Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: System Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604233F: Specialized Undergraduate Flight Training

DATE: April 2013

, , ,												
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	19.725	6.583	3.601	-	3.601	10.957	9.008	8.426	13.742	Continuing	Continuing
654102: Joint Primary Aircraft Training System (JPATS)	-	4.578	3.836	2.327	-	2.327	4.195	2.598	2.430	2.474	Continuing	Continuing
654376: T-38 Avionics Upgrade Program (AUP)	-	1.232	1.146	0.225	-	0.225	2.158	1.653	1.144	1.164	Continuing	Continuing
655340: Advanced Trainer Replacement T-X	-	13.915	1.601	1.049	-	1.049	4.604	4.757	4.852	10.104	Continuing	Continuing

MDAP/MAIS Code(s): 436,560

A. Mission Description and Budget Item Justification

Supports Air Education and Training Command's (AETC) implementation of Specialized Undergraduate Pilot Training (SUPT) and the Department of Defense initiative for joint pilot training. The Joint Primary Aircraft Training System (JPATS) is a joint USAF/USN venture to replace the Services' fleets of primary trainer aircraft (T-37 and T-34 respectively) and their associated Ground Based Training Systems (GBTS) with the T-6 and its GBTS. The Air Force is the Executive Service. The T-38 Avionics Upgrade Program (AUP) is an integrated modernization of the T-38A and AT-38B cockpits to support mission ready fighter and bomber training. The Advanced Trainer Replacement, T-X, will replace AETC's T-38C aircraft and associated GBTS currently used in the fighter/bomber advanced SUPT track as well as in the Introduction to Fighter Fundamentals (IFF) program. The T-38 was first introduced in 1961.

This program element is in Budget Activity 5, System Development and Demonstration (SDD), because it primarily involves the adaptation of commercial derivative and essentially non-developmental aircraft, equipment, and components for military purpose.

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0604233F: Specialized Undergraduate Flight Training

BA 5: System Development & Demonstration (SDD)

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	21.780	6.583	9.209	-	9.209
Current President's Budget	19.725	6.583	3.601	-	3.601
Total Adjustments	-2.055	0.000	-5.608	-	-5.608
 Congressional General Reductions 	-	0.000			
 Congressional Directed Reductions 	-	0.000			
 Congressional Rescissions 	0.000	0.000			
 Congressional Adds 	-	0.000			
 Congressional Directed Transfers 	-	0.000			
Reprogrammings	-1.400	0.000			
SBIR/STTR Transfer	-0.655	0.000			
Other Adjustments	0.000	0.000	-5.608	-	-5.608

Change Summary Explanation

FY2012 includes a Below Threshold Reprogramming (BTR) to support a higher Air Force priority. FY2014 includes reductions in funding for both the Advanced Trainer Replacement, the requirement for which has been deferred, and the T-38 Avionics Upgrade Program (AUP).

Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 5: System Development & Demonstration (SDD)

All Prior

All Prior

All Prior

DATE: April 2013

R-1 ITEM NOMENCLATURE
PE 0604233F: Specialized Undergraduate
Flight Training
System (JPATS)

Cost To Total

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
654102: Joint Primary Aircraft Training System (JPATS)	-	4.578	3.836	2.327	-	2.327	4.195	2.598	2.430	2.474	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

^{*}FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

A. Mission Description and Budget Item Justification

The Joint Primary Aircraft Training System (JPATS) is a joint USAF/USN venture to replace the Services' fleets of primary trainer aircraft (T-37 and T-34, respectively) and associated Ground Based Training Systems (GBTS). Additionally the US Army will be purchasing four T-6 Army Variant aircraft to replace the T-34 aircraft for the Army Test and Evaluation Command. The T-6 aircraft and GBTS are used to train entry-level student aviators in the fundamentals of flying so they can transition into advanced training tracks leading to qualification as military pilots, combat systems officers, and naval flight officers. The program includes the purchase of aircraft, simulators, and other associated ground-based training devices, Training Integration Management System (TIMS), instructional courseware, and logistics support to include Diminishing Manufacturing Sources and Material Shortages (DMSMS) and development activities related to DMSMS. In FY2014, JPATS funding will be used to develop and test upgrades and enhancements to hardware and software components.

FY2013 and FY2015 include funding to upgrade software and threat libraries for the Simulator for Electronic Combat Technology (SECT), a generic electronic warfare simulator used to train student combat systems officers. Although in the same project, SECT is unrelated to the JPATS program.

This program element is in Budget Activity 5, System Development and Demonstration (SDD), because it primarily involves the adaptation of commercial derivative aircraft, equipment, and components for military purpose.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2012	FY 2013	FY 2014
Title: JPATS	4.578	2.340	2.327
Description: JPATS studies & development efforts			
FY 2012 Accomplishments: JPATS studies and development activities to include safe/arm handle development and Engine Accelerated Mission	ı Testing.		
FY 2013 Plans:			

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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^{***} The FY 2014 OCO Request will be submitted at a later date

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Exhibit R-2A, RDT&E Project Justif	ication: PB	2014 Air Fo	rce						DATE: A	pril 2013			
APPROPRIATION/BUDGET ACTIVIT 3600: Research, Development, Test & BA 5: System Development & Demon	& Evaluation,			PE 06	EM NOMEN 04233F: Spe Training	ICLATURE ecialized Und	dergraduate	654102	ROJECT 54102: Joint Primary Aircraft Training vstem (JPATS)				
B. Accomplishments/Planned Prog	rams (\$ in N	Millions)							FY 2012	FY 2013	FY 2014		
JPATS studies and development active parachute surveillance study, safe/arr Improvement Program (CIP) study.	vities to inclu	ıde developi											
FY 2014 Plans: JPATS studies and development active parachute surveillance study, safe/arr Improvement Program (CIP) study.													
Title: SECT									0.000	1.496	0.00		
Description: Simulator for Electronic	Combat Ted	chnology (SI	ECT)										
FY 2012 Accomplishments: N/A													
FY 2013 Plans: Update threat database definitions an	d threat libra	ary.											
FY 2014 Plans: N/A													
				Accon	nplishment	s/Planned P	rograms Su	btotals	4.578	3.836	2.32		
C. Other Program Funding Summar	ry (\$ in Milli	ons)											
Line Herry	EV 0040	EV 0040	FY 2014	FY 2014	FY 2014	E\/ 004E	EV 0040	EV 004	5 5 V 0040	Cost To			
Line Item • APAF: BA06: Line Item # 000999: Initial Spares/Repair Parts	FY 2012 1.944	FY 2013 0.021	Base 0.626	<u>000</u>	<u>Total</u> 0.626	FY 2015 0.957	FY 2016 0.926	FY 201 0.86		Complete Continuing	-		
• APAF: BA05: Line Item # JPAT00: <i>T-</i> 6	15.826	15.494	6.427		6.427	14.631	14.240	13.63	2 13.877	Continuing	Continuin		
• APN: BA03: Line Item # 033900: JPATS	234.900	278.884	249.080		249.080	16.886	0.000	0.00	0.000	0.000	2,036.99		
• APN: BA05: Line Item # 057100: JPATS Series	0.524	1.552	1.576		1.576	1.603	1.646	1.67	4 1.704	Continuing	Continuin		
APN: BA06: Line Item # 060500: Spares and Repair Parts	1.717	7.434	2.610		2.610	0.000	0.000	0.00	0.000	Continuing	Continuin		

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force	PE 0604233F: Specialized Undergraduate	654102: Joint Primary Aircraft Training
BA 5: System Development & Demonstration (SDD)	Flight Training	System (JPATS)

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

			FY 2014	FY 2014	FY 2014					Cost To	
Line Item	FY 2012	FY 2013	Base	OCO	<u>Total</u>	FY 2015	FY 2016	FY 2017	FY 2018	Complete	Total Cost
• APA: BA01: Line Item # A11300:	0.000	16.159	13.760		13.760	0.000	0.000	0.000	0.000	Continuing	Continuing
Utility F/W Aircraft										_	

Remarks

D. Acquisition Strategy

JPATS was competitively awarded with the intent of maximizing the use of commercially available equipment and best commercial practices. Initially, the JPATS Program competitively awarded two contracts: a Firm Fixed Price (FFP) Contractor Logistics Support (CLS) Operations and Maintenance funded contract and a Fixed Price Incentive Firm Target (FPIF) manufacturing development (MD)/production contract with seven options. The FY2002 (Lots 9-13) production contract for both the air vehicle and GBTS is Firm Fixed Price, FAR Part 12 (commercial). The FY2007 production follow-on contract for both the air vehicle and GBTS was awarded as a FAR Part 15 action. In FY2012 a new FFP CLS Operations and Maintenance funded contract was awarded as a FAR Part 15 action.

The SECT upgrade effort is an Engineering Change Proposal (ECP) to the competitively awarded Firm Fixed Price Contractor Logistics Support (CLS) contract.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: System Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604233F: Specialized Undergraduate

Flight Training

PROJECT

654102: Joint Primary Aircraft Training

DATE: April 2013

System (JPATS)

DA 5. System Develop	mient & L	cinonstration (ODI	<i>)</i>			Flight	ranning				Cycloni	(JPATS)			
Product Developmer	nt (\$ in M	illions)		FY 2	2012	FY 2	2013		2014 ise	FY 2	2014 CO	FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
JPATS Engine CIP	РО	Arnold Engineering Development Center:Arnold AFB, TN	-	3.454	Mar 2012	1.505	May 2013	0.717	Jan 2014	1		0.717	0.000	5.676	5.676
Engine High Cycle Fatigue	C/CPFF	Universal Technology Corp:Dayton, OH	-	0.140	Feb 2012	0.194	Apr 2013	0.149	Apr 2014	-		0.149	Continuing	Continuing	TBD
Parachute Surveillance	C/FFP	Martin Baker Aircraft Co LTD:, UK	-	0.000		0.641	Jun 2013	0.452	Apr 2014	-		0.452	0.000	1.093	2.589
JPATS Other	Various	Various:Various,	-	0.984	Feb 2012	0.000		1.009	Dec 2013	-		1.009	Continuing	Continuing	TBD
SECT Upgrade	C/FFP	BowHead Systems Management, Inc.:King George, VA	-	0.000		1.496	Dec 2012	0.000		-		0.000	Continuing	Continuing	
	1	Subtotal	0.000	4.578		3.836		2.327		0.000		2.327			
Support (\$ in Millions	s)			FY 2	2012	FY 2	2013	FY 2 Ba	2014 ise	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
		Subtotal	0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Test and Evaluation	(\$ in Milli	ons)		FY 2	2012	FY 2	2013	FY 2 Ba	2014 ise	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force BA 5: System Development & Demonstration (SDD)

PE 0604233F: Specialized Undergraduate

654102: Joint Primary Aircraft Training

Flight Training

System (JPATS)

Management Service	nent Services (\$ in Millions)			FY 2012		FY 2	FY 2013		2014 ise	FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
	-	Subtotal	0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
			All Prior Years	FY 2	2012	FY 2	2013	FY 2 Ba		FY 2	2014 CO	FY 2014 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	0.000	4.578		3.836		2.327		0.000		2.327			

Remarks

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force DATE: April 2013 **R-1 ITEM NOMENCLATURE PROJECT** APPROPRIATION/BUDGET ACTIVITY PE 0604233F: Specialized Undergraduate 654102: Joint Primary Aircraft Training 3600: Research, Development, Test & Evaluation, Air Force BA 5: System Development & Demonstration (SDD) Flight Training System (JPATS) 12 13 14 15 16 17 18 IOC - NAS Corpus Christi JOINT PRIMARY AIRCRAFT TRAINING SYSTEM Lot 19 Lot 20 Variant Lot 18 - Procurement Option Option ECP Option USN T-6B **USN T-6B ATD US Army Variant** - Development Efforts Parachute Surveillance **Engine Studies PMU Software Upgrade** Safe Arm Handle SIMULATOR FOR ELECTRONIC COMBAT **TECHNOLOGY** - Development Efforts Software /Threat Library Updates FY13 FY15 (FY17) Projected (not budgeted)

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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DATE: April 2013 Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE **PROJECT** 3600: Research, Development, Test & Evaluation, Air Force 654102: Joint Primary Aircraft Training PE 0604233F: Specialized Undergraduate

BA 5: System Development & Demonstration (SDD) Flight Training System (JPATS)

Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
JPATS Parachute Surveillance System Development	4	2012	4	2015	
JPATS Engine Studies	3	2012	1	2018	
JPATS Power Management Unit (PMU) Software Upgrade	1	2014	4	2016	
Award JPATS Lot 18 Contract Option	2	2012	2	2012	
Award JPATS Lot 19 Contract Option	2	2013	2	2013	
JPATS Safe Arm Handle Development	4	2012	3	2014	
JPATS IOC NAS Corpus Christi	2	2013	2	2013	
Award JPATS Lot 20 Contract Option	1	2014	1	2014	
Award Army Variant ECP	2	2014	2	2014	
Continuing USN T-6B Deliveries	1	2012	4	2015	
US Army Variant Deliveries	2	2013	2	2015	
Continuing USN T-6B Aircrew Training Device (ATD) Deliveries	1	2012	2	2013	
Update SECT Software and Threat Library (FY2013)	4	2013	2	2014	
Update SECT Software and Threat Library (FY2015)	2	2015	1	2016	

Exhibit R-2A, RD I &E Project Ju						DATE: April 2013								
APPROPRIATION/BUDGET ACT					R-1 ITEM	NOMENCL	ATURE		PROJECT	-				
3600: Research, Development, Te		•					654376: T-38 Avionics Upgrade Program							
BA 5: System Development & Dev	monstration	(SDD)			Flight Train	ning			(AUP)					
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost		
654376: T-38 Avionics Upgrade Program (AUP)	-	1.232	1.146	0.225	-	0.225	2.158	1.653	1.144	1.164	Continuing	Continuing		
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0				

^{*}FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

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A. Mission Description and Budget Item Justification

The T-38C Avionics Upgrade Program (AUP) installed a "Glass Cockpit" into the T-38 jet trainer and re-designated the upgraded aircraft from the T-38A/B to the T-38C model. The AUP modification, which utilized a Commercial Off-The-Shelf (COTS)/Non-Developmental Item (NDI) approach to acquire kits, is currently in sustainment phase under the T-38C Avionics Post Production support contract. The avionics system requires regular block upgrades to keep the system current and airworthy. Block upgrades incorporate software and/or hardware improvements to comply with new requirements mandated by Department of Defense, Federal Aviation Administration or National Airspace System (DoD/FAA/NAS) and to address flight safety issues. The block upgrades support the T-38C aircraft and Aircrew Training Devices (ATD). This effort also includes development of the aircraft Mission Planning System (MPS) support to obtain Joint Mission Planning System (JMPS) currency and certification for T-38C flight operations. The JMPS requirements are levied from outside the T-38 program office and may or may not correlate with block upgrade requirements. Additionally, engineering services, studies, analysis and support are required to determine the feasibility of integrating changes into the system and making informed business decisions related to Diminishing Manufacturing Sources and Material Shortages (DMSMS) and other lifecycle related concerns.

This project is in Budget Activity 5, System Development and Demonstration (SDD), because it primarily involves the adaptation of NDI or COTS equipment and components for military purpose.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2012	FY 2013	FY 2014
Title: T-38 AUP	1.007	0.921	0.000
Description: T-38 Avionics Post Production Support (APPS) software block upgrades, Communication Navigation Surveillance / Air Traffic Management (CNS/ATM) compliance and Joint Mission Planning System (JMPS) support.			
FY 2012 Accomplishments: Completed test and fielding of Block 9 aircraft, Aircrew Training Device (ATD) hardware/software upgrades and JMPS mission planning software. Began requirements analysis of Block 10. Developed and replaced proprietary ATD software with unlimited government rights to ensure future viability of the aircraft and ATD systems. Designed and developed hardware/software solution			

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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R-1 Line #61

DATE: Amil 0040

^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force		DATE:	April 2013	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT		
3600: Research, Development, Test & Evaluation, Air Force BA 5: System Development & Demonstration (SDD)	,	654376: T-38 Avio (AUP)	nics Upgrade	Program
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013	FY 2014
for requirements driven by DoD and FAA/NAS mandates, and incor and AETC operations.	porated improvements identified during test and evaluation	ı		
FY 2013 Plans:				
Continue requirement analysis of Block 10 aircraft and Aircrew Train JMPS planning software upgrade requirements. Accomplish govern contractor proprietary software with software that provides unlimited ATD systems. Integrate the T-38C program in to the Air Force Com (CNS/ATM) program to ensure the T-38C aircraft is compliant with a hardware and software solutions for requirements driven by DoD ar and evaluation and AETC operations.	ment testing of ATD software being developed to replace I government rights to ensure future viability of the aircraft munications, Navigation, Surveillance/Air Traffic Managemall Air Force standards and directives. Design and develop	and ent		
FY 2014 Plans: Complete requirement analysis for Block 10 and begin software dev (ATD) hardware/software upgrades. Finalize JMPS mission planning and testing. Coordinate surveillance and testing requirements with the Management (CNS/ATM) Center of Excellence program to ensure the chain management standards and directives. Design and develop IDOD and FAA/NAS mandates, and deficiencies identified during testing the complete standards.	ng software upgrade requirements and begin development he Communications, Navigation, Surveillance/Air Traffic he T-38C aircraft is compliant with Air Force navigation da nardware and software solutions for requirements driven by	ta		
Title: T-38 AUP Program Management Administration (PMA)		0.225	0.225	0.22
Description: T-38 AUP software development PMA costs such as a Assistance Services (A&AS).	travel, Other Government Costs (OGC), and Advisory and			
FY 2012 Accomplishments: T-38 AUP PMA.				
FY 2013 Plans: T-38 AUP PMA.				
FY 2014 Plans:				
T-38 AUP PMA.				

PE 0604233F: Specialized Undergraduate Flight Training Air Force

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force	DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force	PE 0604233F: Specialized Undergraduate	654376: T-38 Avionics Upgrade Program
BA 5: System Development & Demonstration (SDD)	Flight Training	(AUP)

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

Remarks

D. Acquisition Strategy

T-38C block updates were cost plus award fee options through Block 9 under a contract negotiated in FY 2004, which terminated in 4Q FY12. The Avionics Post Production Support (APPS) effort was awarded in FY12 through a competitive bid, C type, Firm-Fixed-Priced contract with a period of performance from April FY12 through March FY17. The block 10 software update will be a Firm-Fixed-Priced effort based on AETC operational requirements. Unknown/unforeseen requirements will be negotiated and separately priced by the government as an out-of-cycle update/modification as provisioned within the contract.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to A
Force performance goals and most importantly, how they contribute to our mission.

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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DATE: April 2013 Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 3600: Research, Development, Test & Evaluation, Air Force PE 0604233F: Specialized Undergraduate 654376: T-38 Avionics Upgrade Program BA 5: System Development & Demonstration (SDD) Fliaht Trainina (AUP) FY 2014 FY 2014 FY 2014 **Product Development (\$ in Millions)** FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Date Date Cost Date Cost Date Complete Contract Cost Cost Cost Cost The Boeina Avionics Upgrade Program C/FFP Corporation:St. 0.503 Oct 2011 0.921 Oct 2012 0.000 0.000 Continuing Continuing TBD (AUP) Louis, MO Subtotal 0.000 0.503 0.921 0.000 0.000 0.000 FY 2014 FY 2014 FY 2014 Support (\$ in Millions) FY 2012 FY 2013 oco Total Base Contract Target **Cost To** Method Performing All Prior Award Award Award Award Total Value of Cost Contract **Cost Category Item** & Type Activity & Location Years Date Cost Date Cost Date Cost Date Cost Complete Cost PMA Contract Support C/FFP Not specified .:. 0.155 Jan 2012 0.155 Jan 2013 0.035 Jan 2014 0.035 Continuing Continuing TBD Other Government Costs Not specified .:. 0.070 Feb 2012 0.070 Feb 2013 0.070 Feb 2014 0.070 Continuing Continuing Various JMPS Support C/FFP Not specified .: , 0.023 Mar 2012 0.000 0.120 Mar 2014 0.120 Continuing Continuing TBD Subtotal 0.000 0.248 0.225 0.225 0.000 0.225 FY 2014 FY 2014 FY 2014 Test and Evaluation (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award Cost To Total Value of **Cost Category Item** & Type **Activity & Location** Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract **AUP T&E** C/FFP TBD:. 0.481 Jun 2012 0.000 0.000 0.000 Continuing Continuing TBD Subtotal 0.000 0.481 0.000 0.000 0.000 0.000 FY 2014 FY 2014 FY 2014 Management Services (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Method All Prior Cost To Performing Award Award Award Award Total Value of **Cost Category Item** & Type **Activity & Location** Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract Subtotal 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 Target All Prior FY 2014 FY 2014 FY 2014 Cost To Total Value of Years FY 2012 FY 2013 Base oco Total Complete Cost Contract 1.232 0.225 **Project Cost Totals** 0.000 1.146 0.000 0.225

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB	2014 Air For	ce					DATE	: April 201	13	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: System Development & Demonstration (SDD)			PE 0604233F: Specialized Undergraduate			T-38 Avi	Avionics Upgrade Pro		ogram	
	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2	2014 CO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

DATE: April 2013 Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE **PROJECT** 3600: Research, Development, Test & Evaluation, Air Force PE 0604233F: Specialized Undergraduate 654376: T-38 Avionics Upgrade Program BA 5: System Development & Demonstration (SDD) Flight Training (AUP) 12 13 14 15 16 17 18 Block 9 Int/Test Block 9 Release nstall Block 10 Req. Analysis Design/Dev Int/Test Block 10 Release Install Block 11 Req. Analysis Desig

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 5: System Development & Demonstration (SDD)

PATE: April 2013

R-1 ITEM NOMENCLATURE
PE 0604233F: Specialized Undergraduate
Flight Training

PROJECT
654376: T-38 Avionics Upgrade Program
(AUP)

Schedule Details

	Sta	Start		
Events	Quarter	Year	Quarter	Year
AUP Block 9 Integration/Test	1	2012	3	2012
AUP Block 9 Fielding	4	2012	4	2012
AUP Block 9 Release	4	2012	4	2012
AUP Block 10 Requirements	1	2013	4	2013
AUP Block 10 Design/Development	1	2014	2	2015
AUP Block 10 Integration and Test	2	2015	1	2016
AUP Block 10 Fielding	1	2016	2	2016
AUP Block 10 Release	1	2016	1	2016
AUP Block 11 Requirements	2	2017	3	2018
AUP Block 11 Design/Development	3	2018	4	2018

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 5: System Development & Demonstration (SDD)

COST (\$ in Millions)

All Prior Years FY 2012 FY 2013*

R-1 ITEM NOMENCLATURE
PE 0604233F: Specialized Undergraduate
FIIGHT Training

R-1 ITEM NOMENCLATURE
PE 0604233F: Specialized Undergraduate
FIIGHT Training

Cost To Total
FY 2014 FY 2015 FY 2016 FY 2017 FY 2018 Complete

Cost To C

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
655340: Advanced Trainer Replacement T-X	-	13.915	1.601	1.049	-	1.049	4.604	4.757	4.852	10.104	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force

A. Mission Description and Budget Item Justification

The Advanced Trainer Replacement, T-X, will replace AETC's T-38C aircraft and associated Ground Based Training System (GBTS) currently used in the fighter/bomber advanced Specialized Undergraduate Pilot Training (SUPT) track as well as in the Introduction to Fighter Fundamentals (IFF) program. The T-38C was first introduced in 1961. FY2014 will consist of studies, analysis and acquisition activities to reduce risk in support of future technology, engineering and manufacturing development. Studies and analyses may consist of, but not limited to, Live Virtual Constructive training concepts and applicability to AETC pilot training transformation efforts, non-developmental item (NDI) industrial base beyond 2020, USAF/DoD militarization of foreign NDI alternatives, and USAF Airworthiness Certification gap analysis of NDI alternatives. Air Education and Training Command (AETC) is conducting an Analysis of Alternatives (AoA) refresh that is due to complete by the third quarter of FY2013.

This project is in Budget Activity 5, System Development and Demonstration (SDD), because it primarily involves the adaptation of essentially non-developmental aircraft, equipment, and components for military purpose.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2012	FY 2013	FY 2014
Title: Advanced Pilot Training (APT) Family of Systems (FoS)	11.650	0.201	0.000
Description: Conduct studies, analysis and acquisition activities to reduce risk in support of technology, engineering and manufacturing development.			
FY 2012 Accomplishments: Conducted studies and analysis of T-X concepts supporting Technical Development and Engineering Manufacturing Development. Activities included evaluation of the non-developmental item (NDI) industrial base through 2020, initial assessment of required activities for NDI alternatives to obtain USAF Airworthiness Certifications, analysis of anthropometric suitability of NDI alternatives, programmatic acquisition activities, and requirements refinement.			
FY 2013 Plans: Conduct studies, analysis and acquisition activities to reduce risk in support of technology, engineering and manufacturing development. Studies and analyses may consist of, but are not limited to, Live Virtual Constructive training concepts and			

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force		DATE:	April 2013	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604233F: Specialized Undergraduate Flight Training	PROJECT 655340: Advanced X	Trainer Repl	acement T-
B. Accomplishments/Planned Programs (\$ in Millions) applicability to AETC pilot training transformation efforts, non-develor militarization of foreign NDI alternatives, and USAF Airworthiness C	• • • • • • • • • • • • • • • • • • • •	FY 2012 /DoD	FY 2013	FY 2014
FY 2014 Plans: N/A				
Title: APT Program Management Administration (PMA)		2.265	1.400	1.049
Description: APT PMA costs such as travel, Other Government Co	sts (OGC), and Advisory and Assistance Services (A&A	S).		
FY 2012 Accomplishments: APT PMA activities.				
FY 2013 Plans: APT PMA activities.				

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

N/A

Remarks

FY 2014 Plans: APT PMA activities.

D. Acquisition Strategy

A full and open competitive source selection is anticipated with a specific acquisition strategy to be determined.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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13.915

1.601

1.049

Accomplishments/Planned Programs Subtotals

DATE: April 2013 Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 3600: Research, Development, Test & Evaluation, Air Force PE 0604233F: Specialized Undergraduate 655340: Advanced Trainer Replacement T-X BA 5: System Development & Demonstration (SDD) Flight Training FY 2014 FY 2014 FY 2014 **Product Development (\$ in Millions)** FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Date Cost Date Cost Date Complete Cost Contract Cost Cost Product Development -Various: Various, 0.000 0.000 0.000 0.000 0.000 0.000 Various Studies and Analysis Product Development -C/TBD TBD:TBD. 0.000 0.000 0.000 Continuing Continuing 11.650 TBD Subtotal 0.000 11.650 0.000 0.000 0.000 0.000 FY 2014 FY 2014 FY 2014 Support (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Method Performing **All Prior Award** Award Award Award **Cost To** Total Value of **Cost Category Item** & Type **Activity & Location** Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract 0.000 0.000 0.000 0.000 Subtotal 0.000 0.000 0.000 0.000 0.000 FY 2014 FY 2014 FY 2014 Test and Evaluation (\$ in Millions) FY 2012 FY 2013 oco Base Total Contract Target Method Performing All Prior Award Award Award Award Cost To Total Value of **Activity & Location Cost Category Item** & Type Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract Subtotal 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 FY 2014 FY 2014 FY 2014 Management Services (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Award **Award** Method Performing All Prior Award Award **Cost To** Total Value of **Cost Category Item Activity & Location** Years Cost Date Cost Cost Cost Date Complete Cost Contract & Type Date Date Cost AFLCMC:Davton. C/FFP Mar 2014 PMA - Contractor Services 1.989 May 2012 1.601 Jul 2013 1.000 1.000 Continuing Continuing TBD OH AFLCMC:Dayton, PMA - Government Costs C/Various 0.276 0.000 0.049 0.049 Continuing Continuing TBD ОН

PE 0604233F: Specialized Undergraduate Flight Training Air Force

Subtotal

0.000

2.265

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1.601

1.049

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0.000

1.049

APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOME	NCLATURE		PROJE	CT			
3600: Research, Development, Test & Evaluation, Air Force BA 5: System Development & Demonstration (SDD)		PE 0604233F: Specialized Undergraduate Flight Training			655340: Advanced Trainer Replacement T-X					
	All Prior			FY 2014	FY 20	114	FY 2014	Cost To	Total	Target

									Target
	All Prior			FY 2014	FY 2014	FY 2014	Cost To	Total	Value of
	Years	FY 2012	FY 2013	Base	oco	Total	Complete	Cost	Contract
Project Cost Totals	0.000	13.915	1.601	1.049	0.000	1.049			

Remarks

PE 0604233F: Specialized Undergraduate Flight Training Air Force

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force

DATE: April 2013

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force DATE: April 2013 APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 3600: Research, Development, Test & Evaluation, Air Force PE 0604233F: Specialized Undergraduate 655340: Advanced Trainer Replacement T-BA 5: System Development & Demonstration (SDD) X Flight Training 12 13 14 15 16 17 18 MS B **Key Events** Pre-MS B Review CDD Anthro-Range Assessment **Studies & Analysis** AoA Addendum Live, Virtual, & Constructive (LVC) Training Enhancement Study AoA Report **Contract Preparation** POE ICE CARD RFP Src. Sel. Draft RFP EMD Contract Award **Engineering and Manufacturing Development** Note 1: FY15 and out schedule is notional pending acquisition direction (In Process Review DAB), funding, and approval Note 2: Anticipate acquisition strategy that directs Milestone B entry. Militarization and integration activities to occur concurrently with Material Solution Analysis and Eng/Mfg Development activities

PE 0604233F: Specialized Undergraduate Flight Training Air Force

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DATE: April 2013 Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE **PROJECT** 3600: Research, Development, Test & Evaluation, Air Force 655340: Advanced Trainer Replacement T-PE 0604233F: Specialized Undergraduate

BA 5: System Development & Demonstration (SDD) Flight Training X

Schedule Details

	St	art	E	nd
Events	Quarter	Year	Quarter	Year
Capability Development Document	1	2012	3	2014
Analysis of Alternatives Report	3	2012	3	2012
Anthropomertric Range Assessment	4	2012	2	2013
Analysis of Alternatives Addendum	2	2013	4	2013
Live / Virtual / Constructive Training Enhancement Study	2	2013	2	2014
Cost Analysis Requirements Document	4	2014	4	2014
Program Office Estimate	1	2015	2	2015
Draft Request for Proposal	1	2015	4	2015
Request for Proposal	1	2016	2	2016
Source Selection	2	2016	1	2017
Independent Cost Estimate	4	2016	1	2017
EMD Contract Award	1	2017	1	2017
Engineering and Manufacturing Development (EMD)	1	2017	4	2018
Pre-Milestone B Review	3	2017	3	2017
Milestone B	3	2018	3	2018