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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2025 Navy **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / <i>Nav Integrated Fire Control - Counter Air Sys E</i>
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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	385.434	44.855	66.445	41.419	-	41.419	48.992	51.746	44.341	45.224	Continuing	Continuing
2757: <i>All Domain Long Range Naval Integrated Fire Control (LR-NIFC)</i>	0.000	0.000	25.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	25.000
3159: <i>Naval Integrated Fire Control-Counter Air SE&amp;I</i>	362.286	35.325	29.820	28.951	-	28.951	36.286	38.597	30.991	31.593	Continuing	Continuing
3242: <i>NIFC-CA Supported by Airborne Platforms</i>	23.148	9.530	11.625	12.468	-	12.468	12.706	13.149	13.350	13.631	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

PU 2757 All domain Long Range Networked Fires (LRNF) is a cross organizational Systems Engineering, Integration and Test (SEIT) project to coordinate and align the acquisition enterprise for the delivery of effective and interoperable long range kill chains. This effort will coordinate development and validation of all kill chain components across key enabler programs that include sensors, networks, transport architectures, radios, weapons, platforms, and combat systems across warfighting domains. The project will include joint architecture and Battle Management Command and Control (BMC2) development and maturation, including integration of the key enabler programs to optimize current and emerging capabilities across Navy and other mission partners. Development and execution of the LRNF integrated System of Systems (SoS) acquisition approach will prioritize nearer term fielding of effective capabilities, while continuing to mature solutions and informing investments across the portfolio.

3159 Naval Integrated Fire Control (NIFC) SEI&T project is a systems engineering effort to extend the Naval Integrated Air and Missile Defense battlespace out to the maximum kinematic range of our weapons for the air, surface, and strike warfare missions. This includes targets beyond the detection range of the shooter. The NIFC project exploits capabilities inherent in existing systems, optimizes current and emerging technologies in component system upgrades, integrates them together, and performs kill chain tests, forming an interoperable System of Systems (SoS) to maximize future defense capabilities. As directed by OPNAV, the project is focused on SEI&T efforts to integrate the From The Sea (FTS) family of kill chains which includes an elevated sensor, platform, fire control system, and missile, along with introducing other networks and sensors coordinating with other DOD activities as appropriate. Along with executing NIFC Inc 2 developmental test & fielding the SEIT supports the design of the current kill chain and system configuration and architectures. Future NIFC efforts (e.g. NIFC Inc 3) includes SEIT activities across a broad range of systems and architectures.

3242 Naval Integrated Fire Control (NIFC) From the Air (FTA) SEI&T project is a systems engineering effort to integrate NIFC FTA capabilities within "Pillar Programs" (F/A-18 & EA-18G, E-2D, F-35, Link-16 and Tactical Targeting Network Technology Data Links, and all USN air launched Air-to-Air and Air-to-Surface weapons). Based on the advancing threat, there remains an imperative to improve lethality, survivability and interoperability by extending the battlespace out to the maximum kinematic range of our weapons for the air, surface, and strike warfare missions. The NIFC FTA project leverages capabilities inherent in existing systems,

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optimizes current and emerging technologies in platform system upgrades, and integrates them together to form interoperable System of Systems (SoS) to maximize offensive and defensive FTA integrated capabilities. As directed from OPNAV, the project is focused on development of Air Warfare, Surface Warfare, and Strike Warfare FTA effects chains. This PU will support efforts that include decomposing SoS requirements into Mission Technical Baselines (MTBs) and Integrated Capability Technical Baselines (ICTBs) for requirement allocation to Pillar Programs. Additionally, this PU will support NIFC pillar program coordination to provide performance predictions, performance assessments, and SoS risk reduction activities through Live, Virtual, and Constructive (LVC) events, SoS exercises, and development of Requirements Test and Verification Matrices (RTVMs) to support Developmental and Operational Test for the individual platforms. In lieu of a traditional Test and Evaluation Master Plan (TEMP), NIFC FTA test strategies will be developed to identify resources required to evaluate NIFC FTA capabilities, and describe how NIFC FTA capabilities will be evaluated prior to fleet delivery.

**JUSTIFICATION FOR BUDGET ACTIVITY:** This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Previous President's Budget	45.892	66.445	70.326	-	70.326
Current President's Budget	44.855	66.445	41.419	-	41.419
Total Adjustments	-1.037	0.000	-28.907	-	-28.907
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.037	0.000			
• Program Adjustments	0.000	0.000	-28.878	-	-28.878
• Rate/Misc Adjustments	0.000	0.000	-0.029	-	-0.029

**Change Summary Explanation**

Funding: FY25: PE overall decrease of \$28.907 million.

3242 \$.188 million decrease for Rate/Misc adjustments. \$13.800 million increase for Programmatic adjustment for CVW High Fidelity, Augmented Debrief and Analysis that was transferred in full (-13.800M) to PE 0204571N PU 3093.

2757 Decrease of \$25.5 million from FY25 and out due to transfer of tasking/funding to PE 0605516N PU 2757 and PU 4046.

3159 Decrease of \$3.219 million for Misc adjustments.

Schedule: Removal of all CVW High Fidelity, Augmented Debrief & Analysis milestones from schedule.

Technical: Removal of CVW High Fidelity, Augmented Debrief & Analysis

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E				<b>Project (Number/Name)</b> 2757 / All Domain Long Range Naval Integrated Fire Control (LR-NIFC)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2757: All Domain Long Range Naval Integrated Fire Control (LR-NIFC)	0.000	0.000	25.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	25.000
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

All domain Long Range Networked Fires (LRNF) is a cross organizational Systems Engineering, Integration and Test (SEIT) project to coordinate and align the acquisition enterprise for the delivery of effective and interoperable long range kill chains. This effort will coordinate development and validation of all kill chain components across key enabler programs that include sensors, networks, transport architectures, radios, weapons, platforms, and combat systems across warfighting domains. The project will include joint architecture and Battle Management Command and Control (BMC2) development and maturation, including integration of the key enabler programs to optimize current and emerging capabilities across Navy and other mission partners. Development and execution of the LRNF integrated System of Systems (SoS) acquisition approach will prioritize nearer term fielding of effective capabilities, while continuing to mature solutions and informing investments across the portfolio.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Development, Integration, and fielding of effective all domain Long Range Networked Fires.	0.000	25.000	0.000	0.000	0.000
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> All domain Long Range Networked Fires (LRNF) is a cross organizational Systems Engineering, Integration and Test (SEIT) project to coordinate and align the acquisition enterprise for the delivery of effective and interoperable long range kill chains. This effort will coordinate development and validation of all kill chain components across key enabler programs that include sensors, networks, transport architectures, radios, weapons, platforms, and combat systems across warfighting domains. The project will include joint architecture and Battle Management Command and Control (BMC2) development and maturation, including integration of the key enabler programs to optimize current and emerging capabilities across Navy and other mission partners. Development and execution of the LRNF integrated System of Systems (SoS) acquisition approach will prioritize nearer term fielding of effective capabilities, while continuing to mature solutions and informing investments across the portfolio.					
<b>FY 2024 Plans:</b> Development of required digital architectures and key enablers aligned with ongoing programs. Activities will include the utilization of mission thread teams to evaluate capabilities, gaps, development of validation and					

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<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 2757 / All Domain Long Range Naval Integrated Fire Control (LR-NIFC)

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p>test plans, systems engineering activities, and identification of critical investment opportunities. Begin Battle Management Command and Control (BMC2) software development and establishment of Operational Center for LRNF, including execution of Systems Requirement Review (SRR). Additionally, will refine and develop necessary Concept of Employment (CONEMP), in coordination with Warfare Development Centers (WDCs) and OPNAV, to achieve required military effect. Will execute systems engineering and integration efforts across enabler capabilities to deliver interoperable kill chains.</p> <p><b>FY 2025 Base Plans:</b> Continued execution under PE 0605516N PU 2757 and PU 4046.</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of funds in FY25 is due to transfer of continued execution to PE 0605516N PU 2757 and PU 4046.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	25.000	0.000	0.000	0.000

**C. Other Program Funding Summary (\$ in Millions)**  
N/A

**Remarks**

**D. Acquisition Strategy**  
Not Applicable

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 2757 / All Domain Long Range Naval Integrated Fire Control (LR-NIFC)
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<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
System Engineering	C/CPFF	JHU/APL : Laurel, MD	0.000	0.000		1.823	Oct 2023	0.000		-		0.000	0.000	1.823	1.823
System Engineering	WR	NSWC Dahlgren : Dahlgren, VA	0.000	0.000		1.225	Oct 2023	0.000		-		0.000	0.000	1.225	-
System Engineering	WR	NAWC AD : Pax River, MD	0.000	0.000		1.487	Oct 2023	0.000		-		0.000	0.000	1.487	-
System Engineering	Various	Various : Various	0.000	0.000		1.325	Oct 2023	0.000		-		0.000	0.000	1.325	-
System Engineering	WR	NAWC WD : China Lake, CA	0.000	0.000		1.967	Oct 2023	0.000		-		0.000	0.000	1.967	-
System Engineering	WR	NAVWAR : San Diego, CA	0.000	0.000		0.325	Oct 2023	0.000		-		0.000	0.000	0.325	-
System Engineering	WR	NAVSEA : Washington, DC	0.000	0.000		0.924	Oct 2023	0.000		-		0.000	0.000	0.924	-
System Engineering	WR	NIWC : San Diego, CA	0.000	0.000		1.825	Oct 2023	0.000		-		0.000	0.000	1.825	-
System Engineering	C/CPFF	NSMA : Various	0.000	0.000		7.775	Oct 2023	0.000		-		0.000	0.000	7.775	7.775
System Engineering	WR	NUWC : Newport, RI	0.000	0.000		0.325	Oct 2023	0.000		-		0.000	0.000	0.325	-
System Engineering	C/CPFF	MIT LL : Lexington, MA	0.000	0.000		0.325	Oct 2023	0.000		-		0.000	0.000	0.325	0.325
<b>Subtotal</b>			0.000	0.000		19.326		0.000		-		0.000	0.000	19.326	N/A

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Developmental Test & Evaluation (DT&E)	C/CPFF	COTF : Norfolk, VA	0.000	0.000		0.139	Oct 2023	0.000		-		0.000	0.000	0.139	0.139
Developmental Test & Evaluation (DT&E)	WR	NIWC : San Diego, CA	0.000	0.000		1.550	Oct 2023	0.000		-		0.000	0.000	1.550	1.550
Developmental Test & Evaluation (DT&E)	WR	NAWCAD : Pax River, MD	0.000	0.000		0.925	Oct 2023	0.000		-		0.000	0.000	0.925	0.925

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 2757 / All Domain Long Range Naval Integrated Fire Control (LR-NIFC)
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<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Developmental Test & Evaluation (DT&E)	WR	NAWCWD : China Lake, CA	0.000	0.000		1.835	Oct 2023	0.000		-		0.000	0.000	1.835	1.835
<b>Subtotal</b>			0.000	0.000		4.449		0.000		-		0.000	0.000	4.449	N/A

<b>Management Services (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Project Planning and Support	WR	NAWCAD : Pax River, MD	0.000	0.000		0.525	Oct 2023	0.000		-		0.000	0.000	0.525	-
Project Planning and Support	WR	NAWCWD : China Lake, CA	0.000	0.000		0.250	Oct 2023	0.000		-		0.000	0.000	0.250	-
Project Planning and Support	WR	NAVSEA : Washington, DC	0.000	0.000		0.225	Oct 2023	0.000		-		0.000	0.000	0.225	-
Project Planning and Support	WR	NAVWAR : San Diego, CA	0.000	0.000		0.225	Oct 2023	0.000		-		0.000	0.000	0.225	-
<b>Subtotal</b>			0.000	0.000		1.225		0.000		-		0.000	0.000	1.225	N/A

<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>			
<b>Project Cost Totals</b>			0.000	0.000	25.000	0.000	-	0.000	0.000	25.000	N/A

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 2757 / All Domain Long Range Naval Integrated Fire Control (LR-NIFC)
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<b>LRNF Planning Schedule</b>							
	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Capability Fielding							
Mission Threads SEIT - CONEMP - Digital Architectures - Integration Requirements - Sensor Evaluation - ICDs - Test planning	EOC(s)						
BMC2 / Op Center Development - IOC - FOC	FOC(s)						
LRNF - Kill chain Integration - Integration Events		Sensors, Networks, Radios, Weapons, Combat Systems, Platforms, transport architectures  1					
		ICD - Interface Control Document	SEIT - Systems Engineering, Integration and Test				
		FOC - Final Operational Capability	CONEMP - Concept of Employment				

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<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2025 Navy</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 2757 / All Domain Long Range Naval Integrated Fire Control (LR-NIFC)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2757</b>				
LRNF Integration Event 1	3	2024	4	2024

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E				<b>Project (Number/Name)</b> 3159 / Naval Integrated Fire Control- Counter Air SE&I			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3159: Naval Integrated Fire Control-Counter Air SE&I	362.286	35.325	29.820	28.951	-	28.951	36.286	38.597	30.991	31.593	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

3159 Naval Integrated Fire Control (NIFC) Systems Engineering Integration and Test SEI&T project is a systems engineering capability-based integration effort to extend the Naval Integrated Air and Missile Defense battlespace out to the maximum kinematic range of our weapons for the air, surface warfare missions. This includes targets beyond the detection range of the shooter. The NIFC project exploits capabilities inherent in existing systems, optimizes current and emerging technologies in component system upgrades, integrates them together, and performs kill chain tests, forming an interoperable System of Systems (SoS) to maximize future defense capabilities. As directed by OPNAV, the project is focused on SEI&T efforts to integrate the From The Sea (FTS) family of kill chains which includes a sensor-data/track-data network, one or more distributed sensors, a weapon, and a weapon control system. NIFC Inc 3 introduces other networks and sensors coordinating with other DoD activities as appropriate. NIFC Increment 3 includes SEIT activities across a broad range of systems and architectures, developmental test and fielding, and the design of effects chain architectures (referred to as ARC) within various system configurations.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Integration and Test (I&T) Integrated Product Team (IPT)	16.125	13.885	13.445	0.000	13.445
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> The Integration and Test (I&T) Integrated Product Team (IPT) develops and executes the test plan to assess the FTS operational capability, performs risk reduction testing leveraging various component system tests. Test data will be used over time to verify, validate, and accredit the FTS simulation federation.					
<b>FY 2024 Plans:</b> Execute Test Events in FY24: Land based capability demonstrations (Non-Fire), including planning for Live / Virtual / Constructive (LVC) coordination across distributed sites, improving processes from pilot FY23 LVC event, and Live Fire event planning and participation with IWS PEOs. At Sea event planned for FY25, requiring 12 month lead time for certain assets utilized during test events. Anticipate Cross Service Sensor Netting					

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<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 3159 / Naval Integrated Fire Control- Counter Air SE&I

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
(CSSN) project funding to establish cost share and planning processes for CSSN pilot test event in joint coordination with Army as the lead for test execution.  <b>FY 2025 Base Plans:</b> Execute Test Events in FY25: Land based capability demonstrations, TrackEx (Non-Fire) and Live At Sea Event execution and analysis follow on from FY24. TrackEx and LVC events anticipated including continued planning for Live / Virtual / Constructive (LVC) coordination across distributed sites for setup of repetitive LVC quarterly as an initial goal, improving processes and execution from FY24 LVC and At Sea events. Conduct all post test data analysis of demonstrations, At Sea, LVC, and TrackEx events. Continued execution of CSSN project funding for joint cooperative Army led test event execution, development of test documentation, analysis of Navy test data, and planning for FY26 Navy led test events on Army data.  <b>FY 2025 OCO Plans:</b> N/A  <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease in FY25 - LFT 9 originally scheduled for FEB 2023, did not execute as planned resulting in reduced expenditures for multiple participants. Additionally the NIFC Live-Virtual-Constructive (LVC) event scheduled for JUN was delayed until SEP 2023 resulting in a delayed invoicing and expenditures for multiple performers. Decrease in funding will result in a reduction in the number of LVC planning events to prioritize At Sea and TrackEx events.					
<b>Title:</b> Engineering Management And System Definition  <b>Description:</b> Engineering management and system definition including the development of the Systems Performance Document (SPD), System of Systems (SoS) functional allocations, requirements, traceability, SoS trades studies, SoS information exchange requirements, interface specifications, and sensor network capability analysis. Provides for complete FTS kill chain performance analysis and interface verification through development of a federation of simulations provided directly from the Programs of Record (PORs). Programs of Record include an elevated sensor, fire control system, platform and missile, as well as an expanding set of sensors and networks. NIFC Increment 3 adds multiple new sensors, networks, and weapons to the kill chain including Tactical Air Support (TACAIR) integration, (Electronic Warfare),and Battle management development and improvement.	19.200	15.935	15.506	0.000	15.506
<b>Articles:</b>	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / <i>Nav Integrated Fire Control - Counter Air Sys E</i>	<b>Project (Number/Name)</b> 3159 / <i>Naval Integrated Fire Control-Counter Air SE&amp;I</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p>Federated SoS simulations support architecture development, scenario development, predictive analysis for testing, and define capabilities and limitations of FTS kill chain performance analysis and interface verification through development of a federation of simulations provided directly from the FTS PORs and future enhancements.</p> <p>Federated SoS simulations support architecture development, scenario development, predictive analysis for testing, and define capabilities and limitations of FTS kill chain for deployment.</p> <p><b>FY 2024 Plans:</b> System of systems (SOS) activities for Inc 3 advanced kill chains developing system documents as described above for increased sensor and network participation to meet fleet needs in support of warfighting in complex Naval environments. Continue Modeling and Simulations (M&amp;S) for evaluation of advanced concepts utilizing other networks and sensors. System Engineering, Performance Modeling, Analysis, and assessment of Integrated Fire Control (IFC) architectures to support decisions for investment and prioritization in future NIFC kill chain architectures. Develop models, simulations, and tools, to analyze, assess, and recommend potential future NIFC architectures.</p> <p><b>FY 2025 Base Plans:</b> System of systems (SoS) activities for Inc 3 advanced kill chains developing system documents as described above for Increased sensor and network participation to meet fleet needs in support of warfighting in complex Naval environments. Continue Modeling and Simulations (M&amp;S) for evaluation of advanced concepts utilizing other networks and sensors. System Engineering, Performance Modeling, Analysis, and assessment of Integrated Fire Control (IFC) architectures to support decisions for investment and prioritization in future NIFC kill chain architectures. Develop models, simulations,</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy	<b>Date:</b> March 2024
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<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 3159 / Naval Integrated Fire Control- Counter Air SE&I
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
and tools, to analyze, assess, and recommend potential future NIFC architectures.					
C2P Unit Delivery - Q3 FY25					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease in FY25 - LFT 9 originally scheduled for FEB 2023 test event did not execute as planned resulting in reduced expenditures for multiple participants. Additionally the NIFC Live-Virtual-Constructive (LVC) event scheduled for JUN was delayed until SEP 2023 resulting in a delayed invoicing and expenditures for multiple performers. Decrease will result in reduction of certain kill chain analysis based on funding decrease and potential for cost share with other IWS POR priorities.					
<b>Accomplishments/Planned Programs Subtotals</b>	35.325	29.820	28.951	0.000	28.951

**C. Other Program Funding Summary (\$ in Millions)**  
N/A

**Remarks**

**D. Acquisition Strategy**  
Not Applicable

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 3159 / Naval Integrated Fire Control- Counter Air SE&I
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<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Systems Engineering	Various	Various : Various	64.251	3.000	Dec 2022	1.800	Dec 2023	1.829	Oct 2024	-		1.829	0.000	70.880	-
Systems Engineering	C/CPFF	JHU/APL : Laurel, MD	11.698	1.500	Dec 2022	0.800	Dec 2023	1.000	Oct 2024	-		1.000	0.000	14.998	-
Systems Engineering	C/CPFF	NGIS : Melbourne, FL	8.653	0.000		0.000		0.000		-		0.000	0.000	8.653	-
Systems Engineering	C/CPFF	LM MS2 : Moorestown, NJ	73.163	5.170	Nov 2022	4.000	Nov 2023	3.600	Oct 2024	-		3.600	0.000	85.933	-
Systems Engineering	C/CPFF	Raytheon Co. : St. Petersburg, FL	16.881	0.560	Nov 2022	0.300	Nov 2023	0.300	Oct 2024	-		0.300	0.000	18.041	-
Systems Engineering	WR	NSWC CRANE : Crane, IN	4.751	3.285	Dec 2022	3.175	Dec 2023	3.175	Oct 2024	-		3.175	0.000	14.386	-
Systems Engineering	WR	NAWC CHINA LAKE : China Lake, CA	3.323	0.000		0.000		0.000		-		0.000	0.000	3.323	-
Systems Engineering	WR	COTF : Norfolk, VA	0.785	0.000		0.000		0.000		-		0.000	0.000	0.785	-
Systems Engineering	WR	NAWC Pax River : Pax River, MD	3.395	1.400	Oct 2022	1.000	Oct 2023	1.400	Oct 2024	-		1.400	0.000	7.195	-
Systems Engineering	WR	NSWC DAHLGREN : Dahlgren, VA	7.472	3.042	Oct 2022	3.600	Oct 2023	3.000	Oct 2024	-		3.000	0.000	17.114	-
Systems Engineering	C/CPFF	Raytheon Co. : Tucson, AZ	2.054	0.110	Dec 2022	0.000		0.200	Oct 2024	-		0.200	0.000	2.364	-
Systems Engineering	WR	NRL : Washington, DC	0.000	0.500	Nov 2022	0.060	Nov 2023	0.050	Oct 2024	-		0.050	0.000	0.610	-
<b>Subtotal</b>			196.426	18.567		14.735		14.554		-		14.554	0.000	244.282	N/A

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Developmental Test & Evaluation (DT&E)	C/CPFF	Raytheon : St. Petersburg, FL	8.645	0.195	Oct 2022	0.000	Nov 2023	0.100	Oct 2024	-		0.100	0.000	8.940	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 5				PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E				3159 / Naval Integrated Fire Control-Counter Air SE&I							
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	COTF : Norfolk, VA	0.013	0.000		0.000		0.000		-		0.000	0.000	0.013	-
Developmental Test & Evaluation (DT&E)	C/BA	Wallops Island : Wallops Island, VA	0.260	0.000	Oct 2022	0.000		0.000		-		0.000	0.000	0.260	-
Developmental Test & Evaluation (DT&E)	WR	NAWC AD : Pax River, MD	0.733	0.000		0.000		0.000		-		0.000	0.000	0.733	-
Developmental Test & Evaluation (DT&E)	WR	NAWC CHINA LAKE : China Lake, CA	1.460	0.564	Oct 2022	0.435	Oct 2023	0.420	Oct 2024	-		0.420	0.000	2.879	-
Developmental Test & Evaluation (DT&E)	WR	NAWC Pax River : Pax River, MD	1.325	0.000		0.000		0.000		-		0.000	0.000	1.325	-
Developmental Test & Evaluation (DT&E)	C/BA	NSWC/DAHLGREN : DAHLGREN, VA	1.582	1.500	Oct 2022	0.100	Oct 2023	0.000	Oct 2024	-		0.000	0.000	3.182	-
Developmental Test & Evaluation (DT&E)	C/CPFF	Lockheed Martin - Moorestown, NJ : Moorestown, NJ	35.771	2.045	Oct 2022	2.000	Nov 2023	2.352	Oct 2024	-		2.352	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	PT MUGU : PT Mugu, CA	11.466	0.065	Oct 2022	0.260	Oct 2023	0.350	Oct 2024	-		0.350	0.000	12.141	-
Developmental Test & Evaluation (DT&E)	Various	Various : Various	56.481	3.570	Oct 2022	2.600	Oct 2023	2.250	Oct 2024	-		2.250	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	Dept of Interior : Boise, ID	4.048	0.311	Dec 2022	0.000		0.000		-		0.000	0.000	4.359	-
Developmental Test & Evaluation (DT&E)	WR	NSWC/PHD : Port Hueneme, CA	12.094	4.103	Oct 2022	4.590	Oct 2023	3.725	Oct 2024	-		3.725	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NIWC : San Diego, CA	0.066	0.000		0.000		0.300	Oct 2024	-		0.300	0.000	0.366	-
Developmental Test & Evaluation (DT&E)	C/CPFF	JHU/APL : Laurel, MD	1.112	0.300	Oct 2022	0.500	Oct 2023	0.400	Oct 2024	-		0.400	0.000	2.312	-
Developmental Test & Evaluation (DT&E)	WR	NSWC CRANE : Crane, IN	1.200	0.980	Oct 2022	0.250	Dec 2023	0.350	Oct 2024	-		0.350	0.000	2.780	-
Developmental Test & Evaluation (DT&E)	WR	NIWC San Diego : San Diego, CA	0.292	0.100	Dec 2022	0.300	Dec 2023	0.000		-		0.000	0.000	0.692	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 5				PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E				3159 / Naval Integrated Fire Control-Counter Air SE&I							
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	C/CPFF	Northrop Grumman : Melbourne, FL	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Developmental Test & Evaluation (DT&E)	WR	PMRF : Barking Sands, HI	1.948	0.000	Apr 2023	2.050	Apr 2024	2.500	Oct 2024	-		2.500	0.000	6.498	-
Developmental Test & Evaluation (DT&E)	C/CPFF	Raytheon : Tuscon, AZ	0.000	0.455	Dec 2022	0.500	Dec 2023	0.350	Oct 2024	-		0.350	0.000	1.305	-
Developmental Test & Evaluation (DT&E)	WR	NSWC CORONA : Corona, CA	0.000	0.380	Oct 2022	0.300	Oct 2023	0.300	Oct 2024	-		0.300	0.000	0.980	-
Developmental Test & Evaluation (DT&E)	C/CPFF	Innovative Defense Tech (IDT) : Arlington, VA	1.118	0.297	Jul 2023	0.000		0.000		-		0.000	0.000	1.415	-
<b>Subtotal</b>			139.614	14.865		13.885		13.397		-		13.397	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Planning and Management	WR	NAWC China Lake : China Lake, CA	0.201	0.000		0.000		0.000		-		0.000	0.000	0.201	-
Project Planning and Management	WR	NAWC Pax River : Pax River, MD	0.260	0.000		0.000		0.000		-		0.000	0.000	0.260	-
Project Planning and Management	C/CPFF	Various : Various	25.785	1.893	Oct 2022	1.200	Oct 2023	1.000	Oct 2024	-		1.000	Continuing	Continuing	Continuing
<b>Subtotal</b>			26.246	1.893		1.200		1.000		-		1.000	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			362.286	35.325		29.820		28.951		-		28.951	Continuing	Continuing	N/A
<b>Remarks</b>															

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / <i>Nav Integrated Fire Control - Counter Air Sys E</i>	<b>Project (Number/Name)</b> 3159 / <i>Naval Integrated Fire Control-Counter Air SE&amp;I</i>
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Proj 3159	FY 2023				FY 2024				FY 2025			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
NIFC PROJECT ACTIVITY												
White Sands Missile Range (WSMR)								▲				▲
ACB 16 With SM-6Blk 1A Live Fire Tests		-----				▲		▲		▲		
Sensor Updates Delta System/Software Configuration (DSSC)-4									▲			
SM-6 Blk 1 & SM-6 Blk 1A			▲	▲			▲	■	▲		▲	
Joint & Fleet Events	▲			▲		▲		▲			▲	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2025 Navy</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 3159 / Naval Integrated Fire Control- Counter Air SE&I

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3159</b>				
NIFC PROJECT ACTIVITY: CAPABILITY: INC 3 IOC	2	2026	2	2026
White Sands Missile Range (WSMR): White Sands Missile Range (WSMR) Desert Ship Upgrade and Maintenance Development: C2P Unit Delivery	4	2025	4	2025
White Sands Missile Range (WSMR): White Sands Missile Range (WSMR) Desert Ship Upgrade and Maintenance Development: Install of Virtualized AEGIS	4	2024	4	2024
White Sands Missile Range (WSMR): White Sands Missile Range (WSMR) Desert Ship Upgrade and Maintenance Development: Maintain CONFIG & IA	1	2023	4	2029
ACB 16 With SM-6Blk 1A Live Fire Tests: ACB-16 Capability Demo (CD) 2/23	2	2023	1	2024
ACB 16 With SM-6Blk 1A Live Fire Tests: ACB-16 with SM-6 Blk IA At Sea Live Fire 12/24	1	2025	1	2025
ACB 16 With SM-6Blk 1A Live Fire Tests: ACB-16 with SM-6 Blk IA Capability Demo 1/26	2	2026	2	2026
ACB 16 With SM-6Blk 1A Live Fire Tests: ACB-16 with SM-6 Blk IA Live Fire Tests: At Sea 7/26	4	2026	4	2026
ACB 16 With SM-6Blk 1A Live Fire Tests: ACB-16 with SM-6 Blk IA Capability Demo: 1/27	2	2029	2	2029
ACB 16 With SM-6Blk 1A Live Fire Tests: ACB-16 with SM-6 Blk IA Live Fire Tests: At Sea 5/27	3	2027	3	2027
ACB 16 With SM-6Blk 1A Live Fire Tests: ACB-16 with SM-6 Blk IA LFT Capability Demo: 1/28	2	2028	2	2028
ACB 16 With SM-6Blk 1A Live Fire Tests: ACB-16 with SM-6 Blk IA LFT Capability Demo: 5/28	3	2028	3	2028
ACB 16 With SM-6Blk 1A Live Fire Tests: ACB-16 with SM-6 Blk IA Capability Demo: 1/29	2	2029	2	2029

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**Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 3159 / Naval Integrated Fire Control- Counter Air SE&I
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<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
ACB 16 With SM-6Blk 1A Live Fire Tests: ACB-16 with SM-6 Blk IA LFT At Sea 5/29	3	2029	3	2029
Sensor Updates Delta System/Software Configuration (DSSC)-4: DSSC 5 Sensor Updates DSSC -5.1 1/25	1	2025	1	2025
Sensor Updates Delta System/Software Configuration (DSSC)-4: DSSC 5 Sensor Updates DSSC -5.2 1/26	1	2026	1	2026
Sensor Updates Delta System/Software Configuration (DSSC)-4: DSSC 5 Sensor Updates DSSC -5.3 1/27	1	2027	1	2027
SM-6 Blk 1 & SM-6 Blk 1A: CEC Updates: Advanced Hawkeye (AHE) DSSC 5 5/24	3	2024	3	2024
SM-6 Blk 1 & SM-6 Blk 1A: CEC Updates: AHE DSSC 6 9/27	4	2027	4	2027
SM-6 Blk 1 & SM-6 Blk 1A: CEC Updates: CEC AN/USG-2B AWS 10.0 CG2	4	2023	4	2023
SM-6 Blk 1 & SM-6 Blk 1A: CEC Updates: CEC AN/USG-2B AWS 10.1 CG 3	1	2025	1	2025
SM-6 Blk 1 & SM-6 Blk 1A: AEGIS Weapon System ACB-16: TACAIR Phase II Cert (3 phases)	4	2026	4	2026
SM-6 Blk 1 & SM-6 Blk 1A: AEGIS Weapon System ACB-16: Capability Package 24 Combat System Cert 5/25	3	2025	3	2025
SM-6 Blk 1 & SM-6 Blk 1A: Aegis 9 on 7 At Sea Test 7/24	4	2024	4	2024
SM-6 Blk 1 & SM-6 Blk 1A: SM-6 Blk IA: FOC	3	2023	3	2023
Joint & Fleet Events: Fleet Event: Integrated Battle Problem (IBP)	1	2023	1	2023
Joint & Fleet Events: Fleet Level Integrated Fire Control (FL IFC) 9/23	4	2023	4	2023
Joint & Fleet Events: CVN 70 IBP 3/2024	2	2024	2	2024
Joint & Fleet Events: Commander, Operational Test & Evaluation Test 1.1-15 7/24	4	2024	4	2024
Joint & Fleet Events: CSSN Army Test FY25	3	2025	3	2025
Joint & Fleet Events: CSSN Navy Test FY26	3	2026	3	2026

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E				<b>Project (Number/Name)</b> 3242 / NIFC-CA Supported by Airborne Platforms			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3242: NIFC-CA Supported by Airborne Platforms	23.148	9.530	11.625	12.468	-	12.468	12.706	13.149	13.350	13.631	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Naval Integrated Fire Control (NIFC) From the Air (FTA) Systems Engineering Integration and Test (SEI&T) project is a systems engineering effort to integrate NIFC FTA capabilities within "Pillar Programs" (F/A-18 & EA-18G, E-2D, F-35, Link-16 and Tactical Targeting Network Technology Data Links, and all USN air launched Air-to-Air and Air-to-Surface weapons). Based on the advancing threat, there remains an imperative to improve lethality, survivability and interoperability by extending the battlespace out to the maximum kinematic range of our weapons for the air, surface, and strike warfare missions. The NIFC FTA project leverages capabilities inherent in existing systems, optimizes current and emerging technologies in platform system upgrades, and integrates them together to form interoperable System of Systems (SoS) to maximize offensive and defensive FTA integrated capabilities. As directed from OPNAV, the project is focused on development of Air Warfare, Surface Warfare, and Strike Warfare FTA effects chains. This PU will support efforts that include decomposing SoS requirements into Model Based Systems Engineering products including Mission Technical Baselines (MTBs), Integrated Capability Technical Baselines (ICTBs) and associated digital architectures for requirement allocation to Pillar Programs. Additionally, this PU will support NIFC pillar program coordination to provide performance predictions, performance assessments, and SoS risk reduction activities through Live, Virtual, and Constructive (LVC) events, SoS exercises, and development of Requirements Test and Verification Matrices (RTVMs) to support Developmental and Operational Test for the individual platforms, with T&E results summarized in a Mission Assessment Report. Performance assessments include data collection and analysis on Carrier Air Wings in deployment workups in order understand the effectiveness of the fielded SoS and the operators who employ them. In lieu of a traditional Test and Evaluation Master Plan (TEMP), NIFC FTA test strategies will be developed to identify resources required to evaluate NIFC FTA capabilities, and describe how NIFC FTA capabilities will be evaluated prior to fleet delivery.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> NIFC From the Air (FTA) Capabilities Effectiveness and Integration	9.530	11.625	12.468	0.000	12.468
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> Develops and executes multi-platform cross-domain offensive and defensive kinematic and non-kinematic effects chains.					
<b>FY 2024 Plans:</b> Continue NIFC FTA System of Systems (SoS) verification and validation testing of F/A-18 H16, F-35, and E-2D DSSC 4 / 5 with increased capabilities of USN air launched Air-to-Air and Air-to-Surface weapons, integration of Tactical Targeting Network Technology (TTNT), and enhancements to Link-16. Evaluate and assess integrated					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 3242 / NIFC-CA Supported by Airborne Platforms

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p>fires interoperability and performance across air platforms and weapons by the utilization of federated labs. These labs will utilize a combination of Live Virtual Constructive (LVC) capabilities to identify issues, and provide recommendations for corrections. Development of mission Requirements Test and Verification Matrices (RTVMs) to provide definition to Developmental Test and Operational Test within the individual platforms. Development of Integrated Technical Capability Baselines (ICTBs) and Design Reference Missions (DRMs) to inform architecture development and system definition of the F/A-18 H18/H20,E-2D DSSC 6/7, and continued F-35 improvements. Execute performance assessments, interoperability risk reduction for advanced Integrated Fire Control (IFC), and employment recommendations across the NIFC pillar programs to maximize effectiveness when introduced to the Fleet.</p> <p>Beginning in FY24, funds issued for a shift to digital engineering at the Systems of Systems (SoS) level, enabling mission level SoS requirements to be delivered as digital architecture models that can be integrated with pillar platform digital models in a single environment. This will provide the delivery of a digital engineering analysis environment to support faster development cycle and maintain program alignment for SoS capabilities from gap identification, through POM, development test and fielding. Provide mission level, SoS support of digital acquisition programs.</p> <p><b>FY 2025 Base Plans:</b> Continue NIFC FTA System of Systems (SoS) verification and validation testing of F/A-18 H18/H20, F-35 block 4, and E-2D DSSC 5 with increased capabilities of USN air launched Air-to-Air and Air-to-Surface weapons, integration of tactical data link enhancements and Long Range Fires. Evaluate and assess integrated fires interoperability and performance across air platforms and weapons by the utilization of federated labs; LVC, and OITL. These labs will utilize a combination of LVC capabilities to identify issues and provide recommendations for corrections. Development of mission and RTVMs to provide definition to Developmental Test and Operational Test within the individual platforms. Development of digital thread of architectures, Integrated Technical Capability Baselines (ICTBs), and Design Reference Missions (DRMs) to inform architecture development and system definition of the primary Carrier Air Wing effects chains for priority missions including Long Range Fires and capabilities enabling Long Range Fires. Execute performance assessments, interoperability risk reduction for advanced Integrated Fire Control (IFC), and employment recommendations across the NIFC pillar programs to maximize effectiveness when introduced to the Fleet.</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 3242 / NIFC-CA Supported by Airborne Platforms

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Data analytics provided from the Training Analysis Project to be assessed for effectiveness of fielded capabilities for System of System level pillar platforms.					
<b><i>FY 2025 OCO Plans:</i></b> N/A					
<b><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i></b> 0604378N/3242 decreases of \$13.8M since the FY24 Budget for the start of Augmented Debrief and Analysis program and Digital Engineering. Decision to transfer \$13.8M (reduction) to PE 0204571N PU 3093 for a better alignment of resources within the Fleet Training Wholeness portfolio.					
\$.843M continues the efforts to shift digital engineering at the System of System Level enabling mission-level SoS requirements to be delivered as digital architectural models that can be integrated within pillar programs.					
<b>Accomplishments/Planned Programs Subtotals</b>	9.530	11.625	12.468	0.000	12.468

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Not Applicable.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 5				PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E				3242 / NIFC-CA Supported by Airborne Platforms							
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SYSTEM ENGINEERING	WR	NAWC AD : PAX RIVER, MD	5.950	1.585	Oct 2022	2.170	Oct 2023	2.175	Oct 2024	-		2.175	Continuing	Continuing	Continuing
SYSTEM ENGINEERING	WR	NAWC CHINA LAKE : CHINA LAKE, CA	4.473	1.615	Oct 2022	2.090	Oct 2023	1.250	Oct 2024	-		1.250	Continuing	Continuing	Continuing
SYSTEM ENGINEERING	C/CPFF	NSMA : WASHINGTON, DC	3.668	0.040	Nov 2022	0.060	Oct 2023	0.395	Oct 2024	-		0.395	0.000	4.163	4.163
SYSTEM ENGINEERING	C/CPFF	NAVAIR : PAX RIVER, MD	0.000	0.060	Dec 2022	0.060	Oct 2023	0.060	Oct 2024	-		0.060	0.000	0.180	0.180
SYSTEM ENGINEERING	WR	NAWCWD : Pt. Mugu, CA	0.000	0.000		0.000		1.230	Oct 2024	-		1.230	0.000	1.230	-
<b>Subtotal</b>			14.091	3.300		4.380		5.110		-		5.110	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NAWC AD : PAX RIVER, MD	2.410	4.438	Oct 2022	5.410	Oct 2023	5.194	Oct 2024	-		5.194	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NAWC CHINA LAKE : CHINA LAKE, CA	2.068	0.701	Oct 2022	0.716	Oct 2023	0.874	Oct 2024	-		0.874	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	C/CPFF	NSMA : WASHINGTON, DC	3.167	0.350	Dec 2022	0.350	Oct 2023	0.500	Oct 2024	-		0.500	0.000	4.367	4.367
Developmental Test & Evaluation (DT&E)	WR	NAWCWD : Pt. Mugu, CA	0.000	0.562	Oct 2022	0.590	Oct 2023	0.600	Oct 2024	-		0.600	0.000	1.752	-
Developmental Test & Evaluation (DT&E)	C/CPFF	TBD : TBD	0.000	0.000		0.000		0.000	Oct 2024	-		0.000	0.000	0.000	-
<b>Subtotal</b>			7.645	6.051		7.066		7.168		-		7.168	Continuing	Continuing	N/A



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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 3242 / NIFC-CA Supported by Airborne Platforms
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Proj 3242	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
NAVAIR SoS Exercises			▲				▲				▲				▲				▲				▲				▲	
FTA Federation LVC Event 17-20	▲	▲	▲																									
FTA Federation LVC Event 21-24				▲		▲	▲	▲																				
FTA Federation LVC Event 25-29								▲	▲	▲	▲																	
FTA Federation LVC Event 29-32													▲	▲	▲	▲												
FTA Federation LVC Event 33-36																	▲	▲	▲	▲								
FTA Federation LVC Event 37-40																		▲	▲	▲								
SoS Digital Engineering Technical Baseline & Requirements Analysis																												
FTA Federation LVC Event 41-44																										▲	▲	▲

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<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2025 Navy</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 3242 / NIFC-CA Supported by Airborne Platforms

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3242</b>				
NAVAIR SoS Exercises: NAVAIR SoS Exercise 3/23	3	2023	3	2023
NAVAIR SoS Exercises: NAVAIR SoS Exercise 3/24	3	2024	3	2024
NAVAIR SoS Exercises: NAVAIR SoS Exercise 3/25	3	2025	3	2025
NAVAIR SoS Exercises: NAVAIR SoS Exercise 3/26	3	2026	3	2026
NAVAIR SoS Exercises: NAVAIR SoS Exercise 3/27	3	2027	3	2027
NAVAIR SoS Exercises: NAVAIR SoS Exercise 3/28	3	2028	3	2028
NAVAIR SoS Exercises: NAVAIR SoS Exercise 3/29	3	2029	3	2029
FTA Federation LVC Event 17-20: FTA Federation LVC Event 17	2	2023	2	2023
FTA Federation LVC Event 17-20: FTA Federation LVC Event 18	3	2023	3	2023
FTA Federation LVC Event 17-20: FTA Federation LVC Event 19	4	2023	4	2023
FTA Federation LVC Event 17-20: FTA Federation LVC Event 20	4	2023	4	2023
FTA Federation LVC Event 21-24: FTA Federation LVC Event 21	2	2024	2	2024
FTA Federation LVC Event 21-24: FTA Federation LVC Event 22	3	2024	3	2024
FTA Federation LVC Event 21-24: FTA Federation LVC Event 23	4	2024	4	2024
FTA Federation LVC Event 21-24: FTA Federation LVC Event 24	4	2024	4	2024
FTA Federation LVC Event 25-29: FTA Federation LVC Event 25	2	2025	2	2025
FTA Federation LVC Event 25-29: FTA Federation LVC Event 26	3	2025	3	2025
FTA Federation LVC Event 25-29: FTA Federation LVC Event 27	4	2025	4	2025
FTA Federation LVC Event 25-29: FTA Federation LVC Event 28	4	2025	4	2025
FTA Federation LVC Event 29-32: FTA Federation LVC Event 29	2	2026	2	2026
FTA Federation LVC Event 29-32: FTA Federation LVC Event 30	3	2026	3	2026

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**Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604378N / Nav Integrated Fire Control - Counter Air Sys E	<b>Project (Number/Name)</b> 3242 / NIFC-CA Supported by Airborne Platforms
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
FTA Federation LVC Event 29-32: FTA Federation LVC Event 31	4	2026	4	2026
FTA Federation LVC Event 29-32: FTA Federation LVC Event 32	4	2026	4	2026
FTA Federation LVC Event 33-36: FTA Federation LVC Event 33	2	2027	2	2027
FTA Federation LVC Event 33-36: FTA Federation LVC Event 34	3	2027	3	2027
FTA Federation LVC Event 33-36: FTA Federation LVC Event 35	4	2027	4	2027
FTA Federation LVC Event 33-36: FTA Federation LVC Event 36	4	2027	4	2027
FTA Federation LVC Event 37-40: FTA Federation LVC Event 37	2	2028	2	2028
FTA Federation LVC Event 37-40: FTA Federation LVC Event 38	3	2028	3	2028
FTA Federation LVC Event 37-40: FTA Federation LVC Event 39	4	2028	4	2028
FTA Federation LVC Event 37-40: FTA Federation LVC Event 40	4	2028	4	2028
SoS Digital Engineering Technical Baseline & Requirements Analysis: SoS Digital Engineering Technical Baseline & Requirements Analysis (2027-2032) 4/24	1	2024	4	2024
SoS Digital Engineering Technical Baseline & Requirements Analysis: SoS Digital Engineering Technical Baseline & Requirements Analysis (2027-2032) 4/25	1	2025	4	2025
SoS Digital Engineering Technical Baseline & Requirements Analysis: SoS Digital Engineering Technical Baseline & Requirements Analysis (2029-2034) 4/26	1	2026	4	2026
SoS Digital Engineering Technical Baseline & Requirements Analysis: SoS Digital Engineering Technical Baseline & Requirements Analysis (2029-2034) 4/27	1	2027	4	2027
SoS Digital Engineering Technical Baseline & Requirements Analysis: SoS Digital Engineering Technical Baseline & Requirements Analysis (2031-2036) 4/28	1	2028	4	2028
SoS Digital Engineering Technical Baseline & Requirements Analysis: SoS Digital Engineering Technical Baseline & Requirements Analysis (2031-2036) 4/29	1	2029	4	2029
FTA Federation LVC Event 41-44: FTA Federation LVC Event 41	2	2029	2	2029
FTA Federation LVC Event 41-44: FTA Federation LVC Event 42	3	2029	3	2029
FTA Federation LVC Event 41-44: FTA Federation LVC Event 43	4	2029	4	2029
FTA Federation LVC Event 41-44: FTA Federation LVC Event 44	4	2029	4	2029