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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force **Date:** February 2015

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>
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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	-	4.663	8.831	18.082	-	18.082	13.283	11.685	11.904	12.117	Continuing	Continuing
655012: <i>Full Combat Mission Training</i>	-	-	2.612	2.666	-	2.666	2.803	2.858	2.910	2.963	Continuing	Continuing
655354: <i>F-16 Block 40/50 MTC</i>	-	4.663	6.219	15.416	-	15.416	10.480	8.827	8.994	9.154	Continuing	Continuing

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. Networked LVC components form the integrated DMO battlespace by linking geographically distributed high fidelity combat and combat support training devices, including Command and Control (C2) and Intelligence, Surveillance, and Reconnaissance (ISR) systems.

RDT&E for Project 655012, FCMT, efforts are focused on development, demonstration, and transitioning of critical functions associated with the DMO/LVC network and linked simulators.

Project 655354, F-16 Block 40/50 Mission Training Centers (MTC), efforts are focused on development and demonstration of the F-16 Block 40/50 MTC.

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.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	4.663	8.831	18.202	-	18.202
Current President's Budget	4.663	8.831	18.082	-	18.082
Total Adjustments	-	-	-0.120	-	-0.120
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.120	-	-0.120

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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 0207701F / Full Combat Mission Training				Project (Number/Name) 655012 / Full Combat Mission 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
655012: Full Combat Mission Training	-	-	2.612	2.666	-	2.666	2.803	2.858	2.910	2.963	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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: FCMT Cross Domain Solutions (CDS)	-	-	1.666	-	1.666
Description: Development, demonstration and insertion of multi-level security capability.					
FY 2014 Accomplishments: N/A					
FY 2015 Plans: N/A					
FY 2016 Base Plans: Provide Multi-Level-Security (MLS) test bed support for MLS testing and implementation on, but not limited to the F-22 and F-35 Trainers					
FY 2016 OCO Plans: N/A					
Title: FCMT Develop DMO Capabilities	-	1.012	-	-	-
Description: Development,demonstration,studies and insersion of DMO/LVC related technologies and profiency based continuation training strategies					

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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 0207701F / Full Combat Mission Training		Project (Number/Name) 655012 / Full Combat Mission Training		
B. Accomplishments/Planned Programs (\$ in Millions)						
	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	
FY 2014 Accomplishments: N/A						
FY 2015 Plans: Research and Development to include but not limited to support for the integration of F-35, Joint and Coalition trainers into the Combat Air Forces (CAF) DMO network.						
Title: FCMT Validation of warfighter seasoning and development of objective performance enhancements 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 2014 Accomplishments: N/A FY 2015 Plans: - Transition training assessment and performance measurement tools to operational units for readiness studies. - Complete training credibility assessments of an ACC identified set of Virtual and Constructive environments. FY 2016 Base Plans: Integrate performance evaluation and After Action Reporting (AAR) tools for the operational MTCs FY 2016 OCO Plans: N/A		-	0.600	1.000	-	1.000
Title: FCMT Other Network Studies 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. FY 2014 Accomplishments: N/A FY 2015 Plans: Research and development to include but not limited to support for the integration of F-35, Joint and Coalition Trainers into the Combat Air Forces (CAF) DMO network. FY 2016 Base Plans:		-	1.000	-	-	-

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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 0207701F / <i>Full Combat Mission Training</i>		Project (Number/Name) 655012 / <i>Full Combat Mission Training</i>	
B. Accomplishments/Planned Programs (\$ in Millions)				FY 2014	FY 2015
N/A					
FY 2016 OCO Plans:					
N/A					
Accomplishments/Planned Programs Subtotals				-	2.612
				2.666	-
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
D. Acquisition Strategy					
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.					
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 0207701F / Full Combat Mission Training						Project (Number/Name) 655012 / Full Combat Mission Training			
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
Enhanced DMO Capabilities for B-1, B-2 & Joint Terminal Control Training and Rehearsal System [JTC TRS])	SS/ Various	AFLCMC/WNS AFMC : Dayton, OH	-	-		1.012	Dec 2014	-		-		-	Continuing	Continuing	-
Subtotal			-	-		1.012		-		-		-	-	-	-
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
Development, Testing and insertion of Multi-level-security protocols, Validation of Warfighter Seasoning, Identification of Training and Rehearsal Gaps,	Various	Air Force Research Lab, 711 Human Performance Wing, Human : Dayton, OH	-	-		1.600	Dec 2014	2.666	Dec 2015	-		2.666	Continuing	Continuing	-
Subtotal			-	-		1.600		2.666		-		2.666	-	-	-
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			-	-		-		-		-		-	-	-	-

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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 0207701F / <i>Full Combat Mission Training</i>					Project (Number/Name) 655012 / <i>Full Combat Mission Training</i>			
	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	-	-		2.612		2.666		-		2.666	-	-	-
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 0207701F / Full Combat Mission Training			Project (Number/Name) 655012 / Full Combat Mission Training

	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
B-2 Mod kits install																												
R&D on integration of coalition trainers into the CAF DMO Network																												
Transition assessment and performance measurement tools to operational units																												
Training credibility assessments of a set of ACC identified Virtual and Constructive environments																												
Start CDS rule set development for F16 and Coalition DMO event																												
Trade study examining fidelity and training impacts associated with Rule set implementations for F16 and F22 DMO training																												
Development of CDS rules for F15E and F35 DMO training																												
Development and integration testing of distributed 5 eyes training CDS rule set for DMO																												
Squadron training analysis tool (F-22 integration)																												
Deliver Integrated Performance Evaluation & After Action Review toolkit for Langley DTC																												

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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 0207701F / <i>Full Combat Mission Training</i>	Project (Number/Name) 655012 / <i>Full Combat Mission Training</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
B-2 Mod kits install	1	2014	3	2015
R&D on integration of coalition trainers into the CAF DMO Network	1	2015	3	2016
Transition assessment and performance measurement tools to operational units	1	2015	2	2016
Training credibility assessments of a set of ACC identified Virtual and Constructive environments	2	2015	3	2016
Start CDS rule set development for F16 and Coalition DMO event	1	2016	4	2017
Trade study examining fidelity and training impacts associated with Rule set implementations for F16 and F22 DMO training	3	2016	2	2018
Development of CDS rules for F15E and F35 DMO training	3	2016	4	2018
Development and integration testing of distributed 5 eyes training CDS rule set for DMO	2	2016	4	2017
Squadron training analysis tool (F-22 integration)	1	2016	3	2017
Deliver Integrated Performance Evaluation & After Action Review toolkit for Langley DTC	2	2016	3	2017

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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 0207701F / Full Combat Mission Training				Project (Number/Name) 655354 / F-16 Block 40/50 MTC			
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
655354: F-16 Block 40/50 MTC	-	4.663	6.219	15.416	-	15.416	10.480	8.827	8.994	9.154	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 sustainment 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.												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: F-16 MTC Modification Development								4.663	6.219	15.416	-	15.416
Description: Development and testing of modifications to the F-16 MTC to maintain concurrency with F-16 aircraft.												
FY 2014 Accomplishments: Developmented, tested and fielded F-16 MTC Operational Flight Plan (OFP) M6.2+ Phase 1 (Baseline) Concurrency modifications.												
FY 2015 Plans: - Development, test and fielding F-16 MTC Operational Flight Plan (OFP) M6.2+ Phase 2 (upgrades) - Intially defined OFP M7.1+ concurrency modifications.												
FY 2016 Base Plans: - Development, test and fielding F-16 MTC Operational Flight Plan (OFP) M7.1+ - Intial definition of OFP M7.2+ concurrency modifications.												
FY 2016 OCO Plans: N/A												
Accomplishments/Planned Programs Subtotals								4.663	6.219	15.416	-	15.416

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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 0207701F / Full Combat Mission Training				Project (Number/Name) 655354 / F-16 Block 40/50 MTC			
C. Other Program Funding Summary (\$ in Millions)											
			FY 2016	FY 2016	FY 2016					Cost To	
Line Item	FY 2014	FY 2015	Base	OCO	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total Cost
• APAF: BA05: Line Item #OTHACF: Other Aircraft	0.602	2.751	2.459	-	2.459	1.884	1.922	1.957	1.909	Continuing	Continuing
• APAF: BA06: Line item #000999: Initial Spares/Repair Parts	0.037	0.130	0.290	-	0.290	0.284	0.221	0.214	0.218	Continuing	Continuing
• APAF: BA07: Line Item #OTHACF: Other Aircraft	-	0.027	-	-	-	-	-	-	-	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
F-16 Block 40/50 MTCs are being developed and fielded 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.											
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 0207701F / Full Combat Mission Training				Project (Number/Name) 655354 / F-16 Block 40/50 MTC				
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
F-16 Blk 40/50 MTC Trainer Development	C/Various	L3 Comm, Link Simulation & Training : Arlington, TX	-	4.572	Jan 2014	6.093	Dec 2014	15.241	Dec 2015	-		15.241	Continuing	Continuing	TBD
Subtotal			-	4.572		6.093		15.241		-		15.241	-	-	-
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
Program Management Administration	C/FFP	AFLCMC/WNS AFMC : Dayton, OH	-	0.091	Dec 2013	0.126	Dec 2014	0.175	Dec 2015	-		0.175	Continuing	Continuing	TBD
Subtotal			-	0.091		0.126		0.175		-		0.175	-	-	-
			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			-	4.663		6.219		15.416		-		15.416	-	-	-
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 0207701F / <i>Full Combat Mission Training</i>			Project (Number/Name) 655354 / <i>F-16 Block 40/50 MTC</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
OFP M6.1																												
OFP M 6.2+ Phase 1																												
OFP M6.2+ Phase 2																												
MTC Kunsan AB ROK Fielded																												
MTC Holloman AFB NM Fielded																												
MTC Spangdahlem AB GE Fielded																												
OFP M7.1+																												
OFP M7.2+																												
MTC Misawa AB JA																												
MTC Aviano AB IT Fielded																												
OFP M8.1+																												

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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 0207701F / <i>Full Combat Mission Training</i>	Project (Number/Name) 655354 / <i>F-16 Block 40/50 MTC</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
OFP M6.1	1	2014	2	2015
OFP M 6.2+ Phase 1	1	2014	2	2015
OFP M6.2+ Phase 2	1	2014	4	2015
MTC Kunsan AB ROK Fielded	3	2014	4	2014
MTC Holloman AFB NM Fielded	3	2014	4	2014
MTC Spangdahlem AB GE Fielded	1	2015	2	2015
OFP M7.1+	2	2015	3	2017
OFP M7.2+	3	2016	3	2018
MTC Misawa AB JA	2	2017	3	2017
MTC Aviano AB IT Fielded	4	2017	1	2018
OFP M8.1+	3	2018	3	2020