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 0604233F / *Specialized Undergraduate Flight Training*							
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	-	16.729	41.464	39.667	0.000	39.667	7.625	3.084	0.541	3.065	Continuing	Continuing
674101: *Undergraduate Remotely Piloted Aircraft Training*	-	0.830	0.877	0.898	0.000	0.898	0.920	0.939	0.363	0.370	Continuing	Continuing
676035: *T-6 Operational System Development*	-	2.727	36.721	38.624	0.000	38.624	6.558	1.997	0.021	2.535	0.000	89.183
676037: *T-38 Operational System Development*	-	13.172	3.866	0.145	0.000	0.145	0.147	0.148	0.157	0.160	0.000	17.795

A. Mission Description and Budget Item Justification

Supports Air Education and Training Command's (AETC) implementation of Specialized Undergraduate Pilot Training and the Department of Defense initiative for joint pilot training.

Undergraduate Remotely Piloted Aircraft (RPA) Training (URT) continues development, test, and implementation activities for the new URT Fundamentals Training System. This program produces RPA pilots and Sensor Operators from accession sources to man RPA squadrons.

T-6 Operational System Development continues follow on development activities to the T-6 including but not limited to studies & development efforts, instructional courseware, and logistics support to include Diminishing Manufacturing Sources & Material Shortages (DMSMS) and development activities related to DMSMS. Included is development for the Next Generation On-Board Oxygen Generation System (OBOGS), Crash Survivable Recorder (CSR), Avionics Replacement Program (ARP) and associated upgrades. There are currently 443 aircraft in the Air Force inventory with a service life through Dec 20249.

The T-38 is a twin-engine, two-seat (tandem), supersonic jet trainer. The T-38C is used by AETC as an advanced trainer in Specialized Undergraduate Pilot Training and Introduction to Fighter Fundamentals, and by Air Force Materiel Command as a test bed for fighter-type aircraft capability. T-38A/B aircraft are used by Air Combat Command as a companion trainer for U-2 operational units and in Adversary Air (ADAIR) exercises supporting F-22 readiness, and by Air Force Global Strike Command as a companion trainer for B-2 operational units. There are currently 497 active T-38s in the Air Force inventory (53 T-38A, six AT-38B and 438 T-38C). T-38s first entered service in 1960 and average over 50 years old.

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

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 elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

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 0604233F / *Specialized Undergraduate Flight Training*

0606398F. In FY23 $1.166 million was expended for civilian pay expenses in this program element, and in FY24 $1.742 million is forecast 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	17.267	41.464	37.182	0.000	37.182
Current President's Budget	16.729	41.464	39.667	0.000	39.667
Total Adjustments	-0.538	0.000	2.485	0.000	2.485
• 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	-0.538	0.000			
• Other Adjustments	0.000	0.000	2.485	0.000	2.485

Change Summary Explanation

FY 2025 funding request increased by $2.485 million due to rephase of Avionics Replacement Program efforts.

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 0604233F / *Specialized Undergraduate Flight Training*	Project (Number/Name) 674101 / *Undergraduate Remotely Piloted Aircraft Training*	

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
674101: *Undergraduate Remotely Piloted Aircraft Training*	-	0.830	0.877	0.898	0.000	0.898	0.920	0.939	0.363	0.370	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This effort supports Air Education and Training Command's (AETC) implementation of Undergraduate Remotely Piloted Aircraft (RPA) Training (URT). URT produces RPA pilots and Sensor Operators from accession sources to man RPA squadrons.

Success of the program is heavily dependent on multiple training systems to prepare undergraduate students for entry in RPA Formal Training Units (FTU). 19AF/CC approved a significant system upgrade along with a change in software. This change allowed for a more flexible and adaptable training system that can carry URT into the future. Funding will be used to develop organic software capabilities, update obsolete equipment, and develop new training tools. The goal of these changes is to build a more capable set of training systems focused on reducing costs while ensuring RPA training is ready to support the National Defense Strategy from today into tomorrow.

Funds may be used to address emerging and short-notice Diminishing Manufacturing Sources and Material Shortage (DMSMS) issues. Diminishing Manufacturing Sources efforts include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient.

Implementation requirements and standards are defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative.

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 elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2023 $0.150 million was expended for civilian pay expenses in this program element, and in FY 2024 $0.000 million is forecast for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Undergraduate RPA Training Support	0.830	0.877	0.898
Description: Develop capabilities to support AETC's implementation of Undergraduate RPA Training to produce RPA pilots and Sensor Operators for RPA squadrons.			
FY 2024 Plans:			

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 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 674101 / *Undergraduate Remotely Piloted Aircraft Training*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Continue development of new training simulation software to replace the current software utilized in the RPA Instrument Qualification Course to train RPA pilots. Continue effort to develop organic software capabilities and replace proprietary software. Move from small scale development into full scale implementation across both RPA Pilot and Sensor Operator training. Concurrently, software development will continue with feedback from small scale testing. ***FY 2025 Plans:*** Continues updates and upgrades of new training simulation software of current software utilized in the RPA Instrument Qualification Course to train RPA pilots. Continue full scale implementation across both RPA Pilot and Sensor Operator training. Concurrently, software development will continue with feedback from testing. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to economic adjustments.			
Accomplishments/Planned Programs Subtotals	0.830	0.877	0.898

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Transition from contractor support to organic sustainment at Oklahoma City Air Logistics Complex, Tinker AFB, OK.

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 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 674101 / *Undergraduate Remotely Piloted Aircraft Training*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Undergraduate Remotely Piloted Aircraft Training Phased planning, design, and development of software updates	SS/FFP	555th SWES, Tinker ALC : Tinker AFB, OK	-	0.576	Jan 2023	0.446	Oct 2023	0.470	Oct 2024	-		0.470	Continuing	Continuing	-
		Subtotal	-	0.576		0.446		0.470		-		0.470	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Direct Hire Civ Pay	TBD	Not specified. : TBD	-	0.150		-		-		-		-	Continuing	Continuing	-
		Subtotal	-	0.150		-		-		-		-	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Undergraduate Remotely Piloted Aircraft Training PSC Other Government Cost and Contract Services	SS/CPFF	Program Office : WPAFB, OH	-	0.104	Jul 2023	0.431	Oct 2023	0.428	Oct 2024	-		0.428	Continuing	Continuing	-
		Subtotal	-	0.104		0.431		0.428		-		0.428	Continuing	Continuing	N/A

	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.830		0.877		0.898		-		0.898	Continuing	Continuing	N/A

Remarks

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 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 674101 / *Undergraduate Remotely Piloted Aircraft Training*

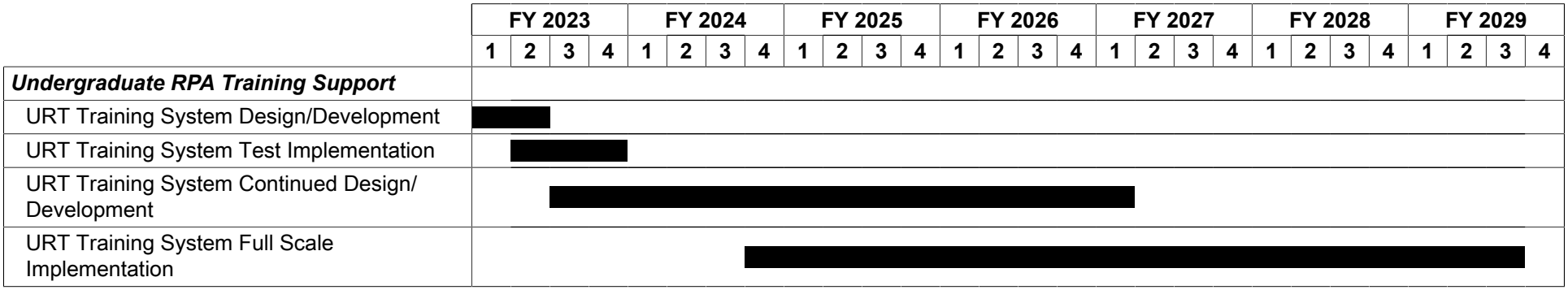

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 674101 / *Undergraduate Remotely Piloted Aircraft Training*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Undergraduate RPA Training Support				
URT Training System Design/Development	1	2023	2	2023
URT Training System Test Implementation	2	2023	4	2023
URT Training System Continued Design/Development	3	2023	1	2027
URT Training System Full Scale Implementation	4	2024	3	2029

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 0604233F / *Specialized Undergraduate Flight Training*	Project (Number/Name) 676035 / *T-6 Operational System Development*	

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
676035: *T-6 Operational System Development*	-	2.727	36.721	38.624	0.000	38.624	6.558	1.997	0.021	2.535	0.000	89.183
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

T-6 Operational System Development continues follow on development activities to Joint Primary Aircraft Training System (JPATS) including but not limited to studies and development efforts, instructional courseware, and logistics support to include Diminishing Manufacturing Sources (DMS) and development activities related to DMS. Included is development for the Crash Survivable Recorder, Avionics Replacement Program (ARP), Enhanced Mission Cockpit (EMC) and associated upgrades. There are currently 443 aircraft (442 AETC & one TA-D Test aircraft) in the Air Force inventory. Remaining service life is through Dec 2049.

Funding contained in this platform's documentation directly aids Air Education Training Command (AETC) flying training enterprise to continue its overall pilot production increase starting in FY2020 thus reducing the USAF Pilot Shortage.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program's 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 $1.016 million was expended for civilian pay expenses in this program element, and in FY 2024 $1.742 million is forecast for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: T-6A JPATS Studies and Analysis	0.000	0.150	0.150
Description: T-6A JPATS studies and development activities including but not limited to: Engine Preservation/Upgrade Development, On-Board Oxygen Generation System (OBOGS) Characterization Study, Next Generation On-Board Oxygen Generation System Study, Supplemental Oxygen System Study, Cockpit Environmental Monitoring/Analysis, and Physiological Events (PE) Analysis, and HUD/EMC Study/Analysis. Includes engineering and contractor support/services and Program Support Costs (PSC).			
FY 2024 Plans: T-6 studies and analysis.			
FY 2025 Plans: T-6 studies and analysis.			
FY 2024 to FY 2025 Increase/Decrease Statement:			

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 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 676035 / *T-6 Operational System Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
N/A			
Title: T-6 Avionics Modernization (Avionics Replacement Program)	2.727	36.571	38.474
Description: T-6A Avionics Replacement Program (ARP). Current T-6A avionics are comprised of analog and 1st generation digital components which are increasingly by DMSMS resulting in reduced Aircraft Availability (AA) and increased life-cycle sustainment costs. The current federated nature of the avionics suite compounds engineering and integration costs of replacement components. No less than 23 components impacts by DMSMS will be replaced by the ARP to improve reliability, availability and reduce system sustainment costs, via a modern, integrated, open-system avionics suite. The ARP will address DMSMS issues, current T-6A FAA compliance issues and fulfill outstanding safety recommendations. The solution will be incorporated into all 443 AETC aircraft and 80 Ground Based Trainers. ***FY 2024 Plans:*** Contracting activities to award developmental contract for instrument panel integration; and other avionics suite engineering efforts. ***FY 2025 Plans:*** Post-award developmental activities for instrument panel integration and other avionics suite engineering efforts. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to ramp up of integration and contract activities.			
Accomplishments/Planned Programs Subtotals	2.727	36.721	38.624

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 JPAT00: *T-6*	6.215	2.942	130.281	-	130.281	413.188	185.123	370.785	324.550	39.983	1,473.067

Remarks

D. Acquisition Strategy

The Air Force is lead service for the T-6 Operational Systems Development program and currently manages upgrades to the entire family of systems for both the Air Force and Navy. T-6 Operational Systems Development acquisition strategy for satisfying emerging software and hardware requirements is designed to enable competition and control cost. Developmental requirements resulting from Diminishing Manufacturing Sources and Material Shortages research and reporting will be evaluated and implemented incrementally to efficiently deliver required capabilities to AETC.

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 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 676035 / *T-6 Operational System Development*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
T-6 Avionics Modernization (Avionics Replacement Program)	C/FFP	Not specified. : TBD	-	0.000	Jul 2023	33.259	Nov 2023	35.228	Nov 2024	-		35.228	Continuing	Continuing	-
		Subtotal	-	0.000		33.259		35.228		-		35.228	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	C/CPAF	Not specified. : Tinker, OK	-	-		0.215	Mar 2024	0.150	Mar 2025	-		0.150	Continuing	Continuing	-
		Subtotal	-	-		0.215		0.150		-		0.150	Continuing	Continuing	N/A

Remarks

Continue Unknown Physiological Event's studies.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support Cost [PSC] Contract Services	C/FFP	Not specified. : TBD	-	1.660	Feb 2023	1.172	Feb 2024	1.046	Feb 2025	-		1.046	Continuing	Continuing	-
Direct Cite Civ Pay	C/TBD	Not specified. : TBD	-	1.016	Mar 2023	1.742	Oct 2023	1.783	Oct 2024	-		1.783	Continuing	Continuing	-
PSC Other Government Costs	Various	Not specified. : TBD	-	0.051		0.333		0.417		-		0.417	Continuing	Continuing	-
		Subtotal	-	2.727		3.247		3.246		-		3.246	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	-	2.727		36.721		38.624		-		38.624	Continuing	Continuing	N/A

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 0604233F / *Specialized Undergraduate Flight Training*	Project (Number/Name) 676035 / *T-6 Operational System Development*	

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

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 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 676035 / *T-6 Operational System Development*

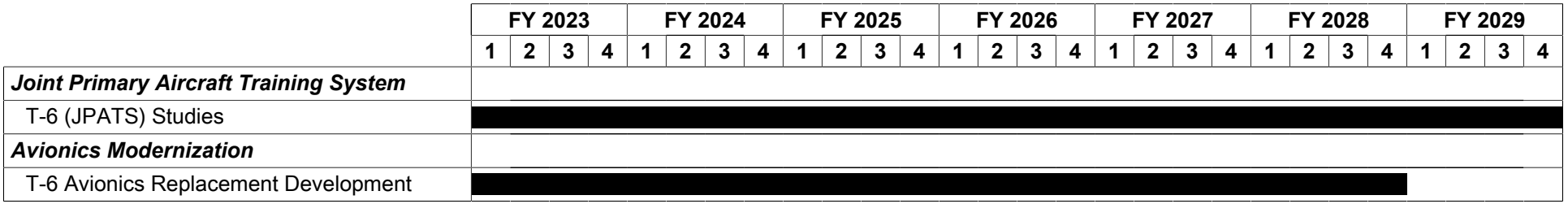

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 676035 / *T-6 Operational System Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Joint Primary Aircraft Training System				
T-6 (JPATS) Studies	1	2023	4	2029
Avionics Modernization				
T-6 Avionics Replacement Development	1	2023	4	2028

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 0604233F / *Specialized Undergraduate Flight Training*				Project (Number/Name) 676037 / *T-38 Operational System Development*			
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**
676037: *T-38 Operational System Development*	-	13.172	3.866	0.145	0.000	0.145	0.147	0.148	0.157	0.160	0.000	17.795
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The T-38 RDT&E budget is focused on modifications needed to overcome part obsolescence, aging of critical components, emerging safety concerns, and cybersecurity risks. Operational Flight Program (OFP) block upgrades incorporate software improvements for the aircraft and aircrew training devices (ATDs) to address flight safety issues, and to comply with new capabilities mandated by Department of Defense, Federal Aviation Administration, or National Airspace System. RDT&E include but are not limited to the following:

RDT&E requirements for the T-38C fleet are summarized below in the Terminal Avionics Replacement Program (TARP). This effort includes both RDT&E and Procurement funding to replace aging and obsolete avionics components that can no longer be repaired. Planned components include, but are not limited to, the Electronic Engine Display (EED), Multi-Function Display (MFD), Video Data Transfer Unit (VDTU), and Head-Up Display Camera (HUDC). Failure to fund these efforts will result in fleet-wide T-38C non-serviceability starting in Apr 2026.

RDT&E requirements for the T-38A/B fleet are summarized below in the Low-cost Avionics Modernization Program (LAMP). LAMP addresses high failure rates in T-38A/B navigation system components, which are currently causing a safety risk to pilot spatial orientation. Flight restrictions associated with this risk are impacting F-22, U-2, and B-2 readiness. Planned component replacements include, but are not limited to, the Attitude Director Indicator and the Horizontal Situation Indicator. Failure to fund this effort will result in ongoing safety risk for the T-38A/B fleet, and increased impact to F-22, U-2, and B-2 readiness.

The T-38 Studies and Development effort captures ongoing and emerging RDT&E requirements, to include budget for flight test, OFP updates, and emerging obsolescence or safety issues. Additional revisions may occur under this effort. Failure to fund these efforts will prevent the T-38 program from rapidly responding to emerging RDT&E requirements. Current requirements in work include but are not limited to, Block 11, Speed Brake, Canopy Open Warning, Lower Beacon Light, Landing Taxi Light, Emergency Locator Transmitter, Air Speed Indicator, Control of Both Radios, and Electronic Flight Bag USB Power Supply.

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

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 elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY 2023 $0.000 million was expended for civilian pay expenses in this program element, and in FY 2024 $0.000 million is forecast for civilian pay expenses in this program element.

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 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 676037 / *T-38 Operational System Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: T-38C Terminal Avionics Replacement Program (TARP) ***Description:*** TARP develops replacements for four T-38C avionics components facing obsolescence. TARP includes, but is not limited to Electronic Engine Display (EED) and Multi-Function Display (MFD) (T-38C Displays) and Video Data Transfer Unit (VDTU) and Heads-Up Display Camera (HUDC) (T-38C Recording Devices). Compact Flash Cards that record flight data are no longer procurable. Inventory depleted in FY 2024. Without a functioning VDTU, the T-38C will be unsuitable for training purposes, with no ability to record flight data. The current HUDC will no longer function after the repair contract expires in Mar 2026. The HUDC is essential to the T-38C training mission, as a critical tool for student/instructor feedback. ***FY 2024 Plans:*** Continue test for EED and MFD; continue development of VDTU and HUDC. ***FY 2025 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease due to anticipated completion of EED/MFD Development efforts.	11.260	3.539	0.000
Title: T-38A/B Low-Cost Avionics Modification Program (LAMP) ***Description:*** LAMP will replace the current Attitude Director Indicator (ADI) and Horizontal Situation Indicator (HSI), which have low Mean Times Between Failure (MTBF). Ongoing LAMP activity may either refurbish or replace other navigation components, to include the Attitude Gyro Control Assembly, Rate Switching Gyro, Rate Gyro Transmitter, Servo-Amplifier, and Flight Director Computer. ***FY 2024 Plans:*** N/A ***FY 2025 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A	0.330	0.000	0.000
Title: T-38 Studies and Development ***Description:*** Studies and development (including flight test) to support Engineering Change Proposals (ECP) and other requirements (1067's) to overcome part obsolescence issues, maintain system currency, or address emerging safety concerns	1.582	0.327	0.145

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 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 676037 / *T-38 Operational System Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
and T-38C Operational Flight Program (OFP) block upgrades for aircraft and aircrew training devices (ATDs) to implement interface improvements, cybersecurity enhancements, airspace mandates, or other user requirements. ***FY 2024 Plans:*** Execute emergent engineering change proposals, to include investigation into a speed brake warning indicator and canopy open warning for T-38A/B aircraft, and other safety modifications. ***FY 2025 Plans:*** Continuation of studies and development efforts. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease due to reduced development efforts as program transitions to procurement phase.			
Accomplishments/Planned Programs Subtotals	13.172	3.866	0.145

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 T03800: *T-38*	84.721	119.364	109.346	-	109.346	76.156	92.881	96.608	153.978	101.196	834.250

Remarks

D. Acquisition Strategy

The T-38 Platform Operations System Development acquisition strategy for satisfying emerging software and hardware requirements is designed to enable competition and cost control. Developmental requirements resulting from Diminishing Manufacturing Sources and Material Shortages research and reporting will be evaluated and implemented incrementally to efficiently deliver required capabilities to using commands. T-38C block upgrades will be required to maintain aircraft airworthiness and will be implemented based on Air Education and Training Command requirements. An appropriate level of technical data rights is required by all current support contracts.

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 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 676037 / *T-38 Operational System Development*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
T-38 Studies and Development	C/FFP	The Boeing Company : St. Louis, MO	-	1.200	Jul 2023	-		-		-		-	0.000	1.200	-
TARP	C/FFP	The Boeing Company : St. Louis, MO	-	10.835	Feb 2023	3.539	Nov 2023	0.145	Nov 2024	-		0.145	Continuing	Continuing	-
LAMP	C/FFP	The Boeing Company : St. Louis, MO	-	0.330	Jan 2023	-		-		-		-	Continuing	Continuing	-
		Subtotal	-	12.365		3.539		0.145		-		0.145	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Flight Testing	PO	Not specified. : TBD	-	0.323		0.249		-		-		-	0.000	0.572	-
		Subtotal	-	0.323		0.249		-		-		-	0.000	0.572	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSC Contract Services	C/FFP	Not specified. : NV	-	0.000	Dec 2022	0.060		-		-		-	Continuing	Continuing	-
PSC Other Government Costs	Various	Not specified. : NV	-	0.484		0.018		-		-		-	Continuing	Continuing	-
		Subtotal	-	0.484		0.078		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	13.172		3.866		0.145		-		0.145	Continuing	Continuing	N/A

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 0604233F / *Specialized Undergraduate Flight Training*	Project (Number/Name) 676037 / *T-38 Operational System Development*	

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

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 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 676037 / *T-38 Operational System Development*

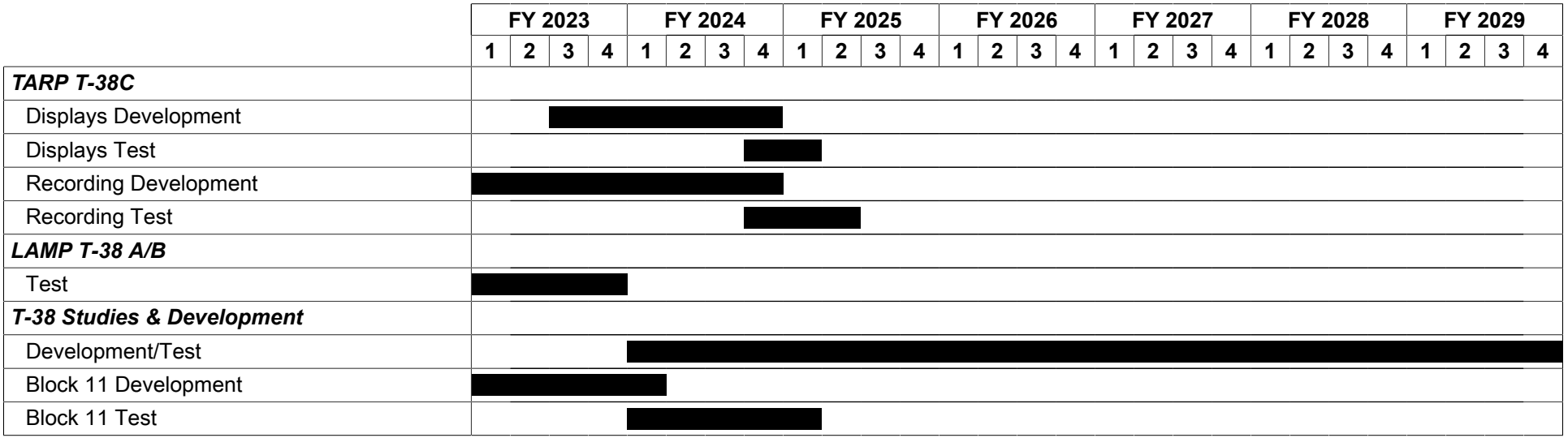

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0604233F / *Specialized Undergraduate Flight Training*	**Project (Number/Name)** 676037 / *T-38 Operational System Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TARP T-38C				
Displays Development	3	2023	4	2024
Displays Test	4	2024	1	2025
Recording Development	1	2023	4	2024
Recording Test	4	2024	2	2025
LAMP T-38 A/B				
Test	1	2023	4	2023
T-38 Studies & Development				
Development/Test	1	2024	4	2029
Block 11 Development	1	2023	1	2024
Block 11 Test	1	2024	1	2025