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Department of Defense  
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

## **Selected Acquisition Report (SAR)**



## **T-7 Advanced Pilot Training (T-7 APT)**

FY 2024 President's Budget

Defense Acquisition Visibility Environment  
(DAVE)

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## Common Acronyms and Abbreviations

\$B - Billions of Dollars  
\$K - Thousands of Dollars  
\$M - Millions of Dollars  
ACAT - Acquisition Category  
Acq O&M - Acquisition-Related Operations and Maintenance  
ADM - Acquisition Decision Memorandum  
APB - Acquisition Program Baseline  
APPN - Appropriation  
APUC - Average Procurement Unit Cost  
BA - Budget Authority/Budget Activity  
Blk - Block  
BY - Base Year  
CAPE - Cost Assessment and Program Evaluation  
CARD - Cost Analysis Requirements Description  
CDD - Capability Development Document  
CLIN - Contract Line Item Number  
CPD - Capability Production Document  
CY - Calendar Year  
DAB - Defense Acquisition Board  
DAE - Defense Acquisition Executive  
DAMIR - Defense Acquisition Management Information Retrieval  
DoD - Department of Defense  
DSN - Defense Switched Network  
EMD - Engineering and Manufacturing Development  
EVM - Earned Value Management  
FMS - Foreign Military Sales  
FOC - Full Operational Capability  
FRP - Full Rate Production  
FY - Fiscal Year  
FYDP - Future Years Defense Program  
ICE - Independent Cost Estimate  
Inc - Increment  
IOC - Initial Operational Capability  
JROC - Joint Requirements Oversight Council  
KPP - Key Performance Parameter  
LRIP - Low Rate Initial Production  
MDA - Milestone Decision Authority  
MDAP - Major Defense Acquisition Program  
MILCON - Military Construction  
N/A - Not Applicable  
O&M - Operations and Maintenance  
O&S - Operating and Support  
ORD - Operational Requirements Document  
OSD - Office of the Secretary of Defense  
PAUC - Program Acquisition Unit Cost  
PB - President's Budget

PE - Program Element  
PEO - Program Executive Officer  
PM - Program Manager  
POE - Program Office Estimate  
RDT&E - Research, Development, Test, and Evaluation  
SAR - Selected Acquisition Report  
SCP - Service Cost Position  
TBD - To Be Determined  
TY - Then Year  
U.S. - United States  
UCR - Unit Cost Reporting  
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)  
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

## Program Information

### Program Name

T-7 Advanced Pilot Training

### DoD Component

Air Force

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## Responsible Office

### Program Manager

**Name:** Col Kirt Cassel

**Date Assigned:** March 19, 2021

**Address:** 1970 Monahan Way

Wright-Patterson AFB, Ohio 45433-7211

**Phone:** (931) 904-4224

## **Mission and Description**

The T-7A Red Hawk Advanced Pilot Training (APT) program will replace the T-38C and associated Ground Based Training System (GBTS) used in the United States Air Force's Specialized Undergraduate Pilot Training program, which provides advanced training for pilots in Air Education and Training Command's fighter and bomber track as well as its Introduction to Fighter Fundamentals course. The T-38C currently used for advanced pilot training first entered service in 1961. The T-7A Red Hawk aircraft, with updated avionics and an improved GBTS, will bring new capabilities, including improved high gravitational force and high angle of attack maneuvering, and will provide training opportunities more closely aligned with today's fourth- and fifth-generation fighters.

The new aircraft and training systems will be fielded at five bases: Joint Base San Antonio- Randolph, Texas; Columbus Air Force Base, Mississippi; Laughlin Air Force Base, Texas; Vance Air Force Base, Oklahoma; and Sheppard Air Force Base, Texas.

## Executive Summary

### T-7 APT

#### Program Highlights Since Last Report

With the award of the Engineering and Manufacturing Development effort, the program has proceeded with system design, development, and test. The fabrication of the five Engineering, Manufacturing, and Development aircraft and the air crew training devices is in progress, comprising of materials sourced throughout the global supply chain and at the contractor's facility. The program has increased schedule risk based on control laws (software), escape system, and 8K projectors. Refinement of flight control laws will require future software updates throughout developmental testing. The program is fully funded and is estimated within Acquisition Program Baseline (APB) metrics for RDT&E and Procurement appropriations.

On April 28, 2022, the USAF and Boeing were proud to conduct the Initial Rollout of the first T-7A "Red Hawk" aircraft. In a widely attended event, the Superintendent of USAFA and various members of the Boeing company spoke about the history of the Tuskegee Airmen and why the T-7A "Red Hawk" is a fitting continuation of their legacy.

A schedule breach has occurred against the September 2018 APB. Initial notification to the Milestone Decision Authority (MDA) was provided on June 23, 2022. On July 15, 2022, a Program Deviation Report was coordinated with the Service Acquisition Executive (SAE). The schedule breach is against Milestone C and also impacts Full Rate Production Decision and Required Assets Available. Initial design delays, global supply chain disruption, critical part shortages, and delays to government-led flight test from software development and escape system qualification issues caused schedule delays that cannot be mitigated within the existing APB thresholds. The T-7 Program Office completed an integrated baseline review with the contractor to inform an updated APB recommendation to include new objective and threshold dates for Milestone C, Full Rate Production Decision, and Required Assets Available. The T-7 Program Office provided an initial APB draft to the SAE and was directed to conduct an in-depth Schedule Risk Assessment (estimated closure date March 2023) and update the draft. The anticipated date for an approved APB is 3rd Quarter of FY 2023.

In accordance with 10 U.S.C. 2366b certification for APT made at MS B, the MDA approved two waivers. The requirement pursuant to 10 U.S.C. 2366b(a)(1) to conduct a Preliminary Design Review (PDR) prior to Milestone B was waived on September 11, 2018, and in accordance with the waiver, the program office successfully accomplished the Air Vehicle and GBTS PDRs, meeting the Pre-MS B PDR waiver. The MDA also approved a waiver on September 24, 2018, for the requirement to determine that the program complies with all relevant policies, regulations, and directives of the DoD as it pertains to compliance with the DoD policy on the development of an Independent Technical Risk Assessment (ITRA). The USAF will perform an ITRA prior to its Milestone C decision.

<b>History of Significant Developments Since Program Initiation</b>	
History of Significant Developments Since Program Initiation	
<b>Date</b>	<b>Significant Development Description</b>
Apr - 2022	The program conducted the Initial Rollout Ceremony for the first T-7A "Red Hawk" aircraft.
Sep - 2021	The program completed Preliminary Integrated Interactive Multimedia Instruction Review.
Aug - 2020	The program completed Air Vehicle CDR.
Jul - 2020	The program completed GBTS CDR.
Sep - 2019	The program conducted an Aircraft PDR / Critical Design Review (CDR).
Aug - 2019	The program conducted a Ground Based Training System (GBTS) Preliminary Design Review (PDR).
Feb - 2019	The program conducted a System Requirements Review (SRR).
Nov - 2018	The program conducted a Post-Award Conference from November 13-15, 2018.
Sep - 2018	The Milestone Decision Authority approved Milestone (MS) B on September 25, 2018.



## Schedule

### T-7 APT

Events	Milestone Baseline Objective	Current Baseline Objective/Threshold		Current Estimate/Actual	Deviation
Milestone B	Sep 2018	Sep 2018	Sep 2018	Sep 2018	
CDR	Mar 2020	Mar 2020	Sep 2020	Aug 2020	
Milestone C	Jun 2023	Jun 2023	Dec 2023	<b>Feb 2025</b>	Yes
FRP Decision	Apr 2025	Apr 2025	Sep 2025	<b>Jan 2027</b>	Yes
RAA	Oct 2025	Oct 2025	Mar 2026	<b>Nov 2026</b>	Yes

#### Schedule Note

The CDR actual changed from August 14, 2020 to August 31, 2020 for accuracy and consistency. For planning purposes, the Milestone C current estimate changed from November 2023 to February 2025, the FRP Decision current estimate changed from September 2025 to January 2027, and the RAA current estimate changed from July 2025 to November 2026 in accordance with the Program Office's draft APB.

#### Schedule Deviation Explanation

A schedule breach has occurred against the September 2018 APB. Initial notification to the MDA was provided on June 23, 2022. On July 15, 2022, a Program Deviation Report was coordinated with the SAE. The schedule breach is against Milestone C and also impacts Full Rate Production Decision and Required Assets Available. Initial design delays, global supply chain disruption, critical part shortages, and delays to government-led flight test from software development and escape system qualification issues caused schedule delays that cannot be mitigated within the existing APB thresholds. The T-7 Program Office completed an integrated baseline review with the contractor to inform an updated APB recommendation to include new objective and threshold dates for Milestone C, Full Rate Production Decision, and Required Assets Available. The T-7 Program Office provided an initial APB draft to the SAE and was directed to conduct an in-depth Schedule Risk Assessment (estimated closure date March 2023) and update the draft. The anticipated date for an approved APB is 3rd Quarter of FY 2023.

## Performance

### T-7 APT

Performance Characteristics					
Milestone Baseline	Current Baseline Objective/Threshold	Demonstrated Performance	Current Estimate/Actual	Deviation	
<b>(KPP) - Energy: Fuel capacity for Aircraft</b>					
The aircraft's unrefueled range shall be sufficient to effectively complete the most fuel-demanding APT syllabus directed sortie.	The aircraft's unrefueled range shall be sufficient to effectively complete the most fuel-demanding APT syllabus directed sortie.	(T=O) The aircraft's unrefueled range shall be sufficient to effectively complete the most fuel-demanding APT syllabus directed sortie.	TBD	The aircraft's unrefueled range shall be sufficient to effectively complete the most fuel-demanding APT syllabus directed sortie.	
<b>(KPP) - Force Protection</b>					
N/A	N/A	N/A	NA	NA	
<b>(KPP) - Net-Ready</b>					
N/A	N/A	N/A	NA	NA	
<b>(KPP) - System Survivability</b>					
N/A	N/A	N/A	NA	NA	

**(KPP) - GBTS - The ability to accurately display objects as well as the ability to accurately replicate aircraft performance to enable positive transference of skill sets from the GBTS to the aircraft**

<p>Visual Acuity - The mean visual resolution for the WST and OFT (at 9,000 feet and 6,000 feet respectively) shall be less than or equal to 2.5 arc-minutes per optical line pair and must include accurate and relative aircraft sizing, shape, features, angle off, aspect angle and closure rates at these distances. Performance Fidelity - The WST and OFT shall replicate in form all cockpit controls, switches and avionics systems as well as applicable cockpit controls, switches and avionics systems in function. The WST and OFT performance shall enable positive transference of syllabus required skill sets from the GBTS to the aircraft.</p>	<p>Visual Acuity - The mean visual resolution for the WST and OFT (at 9,000 feet and 6,000 feet respectively) shall be less than or equal to 2.5 arc-minutes per optical line pair and must include accurate and relative aircraft sizing, shape, features, angle off, aspect angle and closure rates at these distances. Performance Fidelity - The WST and OFT shall replicate in form all cockpit controls, switches and avionics systems as well as applicable cockpit controls, switches and avionics systems in function. The WST and OFT performance shall enable positive transference of syllabus required skill sets from the GBTS to the aircraft.</p>	<p>(T=O) Visual Acuity - The mean visual resolution for the WST and OFT (at 9,000 feet and 6,000 feet respectively) shall be less than or equal to 2.5 arc-minutes per optical line pair and must include accurate and relative aircraft sizing, shape, features, angle off, aspect angle and closure rates at these distances. Performance Fidelity - The WST and OFT shall replicate in form all cockpit controls, switches and avionics systems as well as applicable cockpit controls, switches and avionics systems in function. The WST and OFT performance shall enable positive transference of syllabus required skill sets from the GBTS to the aircraft.</p>	<p>TBD</p>	<p>Visual Acuity - The mean visual resolution for the WST and OFT (at 9,000 feet and 6,000 feet respectively) shall be less than or equal to 2.5 arc-minutes per optical line pair and must include accurate and relative aircraft sizing, shape, features, angle off, aspect angle and closure rates at these distances. Performance Fidelity - The WST and OFT shall replicate in form all cockpit controls, switches and avionics systems as well as applicable cockpit controls, switches and avionics systems in function. The WST and OFT performance shall enable positive transference of syllabus required skill sets from the GBTS to the aircraft.</p>	
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**(KPP) - Sustained G for Aircraft.**

<p>&gt;= 7.5 Gs</p>	<p>&gt;= 7.5 Gs</p>	<p>&gt;= 6.5 Gs</p>		<p>&gt; = 7.0 Gs</p>	
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**(KPP) - Sustainment - Operational Availability (Ao) for Aircraft Sustainment - Materiel Availability (Am) for Aircraft Sustainment - Operational Availability (Ao) for each GBTS simulator (WST, OFT, UTD)**

<p>Ao &gt;= 80% at 20,000 fleet hours. (Am) &gt;= 76% at 20,000 fleet hours. Ao &gt;= 95%</p>	<p>Ao &gt;= 80% at 20,000 fleet hours. (Am) &gt;= 76% at 20,000 fleet hours.</p>	<p>(T=O) Ao &gt;= 80% at 20,000 fleet hours. (Am) &gt;= 76% at 20,000 fleet hours. Ao &gt;= 95%</p>	<p>TBD</p>	<p>Ao is estimated for 93.17%. (Am) is estimated for 93.14%. Ao &gt;= 98%.</p>	
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**(KPP) - Training**

<p>Core personnel (pilots, GBTS operators and maintainers) shall be trained with the APT FoS to the proficiency level relevant to flight test requirements (AFMC) and SUPT, PIT, and IFF syllabi (AETC) as well as associated maintenance directives. Core AFMC pilots and maintainers will complete training NLT 60 days prior to the first EMD aircraft delivery. Core AETC pilots and maintainers will complete training NLT 60 days prior to the first AETC assigned aircraft delivery; Core GBTS operators will complete training NLT 30 days prior to delivery of GBTS components (WST, OFT, UTD)</p>	<p>Core personnel (pilots, GBTS operators and maintainers) shall be trained with the APT FoS to the proficiency level relevant to flight test requirements (AFMC) and SUPT, PIT, and IFF syllabi (AETC) as well as associated maintenance directives. Core AFMC pilots and maintainers will complete training NLT 60 days prior to the first EMD aircraft delivery. Core AETC pilots and maintainers will complete training NLT 60 days prior to the first AETC assigned aircraft delivery; Core GBTS operators will complete training NLT 30 days prior to delivery of GBTS components (WST, OFT, UTD)</p>	<p>(T=O) Core personnel (pilots, GBTS operators and maintainers) shall be trained with the APT FoS to the proficiency level relevant to flight test requirements (AFMC) and SUPT, PIT, and IFF syllabi (AETC) as well as associated maintenance directives. Core AFMC pilots and maintainers will complete training NLT 60 days prior to the first EMD aircraft delivery. Core AETC pilots and maintainers will complete training NLT 60 days prior to the first AETC assigned aircraft delivery; Core GBTS operators will complete training NLT 30 days prior to delivery of GBTS components (WST, OFT, UTD)</p>	<p>TBD</p>	<p>Core personnel (pilots, GBTS operators and maintainers) shall be trained with the APT FoS to the proficiency level relevant to flight test requirements (AFMC) and SUPT, PIT, and IFF syllabi (AETC) as well as associated maintenance directives. Core AFMC pilots and maintainers will complete training NLT 60 days prior to the first EMD aircraft delivery. Core AETC pilots and maintainers will complete training NLT 60 days prior to the first AETC assigned aircraft delivery; Core GBTS operators will complete training NLT 30 days prior to delivery of GBTS components (WST, OFT, UTD)</p>	
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**Requirement Reference**

Capability Development Document (CDD) for Advanced Pilot Training Family of Systems approved by Joint Requirements Oversight Council Memorandum dated October 31, 2016.

**Performance Note**

Net-Ready, Force Protection, and System Survivability KPPs considered "not-applicable" by JROC per Joint Staff J6 adjudication as of the October 31, 2016 JROC Memorandum. The Materiel Availability (Am) for Aircraft Sustainment current estimate was updated to 93.14% based on Logistics Composite Model Analysis Tool Kit (LCOM ATK) Study Input Plan, dated October 27, 2022.

## Acquisition Budget Estimate

T-7 APT

### Total Acquisition Cost

		Milestone APB	Current Baseline		Budget Estimate PB 2024		
Category	Base Year	Objective (BY\$M)	Objective (BY\$M)	Threshold (BY\$M)	BY\$M	TY\$M	Deviation
RDT&E	2018	1,237.4	1,237.4	1,361.1	1,165.4	1,288.6	
Procurement	2018	6,669	6,669	7,335.9	5,959.9	8,608	
MILCON	2018	169	169	185.9	<b>551.8</b>	727.2	<b>Yes</b>
Acq. O&M	2018	0	0	0			
<b>Total</b>		<b>8,075.4</b>	<b>8,075.4</b>		<b>7,677.1</b>	<b>10,623.8</b>	
PAUC	2018	23.007	23.007	25.308	21.872	30.267	
APUC	2018	19.275	19.275	21.203	17.225	24.879	

### Budget Note

Total acquisition costs increased to reflect budget estimate submission amounts to include inflation adjustments as well as refined requirements for RDT&E, Procurement and MILCON funding.

RDT&E: Revised estimate due to program schedule adjustments, budget estimate submission adjustments, and refined risk adjustments. Realignment of funding to higher priority Air Force programs in the amount of \$7.5M of FY 2022 funds.

Procurement: Revised estimate due to Milestone C buy-profile shift and change in estimating assumptions.

MILCON: In FY 2019 revised estimate to align to the Air Education and Training Command current requirements and incrementation funding strategy resulting in an increase of \$197.9M.

### Cost Deviation Explanations

MILCON The MILCON APB cost breach was previously reported in the December 2019 SAR. A Program Deviation Report was submitted (December 16, 2019), to the MDA, recommending a re-baseline of the program to clear this breach at the Milestone C Decision.

### Total End Item Quantity

Quantity Category	Current APB Quantity	Current Estimate Quantity
Development	5	5
Procurement	346	346
O&M-Acquired	--	--

**Unit Cost****T-7 APT**

<b>Current UCR Baseline and Current Estimate (Base-Year Dollars)</b>			
<b>Category (\$M) Base Year:2018</b>	<b>Current UCR Baseline</b>	<b>Current Estimate</b>	<b>% Change</b>
<b>Program Acquisition Unit Cost</b>			
Cost	8,075.4	7,677.1	
Quantity	351	351	
Unit Cost	23.007	21.872	-4.93%
<b>Average Procurement Unit Cost</b>			
Cost	6,669.0	5,959.9	
Quantity	346	346	
Unit Cost	19.275	17.225	-10.63%
<b>Original UCR Baseline and Current Estimate (Base-Year Dollars)</b>			
<b>Category (\$M) Base Year:2018</b>	<b>Original UCR Baseline</b>	<b>Current Estimate</b>	<b>% Change</b>
<b>Program Acquisition Unit Cost</b>			
Cost	8,075.4	7,677.1	
Quantity	351	351	
Unit Cost	23.007	21.872	-4.93%
<b>Average Procurement Unit Cost</b>			
Cost	6,669.0	5,959.9	
Quantity	346	346	
Unit Cost	19.275	17.225	-10.63%

***Risk and Sensitivity Analysis*****T-7 APT**

Risk and Sensitivity Analysis
Current Procurement Cost(December - 2022)
1. Ejection seat/escape system qualification may cause additional government testing costs. The Program Office Estimate incorporated costs for the associated schedule risk to government test support requirements.
Original Baseline Estimate (September - 2018)
1. Original and Current baseline risks are the same. See Current Baseline Estimate (September 2018) for details.
Current Baseline Estimate (September - 2018)
1. Total Acquisition Cost - \$8,075.4M (BY 2018); PAUC - \$23.007M; Schedule Risk to EMD: The September 2018 SCP accounts for the condensed acquisition timeline for EMD on this program. Therefore, there is a risk that Milestone C may not occur in FY 2022, potentially impacting cost and production timeline. Risk mitigation for this schedule risk includes the program proactively engaging with the contractor to ensure milestones are met and the government restricts any scope creep that could potentially impact schedule.
2. Contract Type Risk for Production: As with any long-term fixed price production contract, the SCP recognizes that the Economic Price Adjustment (EPA) clause may not sufficiently account for changes to the economic environment. If the EPA does not prove sufficient to economic realities, the contractor may be at risk for financial instability

***Significant Schedule Risks***

Significant Schedule Risks
Current Estimate (December - 2022)
1. Escape System Qualification is a High Schedule Issue.
2. Insufficient time to complete cert/verification on all APT Tech Manuals & Support Equipment (SE) procedures is a High Schedule Risk.
3. Type 1 Mx Training on Aircraft is a Moderate Schedule Risk.
4. Military Flight Release Achievement is a Moderate Schedule Risk.
Milestone B (September - 2018)
1. There were no significant schedule risks identified at Milestone B.

***Technologies and Systems Engineering***

Significant Technical Risks
Current Estimate (December - 2022)
1. Integration of 8K Native Constant Resolution Visual System into Weapon System Trainer / Operational Flight Trainer Design is a Moderate Performance Risk.
2. High Angle of Attack Performance Concerns is a Moderate Performance Risk.



## Low Rate Initial Production

### T-7 APT

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	09/11/2018	09/11/2018
Approved Quantity	35	35
Reference	Milestone B ADM	Milestone B ADM
Start Year	2023	2023
End Year	2025	2025

#### Rationale if quantity exceeds 10% of the total number of articles to be procured:

The Milestone B ADM, signed on September 11, 2018, approved an LRIP quantity of 35 aircraft. The program is acquiring 351 production aircraft composed of 346 procurement funded aircraft and 5 RDT&E funded aircraft. The five RDT&E funded aircraft will be upgraded to the production configuration.

**Contracts & Efforts**

<b>Contract Data</b>	
Contract Number	FA8617-18-F-8001
Effort Number	
Modification Number	P00036
Award Date	09/27/2018
Definitization Date	09/27/2018
Order Number	
CAGE Code/CAGE Legal Name	76301/Boeing Company
Contract Title	Advanced Pilot Training
Contract Address	Saint Louis, MO
Contracting Office	
Supported Phase	Development
Contract Strategy	
Contract Type	Fixed-Price Incentive (Firm Target)
Modification Date	September 27, 2022
Work Start Date	September 27, 2018
Technical Data Rights	
Work Completed	85.54%

**Contracts/Effort Price, Quantity, and Performance (TY\$M)**

Initial Target Price	Current Target Price	
\$813.4	\$813.4	
Initial Ceiling Price	Current Ceiling Price	
\$865.2	\$865.2	
Contractor EAC	PM EAC	
\$899.5	\$924.8	
Initial Quantity	Current Quantity	Delivered Quantity
5	5	0
BAC	BCWP	ACWP
\$642.3	\$549.4	\$673.8

BCWS	Cost Variance	Schedule Variance
\$616.7	-\$124.4	-\$67.3

**Contract Notes:**

Data from Integrated Program Management Report dated May 26, 2022. Reporting has been paused pending completion of rebaseline effort. Reporting is anticipated to start February 2023. Above table includes Firm Fixed Price portion of the contract totaling \$87.46M. The difference between the Contractor EAC and the PMEAC is the use of different estimating methodologies.

**Factors Contributing to Cost Variance:**

The unfavorable cost variance is driven by fuselage, other program management, flight simulation labs/mock-ups, and test and evaluation support. Boeing, DCMA, and the SPO are predicting the contract to go to ceiling.

**Factors Contributing to Schedule Variance:**

The unfavorable schedule variances are driven by wing, engine, crew station subsystem, and flight simulation labs/mock-ups.

## Deliveries and Expenditures

T-7 APT

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	5	0	5	0.00%
Production	0	0	346	0.00%
Total Program Quantity Delivered	0	0	351	0.00%

### Expended and Appropriated (TY \$M)

Years Appropriated to date: 12

Total Years Appropriated Funding (Current Baseline): 27

Percent Years Appropriated: 44.44%

Then-Year Funding Appropriated as Percentage of Total Acquisition Estimate: 10.97%

Then-Year Funding Expended as Percentage of Total Acquisition Estimate: 7.62%

Total Acquisition Cost: \$10,623.8

F gk&gt lgu'c'pf 'Gzr gpf kwf gu'P qvg

This table reflects RDT&E and Procurement only for expenditure calculations as of February 23, 2023.

## Operating and Support Costs

T-7 APT

### *O&S Cost Breakdown:*

Category (BY2018\$ Million)	APT
Unit-Level Manpower	\$8,257.2
Unit Operations	\$11,991.2
Maintenance	\$22,034.4
Sustaining Support	\$1,637.6
Continued System Improvements	\$2,022.7
Other	\$1,100.9
<b>Total</b>	<b>\$47,044.0</b>

**Cost Estimate Source:** POE dated June 29, 2022

**O&S Cost Notes:** Information provided from the September 2018 SCP for MS B. Total aircraft quantity is 351. 350 aircraft will be sustained by Air Education & Training Command. 1 aircraft will be sustained by Air Force Materiel Command and is not part of the SCP.

Total Program O&S Cost Compared with Baseline					
	Current Baseline				
Base Year:2018	Objective (BY\$M)	Threshold (BY\$M)	Current Estimate (BY\$M)	Current Estimate (TY\$M)	Deviation
<b>Total O&amp;S</b>	\$44,666.9	\$49,133.6	\$47,044.0	\$94,338.1	

***Operating and Support Costs - Disposal and Unitized Costs*****T-7 APT****Annual Unitized O&S Cost Definition and Calculation Relative to Total O&S Cost:**

Sustainment Factors	System Name: T-7A Red Hawk	Antecedent System Name:
Quantity to Sustain	351	
Unit of Measure	Aircraft	
Unit Expected Service Life	40	

**Base Year:2018**

Annual Unitized O&S Cost by Category Base Year \$ Unit:(\$K)	System Name: T-7A Red Hawk	Antecedent System Name:
Unit-Level Manpower	\$23.5	
Unit Operations	\$34.2	
Maintenance	\$62.8	
Sustaining Support	\$4.7	
Continued System Improvements	\$5.8	
Other	\$3.1	
Total O&S	\$134.1	

**Disposal/Demilitarization Cost Estimate**

(BY2018\$M)	System Name: T-7A Red Hawk	Antecedent System Name:
Total Disposal	\$92.6	

Cost Estimate Source - Disposal	
Type:	Program Office Estimate
Approval Authority and Date:	AFLCMC/FZCE 06/29/2022
Note:	
2022 POE assumes Milestone C November 2024	
Disposal Cost Notes:	
None	
Additional O&S Estimate Assumptions:	
None	

Sustainment Strategy:
None
Antecedent Estimate Assumptions:
Not Applicable