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

Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force / BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons
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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	-	701.934	950.815	1,045.570	0.000	1,045.570	895.365	506.982	473.368	426.807	Continuing	Continuing
670132: B-52 Mission Employment Trainer	-	0.000	15.335	6.213	0.000	6.213	0.000	0.000	0.000	0.000	0.000	21.548
671803: B-52 AFMC Test Assets	-	2.733	1.503	1.552	0.000	1.552	1.514	1.474	2.991	3.051	Continuing	Continuing
671805: B-52 VLF/LF Modernization	-	4.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.000
671810: B-52 AEHF Integration	-	33.422	102.924	28.183	0.000	28.183	97.996	22.847	0.000	0.000	0.000	285.372
675039: B-52 System Improvements	-	30.847	15.024	4.030	0.000	4.030	0.000	0.000	0.000	0.000	0.000	49.901
675056: B-52 Radar Modernization Program (RMP)	-	239.814	204.349	179.765	0.000	179.765	143.505	64.292	9.750	3.928	0.000	845.403
675057: B-52 Low Cost Improvement (LCI)	-	0.702	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.702
675129: B-52 CERP	-	379.401	576.016	784.975	0.000	784.975	594.734	360.341	416.323	419.828	Continuing	Continuing
675160: B-52 Crypto Modernization	-	3.245	0.000	3.999	0.000	3.999	1.202	0.000	0.000	0.000	0.000	8.446
675165: B-52 Quad Crew	-	7.770	30.652	35.826	0.000	35.826	43.597	24.570	9.590	0.000	0.000	152.005
676039: B-52 Airspace Compliance	-	0.000	5.012	1.027	0.000	1.027	12.817	33.458	34.714	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The B-52H is a long-range bomber capable of delivering the widest variety of nuclear and conventional standoff and direct attack munitions in the Air Force. The Air Force plans to fly the B-52H to 2050.

The B-52H modernization efforts are needed to perform current and future wartime missions and to ensure relevance, lethality and survivability. Additionally, modernization projects alleviate aircraft obsolescence issues due to Diminishing Manufacturing Sources and Material Shortages (DMSMS) while at the same time providing improved capabilities to the B-52H weapon system that require significant hardware and software development and testing.

B-52 funding also supports innovation activities including, but not limited to tech demonstrations, studies, analyses, requirements definition, and quick-reaction capability prototypes/demonstrations to accelerate planning for technology transition, technology insertion, and future acquisition programs.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>
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This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 22.128M was expended for civilian pay expenses in this program element, and in FY24 27.494M is forecasted for civilian pay expenses in this program element.

This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D

In FY 2024 B-52 Mission Employment Trainer and B-52 Airspace Compliance were new starts.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production 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	723.107	950.815	1,010.212	0.000	1,010.212
Current President's Budget	701.934	950.815	1,045.570	0.000	1,045.570
Total Adjustments	-21.173	0.000	35.358	0.000	35.358
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-21.173	0.000			
• Other Adjustments	0.000	0.000	35.358	0.000	35.358

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 675039: *B-52 System Improvements*

Congressional Add: *AFGSC Innovation Hub*

	FY 2023	FY 2024
Congressional Add Subtotals for Project: 675039	10.000	-
Congressional Add Totals for all Projects	10.000	-

Change Summary Explanation

FY 2023 adjustment of -21.173 million for Small Business Innovative Research (SBIR)

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	

FY 2025 adjustment is to support Radar Modernization Program (RMP) to continue test and evaluation of EMD units; continue Agile and incremental software code development; continue hardware/software integration SIL tests; complete second test aircraft modification and functional checkouts; complete ground test and initiate flight test with second test aircraft.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons				Project (Number/Name) 670132 / B-52 Mission Employment Trainer			
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
670132: B-52 Mission Employment Trainer	-	0.000	15.335	6.213	0.000	6.213	0.000	0.000	0.000	0.000	0.000	21.548
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The B-52 Mission Employment Trainer (MET) program is for the development of the B-52 Family of Systems (FoS) Trainers. The FoS Trainers includes, but is not limited to, new training devices and Systems Integration Labs (SIL) that will augment and eventually replace the existing B-52 legacy training systems and SIL that are antiquated, not concurrent with the B-52 aircraft, and cost-prohibitive for modernization or sustainment. The current B-52 trainers do not completely satisfy the training tasks specified in various course syllabi. In conjunction with the AFGSC A3/6 signed Future Training Concept, this new FoS approach will train Air Force personnel utilizing low, medium, and high-fidelity training devices. These training devices will leverage a common software architecture, include modularity and open mission systems, be rapidly reprogrammable and network capable, enable accelerated future upgrades, and support affordable sustainment. This FoS concept fulfills the future training needs of the formal training unit (FTU), combat units, and weapons school students spanning the continuum of learning. These new devices/trainers are of paramount importance because of their critical role to future B-52 combat capabilities that must advance through 2050.

Initial funds will be used to develop a B-52 medium fidelity training device that will provide an interactive and immersive environment to provide proficiency-based training for full-crew mission training and coordination, and related programmatic support. The current direction with the medium fidelity device will reuse a virtualized version of the aircraft's Operational Flight Programs (OFP) and will execute on commercial-grade, off-the-shelf computational hardware to offer a standalone, integrated, and appropriate simulated training environment. The virtualized OFP software will be developed to run on multiple training devices of varying physical fidelity. The medium fidelity device, and subsequent higher fidelity devices, will be rapidly reconfigurable to different aircraft configurations, be mobile, and capable of worldwide deployment. It lays the groundwork for an open system architecture that allows a continual roadmap to aircraft concurrency, upgradability, and feature sets that can be added in a cost-effective manner, keeping pace with the speed of technology and future B-52 aircraft upgrades.

Funds may be used to address requirements including, but not limited to, emerging and short-notice Diminishing Manufacturing Sources and Material Shortages (DMSMS) for training systems, Development Testing (DT)/ Operational Testing (OT), and safety of flight issues. Additionally, funds may accommodate Program Management Administration (PMA) and support, civilian pay expenses, rapid technology insertion, and fulfill Federal Aviation Agency (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness. Funds may be used to purchase long-lead parts following completion of Preliminary Design Review (PDR).

As MET Integration provides future communication growth to the B-52, emerging security/certification requirements (nuclear certification, cyber security, program protection, crypto modernization, etc.) as well as other aircraft upgrades may require studies and/or support for potential impact to MET. Funds may be used to conduct development and test activities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 670132 / B-52 Mission Employment Trainer
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0606398F. In FY22 0M was expended for civilian pay expenses in this program element, and in FY23 0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>Title: Mission Employment Trainer</p> <p>Description: Mission Employment Trainer (MET) is a virtual flight simulator that provides necessary pilot training for various environments and conditions. The MET will include a modern, advanced Operational Flight Program that is rapidly reprogrammable and support simulated mission tasking.</p> <p>FY 2024 Plans: The Mission Employment Trainer project will start software and hardware development activities required to build a prototype training simulator.</p> <p>FY 2025 Plans: The Mission Employment Trainer project will finish software and hardware development activities and start software/hardware integration activities to complete and deliver a prototype training simulator.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: The funding decrease from FY24 to FY25 is due to entering the final phase of development of the first Mission Employment Trainer device</p>	0.000	15.335	6.213
Accomplishments/Planned Programs Subtotals	0.000	15.335	6.213

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

N/A

Remarks

D. Acquisition Strategy

The Mission Employment Trainer program is using a Small Business Innovative Research (SBIR) contract to develop the required software and hardware required for a modern B-52 virtual training system. The SBIR effort will support hardware/software development and incorporating Operational Flight Programs into the training simulator.

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 670132 / B-52 Mission Employment Trainer

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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>Mission Employment Trainer Integration</i>	
Software Development	██████████
Hardware Development	████████████████████
H/W and S/W Integration	████████████████████
Acceptance Testing	██████████

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 670132 / <i>B-52 Mission Employment Trainer</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Mission Employment Trainer Integration</i>				
Software Development	2	2024	4	2024
Hardware Development	3	2024	4	2025
H/W and S/W Integration	4	2024	4	2025
Acceptance Testing	4	2025	1	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons				Project (Number/Name) 671803 / B-52 AFMC Test Assets			
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
671803: B-52 AFMC Test Assets	-	2.733	1.503	1.552	0.000	1.552	1.514	1.474	2.991	3.051	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The B-52 AFMC Test Assets project will provide funding for the test aircraft, manpower, and facilities at the Air Force Test Center located at Edwards AFB, California. The project will support the development testing and Bomber Modular Data Acquisition System (BMDAS) integration on B-52 test aircraft. The project can support Programmed Depot Maintenance (PDM) costs supporting test aircraft modifications occurring at Tinker AFB, OK.

Costs include, but are not limited to, any analysis, documentation, and related expenses necessary to establish a program of record and support the B-52 weapon system. Additionally, other costs include Program Management Administration (PMA) and centralized support and initiatives for anticipated weapon system enhancements (to include efforts to improve weapon system operational capabilities, safety, supportability, maintainability, reliability, and total cost of ownership).

Funds may be used to address requirements including, but not limited to, emerging and short-notice Diminishing Manufacturing Sources and Material Shortages (DMSMS) for both aircraft and associated training systems, Development Testing (DT), and safety of flight issues. Additionally, funds may accommodate PMA and support, civilian pay expenses, rapid technology insertion, and fulfill Federal Aviation Agency (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0M was expended for civilian pay expenses in this program element, and in FY24 0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: B-52 AFMC Test Aircraft Asset Support	2.733	1.503	1.552
Description: B-52 Test Support provides funding for the test aircraft, manpower, Bomber Modular Data Acquisition System (BMDAS), and facilities at the Air Force Test Center, Edwards AFB. This will support the developmental testing and sustainment needs of the B-52.			
FY 2024 Plans: Will continue to provide funding for the test aircraft, manpower, BMDAS, and facilities at the Air Force Test Center, Edwards AFB. This will support the developmental testing, facility, and sustainment needs of the B-52.			
FY 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 671803 / <i>B-52 AFMC Test Assets</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Will continue to provide funding for the test aircraft, manpower, BMDAS, and facilities at the Air Force Test Center, Edwards AFB. This will support the developmental testing, facility, and sustainment needs of the B-52.			
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Funding increase from FY2024 to FY2025 is due to inflation.			
Accomplishments/Planned Programs Subtotals	2.733	1.503	1.552

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

Remarks

D. Acquisition Strategy
Funding sent to Edwards AFB via MIPR and Project Orders for the test aircraft, manpower, BMDAS and facilities at the Air Force Test Center located at Edwards AFB, California.

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 671803 / <i>B-52 AFMC Test Assets</i>
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FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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>AFMC Test Aircraft Support - 0036</i>	
Test Support	

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 671803 / <i>B-52 AFMC Test Assets</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>AFMC Test Aircraft Support - 0036</i>				
Test Support	1	2023	4	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons				Project (Number/Name) 671805 / B-52 VLF/LF Modernization			
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
671805: B-52 VLF/LF Modernization	-	4.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.000
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The B-52 Very Low Frequency/Low Frequency (VLF/LF) Modernization program integrates a receive-only, low frequency receiver and antenna subsystem to provide a secure, survivable strategic nuclear communication capability for the B-52. This project will consist of integrating an existing VLF/LF terminal into the B-52. Integration includes Group A wiring, rack and antenna, and the Group B terminal Line Replaceable Unit (LRU).

Funds may be used to address requirements including, but not limited to, emerging and short-notice Diminishing Manufacturing Sources and Material Shortages (DMSMS) for both aircraft and associated training systems, Development Testing (DT)/ Operational Testing (OT), and safety of flight issues. Additionally, funds may accommodate Program Management Administration (PMA) and support, civilian pay expenses, rapid technology insertion, and fulfill Federal Aviation Agency (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

As the VLF/LF provides future communication growth to the B-52, emerging security/certification requirements (nuclear certification, cyber security, program protection, crypto modernization, etc.) as well as other aircraft upgrades may require studies and/or support for potential impact to VLF/LF.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY22 0M was expended for civilian pay expenses in this program element, and in FY23 0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: B-52 Very Low Frequency/Low Frequency (VLF/LF)	4.000	0.000	0.000
Description: Provides secure, survivable, receive-only strategic nuclear communication for the B-52			
FY 2024 Plans: N/A			
FY 2025 Plans: N/A			
FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals	4.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 671805 / B-52 VLF/LF Modernization
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF 05 B05200: <i>BP11 Production</i>	11.489	26.513	13.052	-	13.052	6.437	3.331	0.370	-	Continuing	Continuing
• APAF 06 000999: <i>Initial Spares/Repair Parts</i>	2.652	2.724	3.381	-	3.381	-	-	-	-	0.000	8.757

Remarks

D. Acquisition Strategy

The Milestone Decision Authority (MDA) approved the 25 January 2019 decision of the B-52 VLF/LF Acquisition Strategy Panel (ASP), which authorized the program to enter into the EMD phase with the Original Equipment Manufacturer (OEM). The program office received a proposal from the OEM on 16 August 2019. The EMD Contract was awarded 22 January 2020. The Acquisition Program Baseline (APB) was signed April 2020.

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 671805 / B-52 VLF/LF Modernization
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Environmental Study	SS/FFP	Environmental Study : Richardson, TX	-	-		-		-		-		-	0.000	0.000	-
VLF/LF EMD	SS/CPFF	Various : Oklahoma, OK	-	1.826	Mar 2023	-		-		-		-	0.000	1.826	-
Subtotal			-	1.826		-		-		-		-	0.000	1.826	N/A

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
VLF/LF Program Office Support	Various	Various : TBD	-	1.200	Mar 2023	-		-		-		-	0.000	1.200	-
Subtotal			-	1.200		-		-		-		-	0.000	1.200	N/A

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
VLF/LF Test	PO	Not specified. : TBD	-	0.974	Oct 2022	-		-		-		-	0.000	0.974	-
VLF/LF Certifications	TBD	Not specified. : TBD	-	-		-		-		-		-	0.000	0.000	-
Subtotal			-	0.974		-		-		-		-	0.000	0.974	N/A

Project Cost Totals			-	4.000		-		-		-		-	0.000	4.000	N/A
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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 671805 / <i>B-52 VLF/LF Modernization</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>B-52 VLF/LF Modernization</i>				
EMD	1	2023	4	2023
MS C	4	2023	4	2023
IOC	2	2025	2	2025

Note
EMD actual start date was Q2 2019 - Q4 2023

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons				Project (Number/Name) 671810 / B-52 AEHF Integration			
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
671810: B-52 AEHF Integration	-	33.422	102.924	28.183	0.000	28.183	97.996	22.847	0.000	0.000	0.000	285.372
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The B-52 Advanced Extremely High Frequency (AEHF) Integration satellite communications (SATCOM) system provides a survivable, low probability of intercept/detection, high bandwidth system that ensures secure intra/inter-flight and two-way command and control communications in the modern anti-access/aerial denial battle space. This communications upgrade replaces the Military Strategic and Tactical Relay (MILSTAR) Ultra High Frequency (UHF) SATCOM capability (MILSTAR is nearing system end of life) on the B-52. The AEHF Integration effort will integrate the radio, antenna and system components required to provide two-way satellite communication for the B-52.

Funds may be used to address requirements including, but not limited to, emerging and short-notice Diminishing Manufacturing Sources and Material Shortages (DMSMS) for both aircraft and associated training systems, Development Testing (DT)/ Operational Testing (OT), and safety of flight issues. Additionally, funds may accommodate Program Management Administration (PMA) and support, civilian pay expenses, rapid technology insertion, and fulfill Federal Aviation Agency (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

As AEHF Integration provides future communication growth to the B-52, emerging security/certification requirements (nuclear certification, cyber security, program protection, crypto modernization, etc.) as well as other aircraft upgrades may require studies and/or support for potential impact to AEHF. Funds will be used to conduct development and test activities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 2.440M was expended for civilian pay expenses in this program element, and in FY24 3.146M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: B-52 AEHF Integration	33.422	102.924	28.183
Description: The B-52 Advance Extremely High Frequency (AEHF) Integration SATCOM system provides a survivable, low probability of intercept/detection, high bandwidth system that ensures secure intra/inter-flight and two-way command and control communications in the modern anti-access/aerial denial battle space. This communications upgrade replaces the Military Strategic Tactical Relay (MILSTAR) and its Ultra High Frequency (UHF) SATCOM capability (MILSTAR is nearing system end of life) on the B-52. The AEHF Integration effort will integrate the radio, antenna and system components required to provide two-way satellite communication for the B-52.			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 671810 / B-52 AEHF Integration
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p><i>FY 2024 Plans:</i> Complete the Boeing P3C Technology Maturation and Risk Reduction (TMRR) contract. Preparation for the acquisition strategy change to a competitive award of a new TMRR contract which would include preliminary and final designs to support preliminary and critical design reviews.</p> <p><i>FY 2025 Plans:</i> Award competitive Technology Maturation and Risk Reduction (TMRR) contract, which includes preliminary and final designs to support critical design reviews.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Funding decreased due to a change in acquisition strategy to award competitive TMRR contract</p>			
Accomplishments/Planned Programs Subtotals	33.422	102.924	28.183

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF 05 B05200: B-52	0.000	0.000	0.000	-	0.000	0.000	46.794	52.305	54.812	Continuing	Continuing

Remarks

D. Acquisition Strategy
The Milestone Decision Authority (MDA) for B-52 AEHF Integration is the Air Force Program Executive Officer (AFPEO) for Nuclear Command, Control, and Communications (NC3). The program will utilize the General Service Administration (GSA) ASTRO contract to award Risk Reduction studies, Program Planning activities, and the EMD effort to a vendor competitively selected in the Aviation Pool of GSA's ASTRO. The vendor will be responsible for the integration of the AEHF terminal, which will be provided as Government Furnished Equipment (GFE).

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 671810 / B-52 AEHF Integration
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Risk Reduction	SS/CPFF	The Boeing Company : Oklahoma City, OK	-	19.398	Oct 2022	-		-		-		-	Continuing	Continuing	-
Risk Reduction Contract	C/CPIF	GSA : Ft. Worth, TX	-	-		82.568	Oct 2024	11.655	Oct 2024	-		11.655	Continuing	Continuing	-
Subtotal			-	19.398		82.568		11.655		-		11.655	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Crypto Overrun	SS/CPAF	The Boeing Company : Oklahoma City, OK	-	3.170	May 2023	0.830	Jan 2024	-		-		-	Continuing	Continuing	-
Direct Cite Civilian Pay	Various	Not specified. : TBD	-	2.440	Oct 2022	3.146	Oct 2023	2.983	Oct 2024	-		2.983	Continuing	Continuing	-
Subtotal			-	5.610		3.976		2.983		-		2.983	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Government Test	Various	Various : TBD	-	0.330	Oct 2022	1.052	Nov 2023	1.188	Dec 2024	-		1.188	Continuing	Continuing	-
Subtotal			-	0.330		1.052		1.188		-		1.188	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Program Office Support (A&AS, Travel, centralized sprt & OGC)	C/CPAF	Not specified. : TBD	-	8.084	Dec 2022	15.328	Dec 2023	12.357	Dec 2024	-		12.357	Continuing	Continuing	-
Subtotal			-	8.084		15.328		12.357		-		12.357	Continuing	Continuing	N/A

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 671810 / <i>B-52 AEHF Integration</i>
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FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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>B-52 AEHF Integration</i>	
TMRR Activities	████████████████████
Milestone B	████████████████████
EMD	██
MOD	██
Flight Test	██
Milestone C	████████████████████

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 671810 / <i>B-52 AEHF Integration</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>B-52 AEHF Integration</i>				
TMRR Activities	1	2025	1	2026
Milestone B	1	2026	1	2026
EMD	1	2026	1	2029
MOD	2	2027	4	2027
Flight Test	1	2028	4	2028
Milestone C	1	2029	1	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675039 / B-52 System Improvements
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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
675039: B-52 System Improvements	-	30.847	15.024	4.030	0.000	4.030	0.000	0.000	0.000	0.000	0.000	49.901
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

B-52 System Improvements is a comprehensive project to facilitate future capabilities and ensure the B-52's viability in performing current and future wartime missions. The scope of work may include, but not limited to, the development of an Analysis of Alternative (AoA), studies and analyses, a Capability Development Document (CDD), and/or any other analyses or documentation necessary to establish a Program of Record (POR). Additionally, this project may include airborne integration experiments or demonstrations of emerging technologies. Support of the platform integration efforts are necessary to identify and resolve challenges associated with integrating multiple programs and activities planned for the B-52 fleet.

Costs include any analysis, documentation, and related expenses necessary to establish a POR and support the B-52 weapon system. Additionally, other costs include, but are not limited to Program Management Administration (PMA), civilian pay expenses, rapid technology insertion, centralized support and initiatives for anticipated weapon system enhancements (to include efforts to improve weapon system operational capabilities, safety, supportability, maintainability, reliability, and total cost of ownership), emerging and short-notice Diminishing Manufacturing Sources and Material Shortages (DMSMS) for both aircraft and associated training systems, Development Testing (DT)/ Operational Testing (OT), safety of flight issues and to fulfill Federal Aviation Agency (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness. Systems Improvement is permitted to fund software modernization efforts that merge into the operational flight program.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0.0M was expended for civilian pay expenses in this program element, and in FY24 0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: B-52 Systems Improvements	4.140	0.150	0.158
Description: Initiate Analysis of Alternatives, modeling, simulation, testing, and demonstration, including but not limited to: Studies of existing and planned avionics, communications/navigation, electrical, weapons, flight, and nuclear-related aircraft systems and subsystems to support the future viability of the B-52 fleet.			
FY 2024 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024		
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675039 / B-52 System Improvements		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>Will continue Analysis of Alternatives, modeling, simulation, testing, and demonstration, including but not limited to: Studies of existing and planned avionics, communications/navigation, electrical, weapons, flight, and nuclear-related aircraft systems and subsystems to support the future viability of the B-52 fleet.</p> <p>FY 2025 Plans: Will continue Analysis of Alternatives, modeling, simulation, testing, and demonstration, including but not limited to: Studies of existing and planned avionics, communications/navigation, electrical, weapons, flight, and nuclear-related aircraft systems and subsystems to support the future viability of the B-52 fleet.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increase due to inflation rates</p>				
<p>Title: Quad Crew</p> <p>Description: The B-52 Quad Crew effort transitions Electronic Warfare display and functionality to the existing B-52 navigator station reducing the aircrew from five to four crew members.</p> <p>FY 2024 Plans: FY24 funding is reflected in Project 675165 Quad Crew. This FY23 \$8M was incorrectly mapped to this project. Quad Crew efforts increase in Project 675165 due to supporting design and integration activities, procuring long-lead test material, and updating technical documentation.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Effort moved to Quad Crew Project 675165</p>		8.000	0.000	-
<p>Title: Advanced Concept Demonstration</p> <p>Description: Effort supports a classified Proof of Concept demonstration on the B-52.</p> <p>FY 2024 Plans: Continued support a proof of concept demonstration on the B-52 for a new classified initiative.</p> <p>FY 2025 Plans: Continued support a proof of concept demonstration on the B-52 for a new classified initiative.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: The funding decrease is due to the completion of concept election and demonstrated capability.</p>		8.707	14.874	3.872
Accomplishments/Planned Programs Subtotals		20.847	15.024	4.030

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675039 / <i>B-52 System Improvements</i>
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	FY 2023	FY 2024
Congressional Add: AFGSC Innovation Hub	10.000	-
FY 2023 Accomplishments: Continue to support development initiatives and efforts that include Agile Pods, Beyond Line of Sight Communications, 3D Fuel System Model, and Fuel Additive Studies.		
Congressional Adds Subtotals	10.000	-

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

N/A

Remarks

D. Acquisition Strategy

The Acquisition Strategy for Quad Crew is addressed under Project 675165.

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675039 / B-52 System Improvements
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
System Improvements Studies and Analysis	SS/ Various	The Boeing Company, 559 SMXS/MXDPBA : Oklahoma City, OK	-	0.100	Jan 2023	0.100	Jan 2024	0.100	Jan 2025	-		0.100	0.000	0.300	-
AFGSC Innovation Hub	C/CPAF	Radiance, SBCC, Outerlink : Barksdale, LA	-	10.000	Jul 2023	-		-		-		-	0.000	10.000	-
B-52 Training Automation	TBD	TBD : Oklahoma City, OK	-	-		-		-		-		-	0.000	0.000	-
Quad Crew	TBD	Not Specified : Oklahoma City, OK	-	8.000	Jul 2023	-		-		-		-	0.000	8.000	-
Proof of Concept Demonstration	TBD	Not Specified: TBD : Tinker, OK	-	8.707	Jul 2023	14.874	Jul 2024	3.872	Jan 2025	-		3.872	0.000	27.453	-
Subtotal			-	26.807		14.974		3.972		-		3.972	0.000	45.753	N/A

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
B-52 Centralized Support, Program Management Administration, TDY, A&AS Contractor Support - 675039	Various	TBD : OK	-	4.030	Jan 2023	0.040	Jan 2024	0.048	Jan 2025	-		0.048	0.000	4.118	-
B-52 Centralized Support, Travel - 675039	Various	Various : TBD	-	0.010	Jan 2023	0.010	Jan 2024	0.010	Jan 2025	-		0.010	0.000	0.030	-
Subtotal			-	4.040		0.050		0.058		-		0.058	0.000	4.148	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		-	30.847	15.024	4.030	-	4.030	0.000	49.901	N/A

Remarks

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675039 / <i>B-52 System Improvements</i>
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FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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>Systems Improvements</i>	
System Improvements Studies and Analysis, etc.	
<i>AFGSC Innovation Hub</i>	
Industry Collaboration Efforts	
<i>B-52 Training Automation</i>	
Training System Automation	
<i>Proof of Concept Demonstration</i>	
Proof of Concept	

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675039 / <i>B-52 System Improvements</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Systems Improvements</i>				
System Improvements Studies and Analysis, etc.	1	2023	4	2026
<i>AFGSC Innovation Hub</i>				
Industry Collaboration Efforts	1	2023	4	2023
<i>B-52 Training Automation</i>				
Training System Automation	1	2023	2	2023
<i>Proof of Concept Demonstration</i>				
Proof of Concept	1	2023	4	2025

Note
Quad Crew schedule shown in Project 675165.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons				Project (Number/Name) 675056 / B-52 Radar Modernization Program (RMP)			
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
675056: B-52 Radar Modernization Program (RMP)	-	239.814	204.349	179.765	0.000	179.765	143.505	64.292	9.750	3.928	0.000	845.403
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The B-52 Radar Modernization Program (RMP) supports nuclear and conventional operations by replacing the current APQ-166 radar on the B-52H aircraft. The APQ-166 system is increasingly difficult to sustain due to diminished manufacturing sources and obsolescent technologies; the current failure rate of the APQ-166 places long-duration missions at risk. This modernization program will encompass the radar antenna array, 12 individual Line Replaceable Units (LRU), radar control panel, radome, and Group A allocation that comprise the entire radar system. RMP will take advantage of advances in technology and on-going development efforts to acquire, to the maximum extent possible, previously developed Radar systems and integrate them into the B-52. The use of new technology will increase both the overall reliability of the radar system and the capabilities for new missions. RMP will allow the operational command (AF Global Strike Command) to fully utilize the capabilities of the B-52H aircraft to employ an array of nuclear and conventional weapons and to perform mission-essential navigation and weather avoidance functions. In addition, applicable training devices for the new radar subsystem must also be developed, modified and/or upgraded in conjunction with the aircraft modifications. This modification includes the installation of Engineering and Manufacturing Development (EMD) kits on two B-52H test aircraft to support Developmental/Operational Test and Evaluation.

This upgrade will affect B-52 training devices and will provide the ability to connect / operate in a common environment that provides realistic high-end combat training to meet future standards. Funds may be used to address the Bombing-Navigation System Maintenance Trainers (BNSMTs), a desktop trainer, as well as the Mission Employment Trainer (MET), and a Family of Systems (FoS) concept that includes Handheld/Wearable and Point-of-Use Devices, Medium-Fidelity Deployable Devices and High-Fidelity Devices covering the entire training spectrum. This program also upgrades one B-52 Software Integration Lab (SIL) with radar functionality, and builds a new Radar Development Lab and a new Radar SIL. As the RMP upgrade brings additional capability to the B-52, funds may be used to address emerging security/certification requirements (nuclear certification, cyber security, program protection, simulator common standards, etc.) in addition to increased radar integration (advanced targeting pod, Combat Network Communication Technology (CONNECT), Tactical Data Link (TDL), offensive avionics system, GPS Integration Unit (GPS-IU), Crypto modernization, mission planning, modular open system architecture (MOSA) considerations, crew vehicle interfaces, Electronic Warfare System, and B-52 Software Block (BSB), etc).

Funds may be used to address requirements including, but not limited to, emerging and short-notice Diminishing Manufacturing and Material Shortages (DMSMS) for both aircraft and associated training systems, Development Testing (DT)/ Operational Testing (OT), safety of flight issues, and associated components in the RMP configuration baseline. DMSMS efforts may include removal of end-of-life/obsolete software/hardware within the weapons system, simulators systems, and MOSA implementation. Additionally, funds may accommodate Program Management Administration (PMA) and support, civilian pay expenses, rapid technology insertion, and fulfill Federal Aviation Agency (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675056 / B-52 Radar Modernization Program (RMP)
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This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 \$5.550M was expended for civilian pay expenses in this program element, and in FY24 \$6.569M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: Radar Modernization Program	239.814	204.349	179.765
Description: Support nuclear and conventional operations by replacing the current APQ-166 radar on the B-52H aircraft. Development and production of new systems to replace the legacy equipment and to be installed on all 76 B-52H aircraft.			
FY 2024 Plans: Will continue fabrication and delivery of EMD subsystem units; complete Radar System Integration Labs (SIL) security certification; continue Agile and incremental software code development; continue hardware/software integration SIL tests; complete training course material and tech pubs development; complete first test aircraft modification and functional checkouts; complete ground test and initiate flight test with first test aircraft; initiate second test aircraft modification.			
FY 2025 Plans: Will continue test and evaluation of EMD units; continue Agile and incremental software code development; continue hardware/software integration SIL tests; complete second test aircraft modification and functional checkouts; complete ground test and initiate flight test with second test aircraft.			
FY 2024 to FY 2025 Increase/Decrease Statement: Funding decreased due to requiring a lower level of resources to complete aircraft modifications, software development, and supporting ground/flight test events.			
Accomplishments/Planned Programs Subtotals	239.814	204.349	179.765

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF 05 Lineltem B05200: BP11 Production	-	-	117.305	-	117.305	132.237	208.142	205.797	169.807	Continuing	Continuing
• APAF 07 Line Item B05200: Post Production Support	-	-	-	-	-	0.111	0.113	0.115	0.117	Continuing	Continuing
• APAF 06 000999: Initial Spares	-	-	12.245	-	12.245	0.223	0.227	0.232	0.237	Continuing	Continuing

Remarks

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675056 / <i>B-52 Radar Modernization Program (RMP)</i>

D. Acquisition Strategy

The Milestone Decision Authority approved the B-52 RMP Acquisition Strategy (AS) on 13 March 2018. Per the Acquisition Strategy, the Original Equipment Manufacturer completed radar and other supplier selections in June 2019. The team completed System Preliminary Design Review in October 2020, Milestone B in June 2021, awarded the Engineering Manufacturing and Development contract in June 2021, and conducted System Critical Design Review in February 2022.

The Milestone B Acquisition Decision Memo updated the Acquisition Strategy to split the Milestone C into two decision points. Milestone C Decision Point #1 authorizes Low-Rate Initial Production (LRIP) Lot 1 needed to meet Initial Operational Capability. Milestone C Decision Point #2 will authorize LRIP Lot 2.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3600 / 7				PE 0101113F / B-52 Squadrons				675056 / B-52 Radar Modernization Program (RMP)							
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
Product Development	C/CPFF	The Boeing Company : Oklahoma City, OK	-	25.816	Dec 2022	2.000	Jan 2024	-		-		-	Continuing	Continuing	-
Engineering & Manufacturing Development (EMD) Phase	SS/CPIF	The Boeing Company : Oklahoma City, OK	-	177.073	Nov 2022	176.220	Nov 2023	145.450	Nov 2024	-		145.450	Continuing	Continuing	-
Subtotal			-	202.889		178.220		145.450		-		145.450	Continuing	Continuing	N/A
Support (\$ 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
Weapon Trainer Support	C/CPAF	AFLCMC/WNS : WPAFB, OH	-	4.160	Aug 2023	-		-		-		-	Continuing	Continuing	-
557th Software Development	PO	557th SWES : Tinker AFB, OK	-	3.243	Dec 2022	1.980	Mar 2024	2.035	Dec 2024	-		2.035	Continuing	Continuing	-
CAPRE AESA Adapter Support	PO	516th SWES : Hill AFB, UT	-	0.231	Dec 2022	-		-		-		-	Continuing	Continuing	-
Direct Cite Civilian Pay	Various	AFLCMC/FZA : WPAFB, OH	-	5.550	Oct 2022	6.569	Oct 2023	6.695	Oct 2024	-		6.695	Continuing	Continuing	-
Subtotal			-	13.184		8.549		8.730		-		8.730	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
Edwards AFTC	PO	Edwards AFB : Edwards AFB, CA	-	9.805	Dec 2022	9.692	Jan 2024	16.308	Jan 2025	-		16.308	Continuing	Continuing	-
AFOTEC Support	PO	AFOTEC : Kirtland AFB, NM	-	0.400	Mar 2023	0.975	Mar 2024	1.286	Mar 2025	-		1.286	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force											Date: March 2024				
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons					Project (Number/Name) 675056 / B-52 Radar Modernization Program (RMP)					

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
47th CTS Cyber Test	PO	47th CTS : Eglin AFB, FL	-	0.164	Dec 2022	0.098	Dec 2023	0.210	Dec 2024	-		0.210	Continuing	Continuing	-
Subtotal			-	10.369		10.765		17.804		-		17.804	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Program Management Administration, A&AS Support, Centralized Support, TDY, OGC	Various	Various : Various	-	13.372	Dec 2022	6.815	Dec 2023	7.781	Dec 2024	-		7.781	Continuing	Continuing	-
Subtotal			-	13.372		6.815		7.781		-		7.781	Continuing	Continuing	N/A

Project Cost Totals	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
	-	239.814	204.349	179.765	-	179.765	Continuing	Continuing	N/A

Remarks
 The FY25 increase in the Edwards AFTC line is primarily driven by the initiation of RMP Developmental Test Flight Test activities at Edwards AFB, including operations of the test aircraft, support aircraft, data collection, analysis, and reporting. Activities are expected to in continue through Operational Test in FY26.

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675056 / <i>B-52 Radar Modernization Program (RMP)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Radar Modernization Program</i>				
EMD	1	2023	2	2027
Developmental Testing	4	2023	4	2026
MS C DP#1	2	2025	2	2025
MS-C DP#2	4	2025	4	2025
IOC	4	2027	4	2027

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675057 / B-52 Low Cost Improvement (LCI)
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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
675057: B-52 Low Cost Improvement (LCI)	-	0.702	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.702
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This program will include projects to facilitate future B-52 capabilities. Scope of work may involve, but is not limited to, Avionics, Navigation, Situational Awareness (SA) and Defensive Systems. Develop and integrate emerging technologies for specialized B-52 missions to include Intelligence Surveillance and Reconnaissance (ISR), Targeting and Weapons, future prototyping efforts, Diminishing Manufacturing Sources and Material Shortages (DMSMS) efforts to include removal of end-of-life software/hardware within simulators systems, and common open system architecture that is sustainable and cyber-resilient. Funds may be used to address requirements including, but not limited to, emerging and short-notice DMSMS for both aircraft and associated training systems, Development Testing (DT)/ Operational Testing (OT), and safety of flight issues. Additionally, funds may accommodate Program Management Administration (PMA) and support, civilian pay expenses, rapid technology insertion, and fulfill Federal Aviation Agency (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY22 0M was expended for civilian pay expenses in this program element, and in FY23 0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: B-52 Low Cost Improvements	0.702	0.000	0.000
Description: Develop and integrate emerging technologies for specialized B-52 missions to include ISR, targeting, and weapons. This includes performing demonstrations and experimentation of emerging and advanced technologies, as well as supporting external agency projects of the technology in a relevant environment.			
FY 2024 Plans: N/A			
FY 2025 Plans: N/A			
FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals	0.702	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675057 / B-52 Low Cost Improvement (LCI)
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF 05 Line item B05200: BP11 Production	0.545	0.662	2.736	-	2.736	2.783	2.846	2.905	2.963	Continuing	Continuing

Remarks

D. Acquisition Strategy

Studies and analyses will be conducted by various Air Force Life Cycle Management Center and Air Force Global Strike Command organizations.

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675057 / <i>B-52 Low Cost Improvement (LCI)</i>

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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>Low Cost Improvements</i>	
Low Cost Improvements Studies and Analyses	

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675057 / <i>B-52 Low Cost Improvement (LCI)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Low Cost Improvements</i>				
Low Cost Improvements Studies and Analyses	1	2023	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>				Project (Number/Name) 675129 / <i>B-52 CERP</i>			
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
675129: <i>B-52 CERP</i>	-	379.401	576.016	784.975	0.000	784.975	594.734	360.341	416.323	419.828	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

The B-52 Commercial Engine Replacement Program (CERP) transitioned from a Middle Tier of Acquisition (MTA) to a Major Capability Acquisition (MCA) program.

A. Mission Description and Budget Item Justification

The B-52 Commercial Engine Replacement Program (CERP) supports nuclear and conventional operations by replacing the current TF33-PW-103 engine on the B-52H aircraft. The TF33-PW-103 engine is experiencing significant supportability challenges due to diminished manufacturing sources and obsolescent technologies. This program will replace the current TF33-PW-103 engine with new military derivative commercial Rolls-Royce F130 engines of similar size, weight, and thrust characteristics. Along with the new engines, CERP will replace associated subsystems, such as engine struts and nacelles, the electrical power generation system, and cockpit displays. The development, production and installation of new engines and related subsystems will replace the legacy equipment on all 76 B-52H aircraft. Any B-52H aircraft modified with the new commercial engines and associated subsystems will be designated as B-52J.

B-52 CERP is taking advantage of advances in technology and on-going development efforts to acquire engines and integrate them into the B-52. The new technology will increase both the overall reliability and maintainability of the propulsion system and produce additional electrical power generation capabilities for emerging requirements. The B-52 CERP will allow the operational command (Air Force Global Strike Command) to fully utilize the capabilities of the B-52 aircraft to employ an array of nuclear and conventional weapons while increasing fuel efficiency and extending the range/loiter capabilities of the aircraft. In addition, applicable training devices must be developed, modified and/or upgraded in conjunction with the aircraft modifications. As B-52 CERP brings additional capability to the B-52, emerging security/certification requirements (nuclear hardening, cyber security, program protection, etc.) are being addressed. Several concurrent aircraft upgrades during the B-52 CERP may necessitate temporary facilities or facility upgrades/modifications. In addition, it may necessitate studies be performed to determine optimal engine installation and deployment options. Additionally, funds will be used to procure long lead components for test aircraft to include engines and all required associated components in the B-52 CERP configuration baseline.

Cost includes any other analysis or documentation and related expenses necessary to establish a program of record and support the B-52 Weapon System. Cost includes Program Management Administration (PMA) costs, centralized support and initiatives for digital engineering and anticipated weapon system enhancements, to include efforts to improve weapon system operational capabilities, safety, supportability, maintainability, reliability, and total cost of ownership.

Funds may be used to address requirements including, but not limited to, emerging and short-notice Diminishing Manufacturing Sources and Material Shortages (DMSMS) for both aircraft and associated training systems, Development Testing (DT)/ Operational Testing (OT), and safety of flight issues. Additionally, funds may accommodate PMA and support, civilian pay expenses, rapid technology insertion, and fulfill Federal Aviation Administration (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675129 / <i>B-52 CERP</i>
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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 FY23 \$14.138M was expended and in FY24 \$17.609M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: B-52 CERP	379.401	576.016	784.975
Description: This program will replace the current TF33-PW-103 engine with new military derivative commercial Rolls-Royce F130 engines of similar size, weight, and thrust characteristics. The development, production and installation of new engines and related subsystems will replace the legacy equipment on all 76 B-52H aircraft. B-52 CERP will take advantage of advances in technology and on-going development efforts to acquire engines and integrate them into the B-52.			
FY 2024 Plans: Complete the RVP MTA and deliver Virtual System Prototype (VSP) Increment 2. Continue the Rapid Prototype 1 (RP1) contract, system critical design, and the Rapid Prototype Material (RPM) contracts (long lead material). Continue ordering hardware for two test aircraft to include prototype and instrumented test engines. Complete engine critical design review.			
FY 2025 Plans: Conduct multiple component and subsystem critical design reviews culminating in completion of system critical design under the RP1 contract. Continue ordering hardware for two test aircraft on RPM contracts and complete all activities required for EMD contract award.			
FY 2024 to FY 2025 Increase/Decrease Statement: Funding increased due to resource ramp-up required to complete sub-system (e.g., Avionics, Propulsion) and system critical design reviews, standup developmental test facilities, develop avionics software, and order long-lead test material.			
Accomplishments/Planned Programs Subtotals	379.401	576.016	784.975

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2025</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u>	<u>Total Cost</u>
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• APAF 05 0101113F: <i>B-52 SQUADRONS</i>	-	-	2.104	-	2.104	20.757	735.391	708.079	722.150	Continuing	Continuing

Remarks

D. Acquisition Strategy

Rapid Virtual Prototyping, utilizing the Middle Tier of Acquisition pathway, delivered a virtual System Prototype and enabled the program to transition to the Major Capability Acquisition pathway in December 2023. Under the EMD contract, B-52 CERP will build test hardware and modify two test aircraft, then conduct ground and

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
3600 / 7	PE 0101113F / <i>B-52 Squadrons</i>	675129 / <i>B-52 CERP</i>

flight testing to verify system requirements are met. After Milestone C, B-52 CERP will enter the Production and Deployment phase. This strategy is being accomplished by two prime contractors.

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675129 / B-52 CERP
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Rapid Prototyping Phase 1	SS/CPPIF	The Boeing Co : Oklahoma City, OK	-	185.278	Mar 2023	255.801	Dec 2023	492.287	Oct 2024	-		492.287	Continuing	Continuing	-
Engine Contract	C/FFP	Rolls Royce : Indianapolis, IN	-	27.159	Dec 2022	105.522	Dec 2023	63.984	Nov 2024	-		63.984	Continuing	Continuing	-
Rapid Prototyping Material 0	SS/CPFF	The Boeing Co : Oklahoma City, OK	-	73.000	Mar 2023	137.249	Dec 2023	114.106	Oct 2024	-		114.106	Continuing	Continuing	-
Rapid Prototyping Material 1	SS/CPFF	The Boeing Co : Oklahoma City, OK	-	41.600	Mar 2023	22.911	Feb 2024	41.254	Oct 2024	-		41.254	Continuing	Continuing	-
Subtotal			-	327.037		521.483		711.631		-		711.631	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Documentation - Technical Support	MIPR	Booz Allen Hamilton : Oklahoma City, OK	-	7.080	Jan 2023	8.200	Jan 2024	9.000	Jan 2025	-		9.000	Continuing	Continuing	-
557th SWES	PO	557th SWES : Oklahoma City, OK	-	0.636	Dec 2022	0.480	Jan 2024	0.500	Jan 2025	-		0.500	Continuing	Continuing	-
Direct Cite Authority for CERP Civilian Personnel	Allot	AFLCMC/FZA : TBD	-	14.138	Oct 2022	17.609	Oct 2023	18.314	Oct 2024	-		18.314	Continuing	Continuing	-
Subtotal			-	21.854		26.289		27.814		-		27.814	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Edwards AFTC	PO	412TW : Edwards AFB, CA	-	2.485	Mar 2023	11.826	Mar 2024	20.484	Jan 2025	-		20.484	Continuing	Continuing	-
Mock Up A/C	PO	Boeing : Oklahoma City, OK	-	0.901	Feb 2023	-		-		-		-	Continuing	Continuing	-

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675129 / B-52 CERP
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Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
AEDC	PO	AEDC/Flight Systems CTF : Arnold AFB, TN	-	12.305	Nov 2022	0.000	Mar 2024	2.500	Nov 2024	-		2.500	Continuing	Continuing	-
48th CTS Cyber Test	PO	47th CTS : Edwards AFB, CA	-	0.071	Dec 2022	0.324	Mar 2024	0.400	Jan 2025	-		0.400	Continuing	Continuing	-
AFSEO	PO	AFSEO : Eglin AFB, FL	-	0.603	Dec 2022	0.100	May 2024	-		-		-	Continuing	Continuing	-
AFOTEC	MIPR	AFOTEC : Edwards AFB, CA	-	0.700	Jan 2023	0.440	Mar 2024	0.970	Jan 2025	-		0.970	Continuing	Continuing	-
Test Aircrew Trainer	PO	TBD : TBD	-	-		-		5.000	Mar 2025	-		5.000	Continuing	Continuing	-
Subtotal			-	17.065		12.690		29.354		-		29.354	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Program Management Administration, A&AS Support, Centralized Support, TDY, OGC	Various	Various : Various	-	13.445	Jan 2023	15.554	Feb 2024	16.176	Mar 2025	-		16.176	Continuing	Continuing	-
Subtotal			-	13.445		15.554		16.176		-		16.176	Continuing	Continuing	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	-	379.401	576.016	784.975	-	784.975	Continuing	Continuing	N/A

Remarks
 RP1 FY24 to FY25 increase due to ramp up of material purchases to support CDR and expected contract definitization of existing PDR to CDR UCA in FY25.
 RPM1 FY24 to FY25 increase due to contract definitization of existing UCA in FY25.
 Edwards AFTC FY24 to FY25 increase due to CERP test hangar readiness project utilizing laboratory revitalization

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675129 / <i>B-52 CERP</i>
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FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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>B-52 CERP</i>	
Rapid Prototype Phase 1 Contract	
Rapid Prototype Material Contract	
Engine Contract	
Virtual System Prototype Increment 2	■
Milestone B	■
Critical Design Review	■
Engineering and Manufacturing Development Contract	
Milestone C	■

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675129 / <i>B-52 CERP</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>B-52 CERP</i>				
Rapid Prototype Phase 1 Contract	1	2023	2	2026
Rapid Prototype Material Contract	1	2023	4	2029
Engine Contract	1	2023	4	2029
Virtual System Prototype Increment 2	1	2024	1	2024
Milestone B	3	2024	3	2024
Critical Design Review	4	2025	4	2025
Engineering and Manufacturing Development Contract	1	2026	4	2029
Milestone C	4	2028	4	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons				Project (Number/Name) 675160 / B-52 Crypto Modernization			
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
675160: B-52 Crypto Modernization	-	3.245	0.000	3.999	0.000	3.999	1.202	0.000	0.000	0.000	0.000	8.446
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

B-52 Crypto Modernization upgrades aircraft with Mobile User Objective System (MUOS) capable ARC-210 radio systems that prevent loss of beyond line of sight (BLOS) voice and data communications capability. The program will integrate upgrade the B-52 aircraft with secure voice and data communications via SATURN (Second Generation Anti-Jam Technical UHF Radio for NATO) network, MUOS (Mobile User Objective System) Satellite constellation, and DAMA-IW (Demand Assigned Multiple Access - Integrated Waveform) SATCOM connection. These updates are required by the National Security Agency (NSA), DoD mandates, and directives.

Funds may be used to address requirements including, but not limited to, emerging and short-notice Diminishing Manufacturing Sources and Material Shortages (DMSMS) for both aircraft and associated training systems, Development Testing (DT)/ Operational Testing (OT), and safety of flight issues. Additionally, funds may accommodate Program Management Administration (PMA) and support, civilian pay expenses, rapid technology insertion, and fulfill Federal Aviation Agency (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY22 0M was expended for civilian pay expenses in this program element, and in FY23 0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: B-52 Crypto Modernization	3.245	0.000	3.999
Description: Upgrades aircraft with secure ARC-210 radio systems and associated hardware/software to prevent loss of beyond line of sight (BLOS) voice and data communications capability.			
FY 2024 Plans: Continue EMD; planned completion of Ground Test and Flight Test of A/C 1			
FY 2025 Plans: Continue EMD; planned completion of Ground Test and Flight Test of A/C 1			
FY 2024 to FY 2025 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675160 / <i>B-52 Crypto Modernization</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
FY25 funding increase from FY24PB to continue to fund EMD overrun through FY25. Funds will support planned completion of Ground Test and Flight Test for A/C 1.			
Accomplishments/Planned Programs Subtotals	3.245	0.000	3.999

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
• APAF 05 Line item B05200: <i>BP11 Production</i>	10.809	14.081	8.848	-	8.848	28.619	30.294	11.459	9.856	Continuing	Continuing
• APAF 06 000999: <i>Initial Spares/Repair Parts</i>	4.293	1.214	1.249	-	1.249	1.281	-	-	-	0.000	8.037

Remarks

The Air Force requested a FY24 technical adjustment moving \$14.017M from the B-52 Crypto Modernization P-3A to this project to accommodate the EMD overrun; funds will be executed upon enactment of the FY24 defense appropriation.

D. Acquisition Strategy

Per the National Security Agency mandate, the B-52 Crypto Modernization program will upgrade the aircraft with secure radio devices (ARC-210 Gen 6) that meet the requirement for secure beyond line of sight voice and data communications. The program is currently in the Engineering Manufacturing and Development (EMD) phase and forecasted to complete EMD by start FY2026 with Flight following. During the EMD phase, the program will procure radio systems that meet the NSA timeline while furthering aircraft integration supporting Mobile User Objective System. Milestone C is estimated for 3Q FY25.

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675160 / B-52 Crypto Modernization
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Crypto Modernization: Development and Integration Activities	SS/CPIF	OEM : Oklahoma City, OK	-	2.826	Mar 2023	-		3.954	Mar 2025	-		3.954	0.000	6.780	-
Subtotal			-	2.826		-		3.954		-		3.954	0.000	6.780	N/A

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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 Support	PO	Various : TBD	-	0.344	Mar 2023	-		-		-		-	0.000	0.344	-
Subtotal			-	0.344		-		-		-		-	0.000	0.344	N/A

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Travel	Various	Not specified. : TBD	-	0.075	Mar 2023	-		0.045	Mar 2025	-		0.045	0.000	0.120	-
Subtotal			-	0.075		-		0.045		-		0.045	0.000	0.120	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		-	3.245	-	3.999	-	3.999	0.000	7.244	N/A

Remarks

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675160 / B-52 Crypto Modernization
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	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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>Crypto Modernization</i>																												
EMD																												
IQT/FQT																												
DT/OT																												
MS C																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675160 / <i>B-52 Crypto Modernization</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Crypto Modernization</i>				
EMD	1	2023	3	2025
IQT/FQT	1	2023	1	2023
DT/OT	3	2024	1	2025
MS C	3	2025	3	2025

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons				Project (Number/Name) 675165 / B-52 Quad Crew			
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
675165: B-52 Quad Crew	-	7.770	30.652	35.826	0.000	35.826	43.597	24.570	9.590	0.000	0.000	152.005
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Quad Crew program reduces B-52 crew size from five to four personnel. To facilitate this, the program upgrades & modifies the ALQ-172 Electronic Warfare Countermeasure System on the B-52 aircraft. The program will transition controls and displays for the ALQ-172 electronic warfare system from the Electronic Warfare Officer (EWO) station to the B-52 Navigator (NAV) Station supporting situational awareness, self-protection, and survivability in a contested environment. In addition, the Quad Crew program will include expansion of frequency bands within the ALQ-172 system to restore frequencies previously covered by the deactivated AN/ALQ-155 system.

Quad Crew Phase I (Control Display Unit Move) - Relocates system controls and displays (mid-band only) required to reduce crew size to four members.

Quad Crew Phase II (Low-Band Expansion) - Modify ALQ-172 LRU-1 and associated hardware to add low-band radio frequency coverage capability.

Funds may be used to address requirements including, but not limited to, system intergration, emerging and short-notice Diminishing Manufacturing Sources and Material Shortages (DMSMS) for both aircraft and associated training systems, Development Testing (DT)/Operational Testing (OT), and safety of flight issues. Additionally, funds may accommodate Program Management Administration (PMA) and support, civilian pay expenses, rapid technology insertion, and fulfill Federal Aviation Agency (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F.

In FY23 0M was expended for civilian pay expenses in this program element, and in FY24 0.17M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: B-52 Quad Crew	7.770	30.652	35.826
Description: The Quad Crew program reduces B-52 crew size from five to four personnel. To facilitate this, the program upgrades & modifies the AN/ALQ-172 Electronic Warfare Countermeasure System on the B-52 aircraft. Phase I of the program will transition controls and displays for the ALQ-172 from the Electronic Warfare Officer (EWO) station to the B-52 Navigator (NAV) Station supporting situational awareness, self-protection, and survivability in a contested environment. Phase II will upgrade/modify ALQ-172 LRU-1 to expand frequency coverage of the ALQ-172 system to restore frequencies previously covered by the deactivated AN/ALQ-155 system.			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675165 / B-52 Quad Crew
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>FY 2024 Plans: Initiate Phase I Engineering and Manufacturing Development activities that will include aircraft structure and design efforts, development of aircraft technical documentation, kit development, and procurement of long lead material.</p> <p>FY 2025 Plans: Continue Phase I and initiate Phase II Engineering and Manufacturing Development activities that will include aircraft structure and design efforts, development of aircraft technical documentation, kit development, and procurement of long lead material.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increase due to addition of EMD costs associated with Quad Crew Phase II, scheduled to award 1QFY25.</p>			
Accomplishments/Planned Programs Subtotals	7.770	30.652	35.826

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF 06 0101113F: B-52 SQUADRONS	-	-	-	-	-	-	8.673	32.391	23.323	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Quad Crew program reduces B-52 crew size from five to four personnel. To facilitate this, the program upgrades & modifies the AN/ALQ-172 Electronic Warfare Countermeasure System on the B-52 aircraft. Phase I of the program will transition controls and displays for the ALQ-172 from the Electronic Warfare Officer (EWO) station to the B-52 Navigator (NAV) Station supporting situational awareness, self-protection, and survivability in a contested environment. Phase II will upgrade/modify ALQ-172 LRU-1 to expand frequency coverage of the ALQ-172 system to restore frequencies previously covered by the deactivated AN/ALQ-155 system. The program will award the Phase I Engineering Manufacturing and Development (EMD) contract in 2QFY24 and the Phase II EMD contract in 1QFY25.

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675165 / B-52 Quad Crew
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Quad Crew Phase I	SS/CPFF	Not specified. : Oklahoma City, OK	-	7.770	Feb 2024	15.000	Mar 2024	0.000	Apr 2025	-		0.000	Continuing	Continuing	-
Quad Crew Phase II	SS/CPFF	Not specified. : TBD	-	-		12.416	Oct 2024	35.651	Apr 2025	-		35.651	Continuing	Continuing	-
Subtotal			-	7.770		27.416		35.651		-		35.651	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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 Cite Civilian Pay	Various	Not specified. : TBD	-	-		0.171	Oct 2023	0.175	Oct 2024	-		0.175	Continuing	Continuing	-
Subtotal			-	-		0.171		0.175		-		0.175	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Management Support, A&AS, PMA	TBD	Not specified. : TBD	-	-		3.065	Mar 2024	-		-		-	Continuing	Continuing	-
Subtotal			-	-		3.065		-		-		-	Continuing	Continuing	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			-	7.770	30.652	35.826	-	35.826	Continuing	Continuing	N/A

Remarks

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 675165 / B-52 Quad Crew
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FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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

Quad Crew	
EMD	[REDACTED]
Milestone C	[REDACTED]

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 675165 / <i>B-52 Quad Crew</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Quad Crew				
EMD	2	2024	2	2029
Milestone C	2	2029	2	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons				Project (Number/Name) 676039 / B-52 Airspace Compliance			
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
676039: B-52 Airspace Compliance	-	0.000	5.012	1.027	0.000	1.027	12.817	33.458	34.714	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The B-52 Airspace Compliance Program ensures the B-52 meets regulatory Airspace Compliance, DoD and FAA mandates by integrated required hardware, software and firmware updates onto the fleet.

The scope of work may include, but not limited to, the development of an Analysis of Alternatives (AoA), studies and analyses, and/or any additional analyses or documentation necessary to establish a Programs of Record (POR) the meet mandated functions. Funds may also be used to address emerging and short-notice Diminishing Manufacturing and Material Shortages (DMSMS) for both aircraft and associated training systems, Development Testing (DT)/Operational Testing (OT), safety of flight issues, and associated components of the B-52 baseline configurations. DMSMS efforts may include removal of end-of-life/obsolete software and hardware due to the future emergence of Modular Open Systems Approach (MOSA) implementation.

This also includes the new Global Positioning System (GPS) Military Code (M-Code) signal design that provides a robust signal for the B-52 Fleet, enhancing Anti-Jam/Anti-Spoof capabilities and improving security to the GPS data message as military applications, technology, and mission requirements evolve.

This Program may also include necessary civilian pay expenses required to manage, execute, and deliver M-Code GPS signal capability, as well as PM Administration (PMA) and support, rapid technology insertion, and fulfill Federal Aviation Agency (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2023 0M was expended for civilian pay expenses in this program element, and in FY 2024 0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: Airspace Compliance (M-Code)	0.000	5.012	1.027
Description: The new Military Code (M-Code) signal design provides a robust signal acquisition for the B-52 Fleet, enhancing Anti-Jam/Anti-Spoof capabilities and improving security to the GPS data message as military applications, technology, and mission requirements evolve.			
FY 2024 Plans: Program will start integration assessment and risk reduction to inform Global Positioning System (GPS) M-Code system integration Acquisition Strategy Development			
FY 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 676039 / B-52 Airspace Compliance
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Program office will continue integration assessment activities and complete risk reduction activities and gain approval of Global Positioning System (GPS) M-Code system integration Acquisition Strategy.			
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> The decrease in funding is due to Milestone B delaying from FY24 to FY26			
Accomplishments/Planned Programs Subtotals	0.000	5.012	1.027

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF 05 0101113F: B-52 SQUADRONS	-	-	-	-	-	14.563	14.576	14.901	-	Continuing	Continuing

Remarks

D. Acquisition Strategy
The Milestone Decision Authority (MDA) for B-52 M-Code is the Senior Materiel Leader (SML) for the B-52 System Program Office (AFLCMC/WBD). Program will complete the integration of M-Code capable components onto the B-52 aircraft fleet. The Acquisition Strategy is to gain MDA approval to enter at Milestone B in FY2026.

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / B-52 Squadrons	Project (Number/Name) 676039 / B-52 Airspace Compliance
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Integration Assessment	TBD	TBD : Oklahoma City, OK	-	-		0.500	Mar 2024	-		-		-	Continuing	Continuing	-
Risk Reduction	TBD	TBD : Oklahoma City, OK	-	-		1.990	Aug 2024	-		-		-	Continuing	Continuing	-
Subtotal			-	-		2.490		-		-		-	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Program Office Support (A&AS, Travel, OGC, etc.)	Various	TBD : TBD	-	-		2.522	Mar 2024	0.980	Mar 2025	-		0.980	Continuing	Continuing	-
Subtotal			-	-		2.522		0.980		-		0.980	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Not specified.	C/CPAF	Not specified. : TBD	-	-		-		0.047	Mar 2025	-		0.047	Continuing	Continuing	-
Subtotal			-	-		-		0.047		-		0.047	Continuing	Continuing	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		-	-	5.012	1.027	1.027	Continuing	Continuing	N/A

Remarks
The decrease in funding is due to Milestone B delaying from FY24 to FY26.

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101113F / <i>B-52 Squadrons</i>	Project (Number/Name) 676039 / <i>B-52 Airspace Compliance</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Airspace Compliance</i>				
Studies / Risk Reduction	2	2025	4	2026
MS B	4	2026	4	2026
EMD	1	2027	2	2029
MS C	3	2029	3	2029