Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Air Force												Date: April 2022
Appropriation/Budget Activity 3620F: *Research, Development, Test & Evaluation, Space Force I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 1203001SF *I Family of Advanced BLoS Terminals (FAB-T)*							
COST ($ in Millions)	**Prior Years**	**FY 2021**	**FY 2022**	**FY 2023 Base**	**FY 2023 OCO**	**FY 2023 Total**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Cost To Complete**	**Total Cost**
Total Program Element	-	224.242	156.788	128.243	0.000	128.243	80.750	1.989	0.304	0.310	0.000	592.626
672490: *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)*	-	18.294	14.817	2.850	0.000	2.850	0.000	0.000	0.000	0.000	0.000	35.961
673035: *Presidential and National Voice Conferencing*	-	57.199	42.992	34.972	0.000	34.972	35.161	1.989	0.304	0.310	0.000	172.927
673040: *Force Element Terminal*	-	148.749	98.979	90.421	0.000	90.421	45.589	0.000	0.000	0.000	0.000	383.738

A. Mission Description and Budget Item Justification

The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) - Command Post Terminal (CPT), Force Element Terminal (FET), and Presidential and National Voice Conferencing (PNVC) Integrator programs - transitioned from AFPEO/SP to AFPEO/NC3 effective December 2018.

The FAB-T CPT project replaces legacy Milstar terminals and will provide Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include PNVC. FAB-T will provide this new, highly secure, state-of-the-art capability for Department of Defense (DoD) platforms to include strategic platforms and airborne/ground command posts via Milstar and Advanced EHF (AEHF) satellites. FAB-T CPTs will also support the critical command and control (C2) of the Milstar and AEHF satellite constellations. In FY 2023, Project FAB-T CPT will be completed.

The FAB-T FET project replaces the legacy Ultra High Frequency (UHF) Milstar system and provides secure, protected, and survivable communications for the strategic warfighter through airborne-based Military Satellite Communication (MILSATCOM) terminals. The FAB-T FET will provide the B-52 aircraft with worldwide nuclear and non-nuclear, survivable, anti-jam Low Probability of Detect (LPD)/ Low Probability of Intercept (LPI) data and voice communications. The FAB-T FET will be interoperable with AEHF, Enhanced Polar Systems - Recapitalization (EPS-R), and Evolved Strategic SATCOM (ESS) satellite constellations utilizing Extended Data Rate (XDR) waveforms. FAB-T FET was designated as a Middle Tier of Acquisition (MTA) in Feb 2019.

The total cost of the FAB-T FET Middle Tier of Acquisition effort is 496.4M, including RDT&E and procurement of prototype units. The program is fully funded across the Future Years Defense Program. Risk Reduction efforts accomplished in 2019 are not included in the MTA cost, and result in a total investment of $527.2M.

The PNVC Integrator project is a critical element of the Nuclear Command, Control, and Communications (NC3) System. PNVC is the Survivable Emergency Conferencing Network (SECN) replacement capability, which provides anti-jam, anti-scintillation, survivable, and enduring voice communications through the AEHF satellite system for national and strategic users. There are several components being developed and procured by other organizations that must be synchronized to expeditiously field the capability. The PNVC Integrator is responsible for end-to-end integration of these components, to include requirements traceability, end-to-end system testing, configuration and checkout activities, training and technical manuals, network transition support, identification of deficiencies in overall PNVC system capability, enterprise, and life cycle support for PNVC components. The AFPEO/SP approved entry into the acquisition lifecycle as a post MS-A Acquisition Category

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Air Force	Date: April 2022
Appropriation/Budget Activity 3620F: *Research, Development, Test & Evaluation, Space Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1203001SF *I Family of Advanced BLoS Terminals (FAB-T)*

(ACAT) III Program of Record in January 2016. Starting in December 2018, PNVC Integrator became responsible for the funding requests of all program elements related to the Defense Information Systems and Agency (DISA) components of the PNVC System in accordance with FY 2018 National Defense Authorization Act, Sec. 1661. In February 2019, the AFPEO/NC3 declared the PNVC Integrator an ACAT II Program based on the inclusion of DISA funding in the program budget.

The FY 2023 funding request was reduced by 4.096M to account for the availability of prior year execution balances.

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 PY 0.723M was expended for civilian pay expenses in this program element, and in CY 0.735M is forecasted for civilian pay expenses in this program element

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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	232.229	156.788	0.000	0.000	0.000
Current President's Budget	224.242	156.788	128.243	0.000	128.243
Total Adjustments	-7.987	0.000	128.243	0.000	128.243
• 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	-7.987	0.000			
• Other Adjustments	0.000	0.000	128.243	0.000	128.243

Change Summary Explanation

The FY 2022 President's Budget submittal did not reflect FY 2023 through FY 2026 funding. Therefore, an explanation of the change between the two budget positions for FY 2023 cannot be made in a relevant manner.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force			Date: April 2022
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	Project (Number/Name) 672490 / *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
672490: *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)*	-	18.294	14.817	2.850	0.000	2.850	0.000	0.000	0.000	0.000	0.000	35.961
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The FAB-T Command Post Terminal (CPT) project replaces legacy Milstar terminals and will provide Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include Presidential and National Voice Conferencing (PNVC). FAB-T CPT will provide this new, highly secure, state-of-the-art capability for Department of Defense (DoD) platforms to include strategic platforms and airborne/ground command posts via Milstar and Advanced EHF (AEHF) satellites. FAB-T CPTs will also support the critical command and control (C2) of the Milstar and AEHF satellite constellations. The Department of the Air Force (DAF) will continue development of the FAB-T CPT, performing systems engineering, architecture studies, development and operational test efforts, terminal interoperability with the full AEHF satellite constellation activities, and other program activities to meet current and future emerging SATCOM requirements. In FY 2023, Project FAB-T CPT will be completed.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: FAB-T CPT Development	18.294	14.817	2.850
Description: The FAB-T CPT program will provide EHF voice and data Military Satellite Communication (MILSATCOM) for nuclear and conventional forces as well as airborne and ground command posts with connectivity to Milstar and AEHF satellites. ***FY 2022 Plans:*** The FAB-T CPT program continues to provide EHF voice and data MILSATCOM for nuclear and conventional forces as well as airborne and ground command posts with connectivity to Milstar and AEHF satellites. FAB-T CPT continues development of efforts required for National Security Agency (NSA) AEHF terminal certification, specifically an update to the software encryption station. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, prototyping, etc. The Nuclear Command, Control, and Communication (NC3) system of systems provides connectivity from the President or Secretary of Defense through the National Military Command System (NMCS) to nuclear execution forces worldwide. To enhance and maintain NC3 mission success, the AF formalized AF NC3 elements as a specified AF Weapon System (WS), AN/USQ-225.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 672490 / *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Activities funded in this Program pay for its integration into multiple legacy systems, other ongoing NC3 acquisition programs, and future capabilities for the overall AF NC3 WS. ***FY 2023 Plans:*** The FAB-T CPT program will continue to provide EHF voice and data MILSATCOM for nuclear and conventional forces as well as airborne and ground command posts with connectivity to Milstar and AEHF satellites. FAB-T CPT is scheduled to complete development of efforts required for NSA AEHF terminal certification, specifically an update to the software encryption station. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc. Activities funded in this program continue to pay for AN/USQ-225 integration into multiple legacy systems, other ongoing NC3 acquisition programs, and future capabilities for the overall AF NC3 WS. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The reduction in resource requirements stems from a shift from design and development to testing of efforts in support of NSA AEHF terminal certification. FAB-T CPT Development will complete in FY 2023.			
Accomplishments/Planned Programs Subtotals	18.294	14.817	2.850

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• SPAF 01 FBLOST FAB-T: *FAB-T*	55.950	30.745	19.078	-	19.078	21.607	15.457	14.289	5.011	Continuing	Continuing
• SPAF 01 FBLOST PNVC: *FAB-T*	5.240	5.799	7.316	-	7.316	3.286	1.661	1.695	1.739	Continuing	Continuing
• SPAF 01 SPAF FET: *FAB-T*	0.000	0.000	0.000	-	0.000	120.837	232.655	210.737	23.241	Continuing	Continuing
• RDTE 07 FET: *FAB-T*	148.749	98.979	90.421	-	90.421	45.589	0.000	0.000	0.000	0.000	383.738
• RDTE 07 PNVC: *FAB-T*	57.199	42.992	34.972	-	34.972	35.161	1.989	0.304	0.310	Continuing	Continuing

Remarks

D. Acquisition Strategy

FAB-T CPT Acquisition Strategy: In FY 2012, the government restructured the FAB-T CPT development program to introduce competition into the acquisition strategy in order to reduce risk in delivering this capability as well as to drive down production costs. To ensure the best value to the government, the DAF awarded production contracts in September 2013 to both contractors (Boeing and Raytheon). The production contracts began with production planning for both contractors. In June 2014, the DAF down-selected to Raytheon. Development and production of FAB-T CPTs continued with Raytheon. The first Production contract options to produce FAB-T CPTs were exercised after a successful Milestone C decision was approved September 1, 2015.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 672490 / *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FAB-T CPT Prime Contract	Various	Raytheon : Marlboro, MA	-	17.346	Jan 2021	13.862	Nov 2021	1.996	Dec 2022	-		1.996	Continuing	Continuing	-
FAB-T CPT Technical Mission Analysis	Various	Various : Various	-	0.000	Oct 2020	0.397	Dec 2021	0.390	Dec 2022	-		0.390	Continuing	Continuing	-
FAB-T CPT GFE	Various	Various : Various	-	0.002	Feb 2021	-		-		-		-	Continuing	Continuing	-
		Subtotal	-	17.348		14.259		2.386		-		2.386	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FAB-T CPT Other Support	Various	Various : Various	-	0.946	Dec 2020	0.142	Oct 2021	0.064	Nov 2022	-		0.064	Continuing	Continuing	-
FAB-T CPT A&AS	Various	Various : Various	-	-		0.416	Feb 2022	0.400	Jan 2023	-		0.400	Continuing	Continuing	-
		Subtotal	-	0.946		0.558		0.464		-		0.464	Continuing	Continuing	N/A

	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	18.294		14.817		2.850		-		2.850	Continuing	Continuing	N/A

Remarks

Prior Years funding, FY 2016/FY 2017 $95.229M was executed in Program Element (PE) 0303001F. Prior to FY 2016, $180.602M was executed in PE 0303601F.

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 672490 / *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)*

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
FAB-T																												
FAB-T CPT AEHF Terminal Certification	[redacted]																											

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 672490 / *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
FAB-T				
FAB-T CPT AEHF Terminal Certification	1	2021	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force			Date: April 2022
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	Project (Number/Name) 673035 / *Presidential and National Voice Conferencing*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
673035: *Presidential and National Voice Conferencing*	-	57.199	42.992	34.972	0.000	34.972	35.161	1.989	0.304	0.310	0.000	172.927
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The PNVC project is a critical element of the Nuclear Command, Control, and Communications (NC3) System. PNVC is the Survivable Emergency Conferencing Network (SECN) replacement capability which provides anti-jam, anti-scintillation, survivable, and endurable voice communications through the Advanced Extremely High Frequency (AEHF) satellite system for national and strategic users. There are several components being developed and procured by other organizations that must be synchronized to expeditiously field this capability. The PNVC Integrator is responsible for end-to-end integration of these components, to include requirements traceability, end-to-end system testing, configuration and checkout activities, training and technical manuals, network transition support, identification of deficiencies in overall PNVC system capability, enterprise, and life cycle support for PNVC components. The AFPEO/SP approved entry into the acquisition lifecycle as a post MS-A Acquisition Category (ACAT) III Program of Record in January 2016. In February 2019 the AFPEO/NC3 declared the PNVC Integrator an ACAT II Program based on updated approved budget request.

Starting in December 2018 PNVC Integrator became responsible for the funding requests of all program elements related to the Defense Information Systems and Agency (DISA) components of the PNVC System in accordance with FY 2018 National Defense Authorization Act, Sec. 1661.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: PNVC Integrator	57.199	42.992	34.972
Description: PNVC is the SECN replacement capability which provides anti-jam, anti-scintillation, survivable, and endurable voice communications through the AEHF satellite system for national and strategic users. The PNVC capability consists of constituent programs being developed and produced by other organizations. This program will integrate, test, and support configuration of hardware from these other programs. PNVC components will be installed at ground fixed and mobile command locations as well as three aircraft platforms.			
FY 2022 Plans: PNVC Integrator team conducts Multi-Service Operational Test and Evaluation (MOT&E), led by the Air Force Operational Test and Evaluation Center (AFOTEC), and overseen by the Director, Operational Test & Evaluation (DOT&E). This end-to-end system test will assess all node types in the PNVC system in its operational environment to determine PNVC's overall capability to support mission accomplishment, as determined by effectiveness, suitability, and other applicable operational considerations such as survivability.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 673035 / *Presidential and National Voice Conferencing*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
The PNVC Integrator also conducts integration and checkout activities and training at remaining operational sites world-wide, conducts cyber-security testing, and continues to work closely with the applicable sustainment organizations, as they make their preparations for becoming responsible for PNVC sustainment, engineering, and maintenance. PNVC Integrator activities include, but are not limited to program office support, prototyping, test planning and execution, deficiency resolution, logistics and sustainment support planning, component product support, risk reduction activities, technical analysis and studies, platform integration and support, and integration of laboratory support. The Nuclear Command, Control, and Communication (NC3) system of systems provides connectivity from the President or Secretary of Defense through the National Military Command System (NMCS) to nuclear execution forces worldwide. To enhance and maintain NC3 mission success, the AF formalized AF NC3 elements as a specified AF Weapon System (WS), AN/USQ-225. Activities funded in this Program pay for its integration into multiple legacy systems, other ongoing NC3 acquisition programs, and future capabilities for the overall AF NC3 WS. ***FY 2023 Plans:*** The PNVC Integrator will continue to conduct integration, checkout activities, and training at remaining operational sites world-wide, conduct cyber-security testing, and continue to work closely with the applicable sustainment organizations as responsibilities for PNVC sustainment, engineering, and maintenance are realized. PNVC Integrator activities will include, but are not limited, to program office support, prototyping, test planning and execution, deficiency resolution, logistics and sustainment support planning, component product support, risk reduction activities, technical analysis and studies, platform integration and support, and integration of laboratory support. PNVC will continue to support component fielding, conduct site integration and checkout, and prepare for and execute integrated developmental test activities. Activities funded in this program continue to pay for AN/USQ-225 integration into multiple legacy systems, other ongoing NC3 acquisition programs, and future capabilities for the overall AF NC3 WS. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** As the PNVC system nears its operational capability, the government's role as the integrator is decreasing, and the associated requirements for support from the contractor will likewise decline. Testing will be concluded in FY 2023 and deficiencies will be corrected.			
Accomplishments/Planned Programs Subtotals	57.199	42.992	34.972

Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 673035 / *Presidential and National Voice Conferencing*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• SPAF 01 FBLOST FAB-T: *FAB-T*	55.950	30.745	19.078	-	19.078	21.607	15.457	14.289	5.011	Continuing	Continuing
• SPAF 01 FBLOST PNVC: *FAB-T*	5.240	5.799	7.316	-	7.316	3.286	1.661	1.695	1.739	Continuing	Continuing
• SPAF 01 SPAF FET: *FAB-T*	0.000	0.000	0.000	-	0.000	120.837	232.655	210.737	23.241	Continuing	Continuing
• RDTE 07 FET: *FAB-T*	148.749	98.979	90.421	-	90.421	45.589	0.000	0.000	0.000	0.000	383.738
• RDTE 07 FAB-T CPT: *FAB-T*	18.294	14.817	2.850	-	2.850	0.000	0.000	0.000	0.000	0.000	35.961

Remarks

D. Acquisition Strategy

PNVC Acquisition Strategy: On May 15, 2015 the Deputy Secretary of Defense assigned the PNVC End-to-End Integration responsibility to the DAF; effective May 16, 2015, SAF/AQ designated the AFPEO/SP. In February 2019 the AFPEO/NC3 declared the PNVC Integrator an ACAT II Program based on updated approved budget request. The PNVC End-to-End Integrator program is responsible for requirements traceability, End-to-End system testing, site configuration activities, training and technical manuals, network transition support, identifying deficiencies in the PNVC capability, and enterprise and life cycle support for all PNVC components. Starting in December 2018 PNVC Integration is responsible for all program elements' requests for funding related to the Defense Information Systems and Agency (DISA) components of the PNVC System in accordance with FY 2018 National Defense Authorization Act, Sec. 1661.

PNVC will continue to support component fielding, conduct site integration and checkout, and prepare for and execute integrated developmental test activities in advance of the PNVC system Initial Operating Capability.

Beginning in FY2020, all PNVC funds were transferred from DISA to Project 673035, for execution.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force			Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 673035 / *Presidential and National Voice Conferencing*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PNVC Prime Contract	Various	Raytheon : Largo, FL	-	36.811	Oct 2020	28.480	Oct 2021	20.672	Oct 2022	-		20.672	Continuing	Continuing	-
PNVC Technical Mission Analysis	Various	Various : Various	-	3.462	Oct 2020	3.089	Oct 2021	3.075	Oct 2022	-		3.075	Continuing	Continuing	-
PNVC Enterprise SE&I	Various	Various : Various	-	4.125	Oct 2020	3.305	Oct 2021	3.205	Oct 2022	-		3.205	Continuing	Continuing	-
		Subtotal	-	44.398		34.874		26.952		-		26.952	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PNVC Government Test and LDTO Support	Various	Various : Various	-	2.756	Oct 2020	0.687	Oct 2021	0.605	Oct 2022	-		0.605	Continuing	Continuing	-
		Subtotal	-	2.756		0.687		0.605		-		0.605	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PNVC FFRDC	Various	Various : Various	-	3.964	Oct 2020	3.680	Oct 2021	3.675	Nov 2022	-		3.675	Continuing	Continuing	-
PNVC A&AS	Various	Various : Various	-	2.191	Oct 2020	2.162	Nov 2021	2.160	Nov 2022	-		2.160	Continuing	Continuing	-
PNVC Other Support	Various	Various : Various	-	3.890	Oct 2020	1.589	Oct 2021	1.580	Nov 2022	-		1.580	Continuing	Continuing	-
		Subtotal	-	10.045		7.431		7.415		-		7.415	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	57.199		42.992		34.972		-		34.972	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 673035 / *Presidential and National Voice Conferencing*

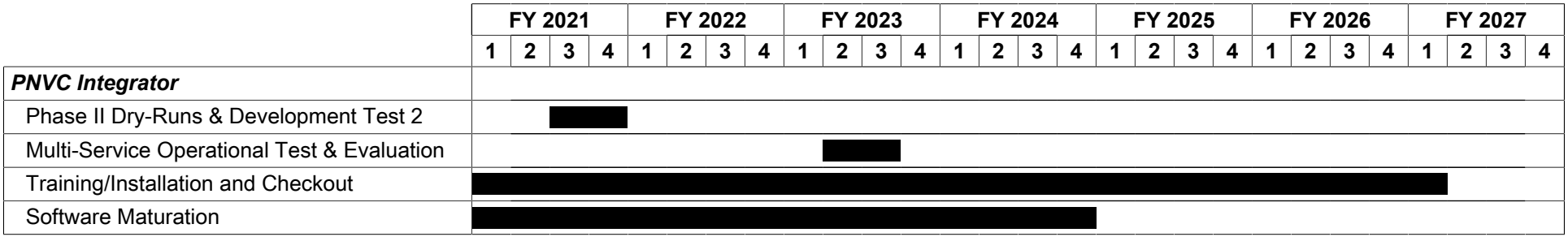

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 673035 / *Presidential and National Voice Conferencing*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
PNVC Integrator				
Phase II Dry-Runs & Development Test 2	3	2021	4	2021
Multi-Service Operational Test & Evaluation	2	2023	3	2023
Training/Installation and Checkout	1	2021	1	2027
Software Maturation	1	2021	4	2024

Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force			Date: April 2022
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	Project (Number/Name) 673040 / *Force Element Terminal*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
673040: *Force Element Terminal*	-	148.749	98.979	90.421	0.000	90.421	45.589	0.000	0.000	0.000	0.000	383.738
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) FET project replaces the Ultra High Frequency (UHF) Milstar system and provides secure, protected, and survivable communications for the strategic warfighter through airborne-based Military Satellite Communication (MILSATCOM) terminals. The FAB-T FET will provide the B-52 aircraft with worldwide nuclear and non-nuclear, survivable, anti-jam Low Probability of Detect (LPD)/ Low Probability of Intercept (LPI) data and voice communications. The FAB-T FET will be interoperable with Advanced Extremely High Frequency (AEHF), Enhanced Polar Systems - Recapitalization (EPS-R), and Evolved Strategic SATCOM (ESS) satellite constellations utilizing Extended Data Rate (XDR) waveforms. FAB-T FET was designated as a Middle Tier of Acquisition (MTA) in Feb 2019.

The total cost of the FAB-T FET Middle Tier of Acquisition effort is 496.4M, including RDT&E and procurement of prototype units. The program is fully funded across the Future Years Defense Program. Risk Reduction efforts accomplished in 2019 are not included in the MTA cost, and result in a total investment of 527.2M.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: FAB-T FET	148.749	98.979	90.421
Description: Continue development of FETs. Development activities include, but are not limited to, FAB-T FET design, development, and qualification testing. ***FY 2022 Plans:*** Funding is for the continued development of Force Element Terminals. FAB-T FET integration and testing activities include reliability growth testing and fabrication of test assets; prototypes will support terminal environmental and functional testing, to include flight testing, and to support early integration efforts. Planning and support activities include continued qualification test planning, logistics support planning, risk reduction activities, technical analysis and studies, platform integration support, and program office support. The Nuclear Command, Control, and Communication (NC3) system of systems provides connectivity from the President or Secretary of Defense through the National Military Command System (NMCS) to nuclear execution forces worldwide. To enhance and maintain NC3 mission success, the AF formalized AF NC3 elements as a specified AF Weapon System (WS), AN/USQ-225.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 673040 / *Force Element Terminal*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Activities funded in this Program pay for its integration into multiple legacy systems, other ongoing NC3 acquisition programs, and future capabilities for the overall AF NC3 WS. ***FY 2023 Plans:*** Funding is for the continued development of FETs. FAB-T FET integration and testing activities will include reliability growth testing and fabrication of test assets; prototypes will support terminal environmental and functional testing to include flight testing, and early integration efforts. Planning and support activities will continue qualification test planning, logistics support planning, risk reduction activities for development and follow-on production, technical analysis and studies, platform integration support, program office support, and mitigations for Diminishing Manufacturing Sources and Material Shortages in preparation for terminal production decision. Activities funded in this program continue to pay for AN/USQ-225 integration into multiple legacy systems, other ongoing NC3 acquisition programs, and future capabilities for the overall AF NC3 WS. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The reduction in resource requirements stems from the FAB-T FET development transition from design planning and prototype development to integration and testing of the prototypes and test assets.			
Accomplishments/Planned Programs Subtotals	148.749	98.979	90.421

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• SPAF 01 FBLOST FAB-T: *FAB-T*	55.950	30.745	19.078	-	19.078	21.607	15.457	14.289	5.011	Continuing	Continuing
• SPAF 01 FBLOST PNVC: *FAB-T*	5.240	5.799	7.316	-	7.316	3.286	1.661	1.695	1.739	Continuing	Continuing
• SPAF 01 SPAF FET: *FAB-T*	0.000	0.000	0.000	-	0.000	120.837	232.655	210.737	23.241	Continuing	Continuing
• RDTE 07 PNVC: *FAB-T*	57.199	42.992	34.972	-	34.972	35.161	1.989	0.304	0.310	Continuing	Continuing
• RDTE 07 FAB-T CPT: *FAB-T*	18.294	14.817	2.850	-	2.850	0.000	0.000	0.000	0.000	0.000	35.961

Remarks

D. Acquisition Strategy

FAB-T FET Acquisition Strategy: Per the Acquisition Strategy Panel briefed to SAF/AQ on February 7, 2019, FAB-T FET pursued a Rapid Prototyping development Middle Tier Acquisition approach of the National Defense Authorization Act for FY 2016 (Public Law 114-92). This Rapid Prototyping program enabled FAB-T FET to accelerate the nominal program development timeline in support of the accelerated USSTRATCOM-requested Initial Operating Capability. FAB-T FET awarded a

Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 673040 / *Force Element Terminal*

development effort on January 16, 2020 leading to a production decision in FY 2024. The rapid Prototyping effort enabled FAB-T FET to develop, install, and obtain operationally-representative test data from early B-52 FAB-T FET prototypes which will also have residual operations capability. The overall development effort includes system design and build of sufficient test assets to allow for expeditious development, testing, qualification and integration support of the FAB-T FET capability. FAB-T FET will meet B-52 platform requirements to support USSTRATCOM's Strategic Nuclear Command Control and Communication (NC3) mission.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 673040 / *Force Element Terminal*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FAB-T FET Development Contracts	Various	Raytheon : Marlborough, MA	-	124.051	Oct 2020	73.911	Nov 2021	66.507	Dec 2022	-		66.507	Continuing	Continuing	-
FAB-T FET Technical Mission Analysis	Various	Various : Various	-	2.482	Oct 2020	1.625	Nov 2021	1.615	Dec 2022	-		1.615	Continuing	Continuing	-
FAB-T FET Enterprise SE&I	Various	Various : Various	-	0.357	Mar 2021	0.200	Mar 2022	0.150	Mar 2023	-		0.150	Continuing	Continuing	-
		Subtotal	-	126.890		75.736		68.272		-		68.272	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FAB-T FET Test & Evaluation and Assets	Various	Various : Various	-	6.643	Dec 2020	6.882	Nov 2021	6.800	Dec 2022	-		6.800	Continuing	Continuing	-
		Subtotal	-	6.643		6.882		6.800		-		6.800	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FAB-T FET FFRDC	Various	Various : Various	-	4.801	Dec 2020	6.005	Nov 2021	6.000	Dec 2022	-		6.000	Continuing	Continuing	-
FAB-T FET Other Support	Various	Various : Various	-	6.394	Nov 2020	7.324	Nov 2021	6.199	Dec 2022	-		6.199	Continuing	Continuing	-
FAB-T FET A&AS	Various	Various : Various	-	4.021	Dec 2020	3.032	Dec 2021	3.150	Jan 2023	-		3.150	Continuing	Continuing	-
		Subtotal	-	15.216		16.361		15.349		-		15.349	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	148.749		98.979		90.421		-		90.421	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 673040 / *Force Element Terminal*

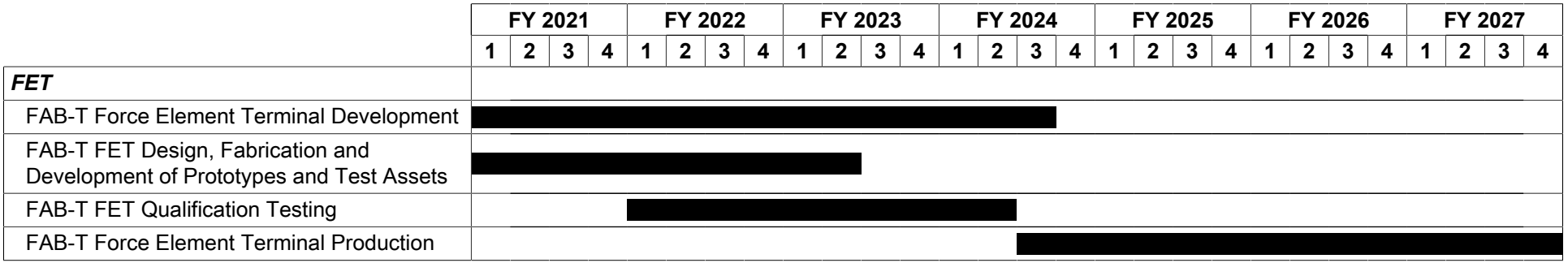

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1203001SF / *Family of Advanced BLoS Terminals (FAB-T)*	**Project (Number/Name)** 673040 / *Force Element Terminal*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
FET				
FAB-T Force Element Terminal Development	1	2021	3	2024
FAB-T FET Design, Fabrication and Development of Prototypes and Test Assets	1	2021	2	2023
FAB-T FET Qualification Testing	1	2022	2	2024
FAB-T Force Element Terminal Production	3	2024	4	2027