000	0.000	0.429	0.429
DVMC-U Travel	Various	NAVAIR : Pax River, MD	0.000	0.038	Nov 2022	0.018	Nov 2023	0.038	Nov 2024	-		0.038	0.187	0.281	-
Network Cyber Defense Program Management	C/CPFF	MILCORP : Pax River, MD	0.000	0.000	Jan 2023	0.250	Jan 2024	0.250	Jan 2025	-		0.250	0.500	1.000	1.000
BLOS/PACFLT Mgmt Support	C/CPFF	Tekla : Pax River, MD	0.000	0.100	Apr 2023	0.100	Apr 2024	0.274	Jan 2025	-		0.274	0.000	0.474	0.474
BLOS/PACFLT Travel	Various	NAVAIR : Pax River, MD	0.000	0.000		0.000		0.026	Nov 2024	-		0.026	0.000	0.026	-
LVC Aircraft Integration Mgmnt Support	C/CPFF	Tekla : Pax River, MD	0.000	0.000		0.250	Apr 2024	0.250	Apr 2025	-		0.250	1.000	1.500	1.500
LVC Aircraft Integration Mgmnt Support	WR	NAWCAD : Pax River, MD	0.000	0.000		0.100	Nov 2023	0.100	Nov 2024	-		0.100	0.400	0.600	-
LVC Aircraft Integration Mgmnt Support	WR	NAWCTSD : Orlando, FL	0.000	0.000		0.100	Nov 2023	0.100	Nov 2024	-		0.100	0.400	0.600	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 1662 / *F/A-18 Improvement*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
LVC Aircraft Integration Mgmnt Support	WR	NAWCWD : China Lake, CA	0.000	0.000		0.100	Nov 2023	0.100	Nov 2024	-		0.100	0.400	0.600	-
ADVEW Mgmnt Support	C/CPFF	Tekla : Pax River, MD	0.000	0.000		0.150	Apr 2024	0.153	Apr 2025	-		0.153	0.315	0.618	0.618
ADVEW Mgmnt Support	Various	NAVAIR : Pax River, MD	0.000	0.000		0.033	Nov 2023	0.030	Nov 2024	-		0.030	0.021	0.084	-
Prior Year Mgmnt cost no longer funded in FYDP	Various	Various : Various	219.810	0.000		0.000		0.000		-		0.000	0.000	219.810	-
		Subtotal	241.861	1.922		6.083		5.908		-		5.908	35.489	291.263	N/A

Remarks

Decrease from FY 2024 to FY 2025 due to reduction in management services upon delivery of MSI/CTP System Configuration Set (SCS) Fleet Release Q4FY24.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	4,922.107	169.733		323.420		367.163		-		367.163	1,558.529	7,340.952	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

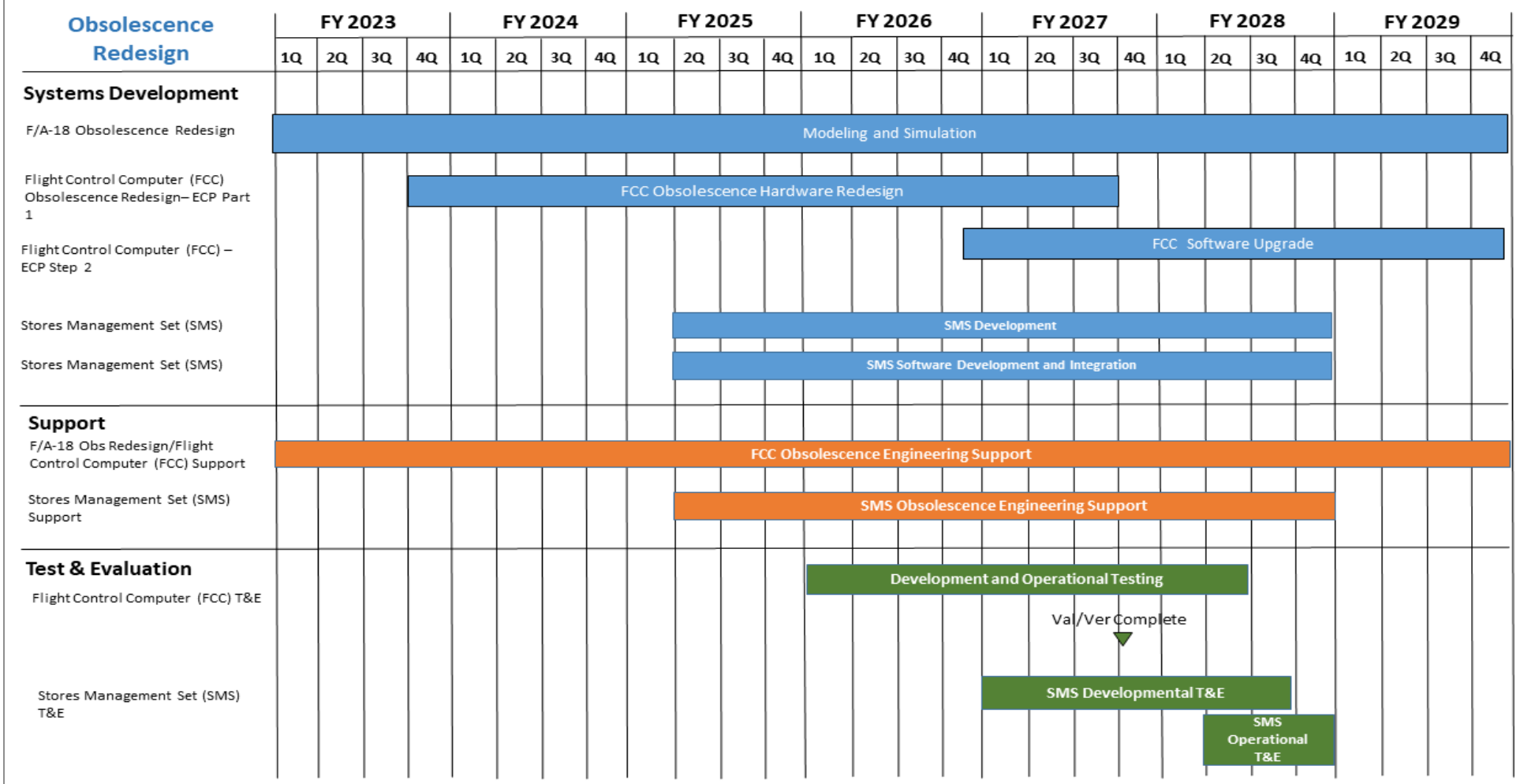

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

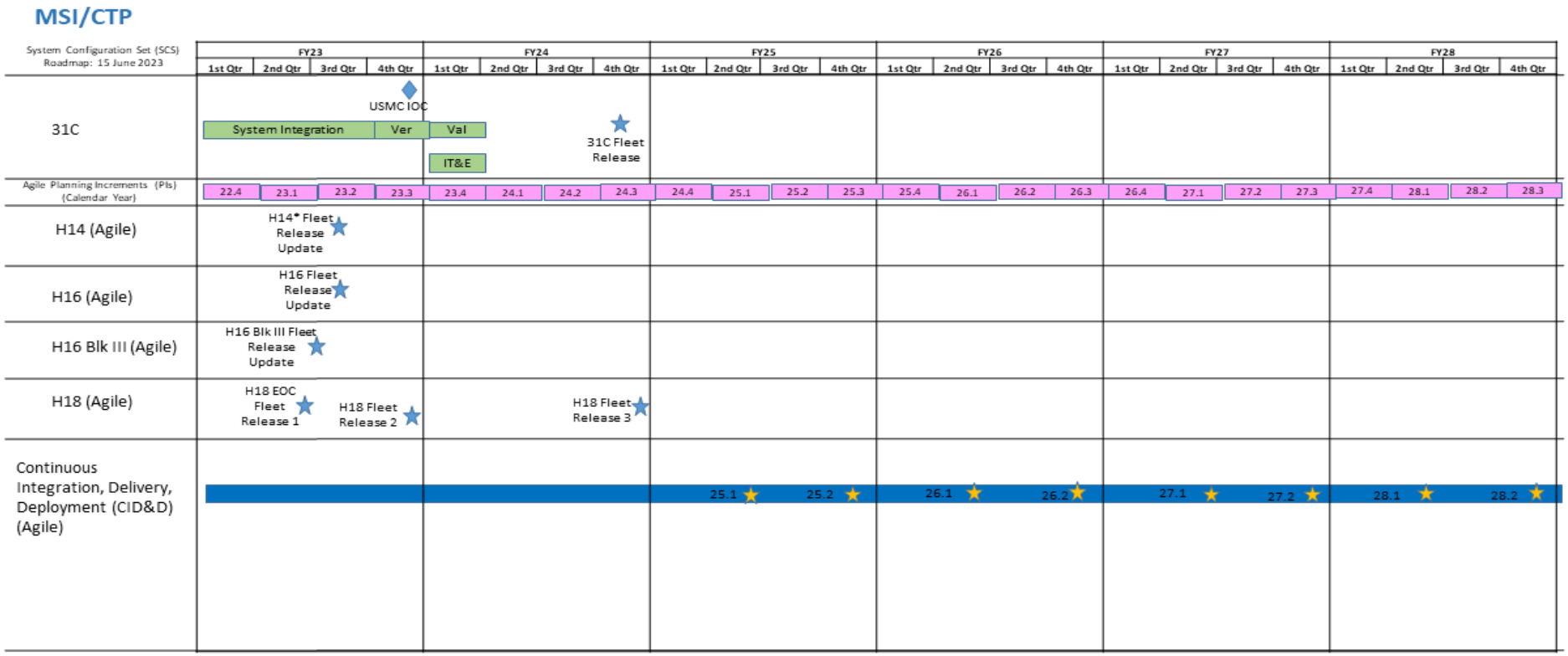

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

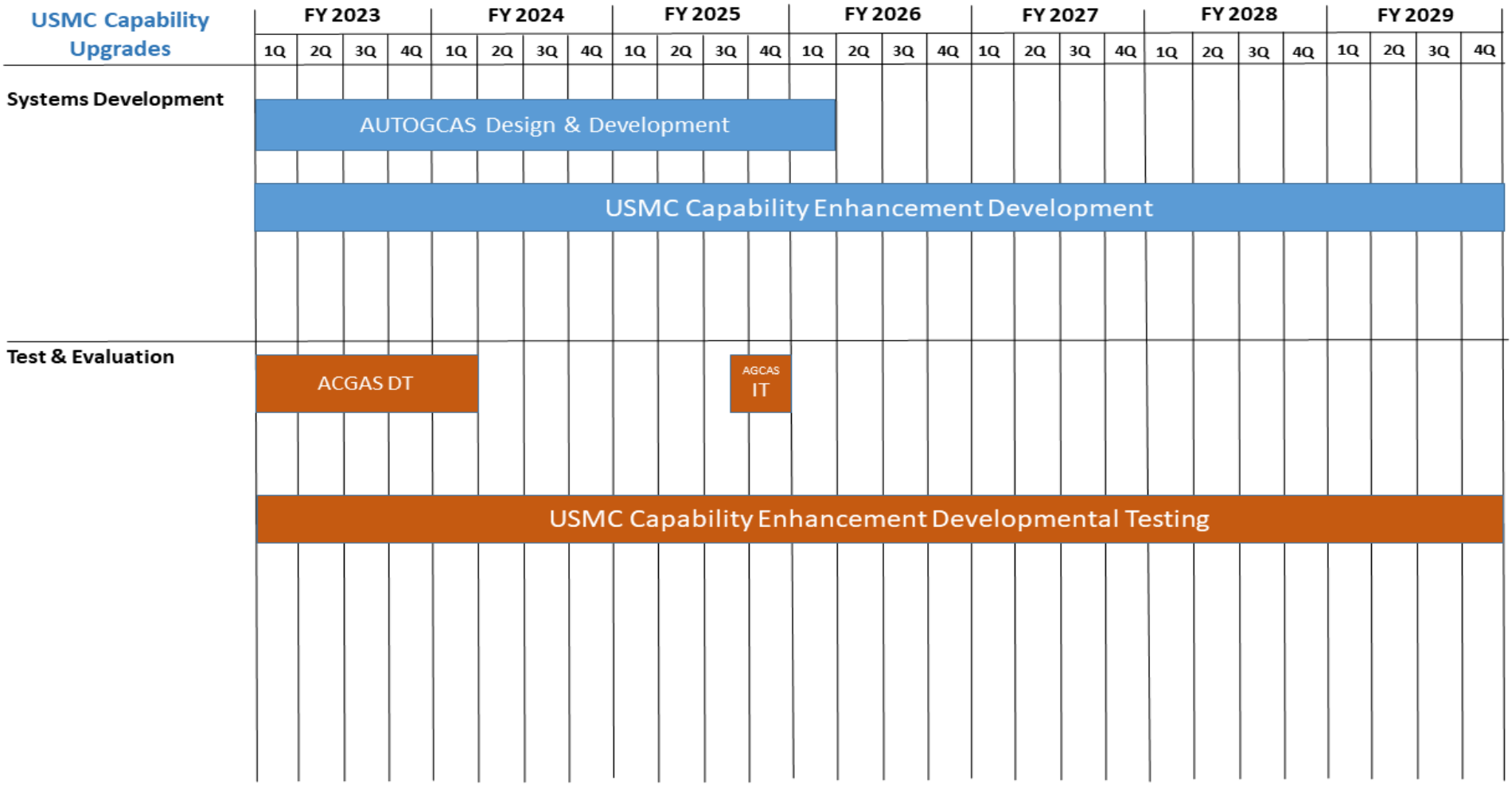

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

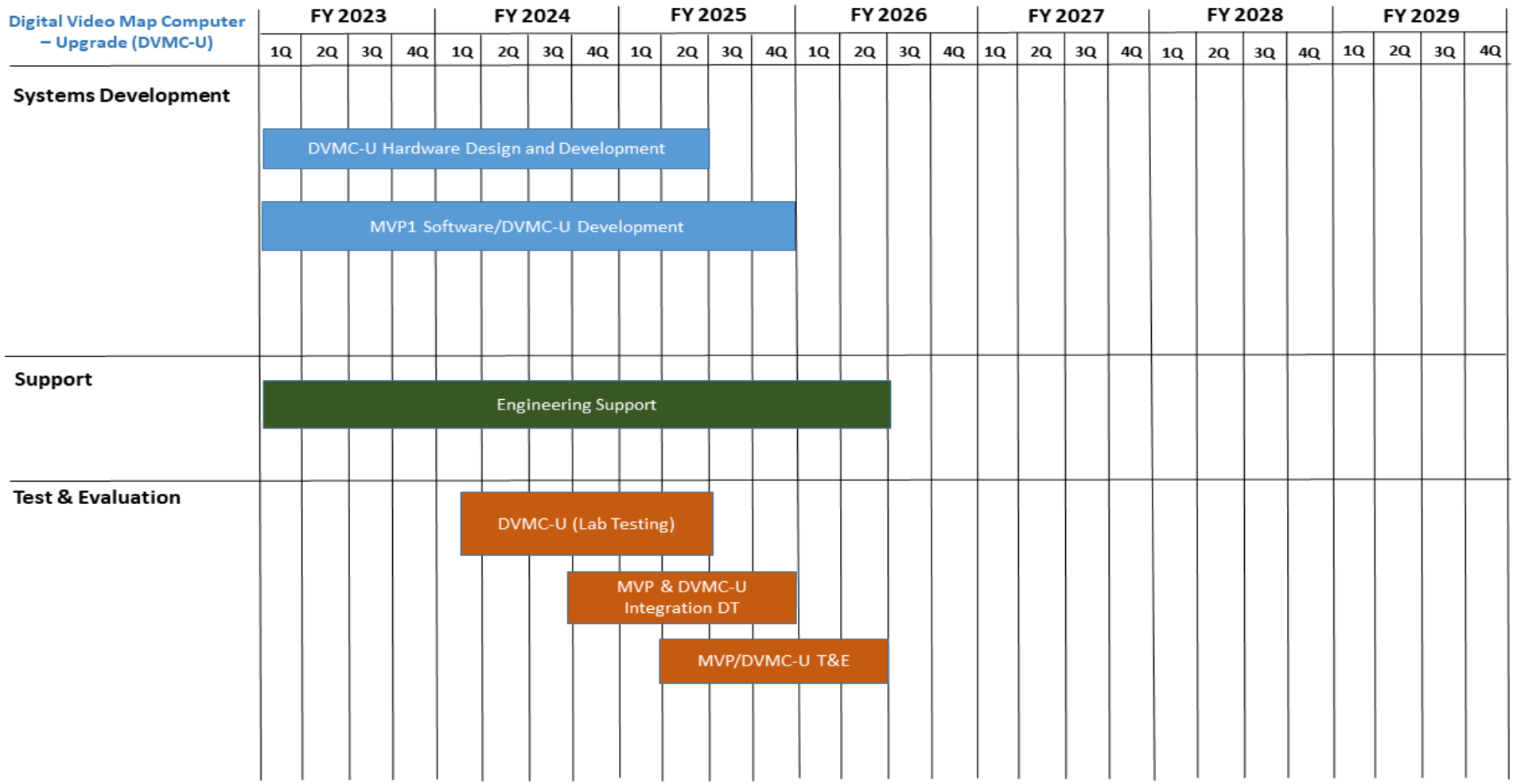

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

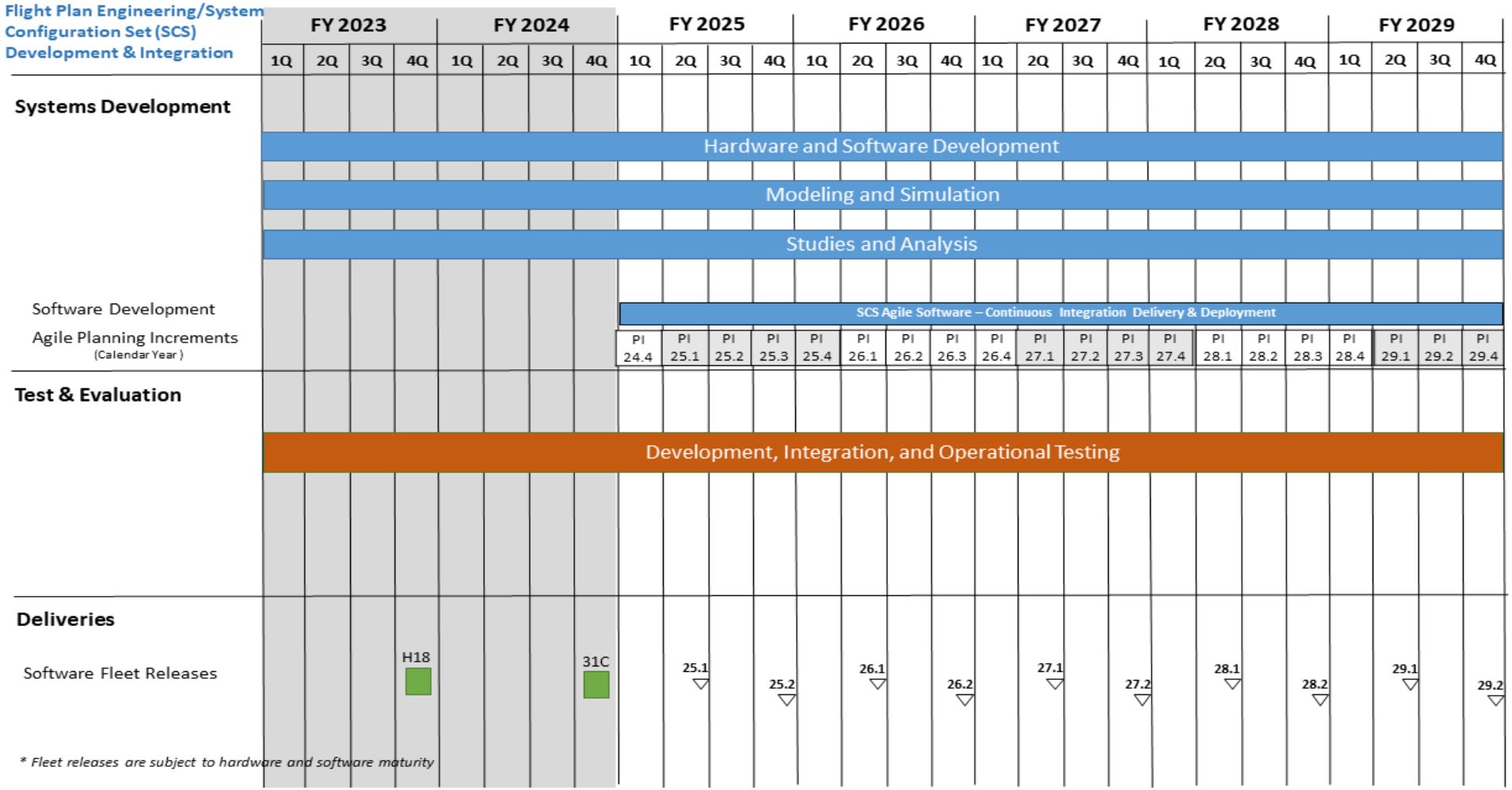

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

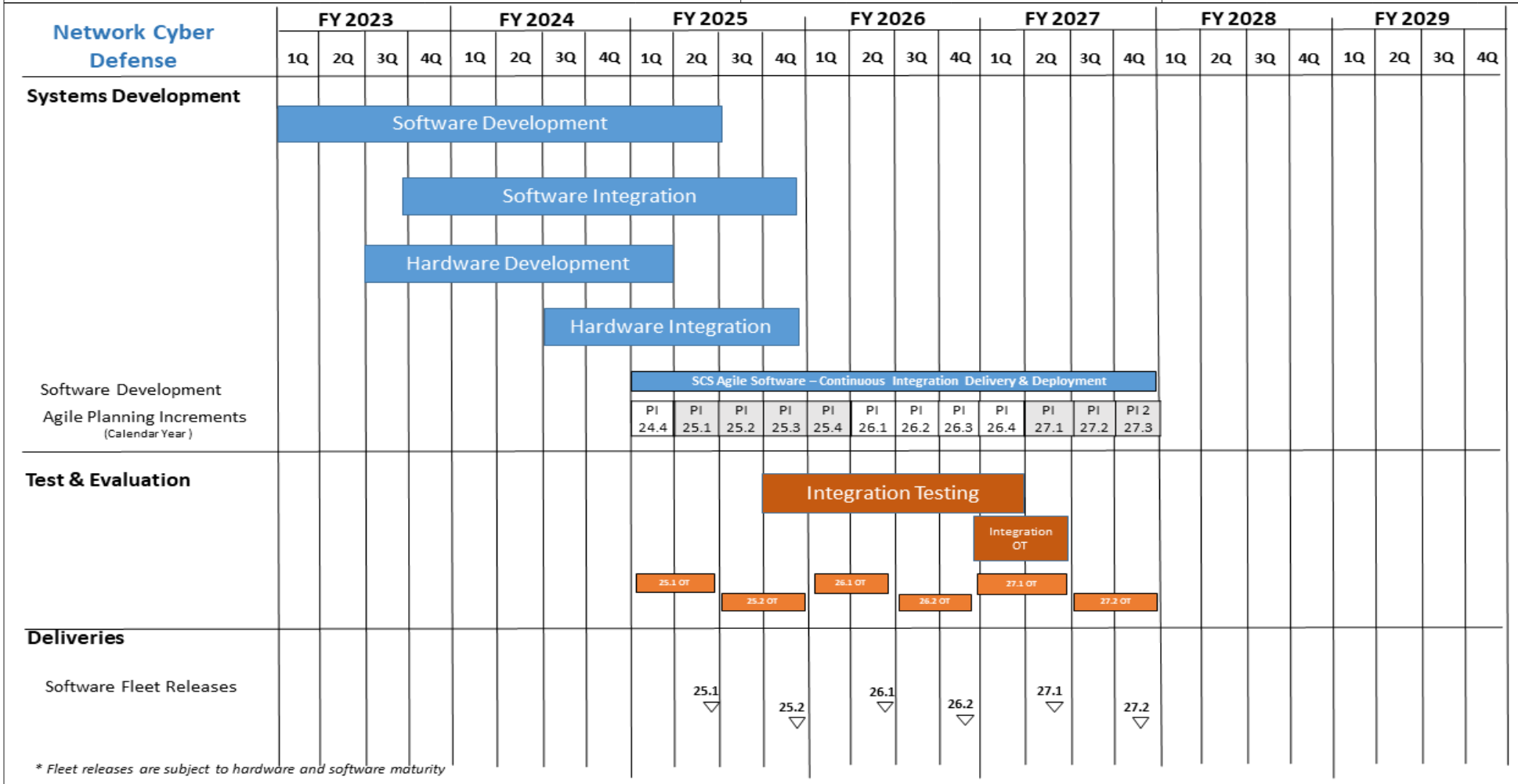

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

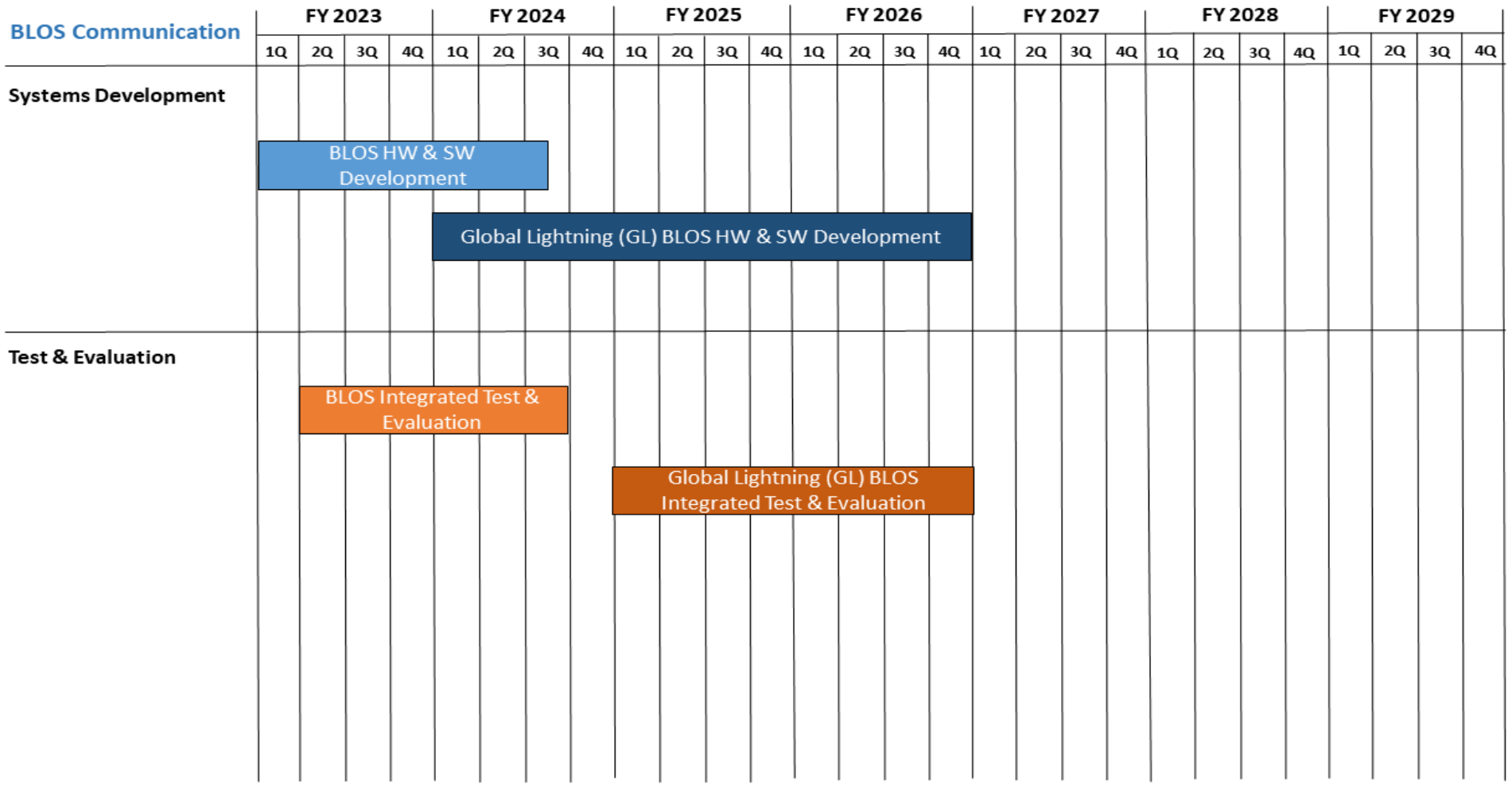

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

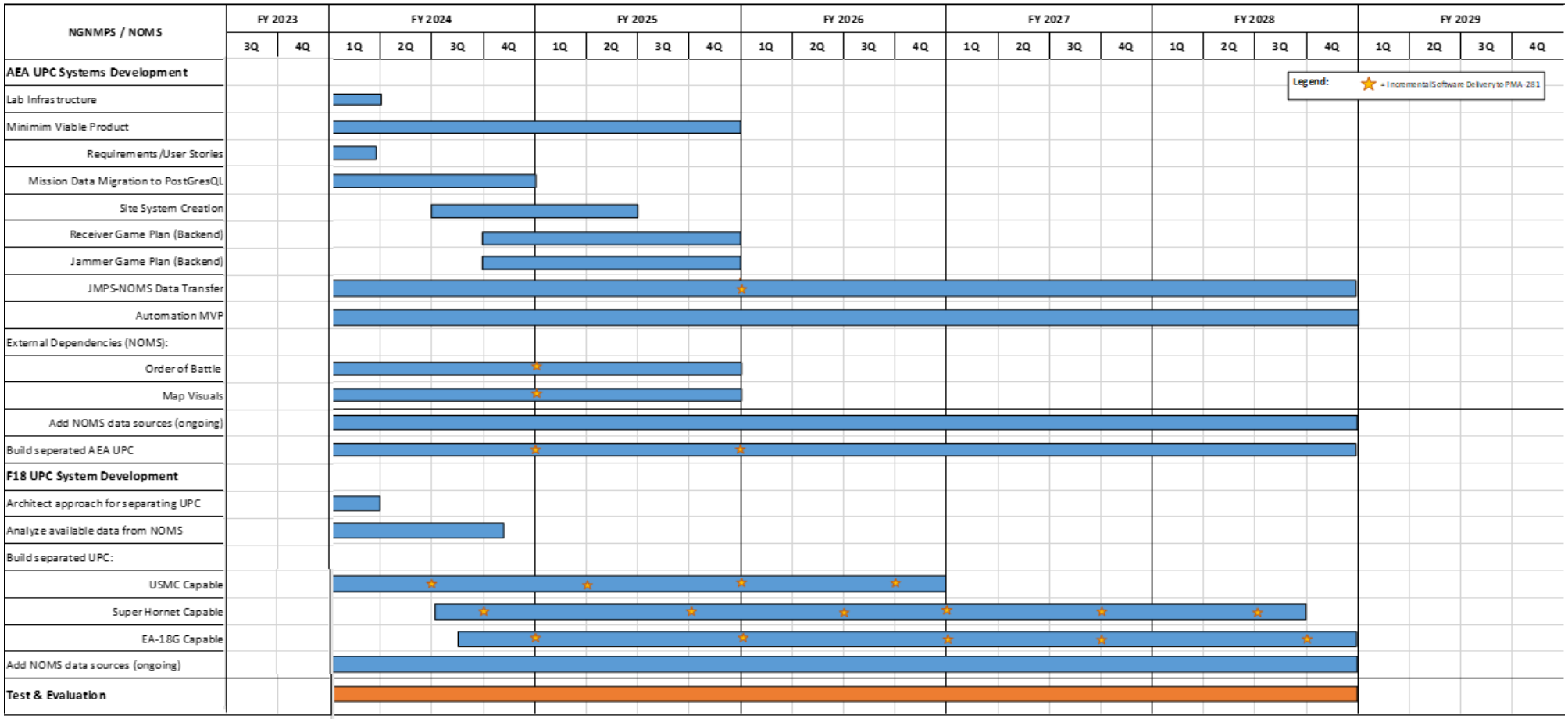

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

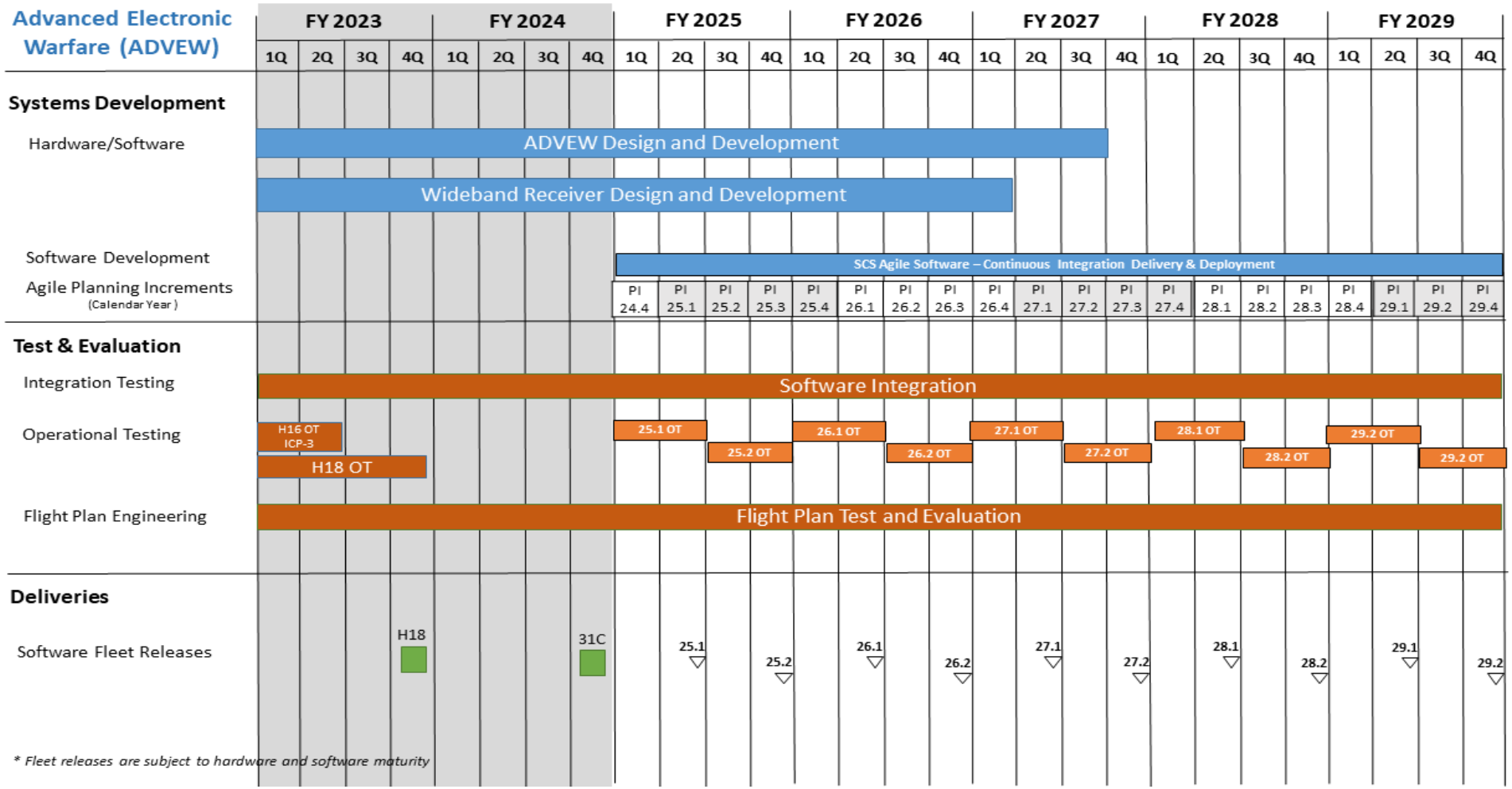

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

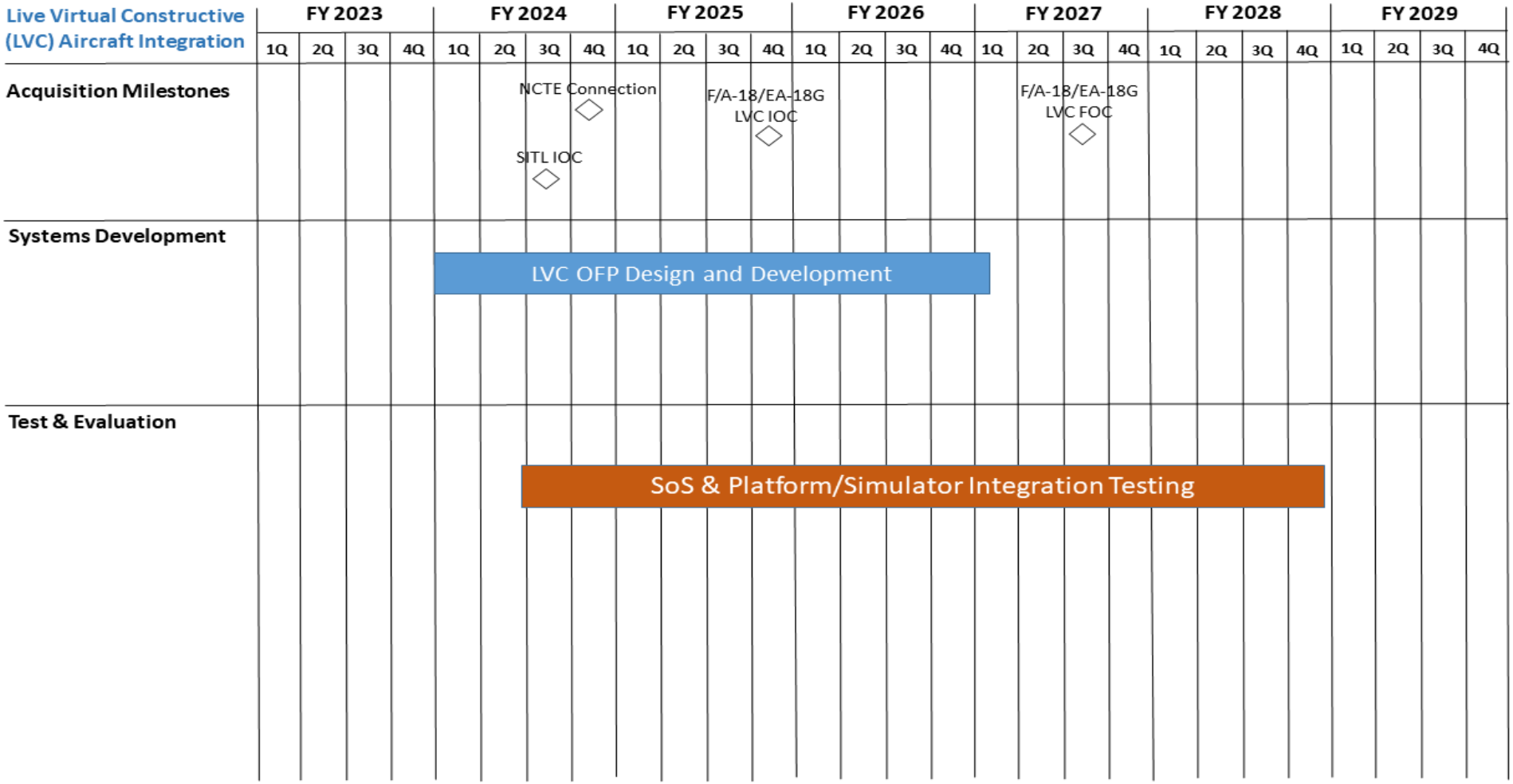

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Multi-System Integration / Common Tactical Picture				
Systems Development & Testing: 31C Development & Testing	1	2023	1	2024
Agile Planning Increments: Software Planning Increments	1	2023	4	2029
Deliveries: Software Fleet Release: H14 Fleet Release (Agile)	3	2023	3	2023
Deliveries: Software Fleet Release: H16 Fleet Release (Agile)	3	2023	3	2023
Deliveries: Software Fleet Release: H16 Block III Release (Agile)	3	2023	3	2023
Deliveries: Software Fleet Release: H18 Fleet Release 1 (Agile)	2	2023	2	2023
Deliveries: Software Fleet Release: H18 Fleet Release 2 (Agile)	4	2023	4	2023
Deliveries: Software Fleet Release: H18 Fleet Release 3 (Agile)	4	2024	4	2024
Deliveries: Software Fleet Release: 31C Fleet Release	4	2024	4	2024
Obsolescence Redesign				
System Development: F/A-18 Weapon System & Ancillary Equipment: Modeling and Simulation	1	2023	4	2029
System Development: Flight Control Computer (FCC): FCC Obsolescence Hardware Redesign	4	2023	3	2027
System Development: Flight Control Computer (FCC): FCC Software Upgrade	4	2026	4	2029
System Development: Stores Management Set (SMS): SMS Development	2	2025	4	2028
System Development: Stores Management Set (SMS): SMS Software Development and Integration	2	2025	4	2028
Support: FCC Engineering Support	1	2023	4	2029
Support: SMS Engineering Support	2	2025	4	2028
Test and Evaluation: FCC Development and Operational Testing	1	2026	2	2028
Test and Evaluation: FCC Val/Ver Complete	4	2027	4	2027
Test and Evaluation: SMS Development and Operational Testing	1	2027	4	2028

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
USMC Capability Upgrade				
AUTOGCAS Design and Development	1	2023	1	2026
USMC Capability Enhancement Development	1	2023	4	2029
AUTOGCAS DT	1	2023	1	2024
AUTOGCAS IT	3	2025	4	2025
USMC Capability Enhancement Development Testing	1	2023	4	2029
Digital Video Map Computer - Upgrade				
System Development: DVMC-U Hardware Design and Development	1	2023	2	2025
System Development: ACS Situational Awareness w/ DVMC-U Development	1	2023	4	2025
Support: Engineering Support	1	2023	2	2026
Test and Evaluation: ACS Situational Awareness w/ DVMC-U SCS Integration (Lab Testing)	1	2024	2	2025
Test and Evaluation: ACS Situational Awareness w/ DVMC-U DT	4	2024	4	2025
Test and Evaluation: ACS Situational Awareness w/ DVMC-U IT&E	2	2025	2	2026
Network Cyber Defense				
Systems Development: Software Development	1	2023	2	2025
Systems Development: Software Integration	4	2023	4	2025
Systems Development: Hardware Development	3	2023	1	2025
Systems Development: Hardware Integration	3	2024	4	2025
Systems Development: SCS Agile Software	1	2025	4	2027
Test & Evaluation: Integration Testing	4	2025	1	2027
Test & Evaluation: Integration Operational Test	1	2027	2	2027
Test & Evaluation: Software Test Events	1	2025	4	2027
Deliveries: Software Fleet Releases	2	2025	4	2027
BLOS Communication				
Systems Development: BLOS Hardware & Software Development	1	2023	3	2024

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Systems Development: Global Lightning (GL) BLOS HW & SW Development	1	2024	4	2026
Test & Evaluation: BLOS Integrated Test & Evaluation	2	2023	3	2024
Test & Evaluation: Global Lightning (GL) BLOS HW& SW Integrated Test & Evaluation	1	2025	4	2026
Next Generation Naval Mission Planning System (NGNMPS)				
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Lab Infrastructure	1	2024	1	2024
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Minimum Viable Product	1	2024	4	2025
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Requirements/User Stories	1	2024	1	2024
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Mission Data Migration	1	2024	4	2024
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Site System Creation	3	2024	2	2025
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Receiver Game Plan	4	2024	4	2025
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Jammer Game Plan	4	2024	4	2025
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: JMPS-NOMS Data Transfer	1	2024	4	2028
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Automation MVP	1	2024	4	2028
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Order of Battle	1	2024	4	2025
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Map Visuals	1	2024	4	2025
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Add NOMS Data Sources	1	2024	4	2028

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Airborne Electronic Attack (AEA) Unique Planning Component (UPC) Systems Development: Build Separated AEA UPC	1	2024	4	2028
F/A-18 Unique Planning Component (UPC) Systems Development: Architect approach for separating UPC	1	2024	1	2024
F/A-18 Unique Planning Component (UPC) Systems Development: Analyze available data from NOMS	1	2024	4	2024
F/A-18 Unique Planning Component (UPC) Systems Development: USMC Capable	1	2024	4	2026
F/A-18 Unique Planning Component (UPC) Systems Development: Super Hornet Capable	3	2024	3	2028
F/A-18 Unique Planning Component (UPC) Systems Development: EA-18G Capable	3	2024	4	2028
F/A-18 Unique Planning Component (UPC) Systems Development: Add NOMS Data Sources	1	2024	4	2028
Test & Evaluation: Integration Testing	1	2024	4	2028
Advanced Electronic Warfare (ADVEW)				
Acquistion Milestones: SRR	4	2023	4	2023
Acquistion Milestones: PDR	4	2024	4	2024
Acquistion Milestones: CDR	4	2025	4	2025
Acquistion Milestones: FCA/PCA	4	2026	4	2026
Acquistion Milestones: LRIP	1	2027	1	2027
Acquistion Milestones: IOC	3	2027	3	2027
Acquistion Milestones: FRP	4	2027	4	2027
Systems Development: ADVEW Design & Development	1	2023	3	2027
Systems Development: WBR Design & Development	1	2023	1	2027
Systems Development: Schedule Detail	1	2023	1	2029
Test & Evaluation: Development Testing	1	2023	1	2026
Test & Evaluation: H16 OT ICP-3	1	2023	2	2029
Test & Evaluation: H18 OT	1	2023	4	2023

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 1662 / *F/A-18 Improvement*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Test & Evaluation: Operational Test Releases	1	2025	4	2029
Test & Evaluation: Flight Plan Engineering	1	2023	4	2029
Deliveries: H18	4	2023	4	2023
Deliveries: 31C	4	2024	4	2024
Deliveries: Software Fleet Releases	2	2025	4	2029
Live Virtual Contructive (LVC) Aircraft Integration				
Acquisition Milestones: SITL IOC	3	2024	3	2024
Acquisition Milestones: NCTE Connection	4	2024	4	2024
Acquisition Milestones: F/A-18/EA-18G LVC IOC	4	2025	4	2025
Acquisition Milestones: F/A-18/EA-18G LVC FOC	3	2027	3	2027
Systems Development: LVC OFP Design and Development	1	2024	1	2027
Test & Evaluation: SoS & Platform/Simulator Integration Testing	3	2024	4	2028

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 2065 / *F/A-18 Radar Upgrade*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
2065: *F/A-18 Radar Upgrade*	775.962	10.959	8.683	5.864	-	5.864	13.455	12.046	11.058	11.285	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

F/A-18 Radio Detection and Ranging (RADAR) Upgrade: The F/A-18 RADAR Upgrade, Active Electronically Scanned Array (AESA) development program, which began in FY 1999, is the last of three pre-planned upgrades to the F/A-18 EF/EA-18G RADAR. The AESA system corrects operational test deficiencies noted in the AN/APG-73. It provides multi-target tracking, Synthetic Aperture RADAR (SAR) imagery, SAR Target Location Error (TLE), and improved spotlight map resolution. In addition, it provides greater lethality than previous F/A-18 RADARs by allowing full tactical support of existing and planned air-to-air (A/A) and air-to-ground (A/G) weapons and it significantly increases detection and tracking ranges. The AESA system provides greater survivability through self-protection and standoff jamming capabilities, while its greater range allows for reduced detection by enemy RADAR. The AN/APG-73 will be upgraded to AN/APG-79. This combat-proven AESA radar system substantially increases the power of the F/A-18E/F EA-18G from the front-end array to the back-end processor and operational software. This budget continues spiral capability development of AESA with increased efforts to address Phase II Operational Requirements Document requirements such as Counter-Electronic Attack (CEA) against multiple Radio Frequency Emitters, AESA Multi-Jammer Electronic Protection, Precision TLE Improvement, Monopulse and 5th/6th Channel development, and Air Combat Maneuvering/Short Range Search and Track development. This budget supports AN/APG-79 integration in Wideband Receiver and Advanced EW suite as a contributing wideband sensor. It also includes upgrades to RADAR Instrumentation, test and evaluation assets, threat assets, and upgraded modeling and simulation of both clean and Electronic Attack threat environments. This budget includes the overarching Anti-Surface Warfare (ASuW) software improvements, which includes Aided Target Recognition (AiTR), and Strike Accelerator/Kill Chain capabilities. This budget request supports development and testing of multiple module design modifications to address obsolescence issues with APG-65, APG-73 and APG-79 RADAR systems. USMC upgrades to the platform are being developed to include capability expansion of AESA Radar for F/A-18 C/D.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Distributed Targeting - Counter-Electronic Attack (CEA) Software Development, Developmental Testing, Operational Testing, & Integration	10.916	8.496	5.671	0.000	5.671
Articles:	-	-	-	-	-
Description: Funding provided for the support of hardware (HW) and software (SW) capabilities development, integration and associated testing for AESA, ASuW, Wideband Receiver and Strike Accelerator.					
FY 2024 Plans: Continuation of AN/APG-79 software upgrades. Supporting the incorporation of correction of deficiencies for Anti-Surface Warfare (ASuW) software improvements, which includes Aided Target Recognition (AiTR), and					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 2065 / *F/A-18 Radar Upgrade*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Strike Accelerator/Kill Chain capabilities. Funding also supports development and testing of design modifications to address cybersecurity enhancements. ***FY 2025 Base Plans:*** Continuation of AN/APG-79 software development, upgrades and interoperability with System Configuration Set (SCS). This budget provides incorporation of correction of deficiencies for: Anti-Surface Warfare (ASuW) software improvements, Aided Target Recognition (AiTR), and Strike Accelerator/Kill Chain capabilities, Wideband Receiver and Advanced EW. Funding also supports development and testing of design hardware and software modifications to address cybersecurity enhancements. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY2024 to FY2025 of $2.825 million due to ramp down of Distributed Targeting efforts.					
Title: F/A-18 RADAR Obsolescence Redesign ***Articles:*** ***Description:*** Funding provided for development and design modifications to address obsolescence issues in the RADAR. ***FY 2024 Plans:*** FY2024 funding supports the development and testing of design modifications to address obsolescence issues and minor modifications to software for fleet operations in the APG-79 RADAR systems. ***FY 2025 Base Plans:*** FY2025 funding supports the development and testing of design modifications to address obsolescence issues and minor modifications to software for fleet operations in the APG-79 RADAR systems. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY2024 to FY2025 of $.006 million due to misc rate adjustments.	0.043 -	0.187 -	0.193 -	0.000 -	0.193 -
Accomplishments/Planned Programs Subtotals	10.959	8.683	5.864	0.000	5.864

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 2065 / *F/A-18 Radar Upgrade*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APN/0525: *F-18 Series Mod*	443.386	640.236	680.613	-	680.613	951.783	1,054.060	1,146.062	1,170.531	3,402.507	23,324.828
• APN/0145: *FA-18E/F*	671.065	41.329	28.554	-	28.554	50.777	0.000	0.000	0.000	0.000	54,084.607

Remarks

D. Acquisition Strategy

The AESA program continues developmental efforts following a successful Full Rate Production milestone decision, after completing a two-phase Acquisition approach during the FY 1999 through FY 2007 timeframe. This strategy continues utilization of reform initiatives such as: early partnering with industry; leveraging industry investment; optimizing use of Commercial Off-The Shelf software and Non-Developmental Item, using Cost as an Independent Variable, and Electronic Data Deliverables. Basic Ordering Agreement orders are in place for Boeing, the airframe prime manufacturer/integrator, and Raytheon, the Radio Detection and Ranging RADAR manufacturer, for focused risk reduction and sustainment prior to developmental activities.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 2065 / *F/A-18 Radar Upgrade*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Distributed Targeting Systems Engineering - Capabilities	WR	NAWCWD : China lake, CA	7.281	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Distributed Targeting Systems Engineering	WR	NAWCAD : Pax River, MD	12.378	0.000		0.300	Nov 2023	0.000		-		0.000	0.000	12.678	-
Distributed Targeting Product Development Aided Target Recognition	WR	NAWCWD CL : China lake, CA	2.764	0.000		0.600	Nov 2023	0.000		-		0.000	0.000	3.364	-
Distributed Targeting - WBR Development	C/CPFF	Raytheon : El Segundo, CA	0.000	1.885	Feb 2023	0.000		0.000		-		0.000	0.000	1.885	1.885
Distributed Targeting - ASuW	C/CPFF	Boeing : St. Louis, MO	6.447	0.000		0.000		0.000		-		0.000	0.000	6.447	6.447
Radar Advanced Development	WR	NSMA : Washington, DC	82.953	4.919	Dec 2022	4.419	Dec 2023	2.901	Dec 2024	-		2.901	44.825	140.017	-
Prior Year Prod Dev Cost no longer funded in FYDP	Various	Various : Various	474.094	0.000		0.000		0.000		-		0.000	0.000	474.094	-
		Subtotal	585.917	6.804		5.319		2.901		-		2.901	Continuing	Continuing	N/A

Remarks

Decrease from FY2024 to FY2025 due to completion of Distributed Targeting production in FY24.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Distributed Targeting Software Development (Instrumentation)	WR	NAWCWD : China Lake, CA	45.949	0.410	Nov 2022	0.385	Nov 2023	0.000		-		0.000	0.000	46.744	-
Distributed Targeting - WBR Support	WR	NAWCWD : China Lake, CA	0.000	0.000		0.000		1.182	Nov 2024	-		1.182	4.562	5.744	-
Radar Advanced Development Chamber Support	WR	NSMA : Washington, DC	0.520	0.000		0.355	Dec 2023	0.000		-		0.000	0.000	0.875	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 2065 / *F/A-18 Radar Upgrade*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Distributed Targeting Gov't Engineering Support	WR	NAWCAD : PAX River, MD	4.195	0.879	Nov 2022	1.176	Nov 2023	1.284	Nov 2024	-		1.284	5.397	12.931	-
Prior Year Support cost no longer funded in the FYDP	Various	Various : Various	4.684	0.000		0.000		0.000		-		0.000	0.000	4.684	-
		Subtotal	55.348	1.289		1.916		2.466		-		2.466	9.959	70.978	N/A

Remarks

Increase from FY2024 to FY2025 for Distributed Targeting Wide Band Receiver (WBR) support efforts at NAWCWD, China Lake.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation (OT&E)	WR	NAWCWD : China Lake, CA	3.481	2.540	Nov 2022	0.603	Nov 2023	0.000		-		0.000	0.000	6.624	-
Operational Test & Evaluation (OT&E)	WR	NAWCAD : PAX River, MD	0.273	0.043	Nov 2022	0.150	Nov 2023	0.198	Nov 2024	-		0.198	0.832	1.496	-
Prior Year Operational Test & Evaluation Not Funded FYDP (PYOT&E)	Various	Various : Various	112.086	0.000		0.000		0.000		-		0.000	0.000	112.086	-
		Subtotal	115.840	2.583		0.753		0.198		-		0.198	0.832	120.206	N/A

Remarks

Decrease from FY2024 to FY2025 due to completion of operational testing of Distributed Targeting at NAWCWD, China Lake.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Distributed Targeting CSS Program Management Support	C/CPFF	Various : Various	9.765	0.250	Dec 2022	0.564	Dec 2023	0.260	Dec 2024	-		0.260	1.093	11.932	11.932

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 2065 / *F/A-18 Radar Upgrade*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Distributed Targeting Gov't Program Management Support	WR	NAWCAD : Pax River, MD	2.370	0.000	Nov 2022	0.069	Nov 2023	0.000		-		0.000	0.000	2.439	-
Distributed Targeting Travel	Various	NAVAIR : Pax River, MD	1.858	0.033	Oct 2022	0.025	Oct 2023	0.039	Oct 2024	-		0.039	0.170	2.125	-
Radar Obsol Redesign Gov't Program Management	WR	NAWCAD : Pax River, MD	1.202	0.000	Nov 2022	0.024	Nov 2023	0.000		-		0.000	0.000	1.226	-
Radar Obsol Redesign Travel	Various	NAVAIR : Pax River, MD	0.149	0.000	Oct 2022	0.013	Oct 2023	0.000		-		0.000	0.000	0.162	-
Prior Year Costs No Longer in FYDP	Various	Various : Various	3.513	0.000		0.000		0.000		-		0.000	0.000	3.513	-
		Subtotal	18.857	0.283		0.695		0.299		-		0.299	1.263	21.397	N/A

Remarks

Decrease from FY2024 to FY2025 due to ramp down of Distributed Targeting efforts.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	775.962	10.959		8.683		5.864		-		5.864	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 2065 / *F/A-18 Radar Upgrade*

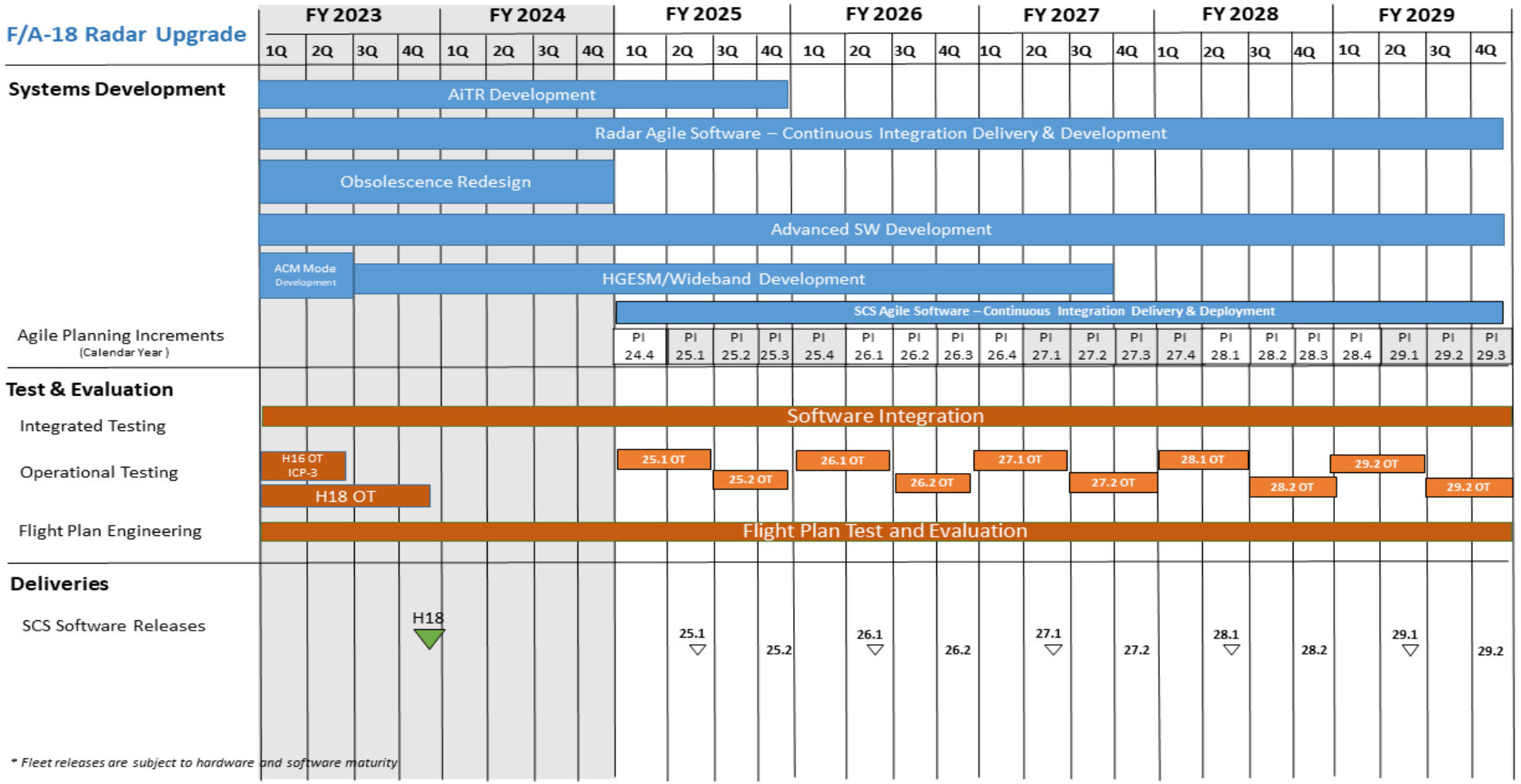

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 2065 / *F/A-18 Radar Upgrade*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
F/A-18 Radar Ugrade				
Systems Development: AiTR Development	1	2023	4	2025
Systems Development: Radar Agile Software - Continuous Integration Delivery & Development	1	2023	4	2029
Systems Development: Obsolescence Redesign Development & Testing	1	2023	4	2024
Systems Development: Advanced SW Development	1	2023	4	2029
Systems Development: ACM Mode Development	1	2023	2	2023
Systems Development: HGESM/Wideband Development	3	2023	3	2027
Systems Development: SCS Agile Software - Delivery & Development/Planning Increments	1	2025	4	2029
Test & Evaluation: Integrated Test & Evaluation: Software Integration	1	2023	4	2029
Test & Evaluation: Operational Test & Evaluation: H16 OT ICP-3	1	2023	2	2023
Test & Evaluation: Operational Test & Evaluation: H18 Operational Testing	1	2023	4	2023
Test & Evaluation: Operational Test & Evaluation: Operational Testing for Releases	1	2025	4	2029
Test & Evaluation: Operational Test & Evaluation: Flight Plan Engineering	1	2023	1	2029
Deliveries: H18 FLEET RELEASE	4	2023	4	2023
Deliveries: SCS Software Releases	1	2025	4	2029

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 2071 / *F/A-18 Block III*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
2071: *F/A-18 Block III*	282.926	32.164	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	315.090
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

F/A-18 Block III is a series of development efforts that are required to deliver necessary combat capabilities to meet the objectives outlined in the National Defense Strategy and provide aircraft lethality and kill chain effectiveness. Enhancements under development include: Advanced EW upgrades, improved radar cross section, AESA Radar upgrades, alternative fire control solutions, and other improvements that enhance aircraft survivability, lethality, sensor fusion, networking effectiveness, and targeting upgrades at the tactical leading edge in highly contested environments. F/A18 Block III is a follow-on to Block II upgrades and the combined impact of these upgrades will ensure that the numerically predominant strike-fighter aircraft in the USN inventory remains lethal and survivable into the 2030's.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: F/A-18 Block III	32.164	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
Description: F/A-18 Block III is a series of development efforts that are required to deliver necessary combat capabilities to meet the objectives outlined in the National Defense Strategy and provide aircraft lethality and kill chain effectiveness.					
FY 2024 Plans: N/A					
FY 2025 Base Plans: N/A					
FY 2025 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	32.164	0.000	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APN/0525: *F-18 Series*	443.386	640.236	680.613	-	680.613	951.783	1,054.060	1,146.062	1,170.531	3,402.507	23,324.828
• APN/0145: *FA-18E/F*	671.065	41.329	28.554	-	28.554	50.777	0.000	0.000	0.000	0.000	54,084.607

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 2071 / *F/A-18 Block III*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APN/0505: *FA-18E/F & EA-18G Modernization & Sustainment*	544.849	605.416	566.727	-	566.727	629.619	606.013	749.867	777.208	3,770.230	9,072.711

Remarks

D. Acquisition Strategy

Block III capability upgrades will be incorporated into production line aircraft and retrofit through a series of Block III Engineering Change Proposals (ECPs). The ECPs will provide capability upgrades to Block II aircraft to give them Block III capabilities. Block II Fleet aircraft (Lots 26 and up) will receive capability upgrades when inducted for Service Life Modification (SLM) events.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 2071 / *F/A-18 Block III*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Large Aperature (LA+)	C/CPFF	NGC : Baltimore, MD	8.882	7.947	Jul 2023	0.000		0.000		-		0.000	0.000	16.829	16.829
Block III ADVEW Primary Development	Various	NSMA : Various	0.500	8.351	Sep 2023	0.000		0.000		-		0.000	0.000	8.851	-
Block III ADVEW Primary Development	C/CPFF	GTRi : Lexington Park, MD	0.374	0.912	Jun 2023	0.000		0.000		-		0.000	0.000	1.286	1.286
Block III ADVEW Primary Development	C/CPAF	Raytheon : El Segundo, CA	0.000	7.128	Jun 2023	0.000		0.000		-		0.000	0.000	7.128	7.128
Block III ADVEW Primary Development	C/CPAF	Boeing : St. Louis, MO	0.963	0.936	Jun 2023	0.000		0.000		-		0.000	0.000	1.899	1.899
Prior Year Prod Dev no longer in the FYDP	Various	Various : Various	234.286	0.000		0.000		0.000		-		0.000	0.000	234.286	-
		Subtotal	245.005	25.274		0.000		0.000		-		0.000	0.000	270.279	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support (AD)	WR	NAWCAD : Pax River, MD	16.576	1.232	Dec 2022	0.000		0.000		-		0.000	0.000	17.808	-
SAGE Simulation Study	MIPR	GSA FEDSIM : Washington DC	1.979	2.300	Aug 2023	0.000		0.000		-		0.000	0.000	4.279	-
ADVEW Development Support	WR	NAWCWD : China Lake, CA	0.000	2.389	Apr 2023	0.000		0.000		-		0.000	0.000	2.389	-
ADVEW Development Support	WR	NSMA : Various	0.000	0.018	May 2023	0.000		0.000		-		0.000	0.000	0.018	-
ADVEW Development Support	WR	NAWCWD : Point Mugu, CA	0.000	0.297	Apr 2023	0.000		0.000		-		0.000	0.000	0.297	-
Prior Year Prod Dev no longer in the FYDP	Various	Various : Various	6.050	0.000		0.000		0.000		-		0.000	0.000	6.050	-
		Subtotal	24.605	6.236		0.000		0.000		-		0.000	0.000	30.841	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 2071 / *F/A-18 Block III*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NAWCAD : Pax River, MD	2.364	0.588	Nov 2022	0.000		0.000		-		0.000	0.000	2.952	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	9.173	0.000		0.000		0.000		-		0.000	0.000	9.173	-
		Subtotal	11.537	0.588		0.000		0.000		-		0.000	0.000	12.125	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Seaport CSS/PMMAC	C/CPFF	Tekla : Pax River, MD	1.492	0.066	Apr 2023	0.000		0.000		-		0.000	0.000	1.558	1.558
Prior Year cost no longer in FYDP	Various	Various : Various	0.287	0.000		0.000		0.000		-		0.000	0.000	0.287	-
		Subtotal	1.779	0.066		0.000		0.000		-		0.000	0.000	1.845	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	282.926	32.164		0.000		0.000		-		0.000	0.000	315.090	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 2071 / *F/A-18 Block III*

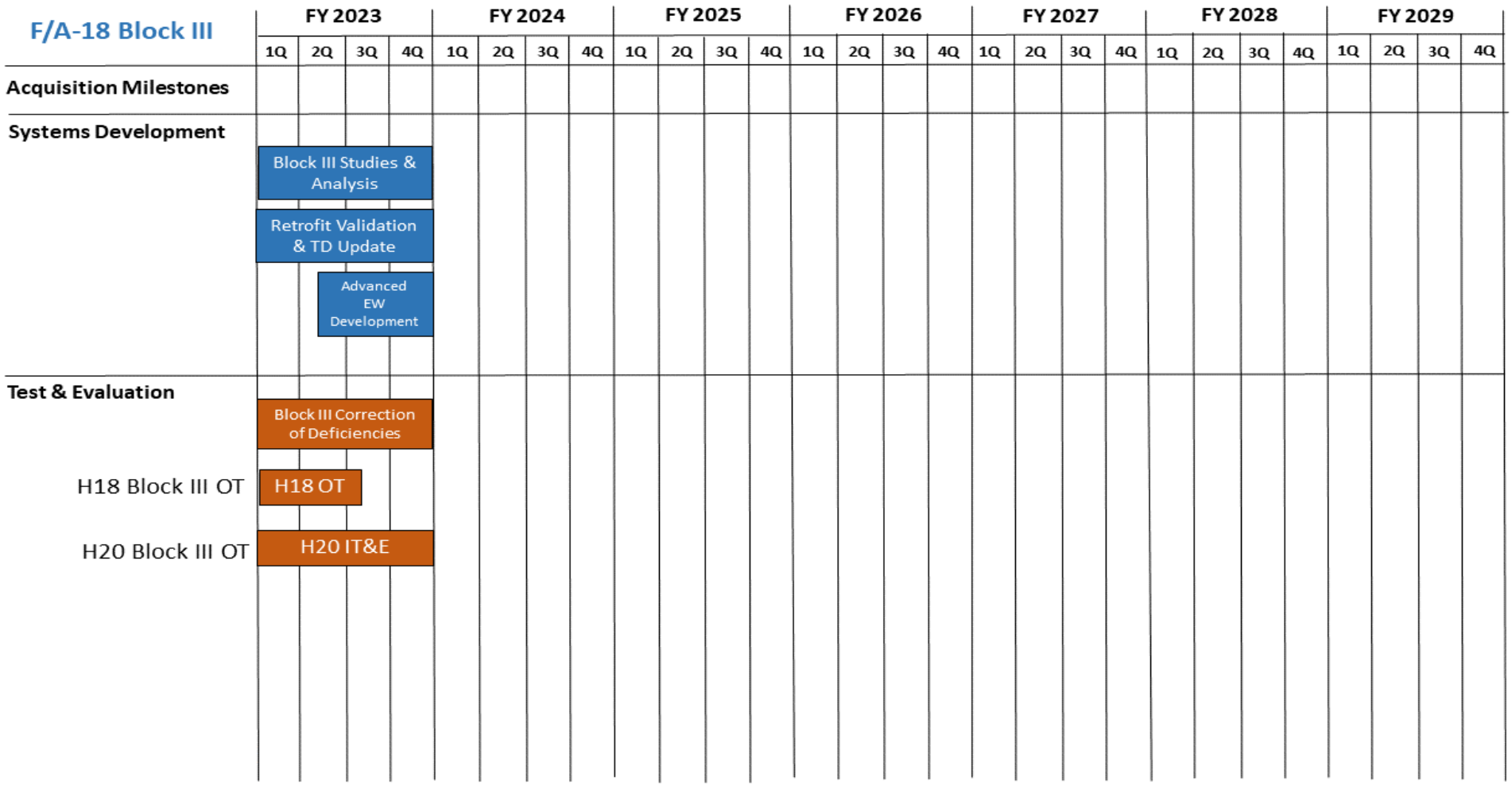

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 2071 / *F/A-18 Block III*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
F/A-18 Block III				
System Development: Block III Studies & Analysis	1	2023	4	2023
System Development: Retrofit Validation &TD Update	1	2023	4	2023
System Development: Block III Advanced Development Engineering	2	2023	4	2023
Test & Evaluation: Block III Correction of Deficiencies	1	2023	4	2023
Test & Evaluation: H18 OT	1	2023	3	2023
Test & Evaluation: H20 IT&E	1	2023	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 9099 / *Physiological Episodes*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
9099: *Physiological Episodes*	9.346	2.787	1.680	1.167	-	1.167	0.779	0.799	0.822	0.839	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

Efforts funded under Project Unit 9099 were previously funded under Project Unit 1662 in FY2020 and prior.

A. Mission Description and Budget Item Justification

Funding provides for design, development, integration, and test of platform improvements for F/A-18A-F and EA-18G Weapon Systems, as determined through a Root Cause and Corrective Action (RCCA) process, to mitigate and reduce the occurrences of Physiological Episode (PE) in Naval Aviation.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Physiological Episode Mitigation	2.787	1.680	1.167	0.000	1.167
Articles:	-	-	-	-	-
Description: Funding provides for design, development, integration, and test of platform improvements for F/A-18A-F and EA-18G Weapon Systems, as determined through a Root Cause and Corrective Action (RCCA) process, to mitigate and reduce the occurrences of Physiological Episode (PE) in Naval Aviation.					
FY 2024 Plans: Completion of RCCA investigation efforts and any directed studies from RCCA. Continued support of the Hornet health Assessment and Readiness Tool (HhART), and development efforts for platform improvements in the F/A-18A-F and EA-18G Weapon Systems to include flight test. Continue required logistics and engineering support.					
FY 2025 Base Plans: Continued support of the Hornet health Assessment and Readiness Tool (HhART), and development efforts for platform improvements in the F/A-18A-F and EA-18G Weapon Systems to include flight test. Continue required logistics and engineering support.					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 9099 / *Physiological Episodes*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Decrease from FY2024 to FY2025 of $.513 million is due to the ramp down in PE Test & Evaluation (T&E) efforts.					
Accomplishments/Planned Programs Subtotals	2.787	1.680	1.167	0.000	1.167

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APN/0525: *F-18 SERIES*	443.386	640.236	680.613	-	680.613	951.783	1,054.060	1,146.062	1,170.531	3,402.507	23,324.828

Remarks

D. Acquisition Strategy

The F/A-18 Physiological Episode PU consists of efforts in support of finalizing the Root Cause and Corrective Action Investigation process, as well as any additional design, development, integration, and testing that will be required to mitigate and reduce the occurrence of Physiological Episodes (PE).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 9099 / *Physiological Episodes*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PE Data Software Study	WR	NAWCTSD Orlando : Orlando, FL	6.113	1.925	Nov 2022	1.103	Nov 2023	0.831	Nov 2024	-		0.831	Continuing	Continuing	Continuing
		Subtotal	6.113	1.925		1.103		0.831		-		0.831	Continuing	Continuing	N/A

Remarks

Decrease from FY 2024 to FY 2025 as the program incorporates Hornet health assessment and readiness tool (Hhart) solutions into the aircraft.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PE Developmental Engineering Support	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
PE Gov't Engineering Support	WR	NAWCAD : Pax River, MD	1.905	0.431	Nov 2022	0.161	Nov 2023	0.161	Nov 2024	-		0.161	0.000	2.658	-
		Subtotal	1.905	0.431		0.161		0.161		-		0.161	0.000	2.658	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NSWC : Panama City, FL	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Developmental Test & Evaluation (DT&E)	C/CPFF	BUMED : Silver Spring, VA	0.125	0.000		0.000		0.000		-		0.000	0.000	0.125	0.125
Developmental Test & Evaluation (DT&E)	WR	NAWCAD : Pax River, MD	0.513	0.000		0.185	Nov 2023	0.000		-		0.000	0.000	0.698	-
		Subtotal	0.638	0.000		0.185		0.000		-		0.000	0.000	0.823	N/A

Remarks

Decrease from FY2024 to FY2025 due to completion of test efforts in FY24.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 9099 / *Physiological Episodes*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PE Program Management Support	WR	NAWCAD : Pax River, MD	0.329	0.000	Nov 2022	0.114	Nov 2023	0.000		-		0.000	0.077	0.520	-
PE PMMAC CSS	C/CPFF	Tekla : Pax River, MD	0.000	0.411	Apr 2023	0.092	Apr 2024	0.162	Apr 2025	-		0.162	0.682	1.347	1.347
PE Travel	Various	NAVAIR : Pax River, MD	0.361	0.020	Oct 2022	0.025	Oct 2023	0.013	Oct 2024	-		0.013	0.033	0.452	-
		Subtotal	0.690	0.431		0.231		0.175		-		0.175	0.792	2.319	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	9.346	2.787		1.680		1.167		-		1.167	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 9099 / *Physiological Episodes*

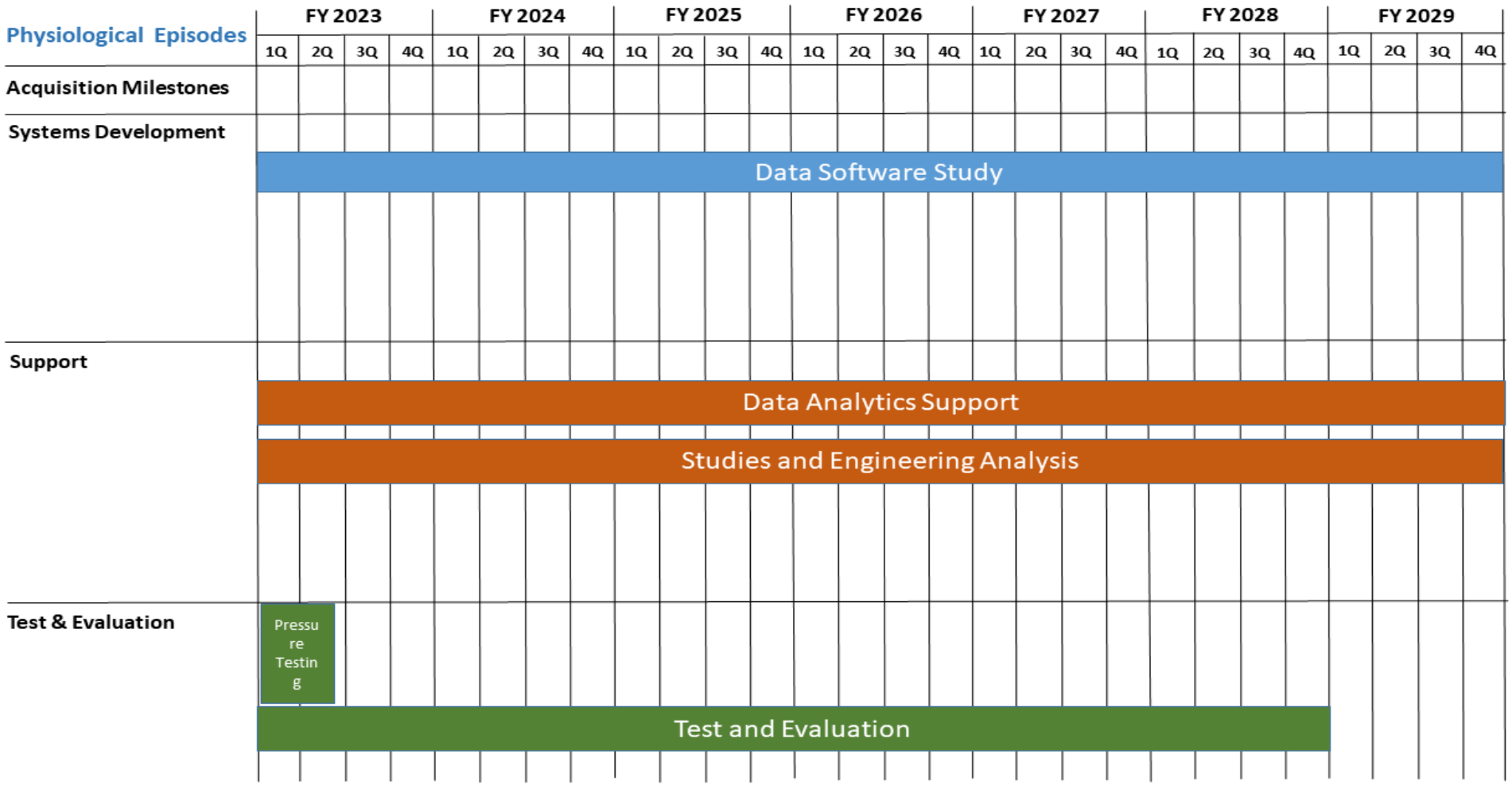

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 9099 / *Physiological Episodes*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Physiological Episodes Mitigation				
System Development: Data Software Study	1	2023	4	2029
Support: Office of Naval Research Data Analytics Support	1	2023	4	2029
Support: Physiological Episodes Studies and Analysis Engineering	1	2023	4	2029
Test and Evaluation: Pressure Testing	1	2023	2	2023
Test and Evaluation: Physiological Episode Test and Evaluation	1	2023	4	2028

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*				Project (Number/Name) 9999 / *Congressional Adds*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
9999: *Congressional Adds*	55.043	13.514	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	68.557
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Noise Reduction: Research, Development, Test and Evaluation (RDT&E) funding to support the redesign of Chevron seals to reduce engine exhaust plume noise. Numerous solutions have been evaluated. Chevron seals were determined to be the favorable solution for the F/A-18 and EA-18G. Previous testing of F414 chevrons demonstrated satisfactory noise reduction up to 80% power, but did not satisfy noise reduction requirements at full power. A possible cause of this problem has been identified. There are re-design options available to sustain noise reduction up to full power. Additional development and test will be required to finalize the Chevron design to achieve the desired noise reduction at all power levels. The subject funding will support the final design qualification efforts and ECP development of the downselected design. Other design options that will be explored are Contoured Inserts (COINs) that have had previous design work funded through ONR. Engine sets may be procured for follow on ground testing and evaluation.

Beacon Obsolescence Research: Research, Development, Test and Evaluation (RDT&E) funding to support APN-245 Automatic Carrier Landing System (ACLS) redesign needed due to obsolescence. The ACLS Radar Beacon enables long-range acquisition and precision guidance of F-18 to the carrier deck in all-weather conditions by providing a high-power, fixed, point-source radar return that eliminates radar scintillation noise.

Fifth Generation Sensor Fusion Study: Research, Development, Test and Evaluation (RDT&E) funding to support the maturation of the SLATE (Secure LVC Advanced Training Environment) technologies through an Advanced Technology Demonstration (ATD) effort. The ATD is expected to inform US Navy Programs of Record (POR) regarding technical and operational requirements for usable LVC (Live, Virtual, Constructive) capabilities and Joint Service PORs options for support to the warfighter.

Growler Noise Mitigation: Research, Development, Test and Evaluation (RDT&E) funding to support reduction of F414 noise by 3dB with no measurable impact to engine thrust.

Training Technology: Research Development Test & Evaluation (RDT&E) funding to facilitate the transition of DoD Joint Interoperable Effects Based Training enabled by Synthetic Inject To Live; Live Virtual Constructive (LVC) recently demonstrated during the Secure LVC Advanced Training Environment flight events at Pax River, MD. More specifically, these funds provide F-35 Sensor Fusion Study Phase II; the Coalition Cross Domain Solution (Encrypted LVC Integrated Training Environment - ELITE); which is the number one Coalition Warfighting Project for INDOPACOM with Royal Australian Air Force (RAAF). It also provides the Secure Live-Virtual-Constructive (LVC) Advanced Training Environment (SLATE) team's transition support into Tactical Combat Training System (TCTS) II PoR.

Civil Instrument Landing System: Research Development Test & Evaluation (RDT&E) funding provided to investigate alternatives to integrate Civilian Instrument Landing System or a Precision Approach Landing System into the F/A-18E/F and EA-18G aircraft. This capability is not available in the F/A-18E/Fs and it is limited to select EA-18Gs.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 9999 / *Congressional Adds*

Solid State Light Off Detector: Research Development Test & Evaluation (RDT&E) funding to explore design concepts to implement a solid state light-off detector in an F414 application. The program will identify concepts to explore in addition to a qualification and implementation plan to field the design into F414 Fleet assets.

Neural Network Algorithms on Advanced Processors: Research Development Test & Evaluation (RDT&E) Neural Network Algorithms funding on advanced processors will enable artificial intelligence and machine learning algorithm support for tactical decision making at increased speed and reduced aircrew workload in support of advance warfighting capabilities of the F/A-18 and EA-18G platforms. Neural network algorithms on advanced processors will be integrated into legacy processing systems with growth reserves that allows for capability upgrades without future hardware redesign during upgrades.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
Congressional Add: Noise reduction research ***FY 2023 Accomplishments:*** N/A ***FY 2024 Plans:*** N/A	3.861	0.000
Congressional Add: Advanced beacon landing system upgrade ***FY 2023 Accomplishments:*** N/A ***FY 2024 Plans:*** N/A	9.653	0.000
Congressional Adds Subtotals	13.514	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 9999 / *Congressional Adds*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Beacon Obsolescence Research	C/CPFF	SNC : Lakehurst,NJ	2.646	0.000		0.000		0.000		-		0.000	0.000	2.646	2.646
Growler Noise Mitigation (Tollgate 3-6)	WR	NAVFAC : Norfolk, VA	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	0.500
Growler Noise Mitigation (Tollgate 6-9)	C/CPFF	GE Aviation : Lynn, Massachusetts	1.761	0.000		0.000		0.000		-		0.000	0.000	1.761	1.761
5th Gen Sensor Fusion	C/CPFF	Boeing : St. Louis, MO	2.387	0.000		0.000		0.000		-		0.000	0.000	2.387	2.387
5th Gen Sensor Fusion	C/CPFF	Cubic : Orlando, FL	3.838	0.000		0.000		0.000		-		0.000	0.000	3.838	3.838
5th Gen Sensor Fusion	C/CPFF	GTRi : Atlanta, GA	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	0.500
Noise Reduction	C/CPFF	GE Aviation : Lynn, Massachusettes	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	2.000
Training Technology	C/CPFF	Boeing : St. Louis, MO	0.244	0.000		0.000		0.000		-		0.000	0.000	0.244	0.244
Training Technology	C/CPFF	Collins Aerospace : California, MD	2.870	0.000		0.000		0.000		-		0.000	0.000	2.870	2.870
Training Technology	C/CPFF	ACC FedLab : Hampton, VA	3.985	0.000		0.000		0.000		-		0.000	0.000	3.985	3.985
Civil Instrument Landing System	C/CPFF	TBD : TBD	2.397	0.000		0.000		0.000		-		0.000	0.000	2.397	2.397
Solid State Light Off Detector	C/CPFF	TBD : TBD	3.723	0.000		0.000		0.000		-		0.000	0.000	3.723	3.723
Neural Network Algorithms	C/CPFF	TBD : TBD	4.000	0.000		0.000		0.000		-		0.000	0.000	4.000	4.000
Noise Reduction	C/CPFF	GE Aviation : Lynn, Massachusetts	0.000	3.500	Aug 2023	0.000		0.000		-		0.000	0.000	3.500	3.500
Advanced Beacon Landing System Upgrade	C/CPFF	SNC : Lakehurst, NJ	0.000	6.976	May 2024	0.000		0.000		-		0.000	0.000	6.976	6.976
Advanced Beacon Landing System Upgrade	WR	NAWCAD : Patuxent River, MD	0.000	0.668	Dec 2023	0.000		0.000		-		0.000	0.000	0.668	-
Prior Year Prod Dev no longer funded in FYDP	Various	Various : Various	10.913	0.000		0.000		0.000		-		0.000	0.000	10.913	-
		Subtotal	41.764	11.144		0.000		0.000		-		0.000	0.000	52.908	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 9999 / *Congressional Adds*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
5th Gen Sensor Fusion	MIPR	MIT : Lexington, MA	0.120	0.000		0.000		0.000		-		0.000	0.000	0.120	-
5th Gen Sensor Fusion	C/CPFF	2 Circle : Arlington, VA	0.800	0.000		0.000		0.000		-		0.000	0.000	0.800	0.800
Training Technology	C/CPFF	Cubic : Orlando, FL	0.225	0.000		0.000		0.000		-		0.000	0.000	0.225	0.225
Training Technology	WR	NSMA : Washington, DC	0.670	0.000		0.000		0.000		-		0.000	0.000	0.670	-
Training Technology	C/CPFF	FTI : Washington DC	0.760	0.000		0.000		0.000		-		0.000	0.000	0.760	0.760
Civil Instrument Landing System	WR	TBD : TBD	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
Solid State Light Off Detector	WR	TBD : TBD	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	-
Neural Network Algorithms	WR	NAWCAD : Patuxent River, MD	0.827	0.000		0.000		0.000		-		0.000	0.000	0.827	-
Noise Reduction	WR	NAWCAD : Patuxent River, MD	0.000	0.500	Jun 2023	0.000		0.000		-		0.000	0.000	0.500	-
Prior Year Support no longer funded in FYDP	Various	Various : Various	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	-
		Subtotal	5.102	0.500		0.000		0.000		-		0.000	0.000	5.602	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NAWCAD : Patuxent River,MD	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NAWCAD : Patuxent River, MD	2.167	0.000		0.000		0.000		-		0.000	0.000	2.167	-
Developmental Test & Evaluation (DT&E)	WR	NAWCAD : Patuxent River, MD	5.760	0.000		0.000		0.000		-		0.000	0.000	5.760	-
Developmental Test & Evaluation (DT&E)	C/CPFF	JF Taylor : Lexington Park, MD	0.000	1.870	Sep 2023	0.000		0.000		-		0.000	0.000	1.870	1.870

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204136N / *F/A-18 Squadrons*	Project (Number/Name) 9999 / *Congressional Adds*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			8.177	1.870		0.000		0.000		-		0.000	0.000	10.047	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	55.043	13.514		0.000		0.000		-		0.000	0.000	68.557	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 9999 / *Congressional Adds*

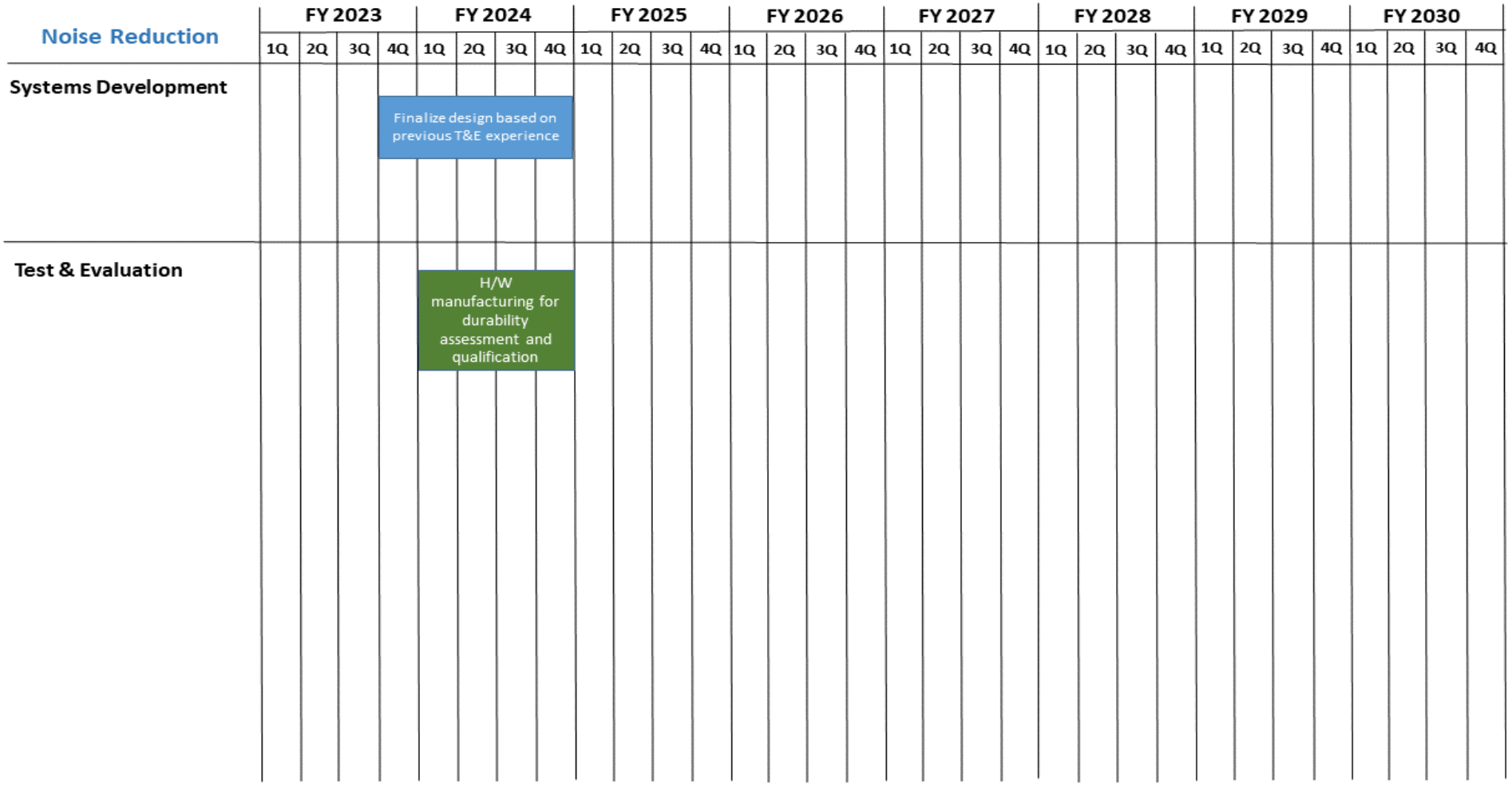

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 9999 / *Congressional Adds*

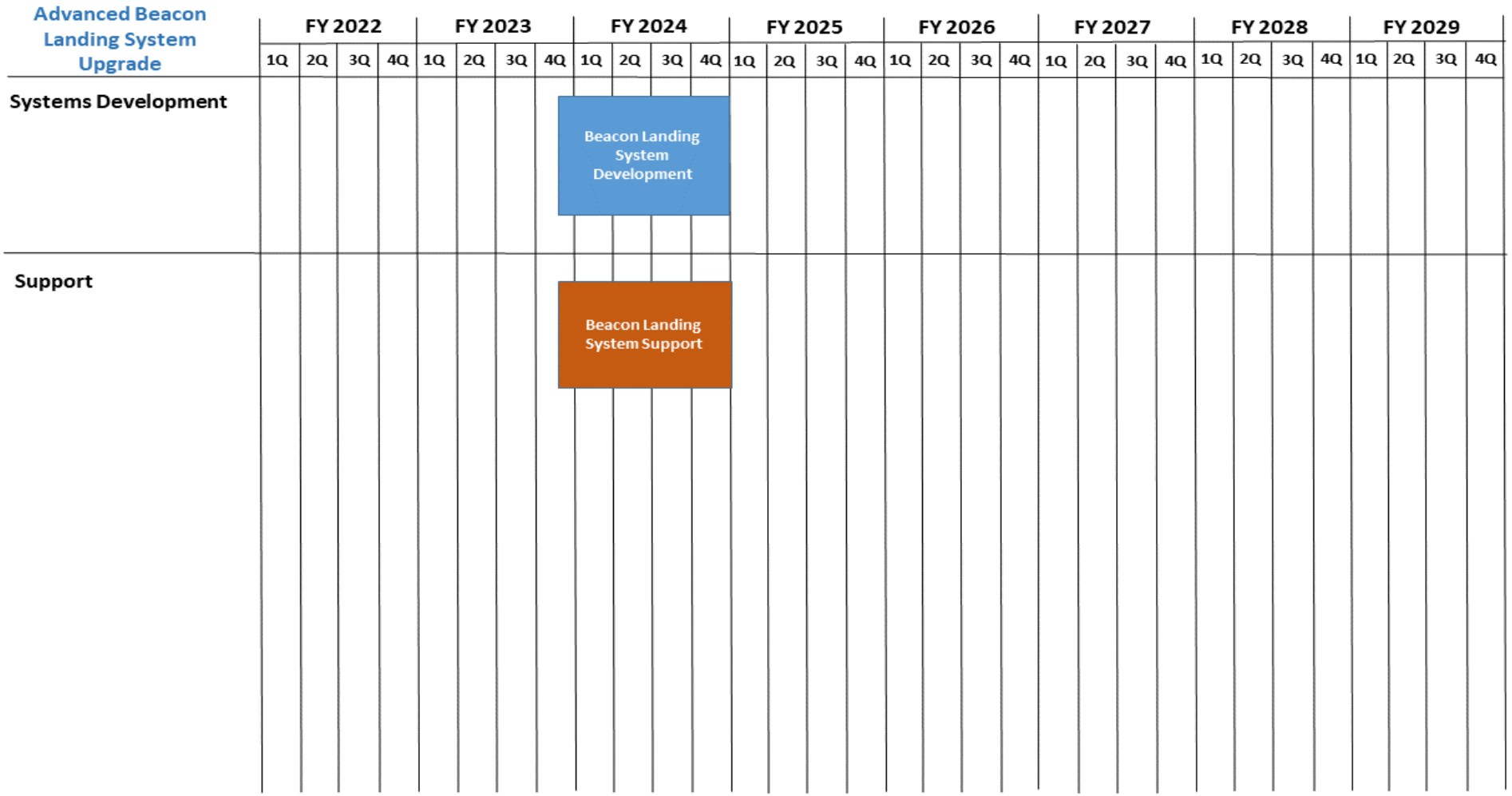

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204136N / *F/A-18 Squadrons*	**Project (Number/Name)** 9999 / *Congressional Adds*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Noise Reduction (FY23 Congressional Add)				
Noise Reduction Development (FY23)	4	2023	4	2024
Noise Reduction T&E (FY23)	1	2024	4	2024
Advanced Beacon Landing System Upgrade				
Adv Beacon Landing System Upgrade Development	4	2023	4	2024
Adv Beacon Landing System Upgrade Support	4	2023	4	2024