

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Air Force										Date: February 2018		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0207701F I Full Combat Mission Training							
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	-	10.809	16.727	1.015	0.000	1.015	9.797	9.846	7.010	7.138	Continuing	Continuing
655012: Full Combat Mission Training	-	2.673	6.851	1.015	0.000	1.015	9.797	9.846	7.010	7.138	Continuing	Continuing
655354: F-16 Block 40/50 MTC	-	8.136	9.876	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

F-16 Block 40/50 Mission Training Center (MTC) supports the development, acquisition, fielding and integration of high fidelity, Distributed Mission Operations (DMO) capable flight simulators for F-16 Block 40 and 50 weapon systems. Each MTC includes multiple high fidelity Simulator Cockpits, Instructor Operator Stations, a Threat Server and Brief/Debrief and Mission Observation capability. Each is capable of linking to geographically distributed high-fidelity combat and combat support training devices including Command and Control (C2) and Intelligence, Surveillance, and Reconnaissance (ISR) systems. This capability allows the warfighters at home station to exercise and train at the operational and strategic levels of war as well as conduct networked unit-level training. Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues. DMS efforts to 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. Implement requirements and standards 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 Full Combat Mission Training capabilities. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605826F, 0605827F, 0605828F, 0605829F, 0605830F, 0605831F, 0605832F, 0605898F, and 0605833F.

In FY 2019, PE 0207701F, Full Combat Mission Training, Project 655354, F-16 Blk 40/50 MTC efforts were transferred to PE 0207133F, F-16, Project 672671, F-16 Blk 40/50 MTC, in order to transfer programmatic responsibilities and funding to the F-16 weapon system team.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Air Force	Date: February 2018
--	----------------------------

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0207701F / <i>Full Combat Mission Training</i>
---	---

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	12.051	16.727	19.480	0.000	19.480
Current President's Budget	10.809	16.727	1.015	0.000	1.015
Total Adjustments	-1.242	0.000	-18.465	0.000	-18.465
• 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	-0.442	0.000			
• Other Adjustments	-0.800	0.000	-18.465	0.000	-18.465

Change Summary Explanation

The FY 2017 funding request was adjusted by removing \$0.442M for SBIR and \$0.800 to account for the availability of prior year execution balances.

The FY 2019 funding request was reduced by \$5.9M to account for the availability of prior year execution balances.

The FY 2019 funding request was reduced by \$12.6M because the funding request was transferred to F-16, Project 672671, F-16 Blk 40/50 MTC.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force										Date: February 2018		
Appropriation/Budget Activity 3600 / 5					R-1 Program Element (Number/Name) PE 0207701F / Full Combat Mission Training				Project (Number/Name) 655012 / Full Combat Mission Training			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
655012: Full Combat Mission Training	-	2.673	6.851	1.015	0.000	1.015	9.797	9.846	7.010	7.138	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Full Combat Mission Training (FCMT) supports Air Force Distributed Mission Operations (DMO) and Live-Virtual-Constructive (LVC) integration. DMO is an operational readiness initiative enabling the USAF to exercise and train at the operational and strategic levels of war while facilitating unit-level training. FCMT funding provides research in areas benefiting the AF DMO/LVC environment as a whole. Provides research and development to facilitate integration of fielded and newly acquired, Air Force owned training devices into DMO/LVC networks. Enhances the quality of training for the systems added to the network. Enables aircrews to network with LVC components to form the integrated DMO battlespace. Links geographically distributed high-fidelity combat and combat support training devices including Command and Control (C2) and Intelligence, Surveillance, and Reconnaissance (ISR) systems. Develops, demonstrates and inserts multi-level security capability. This capability allows the warfighters at home station to exercise and train at the operational and strategic levels of war as well as conduct networked unit-level training.

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

	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: FCMT Cross Domain Solutions (CDS)	1.629	2.237	0.286	-	0.286
Description: Development, demonstration and insertion of multi-level security capability.					
FY 2018 Plans: <ul style="list-style-type: none"> - Complete Multi Level Security (MLS) research testbed development and support for MLS testing for fourth and fifth generation trainers. - Continue fourth to fifth generation Cross Domain Solution (CDS) rule set prototype development. - Conclude evaluation of commercial and government off-the-shelf CDS devices and capabilities. - Begin accreditation for cross-domain rule sets. - Continue fourth to fifth generation MLS rule development for routine Live, Virtual and Constructive (LVC) environment integration. 					
FY 2019 Base Plans: <ul style="list-style-type: none"> - Complete fourth to fifth generation Cross Domain Solution (CDS) rule set prototype development. - Continue accreditation for coalition rule sets. - Complete fourth to fifth generation MLS rule development for routine Live, Virtual and Constructive (LVC) environment integration. 					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force			Date: February 2018			
Appropriation/Budget Activity 3600 / 5		R-1 Program Element (Number/Name) PE 0207701F / Full Combat Mission Training		Project (Number/Name) 655012 / Full Combat Mission Training		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
- Develop updates for cross domain rule sets						
FY 2018 to FY 2019 Increase/Decrease Statement: FY2019 funding request was reduced by \$1.951M due to funds early to need.						
Title: FCMT Develop DMO Capabilities		0.672	2.398	0.223	-	0.223
Description: Development, demonstrations, studies and insertions of DMO/LVC related technologies and proficiency based continuation training strategies.						
FY 2018 Plans: - Continue validation of training environment credibility assessments for an identified set of ACC Virtual and Constructive environments. - Complete integration of performance evaluation and After Action Review (AAR) tools for the operational Mission Training Centers (MTCs) - Develop metrics and tools to measure training proficiency gained during live, virtual, constructive events - Demonstrate persistent performance measurement and readiness assessment in fourth to fifth LVC training events.						
FY 2019 Base Plans: - Complete validation of training environment credibility assessments for an identified set of ACC Virtual and Constructive environments. - Continue to develop metrics and tools to measure training proficiency gained during live, virtual, constructive events - Conclude demonstration of persistent performance measurement and readiness assessment in fourth to fifth LVC training events.						
FY 2018 to FY 2019 Increase/Decrease Statement: FY2019 funding request was reduced by \$2.175M due to funds early to need.						
Title: FCMT Validation of warfighter seasoning and development of objective performance enhancements		0.172	1.258	0.253	-	0.253
Description: Studies to assess and validate warfighter seasoning in continuation training and accreditation of portions of this process; studies to develop objective enhancement and measurement tools for the DMO/LVC environment.						
FY 2018 Plans:						

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force				Date: February 2018		
Appropriation/Budget Activity 3600 / 5		R-1 Program Element (Number/Name) PE 0207701F / Full Combat Mission Training		Project (Number/Name) 655012 / Full Combat Mission Training		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
<div>- Continue research and development for the integration of F-35, Joint and Coalition Trainers into the Combat Air Forces (CAF) Distributed Mission Operations (DMO) network.</div> <div>- Continue interoperability studies to evaluate the training value of fifth generation interoperable coalition training on the CAF DMO network</div> <div>- Continue evaluation of the integration of different data management and tracking methods to support large scale, secure and persistent Joint and Coalition LVC events.</div> <div>- Continue evaluation of network architectures and typologies for distributed secure, live, virtual, constructive events.</div> <div>FY 2019 Base Plans:</div> <div>- Continue research and development for the integration of F-35, Joint and Coalition Trainers into the Combat Air Forces (CAF) Distributed Mission Operations (DMO) network.</div> <div>- Continue interoperability studies to evaluate the training value of fifth generation interoperable coalition training on the CAF DMO network.</div> <div>- Develop common Joint and Coalition data standards for secure, interoperable training at joint and coalition levels of analysis.</div> <div>- Conclude evaluation of the integration of different data management and tracking methods to support large scale, secure and persistent Joint and Coalition live, virtual, constructive events.</div> <div>- Begin demonstrations of persistent performance measurement and readiness assessment in fourth to fifth generation live, virtual, constructive events.</div> <div>- Conclude evaluation of network architectures and typologies for distributed secure, live, virtual, constructive events.</div> <div>FY 2018 to FY 2019 Increase/Decrease Statement:</div> <div>FY2019 funding request was reduced by \$1.005M due to funds early to need.</div>						
<div>Title: FCMT Other Network Studies</div> <div>Description: Research and development to provide for the integration of fielded and newly introduced, Air Force, Joint and Coalition high-fidelity flight and mission trainers.</div> <div>FY 2018 Plans:</div> <div>- Continue research and development for the integration of F-35, Joint and Coalition Trainers into the Combat Air Forces (CAF) Distributed Mission Operations (DMO) network.</div>		0.200	0.958	0.253	-	0.253

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force			Date: February 2018			
Appropriation/Budget Activity 3600 / 5		R-1 Program Element (Number/Name) PE 0207701F / Full Combat Mission Training		Project (Number/Name) 655012 / Full Combat Mission Training		
B. Accomplishments/Planned Programs (\$ in Millions)						
		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
<ul style="list-style-type: none"> - Continue interoperability studies to evaluate the training value of fifth generation interoperable coalition training on the CAF DMO network - Continue evaluation of the integration of different data management and tracking methods to support large scale, secure and persistent Joint and Coalition LVC events. - Continue evaluation of network architectures and typologies for distributed secure, live, virtual, constructive events. <p>FY 2019 Base Plans:</p> <ul style="list-style-type: none"> - Continue research and development for the integration of F-35, Joint and Coalition Trainers into the Combat Air Forces (CAF) Distributed Mission Operations (DMO) network. - Continue interoperability studies to evaluate the training value of fifth generation interoperable coalition training on the CAF DMO network. - Develop common Joint and Coalition data standards for secure, interoperable training at joint and coalition levels of analysis. - Conclude evaluation of the integration of different data management and tracking methods to support large scale, secure and persistent Joint and Coalition live, virtual, constructive events. - Begin demonstrations of persistent performance measurement and readiness assessment in fourth to fifth generation live, virtual, constructive events. - Conclude evaluation of network architectures and typologies for distributed secure, live, virtual, constructive events. - Develop gateways and cross domain solutions to integrate high-fidelity trainers with Air Force, joint, and coalition networks <p>FY 2018 to FY 2019 Increase/Decrease Statement: FY2019 funding request was reduced by \$0.705M due to funds early to need.</p>						
Accomplishments/Planned Programs Subtotals		2.673	6.851	1.015	-	1.015
C. Other Program Funding Summary (\$ in Millions)						
N/A						
Remarks						

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force		Date: February 2018
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0207701F / <i>Full Combat Mission Training</i>	Project (Number/Name) 655012 / <i>Full Combat Mission Training</i>
<p><u>D. Acquisition Strategy</u></p> <p>Each platform joining the Distributed Mission Operations (DMO)/Live-Virtual-Constructive (LVC) environment selects its own acquisition strategy based on using Command needs, Economic Analysis (EA) and the magnitude of the training system changes required to provide DMO capability. The initial systems in the DMO/LVC environment; F-15C, AWACS, F-16 Block 40/50 and F-15E, all required new training systems. In addition, the Operations and Integration capability was created. The Training Simulation Service (TSS) acquisition strategy was used to meet a portion of these requirements. In the TSS approach, the contractor owns and provides the simulator equipment, maintains simulator concurrency with weapon systems, and has incentives to keep the equipment up to date with simulator and network technologies. Currently fielded and projected Air Force-owned Flight and Mission Training Systems without DMO/LVC capability will be modified using Full Combat Mission Training (FCMT) funds to ensure compatibility with the DMO-LVC environment. To accomplish this, AFRL will conduct research/studies to Develop/implement Cross Domain Solutions, develop DMO capabilities, Validate warfighter seasoning and develop objective performance enhancements and conduct other network studies.</p> <p><u>E. Performance Metrics</u></p> <p>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.</p>		

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Air Force												Date: February 2018			
Appropriation/Budget Activity 3600 / 5						R-1 Program Element (Number/Name) PE 0207701F / Full Combat Mission Training						Project (Number/Name) 655012 / Full Combat Mission Training			
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Full Combat Mission Training: Development, Testing and insertion of Multi-level-security protocols, Cross Domain rule set development and accreditation	Various	Air Force Research Lab, 711 Human Performance Wing, Human : Dayton, OH	-	1.629	Dec 2016	2.237	Jan 2018	0.285	Jan 2019	-		0.285	Continuing	Continuing	-
Full Combat Mission Training: Development, demonstration, studies and insertion of distributed mission ops related technologies and proficiency based continuation training	Various	Air Force Research Lab, 711 Human Performance Wing : Dayton, OH	-	0.672	Dec 2016	2.398	Jan 2018	0.223	Jan 2019	-		0.223	Continuing	Continuing	-
Full Combat Mission Training: Validation of warfighter seasoning and development of objective performance enhancements for DMO/ LVC environment	Various	Air Force Research Lab, 711 Human Performance Wing : Dayton, OH	-	0.172	Dec 2016	1.258	Jan 2018	0.254	Jan 2019	-		0.254	Continuing	Continuing	-
Full Combat Mission Training: Research and Development to support integration of newly fielded high-fidelity training systems and networks	Various	Air Force Research Lab, 711 Human Performance Wing : Dayton, OH	-	0.200	Dec 2015	0.958	Jan 2018	0.253	Jan 2019	-		0.253	Continuing	Continuing	-
Subtotal			-	2.673		6.851		1.015		-		1.015	Continuing	Continuing	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	2.673		6.851		1.015		-		1.015	Continuing	Continuing	N/A
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Air Force

Date: February 2018

Appropriation/Budget Activity

3600 / 5

R-1 Program Element (Number/Name)

PE 0207701F / Full Combat Mission Training

Project (Number/Name)

655012 / Full Combat Mission Training

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
Full Combat Mission Training																												
Develop Multi-Level Security testbed and support testing on 5th Gen systems																												
Develop 4th to 5th generation rule sets for coalition integration																												
Evaluate and assess commercial and government off-the-shelf cross domain solution devices																												
Perform accreditation for cross domain solution rule sets																												
Develop rule sets for routine live, virtual, and constructive environment integration																												
Continue to develop cross domain solution rule sets																												
Integrate scenarios and syllabi across DMO environments																												
Develop metrics for routine proficiency evaluations and determine standard format for storing/analyzing proficiency data																												
Create and evaluate alternative data formats for routinely tracking and storing performance and proficiency data																												
Demonstrate learning managed distributed mission operations scenario																												
Refine learning managed scenario and integrate with live, virtual, constructive events																												
Develop training assessment and performance measurement tools																												

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Air Force																				Date: February 2018								
Appropriation/Budget Activity 3600 / 5										R-1 Program Element (Number/Name) PE 0207701F / Full Combat Mission Training										Project (Number/Name) 655012 / Full Combat Mission Training								
	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
Validate training environment credibility assessments for an identified set of ACC Virtual and Constructive Environments																												
Develop and integrate After Action Review tools for Mission Training Centers																												
Develop metrics and tools to measure training proficiency gained during live, virtual, constructive events																												
Demonstrate persistent performance measurement and readiness assessment in 4th to 5th generation LVC events																												
Integrate 5th generation systems into distributed mission operations network																												
Conduct interoperability studies to evaluate the training value of fifth generation interoperable coalition training on the CAF DMO network																												
Develop joint and colation data standards and evaluate data management methods to support live, virtual, and constructive events																												
Evaluation of the integration of different data management and tracking methods to support large scale, secure and persistent Joint and Coalition LVC events.																												
Demonstrate persistent performance measurement and readiness assessment in fourth to fifth generation LVC events																												
Evaluate network architectures and typologies for distributed, secure, live, virtual, constructive events																												

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Air Force																								Date: February 2018													
Appropriation/Budget Activity 3600 / 5										R-1 Program Element (Number/Name) PE 0207701F / Full Combat Mission Training										Project (Number/Name) 655012 / Full Combat Mission Training																	
										FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Develop gateways and cross domain solutions to integrate high-fidelity trainers with Air Force, joint, and coalition networks										<div></div>																											

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Air Force			Date: February 2018
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0207701F / <i>Full Combat Mission Training</i>	Project (Number/Name) 655012 / <i>Full Combat Mission Training</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Full Combat Mission Training</i>				
Develop Multi-Level Security testbed and support testing on 5th Gen systems	1	2017	4	2018
Develop 4th to 5th generation rule sets for coalition integration	1	2017	4	2019
Evaluate and assess commerical and government off-the-shelf cross domain solution devices	1	2017	2	2018
Perform accreditation for cross domain solution rule sets	3	2018	3	2020
Develop rule sets for routine live, virtual, and constructive environment integration	4	2017	3	2020
Continue to develop cross domain solution rule sets	1	2017	1	2019
Integrate scenarios and syllabi across DMO environments	1	2017	1	2019
Develop metrics for routine proficiency evaluations and determine standard format for storing/analyzing proficiency data	1	2017	2	2018
Create and evaluate alternative data formats for routinely tracking and storing performance and proficiency data	1	2017	1	2020
Demonstrate learning managed distributed mission operations scenario	3	2017	2	2018
Refine learning managed scenario and integrate with live, virtual, constructive events	3	2018	4	2023
Develop training assessment and performance measurement tools	1	2017	4	2017
Validate training environment credibility assessments for an identified set of ACC Virtual and Constructive Environments	1	2017	1	2019
Develop and integrate After Action Review tools for Mission Training Centers	1	2017	4	2018
Develop metrics and tools to measure training proficiency gained during live, virtual, constructive events	3	2018	4	2022
Demonstrate persistent performance measurement and readiness assessment in 4th to 5th generation LVC events	2	2018	4	2019
Integrate 5th generation systems into distirbuted mission operations network	1	2017	3	2020

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Air Force			Date: February 2018		
Appropriation/Budget Activity 3600 / 5		R-1 Program Element (Number/Name) PE 0207701F / Full Combat Mission Training		Project (Number/Name) 655012 / Full Combat Mission Training	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
Conduct interoperability studies to evaluate the training value of fifth generation interoperable coalition training on the CAF DMO network		1	2017	3	2020
Develop joint and colation data standards and evaluate data management methods to support live, virtual, and constructive events		1	2019	2	2021
Evaluation of the integration of different data management and tracking methods to support large scale, secure and persistent Joint and Coalition LVC events.		2	2017	3	2019
Demonstrate persistent performance measurement and readiness assessment in fourth to fifth generation LVC events		4	2019	2	2023
Evaluate network architectures and typologies for distributed, secure, live, virtual, constructive events		1	2017	1	2019
Develop gateways and cross domain solutions to integrate high-fidelity trainers with Air Force, joint, and coalition networks		3	2019	4	2023

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force										Date: February 2018		
Appropriation/Budget Activity 3600 / 5					R-1 Program Element (Number/Name) PE 0207701F / Full Combat Mission Training				Project (Number/Name) 655354 / F-16 Block 40/50 MTC			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
655354: F-16 Block 40/50 MTC	-	8.136	9.876	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
F-16 Block 40/50 Mission Training Center (MTC) supports the development, acquisition, fielding and integration of high fidelity, Distributed Mission Operations (DMO) capable flight simulators for F-16 Block 40 and 50 weapon systems. Each MTC includes multiple high fidelity Simulator Cockpits, Instructor Operator Stations, a Threat Server and Brief/Debrief and Mission Observation capability. Each is capable of linking to geographically distributed high-fidelity combat and combat support training devices including Command and Control (C2) and Intelligence, Surveillance, and Reconnaissance (ISR) systems. This capability allows the warfighters at home station to exercise and train at the operational and strategic levels of war as well as conduct networked unit-level training. Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues. DMS efforts to 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. Implement requirements and standards 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 Full Combat Mission Training capabilities. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605826F, 0605827F, 0605828F, 0605829F, 0605830F, 0605831F, 0605832F, 0605898F, and 0605833F.												
In FY 2019, PE 0207701F, Full Combat Mission Training, Project 655354, F-16 Blk 40/50 MTC efforts were transferred to PE 0207133F, F-16, Project 672671, F-16 Blk 40/50 MTC, in order to transfer programmatic responsibilities and funding to the F-16 weapon system team.												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: F-16 MTC Modification Development								8.136	9.876	0.000	0.000	0.000
Description: Development and testing of modifications to the F-16 MTC to maintain concurrency with F-16 aircraft.												
FY 2018 Plans: -- Continue to Develop, test, and field F-16 MTC Operational Flight Plan (OFP) M7.2+ concurrency modifications. Ensures the MTC will achieve concurrency with the capabilities resident in the aircraft when the aircraft upgrades to OFP 7.2 3rd quarter of FY19.												
FY 2019 Base Plans:												

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force				Date: February 2018				
Appropriation/Budget Activity 3600 / 5			R-1 Program Element (Number/Name) PE 0207701F / <i>Full Combat Mission Training</i>			Project (Number/Name) 655354 / <i>F-16 Block 40/50 MTC</i>		

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
N/A					
<i>FY 2019 OCO Plans:</i>					
N/A					
<i>FY 2018 to FY 2019 Increase/Decrease Statement:</i>					
Funding in FY 2019 and out was transferred from PE 0207701F to PE 0207133F					
Accomplishments/Planned Programs Subtotals	8.136	9.876	0.000	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019 Base</u>	<u>FY 2019 OCO</u>	<u>FY 2019 Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APAF 05 Line Item	8.136	9.876	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
OTHACF: <i>Other Aircraft</i>											
• APAF 06 Line item 000999: <i>Initial Spares/Repair Parts</i>	1.822	0.219	0.000	-	0.000	0.000	0.000	0.000	0.111	Continuing	Continuing

Remarks

In FY 2019, the APAF funds were transferred from Other Aircraft to PE 0207133F, f0160p, in order to transfer programmatic responsibilities and funding to the F-16 weapon system team.

D. Acquisition Strategy

F-16 Block 40/50 MTCs are being developed, fielded, and modified under a competitively awarded Federal Acquisition Regulation (FAR) Part 15 Supply contract with RDT&E and APAF funds. The MTCs are sustained by Contract Logistic Support (CLS) using Operations and Maintenance funds. Physical changes to the MTC cockpits required by any OFP update will be funded in the F-16 APAF Mod Line.

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.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Air Force												Date: February 2018			
Appropriation/Budget Activity 3600 / 5						R-1 Program Element (Number/Name) PE 0207701F / Full Combat Mission Training				Project (Number/Name) 655354 / F-16 Block 40/50 MTC					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
F-16 Blk 40/50 Mission Training Center (MTC)	C/Various	L3 Comm, Link Simulation & Training : Arlington, TX	-	7.954	Dec 2016	9.629	Dec 2017	0.000		-		0.000	Continuing	Continuing	-
Subtotal			-	7.954		9.629		0.000		-		0.000	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
F-16 Blk 40/50 Mission Training Center (MTC) Program Management Administration- Over Gov't Costs	C/FFP	AFLCMC/WNS AFMC : Dayton, OH	-	0.182	Dec 2016	0.247	Dec 2017	0.000		-		0.000	Continuing	Continuing	-
Subtotal			-	0.182		0.247		0.000		-		0.000	Continuing	Continuing	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	8.136		9.876		0.000		-		0.000	Continuing	Continuing	N/A
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Air Force										Date: February 2018									
Appropriation/Budget Activity 3600 / 5										R-1 Program Element (Number/Name) PE 0207701F / Full Combat Mission Training									
										Project (Number/Name) 655354 / F-16 Block 40/50 MTC									

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
F-16 BLK 40/50																												
OFP M7.1+																												
OFP M7.2+																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Air Force		Date: February 2018
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0207701F / <i>Full Combat Mission Training</i>	Project (Number/Name) 655354 / <i>F-16 Block 40/50 MTC</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>F-16 BLK 40/50</i>				
OFP M7.1+	1	2017	3	2018
OFP M7.2+	2	2018	4	2018

Note

These remarks do not appear in XML Preview exhibit.