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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0605223F I Advanced Pilot Training							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	-	8.201	11.395	-	11.395	12.152	107.173	262.765	275.879	581.113	1,258.678
655340: Advanced Trainer Replacement T-X	0.000	-	8.201	11.395	-	11.395	12.152	107.163	251.524	245.803	401.979	1,038.217
655361: Stores-Aircraft Interface	0.000	-	-	-	-	-	-	0.010	11.241	30.076	179.134	220.461
Program MDAP/MAIS Code: 436												
Note In FY2015, Project 655340, Advanced Trainer Replacement T-X, efforts were transferred from Program 0604233F, Specialized Undergraduate Flight Training, to Program 0605223F, Advanced Pilot Training, in order to improve transparency of this ACAT I acquisition program. In FY 2018, Project 655361 Stores-Aircraft Interface includes new start efforts for a companion trainer.												
A. Mission Description and Budget Item Justification The Advanced Trainer Replacement, T-X, will replace Air Education and Training Command's (AETC) 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 and now average's 45 years. T-X will close training gaps which the T-38 cannot fully address and have grown with the introduction of the 4th and 5th generation fighter aircraft. The Stores-Aircraft Interface project provides funding for the Companion Trainer Aircraft which is intended to develop a variant of the Advanced Pilot Training (APT) T-X aircraft to serve as a "Red Air" adversary or aggressor capability for 5th generation fighter aircraft. A version of the T-X equipped with radar/data-link and hard-points for weapons and jammer carriage is envisioned for this role. This program is in Budget Activity 5, System Development and Demonstration (SDD) because OSD/AT&L has approved proceeding toward Milestone B to conduct engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.												

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Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 0605223F I Advanced Pilot Training			
B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	-	8.201	11.920	-	11.920
Current President's Budget	-	8.201	11.395	-	11.395
Total Adjustments	-	-	-0.525	-	-0.525
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.525	-	-0.525
Change Summary Explanation					
For FY 2015, activity transferred from PE 0604233F.					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600 / 5					R-1 Program Element (Number/Name) PE 0605223F / <i>Advanced Pilot Training</i>				Project (Number/Name) 655340 / <i>Advanced Trainer Replacement T-X</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
655340: <i>Advanced Trainer Replacement T-X</i>	-	-	8.201	11.395	-	11.395	12.152	107.163	251.524	245.803	401.979	1,038.217
Quantity of RDT&E Articles	-	-	-	-	-	-	-	6	-	-		

Note

In FY2015, Project 655340, Advanced Trainer Replacement T-X, efforts were transferred from Program 0604233F, Specialized Undergraduate Flight Training, to Program 0605223F, Advanced Pilot Training, in order to improve transparency of this ACAT I acquisition program.

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. Program is developing an acquisition strategy and related documentation to initiate an acquisition program with OSD direction to return for an RFP Release Decision DAB in FY2016. Although the acquisition strategy has not been approved, the quantity of EMD articles is projected to be six.

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

	FY 2014	FY 2015	FY 2016
Title: Advanced Pilot Training (APT) Family of Systems (FoS)	-	8.201	11.395
Description: Studies, analysis, acquisition documentation and market research activities to reduce risk in support of acquisition strategy, engineering and manufacturing development. Includes APT PMA costs such as travel, Other Govt Costs (OGC) and Advisory and Assistance Services (A&AS) in support of a Milestone B approval.			
FY 2014 Accomplishments: N/A			
FY 2015 Plans: Studies, analysis, acquisition documentation and market research activities to reduce risk in support of acquisition strategy, engineering and manufacturing development. Includes APT PMA costs such as travel, Other Govt Costs (OGC) and Advisory and Assistance Services (A&AS) in support of Milestone B approval.			
FY 2016 Plans: Studies, analysis, acquisition documentation and RFP development activities in support of RFP Release Decision DAB and Source Selection activities. Includes APT PMA costs such as travel, Other Govt Costs (OGC) and Advisory and Assistance Services (A&AS) in support of Milestone B approval.			
Accomplishments/Planned Programs Subtotals	-	8.201	11.395

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0605223F / <i>Advanced Pilot Training</i>	Project (Number/Name) 655340 / <i>Advanced Trainer Replacement T-X</i>	

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RDTE: BA05: PE 0604233F: <i>Advanced Trainer Replacement T-X</i>	1.049	-	-	-	-	-	-	-	-	-	4.548

Remarks

In FY2015, Project 655340, Advanced Trainer Replacement T-X, efforts were transferred from Program 0604233F, Specialized Undergraduate Flight Training, to Program 0605223F, Advanced Pilot Training in order to improve transparency of this ACAT I acquisition program.

D. Acquisition Strategy

A full and open competitive source selection is anticipated with OSD direction to return for an RFP Release Decision DAB in FY2016. The acquisition strategy is under development.

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.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force												Date: February 2015			
Appropriation/Budget Activity 3600 / 5						R-1 Program Element (Number/Name) PE 0605223F / <i>Advanced Pilot Training</i>				Project (Number/Name) 655340 / <i>Advanced Trainer Replacement T-X</i>					

Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Advanced Pilot Training (T-X) Family of Systems (FoS) Future Contracts	Various	Not specified. : ,	0.000	-		-		-		-		-	1,018.621	1,018.621	-
Subtotal			0.000	-		-		-		-		-	1,018.621	1,018.621	-

Remarks
As the acquisition strategy is developed and cost estimates mature, the amount in cost to complete will be allocated to the appropriate categories.

Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Advanced Pilot Training (T-X) Family of Systems (FoS) - Studies and Analysis	Various	TBD : TBD,	0.000	-		2.000	Jun 2015	4.000	Jun 2016	-		4.000	-	6.000	-
Advanced Pilot Training (T-X) Family of Systems (FoS) - A&AS	Various	TBD : TBD,	0.000	-		5.924	Apr 2015	6.841	Apr 2016	-		6.841	-	12.765	-
Subtotal			0.000	-		7.924		10.841		-		10.841	-	18.765	-

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force												Date: February 2015			
Appropriation/Budget Activity 3600 / 5						R-1 Program Element (Number/Name) PE 0605223F / Advanced Pilot Training				Project (Number/Name) 655340 / Advanced Trainer Replacement T-X					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Training (APT) Family of Systems (FoS) - PMA Government Costs	Various	AFLCMC : Dayton, OH	0.000	-		0.277	May 2015	0.554	May 2016	-		0.554	-	0.831	-
Subtotal			0.000	-		0.277		0.554		-		0.554	-	0.831	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		8.201		11.395		-		11.395	1,018.621	1,038.217	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force			Date: February 2015		
Appropriation/Budget Activity 3600 / 5		R-1 Program Element (Number/Name) PE 0605223F / <i>Advanced Pilot Training</i>			Project (Number/Name) 655340 / <i>Advanced Trainer Replacement T-X</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In-Process Review (IPR) Defense Acquisition Board (DAB)																												
Capability Development Document																												
CDD Validation																												
AoA Refresh Support																												
Mil Air Certification Requirements Analysis																												
Mil to Mil Engagements																												
Acquisition Strategy Development																												
Acquisition Strategy Approval																												
Sustainment Model																												
Cost Estimate Preparation Certification																												
Pre Milestone B (RFP Release) Decision Point																												
RFP Release																												
Source Selection																												
Milestone B																												
Engineering and Manufacturing Development																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0605223F / <i>Advanced Pilot Training</i>	Project (Number/Name) 655340 / <i>Advanced Trainer Replacement T-X</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
In-Process Review (IPR) Defense Acquisition Board (DAB)	1	2015	1	2015
Capability Development Document	1	2014	2	2015
CDD Validation	2	2015	2	2015
AoA Refresh Support	1	2014	2	2014
Mil Air Certification Requirements Analysis	1	2014	4	2014
Mil to Mil Engagements	2	2014	4	2014
Acquisition Strategy Development	1	2015	4	2015
Acquisition Strategy Approval	4	2015	4	2015
Sustainment Model	2	2015	4	2015
Cost Estimate Preparation Certification	1	2015	3	2016
Pre Milestone B (RFP Release) Decision Point	4	2016	4	2016
RFP Release	4	2016	1	2017
Source Selection	1	2017	4	2017
Milestone B	1	2018	1	2018
Engineering and Manufacturing Development	1	2018	4	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600 / 5					R-1 Program Element (Number/Name) PE 0605223F / <i>Advanced Pilot Training</i>				Project (Number/Name) 655361 / <i>Stores-Aircraft Interface</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
655361: <i>Stores-Aircraft Interface</i>	-	-	-	-	-	-	-	0.010	11.241	30.076	179.134	220.461
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
In FY 2018, Project 655361 Stores-Aircraft Interface includes new start efforts for a companion trainer.

A. Mission Description and Budget Item Justification
The Companion Trainer is intended to develop a variant of the Advanced Pilot Training (APT) T-X aircraft to provide a "Red Air" adversary or aggressor capability for 5th generation fighter aircraft. An Office of the Secretary of Defense (OSD) endorsed report estimates considerable savings over the life of the F-35 through use of Companion Trainer due to significantly lower operating costs. The T-X variant will be equipped with radar/data-link and hard-points for weapons and jammer carriage is envisioned for this role. Missionization of the T-X to meet Companion Trainer requirements is expected to begin in FY2019.

<u>B. Accomplishments/Planned Programs (\$ in Millions)</u>	FY 2014	FY 2015	FY 2016
<i>Title:</i> Companion Trainer	-	-	-
<i>Description:</i> Missionize the Advanced Pilot Training (APT) T-X to meet the "Red Air" adversary/aggressor role.			
<i>FY 2014 Accomplishments:</i> N/A			
<i>FY 2015 Plans:</i> N/A			
<i>FY 2016 Plans:</i> N/A			
Accomplishments/Planned Programs Subtotals	-	-	-

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

Remarks

D. Acquisition Strategy
Acquisition strategy for Companion Trainer variant will be developed.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force		Date: February 2015
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0605223F / <i>Advanced Pilot Training</i>	Project (Number/Name) 655361 / <i>Stores-Aircraft Interface</i>

E. Performance Metrics

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force													Date: February 2015		
Appropriation/Budget Activity 3600 / 5					R-1 Program Element (Number/Name) PE 0605223F / <i>Advanced Pilot Training</i>					Project (Number/Name) 655361 / <i>Stores-Aircraft Interface</i>					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		-		-		-	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force																								Date: February 2015															
Appropriation/Budget Activity												R-1 Program Element (Number/Name)								Project (Number/Name)																			
3600 / 5												PE 0605223F / Advanced Pilot Training								655361 / Stores-Aircraft Interface																			
												FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
												1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Begin Companion Trainer Missionization																																							

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force		Date: February 2015
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0605223F / Advanced Pilot Training	Project (Number/Name) 655361 / Stores-Aircraft Interface

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Begin Companion Trainer Missionization	2	2019	4	2020