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Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Navy **Date:** May 2021

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605180N / TACAMO MODERNIZATION
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	150.592	-	150.592	-	-	-	-	-	-
3259: <i>TACAMO Recap</i>	0.000	0.000	0.000	150.592	-	150.592	-	-	-	-	-	-

Note
Funding for this effort transferred from PE 0101402N Project Unit 2959 beginning in FY22.

A. Mission Description and Budget Item Justification

The E-6 Recapitalization Program (E-XX) provides for air vehicle replacement and mission systems modernization for the aging E-6B aircraft and Take Charge and Move Out (TACAMO) mission. The TACAMO mission provides airborne capability for survivable, enduring and reliable airborne command, control and communications between the United States (U.S.) National Command Authority (NCA) and the U.S. strategic forces. This mission is critical in the deterrence and management of a large-scale nuclear conflict. A dedicated communications platform, TACAMO aircraft feature the ability to communicate on virtually every radio frequency band from very low frequency (VLF) up through extremely high frequency (EHF) using a variety of modulations, encryptions and networks, minimizing the likelihood an emergency message being jammed by an enemy. Continued effort is needed to perform modeling and simulation, requirements derivation, contract development and technical evaluations. Funding is for requirements development, modernization of mission systems, reducing integration risk on aircraft, increasing reliability and maintainability, cyber resilience, test assets, secure program facilities and EMD contract development for future MS-B program initiation decision.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022 Base</u>	<u>FY 2022 OCO</u>	<u>FY 2022 Total</u>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	150.592	-	150.592
Total Adjustments	0.000	0.000	150.592	-	150.592
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rate/Misc Adjustments	0.000	0.000	150.592	-	150.592

Change Summary Explanation

Funds increase from FY21 to FY22 due to acceleration of the TACAMO (E-6B) recapitalization effort (E-XX) following NAOC Executive Airlift TACAMO (NEAT) Analysis of Alternatives (AoA) completion in accordance with JROC, USD(A&S), and USSTRATCOM guidance.
Funding transferred from PE 0101402N Project Unit 2959 beginning in FY22.

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Technical: Not applicable. Schedule: Schedule reflected in PE 0101402N PU 2959 is now accelerated under the new funding profile.		

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy **Date:** May 2021

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605180N / TACAMO MODERNIZATI ON	Project (Number/Name) 3259 / TACAMO Recap
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
3259: TACAMO Recap	0.000	0.000	0.000	150.592	-	150.592	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

Program previously funded under PE 0101402N Project Unit 2959.

A. Mission Description and Budget Item Justification

The E-6 Recapitalization Program (E-XX) provides for air vehicle replacement and mission systems modernization for the aging E-6B aircraft and Take Charge and Move Out (TACAMO) mission. The TACAMO mission provides airborne capability for survivable, enduring and reliable airborne command, control and communications between the United States (U.S.) National Command Authority (NCA) and the U.S. strategic forces. This mission is critical in the deterrence and management of a large-scale nuclear conflict. A dedicated communications platform, TACAMO aircraft feature the ability to communicate on virtually every radio frequency band from very low frequency (VLF) up through extremely high frequency (EHF) using a variety of modulations, encryptions and networks, minimizing the likelihood an emergency message being jammed by an enemy. Continued effort is needed to perform modeling and simulation, requirements derivation, contract development and technical evaluations. Funding is for requirements development, modernization of mission systems, reducing integration risk on aircraft, increasing reliability and maintainability, cyber resilience, test assets and EMD contract development for future MS-B program initiation decision.

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

	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: Product Development	0.000	0.000	119.093	0.000	119.093
Articles:	-	-	3	-	3
FY 2021 Plans: N/A					
FY 2022 Base Plans: Award test assets purchase, Very Low Frequency (VLF), aircraft integration and mission system risk reduction contracts.					
FY 2022 OCO Plans: N/A					
FY 2021 to FY 2022 Increase/Decrease Statement:					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Funds increase from FY21 to FY22 due to acceleration of the TACAMO (E-6B) recapitalization effort (E-XX). Project Unit 3259 was previously funded under PE 0101402N Project Unit 2959. FY21 to FY22 increase funds initial award of three C-130J-30s test assets to be incrementally funded and increased risk reduction contracts.					
Title: Program Management and Support	0.000	0.000	31.499	0.000	31.499
Articles:	-	-	-	-	-
FY 2021 Plans: N/A					
FY 2022 Base Plans: Funding provided to support acquisition strategy and other milestone documentation preparation that will lead to prime contract award, program management, engineering and logistics tasks for E-XX technical and programmatic reviews, development/review of documentation, source selection activities and EMD contract development and award preparation.					
FY 2022 OCO Plans: N/A					
FY 2021 to FY 2022 Increase/Decrease Statement: Funds increase from FY21 to FY22 due to acceleration of the TACAMO (E-6B) recapitalization effort (E-XX). Project Unit 3259 was previously funded under PE 0101402N Project Unit 2959. FY21 to FY22 increase to fund support for all aspects of program development to enable accelerated program execution.					
Accomplishments/Planned Programs Subtotals	0.000	0.000	150.592	0.000	150.592

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
• RDTE/0101402N/2959: <i>Navy Strategic Comm Project</i>	2.404	10.163	0.000	-	0.000	-	-	-	-	-	-

Remarks

D. Acquisition Strategy
Research, Development, Test & Evaluation, Navy (RDT&E N) Project Unit 3259 funds E-XX Program requirement analyses, requirements development, test asset (C-130J-30 aircraft) and risk reduction contracts that will occur in FY22. Analyses and studies results will be used to define mission concept of operations, system

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capability requirements, and a preferred material solution. These will form the foundation for an initial acquisition strategy and program life cycle cost estimates in support of program milestone decision review. Additionally, requirements development and analysis activities will be conducted to enable development contracts to be awarded in FY22. These contracts will conduct risk reduction for Air Vehicle, Very Low Frequency and Mission Systems which will be integrated in a follow on Engineering and Manufacturing Development contract at MS-B. FY22 risk reduction and test aircraft funding parallels initial mission system development, supporting post-Milestone B integration of mission systems onto the test aircraft platforms.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy **Date:** May 2021

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Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Primary HW Development - Air Vehicle	C/CPFF	Lockheed Martin : Marietta, GA	0.000	0.000		0.000		60.125	Feb 2022	-		60.125	-	-	-
Primary HW Development - VLF	C/CPFF	Collins Aerospace : Richardson, TX	0.000	0.000		0.000		25.750	Feb 2022	-		25.750	-	-	-
Primary HW Development-Mission Systems	TBD	TBD : TBD	0.000	0.000		0.000		32.975	Jun 2022	-		32.975	-	-	-
Subtotal			0.000	0.000		0.000		118.850		-		118.850	-	-	N/A

Remarks

Program previously funded under PE 0101402N Project Unit 2959. FY22 funding accelerates the TACAMO recapitalization effort and is for risk reduction measures in preparation for Milestone B. Funds initial award of three C-130J-30s test assets to be incrementally funded and delivered in FY25. These aircraft will be used to support initial testing, analysis, and mission system integration efforts in support of subsequent Developmental Test and Evaluation beginning in FY25.

Very Low Frequency (VLF) development investment modernizes legacy E-6B High Power Transmit System power amplifier and trailing wire antenna assemblies hardware for increased performance, reliability and maintainability, reduced weight and volume, and lower lifecycle costs.

Mission Systems hardware development funds the design and development of cyber resilient communications systems for integration into E-XX.

Support (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Development Support	WR	NAWCAD : Patuxent River	0.000	0.000		0.000		9.654	Nov 2021	-		9.654	-	-	-
Development Support	Various	Various : Various	0.000	0.000		0.000		4.230	Nov 2021	-		4.230	-	-	-
Integrated Logistics Support	WR	NAWCAD : Patuxent River	0.000	0.000		0.000		2.555	Nov 2021	-		2.555	-	-	-
Integrated Logistics Support CSS	Various	Various : Various	0.000	0.000		0.000		1.155	Nov 2021	-		1.155	-	-	-
Government Engineering Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		7.056	Nov 2021	-		7.056	-	-	-
Government Engineering Support	WR	NAWCTSD : Orlando, Florida	0.000	0.000		0.000		0.243	Nov 2021	-		0.243	-	-	-
Contractor Engineering Support	Various	Various : Various	0.000	0.000		0.000		0.410	Nov 2021	-		0.410	-	-	-



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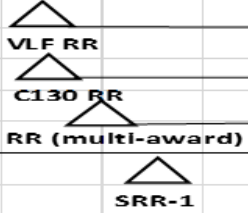
Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy												Date: May 2021			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 5				PE 0605180N / TACAMO MODERNIZATI ON				3259 / TACAMO Recap							
Support (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
Subtotal			0.000	0.000		0.000		25.303		-		25.303	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	WR	NAWCAD : Pax River, MD.	0.000	0.000		0.000		0.586	Nov 2021	-		0.586	-	-	-
Developmental Test & Evaluation	WR	COMOPTEVFOR : Norfolk, VA	0.000	0.000		0.000		0.237	Nov 2021	-		0.237	-	-	-
Subtotal			0.000	0.000		0.000		0.823		-		0.823	-	-	N/A
Management Services (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
Government Engineering Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		1.051	Nov 2021	-		1.051	-	-	-
Program Management Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		2.728	Nov 2021	-		2.728	-	-	-
Program Management Support	C/CPFF	Davis Defense Group : Patuxent River, MD	0.000	0.000		0.000		1.662	Nov 2021	-		1.662	-	-	-
Travel	Various	Various : Various	0.000	0.000		0.000		0.175	Oct 2021	-		0.175	-	-	-
Subtotal			0.000	0.000		0.000		5.616		-		5.616	-	-	N/A
Project Cost Totals			0.000	0.000		0.000		150.592		-		150.592	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy		Date: May 2021
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Fiscal Year Fiscal Quarter	FY 20				FY 21				FY 22			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Acquisition Milestones and Program Management	Pre-Engineering and Manufacturing Development											
Contracts												
Engineering												
Logistics												
Test and Evaluation												
Aircraft Delivery												
Other												

-  Planned decision point or major milestone
-  Planned contract award or technical review
- Line indicates multiple events over a period of time



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Exhibit R-4A, RDT&E Schedule Details: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605180N / TACAMO MODERNIZATI ON	Project (Number/Name) 3259 / TACAMO Recap

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3259				
Contracts: Very Low Frequency Risk Reduction - VLF RR	2	2022	4	2022
Contracts: C-130 Risk Reduction/Test Assets - C130 RR	2	2022	4	2022
Contracts: Mission Systems Risk Reduction - MS RR (mulit award)	3	2022	4	2022
Engineering: SRR-1	2	2022	2	2022
Other: Requirements Development	1	2020	2	2022