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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Air Force **Date:** March 2023

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604288F / <i>Survivable Airborne Operations Center (SAOC)</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	91.378	98.213	888.829	0.000	888.829	1,883.971	1,864.448	1,828.992	1,667.306	0.000	8,323.137
646507: <i>Survivable Airborne Operations Center (SAOC)</i>	-	91.378	98.213	888.829	0.000	888.829	1,883.971	1,864.448	1,828.992	1,667.306	0.000	8,323.137
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The Survivable Airborne Operations Center (SAOC) will replace the aging E-4B fleet which faces capability gaps, diminishing manufacturing sources, increased maintenance costs, and parts obsolescence as it approaches the end of its serviceable life. SAOC will provide POTUS, SECDEF and the CJCS a worldwide, survivable, and enduring node of the National Military Command System (NMCS) to fulfill national security requirements throughout all stages of conflict. As a command, control and communications center directing US forces, executing emergency war orders and coordinating the activities of civil authorities including national contingency plans, this capability ensures continuity of operations and continuity of government as required in a national emergency or after negation/destruction of ground command and control centers. SAOC will fulfill the requirements of the AF Nuclear Mission by providing Nuclear Command, Control and Communications (NC3) capabilities to enable the exercise of authority and direction by the President to command and control US military nuclear weapons operations.

Program funding includes funds for requirements to support program office operations, management services (Federally Funded Research and Development Centers [FFRDC], Advisory and Assistance Services [A&AS], etc.), Program Management Support (PMS), security, facilities, prototyping, equipment, and to integrate Digital Engineering and other required program office capabilities. Funding will also support all activities required to award and execute development contract(s) for the SAOC Weapon System to include test activities and prototype development, sustainment, and integration of NC3 and other DoD/AF programs into the SAOC weapon system.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY22 \$1.950M was expended for civilian pay expenses in this program element, and in FY23 \$4.282M is forecasted for civilian pay expenses in this program element.

This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

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B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	95.788	203.213	609.966	0.000	609.966
Current President's Budget	91.378	98.213	888.829	0.000	888.829
Total Adjustments	-4.410	-105.000	278.863	0.000	278.863
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-105.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-1.500	0.000			
• SBIR/STTR Transfer	-2.910	0.000			
• Other Adjustments	0.000	0.000	278.863	0.000	278.863

Change Summary Explanation

FY 2022 decreased by \$4.410M total, \$2.190M reduction for SBIR/\$1.500M reduction for BTR to E-4B Aircraft Mobile User Objective System.

FY 2023 Congressional Mark for \$105.000M for early to need

FY 2024 increase for SAOC to meet Independent Cost Estimate

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
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Title: SAOC	91.378	98.213	888.829
Description: The SAOC weapon system will be comprised of a Commercial Derivative Aircraft (CDA), mission system, and ground support systems. The CDA will be hardened to protect against nuclear and electromagnetic effects and modified with an aerial refueling capability to enable sustained airborne operations. The mission system will integrate secure communications and planning capabilities on modern information technology (IT) infrastructure based on a Modular Open System Approach (MOSA). The ground systems include aircrew trainers, mission crew trainers, maintenance training devices, ground support equipment, test and sustainment system integration laboratories, and other ground systems to enable the operations, sustainment, and future modifications of the SAOC weapon system across the lifecycle.			
FY 2023 Plans:			
-Conduct Source Selection activities and prepare and coordinate Milestone B requirements			
-Continue supporting development and modernization of required NC3, Command, Control and Communications (C3), Cryptographic, Open Architecture/Open Mission System, and other capabilities to ensure systems are sustainable and available to integrate into the SAOC Weapon System			
-Support test planning and preparation activities, and establish the SAOC Integrated Test Team			

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>-Continue to develop and implement the infrastructure, tools, and training necessary for the SAOC Integrated Digital Environment, which will enable the SAOC Program Office to execute and support the development and lifecycle sustainment of the SAOC Weapon System</p> <p>-Continue program office manning growth-path required to support the SAOC system development</p> <p><i>FY 2024 Plans:</i></p> <p>-Conclude Source Selection activities, complete Milestone requirements in anticipation of favorable Milestone B decision, and award the SAOC contract(s) to begin executing Engineering and Manufacturing Development (EMD) development activities</p> <p>-Continue supporting development and modernization of required NC3, C3, Cryptographic, Open Architecture/Open Mission System, and other capabilities to ensure systems are sustainable and available to integrate into the SAOC Weapon System</p> <p>-Continue to develop and implement the infrastructure, tools, and training necessary for the SAOC Integrated Digital Environment, which will enable the SAOC Program Office to execute and support the development and lifecycle sustainment of the SAOC Weapon System</p> <p>-Continue test and evaluation (T&E) planning and preparation activities; including manning, procurement of long-lead test equipment, training, and facility modifications</p> <p>-Continue program office manning growth-path required to support the SAOC system development</p> <p><i>FY 2023 to FY 2024 Increase/Decrease Statement:</i></p> <p>-Significant investment increase from FY 2023 to FY 2024 due to the award of the SAOC EMD contract</p>			
Accomplishments/Planned Programs Subtotals	91.378	98.213	888.829

D. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

E. Acquisition Strategy

Based on the Acquisition Strategy approved by Under Secretary of Defense for Acquisition and Sustainment on 30 June 2022, the SAOC will enter the acquisition framework at MS-B and award a competitive Development contract with Production and Interim Contractor Support (ICS) Options. This contract will require the offeror(s) to buy the required aircraft, bring each aircraft to a common configuration, make required modifications, develop and integrate the mission system into each aircraft, provide required ground support systems and conduct contract support operations for fielded systems until Operations and Support Phase.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Air Force **Date:** March 2023

Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604288F / <i>Survivable Airborne Operations Center (SAOC)</i>	Project (Number/Name) 646507 / <i>Survivable Airborne Operations Center (SAOC)</i>
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Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
Pre-Development Contract Activities/Studies	C/Various	TBD : TBD	-	59.066	Jan 2022	28.521	Oct 2022	-		-		-	Continuing	Continuing	-
Mission Systems/ Subsystems Development	C/Various	Various : TBD	-	-		26.255	Jan 2023	22.729	Jan 2024	-		22.729	Continuing	Continuing	-
Prime - EMD	C/TBD	TBD : TBD	-	-		-		789.147	Feb 2024	-		789.147	Continuing	Continuing	-
Subtotal			-	59.066		54.776		811.876		-		811.876	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
Direct Mission Support	C/Various	Various : Bedford, MA : TBD	-	12.149	Oct 2021	15.176	Oct 2022	7.373	Oct 2023	-		7.373	Continuing	Continuing	-
Direct Cite Civilian Pay	TBD	Not specified. : Hanscom AFB, MA	-	1.950	Oct 2021	4.282	Oct 2022	4.368	Oct 2023	-		4.368	Continuing	Continuing	-
Subtotal			-	14.099		19.458		11.741		-		11.741	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
Test and Evaluation	C/CPIF	Not specified. : TBD	-	0.000	Oct 2021	0.000	Oct 2022	25.314	Oct 2023	-		25.314	Continuing	Continuing	-
Subtotal			-	0.000		0.000		25.314		-		25.314	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
FFRDC	SS/CPFF	Various : Bedford, MA : Hanscom AFB, MA	-	9.589	Oct 2021	8.599	Oct 2022	21.590	Oct 2023	-		21.590	Continuing	Continuing	-

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Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
A&AS	C/CPFF	Various : Bedford, MA : Hanscom AFB, MA	-	6.374	Jul 2022	12.255	Jul 2023	15.193	Jul 2024	-		15.193	Continuing	Continuing	-
PMA - Other	Various	Various : Bedford, MA : Hanscom AFB, MA	-	2.250	Oct 2021	3.125	Oct 2022	3.115	Oct 2023	-		3.115	Continuing	Continuing	-
Subtotal			-	18.213		23.979		39.898		-		39.898	Continuing	Continuing	N/A

	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals		-	91.378	98.213	888.829	-	888.829	Continuing	Continuing	N/A

Remarks

Product Development:
 -FY22 Pre-Development Contract Activities/Studies accelerates pre-development activities by investing in necessary product development to prepare program for execution
 -FY23 decrease in Pre-Development Contract Activities/Studies is due to concluding pre-EMD preparatory activities
 -FY23 increase in Mission Systems/Subsystems development is due to continuing support of development and modernization of required NC3, Command, control, and Communications (C3) Cryptographic, Open Architecture/Open Mission System, and other capabilities to ensure systems are sustainable and available to integrate into the SAOC Weapon System
 -FY24 increase in Prime Contract due to award of SAOC EMD Contract

Support:
 -FY22 Direct Mission Support continues implementation of digital engineering infrastructure efforts
 -FY23 and FY24 decreases in Direct Mission Support is due to finalizing deployment of digital engineering infrastructure
 -FY23 and FY24 increase in DCA continues office manning growth path required to support SAOC EMD

Test and Evaluation:
 -FY24 increase in Test and Evaluation is due to continuing test and evaluation (T&E) planning and preparation activities; including manning, procurement of long-lead test equipment, training, and facility modifications

Management Services:
 -FY23 and FY24 increases in FFRDC and EPASS (A&AS) attributed to continuing program office ramp up to support SAOC EMD

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Air Force		Date: March 2023
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604288F / <i>Survivable Airborne Operations Center (SAOC)</i>	Project (Number/Name) 646507 / <i>Survivable Airborne Operations Center (SAOC)</i>

	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<i>Survivable Airborne Operations Center Development</i>																												
Acquisition Strategy Refinement and RFP Development																												
Pre-EMD Contract Activities, Studies & Prototyping																												
Source Selection																												
Milestone B																												
EMD																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Air Force		Date: March 2023
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604288F / <i>Survivable Airborne Operations Center (SAOC)</i>	Project (Number/Name) 646507 / <i>Survivable Airborne Operations Center (SAOC)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Survivable Airborne Operations Center Development</i>				
Acquisition Strategy Refinement and RFP Development	2	2022	1	2023
Pre-EMD Contract Activities, Studies & Prototyping	1	2022	4	2023
Source Selection	1	2023	2	2024
Milestone B	2	2024	2	2024
EMD	2	2024	4	2028