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

Date: March 2014

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

3600: Research, Development, Test & Evaluation, Air Force I BA 5: System

PE 0207701F I Full Combat Mission Training

Development & Demonstration (SDD)

,												
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO <sup>#</sup>	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	13.089	4.663	8.831	-	8.831	18.202	13.389	11.781	12.005	Continuing	Continuing
655012: Full Combat Mission Training	-	0.347	-	2.612	-	2.612	2.683	2.825	2.881	2.935	Continuing	Continuing
655354: F-16 Block 40/50 MTC	-	12.742	4.663	6.219	-	6.219	15.519	10.564	8.900	9.070	Continuing	Continuing

<sup>&</sup>lt;sup>#</sup> The FY 2015 OCO Request will be submitted at a later date.

### 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 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	14.861	4.663	13.571	-	13.571
Current President's Budget	13.089	4.663	8.831	-	8.831
Total Adjustments	-1.772	-	-4.740	-	-4.740
<ul> <li>Congressional General Reductions</li> </ul>	-0.020	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
<ul> <li>Reprogrammings</li> </ul>	-	-			
SBIR/STTR Transfer	-0.428	-			
<ul> <li>Other Adjustments</li> </ul>	-1.324	-	-4.740	-	-4.740

## **Change Summary Explanation**

- FY13 Reduction of \$1.324M: Sequestration reduction

PE 0207701F: Full Combat Mission Training Air Force

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force		Date: March 2014
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	,
- FY15 Reduction of \$4.74M: Funds realigned for proper execution	·	

PE 0207701F: Full Combat Mission Training Air Force

Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600 / 5					` ` ` '				Project (Number/Name) 655012 I Full Combat Mission Training			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
655012: Full Combat Mission Training	-	0.347	-	2.612	-	2.612	2.683	2.825	2.881	2.935	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

<sup>\*</sup> The FY 2015 OCO Request will be submitted at a later date.

### 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 2013	FY 2014	FY 2015
Title: FCMT Cross Domain Solutions (CDS)	-	-	-
Description: Development, demonstration and insertion of multi-level security capability.			
FY 2013 Accomplishments: N/A			
<b>FY 2014 Plans:</b> N/A			
Title: FCMT Develop DMO Capabilities	0.347	-	1.012
<b>Description:</b> Continue development, demonstration, studies and insertion of DMO/LVC related technologies and proficiency based continuation training strategies.			
FY 2013 Accomplishments:  Continue enhancement of visual fidelity of F-22 and B-2 simulators to support DMO capability. Continue to develop network architecture initiatives for technology refresh and cost reductions; side by side feasiblity testing of DMO and Global Information Grid (GIG) network.			
FY 2014 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force			Date: N	larch 2014	
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0207701F I Full Combat Mission Training	Project (Number/Name) 655012 I Full Combat Mission Training			raining
B. Accomplishments/Planned Programs (\$ in Millions)		F	Y 2013	FY 2014	FY 2015
N/A  FY 2015 Plans:  Continue enhancement of visual fidelity to include but not limited to B-2 simulat	tors to support DMO capability. Continue to				
develop network architecture initiatives for technology refresh and cost reduction					
Title: FCMT Validation of warfighter seasoning and development of objective p	erformance enhancements		-	-	0.600
<b>Description:</b> Studies to assess and validate warfighter seasoning in continuation process; studies to develop objective enhancement and measurement tools for		5			
FY 2013 Accomplishments: N/A					
<b>FY 2014 Plans:</b> N/A					
FY 2015 Plans: Transition training assessment and performance measurement tools to operation credibility assessments of an ACC identified set of Virtual and Constructive environments.		ning			
Title: FCMT Other Network Studies			-	-	1.000
<b>Description:</b> Research and development to provide for the integration of fields Coalition high-fidelity flight and mission trainers.	ed and newly introduced, Air Force, Joint and				
FY 2013 Accomplishments: N/A					
<b>FY 2014 Plans:</b> N/A					
FY 2015 Plans: Research and development to include but not limited to support for the integrat Combat Air Forces (CAF) DMO network.	ion of F-35, Joint and Coalition Trainers into t	ne			
	Accomplishments/Planned Programs Sub	totals	0.347	-	2.612

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

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force	Date: March 2014		
Appropriation/Budget Activity 3600 / 5	,	- 3 (	umber/Name) Full Combat Mission Training

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

#### Remarks

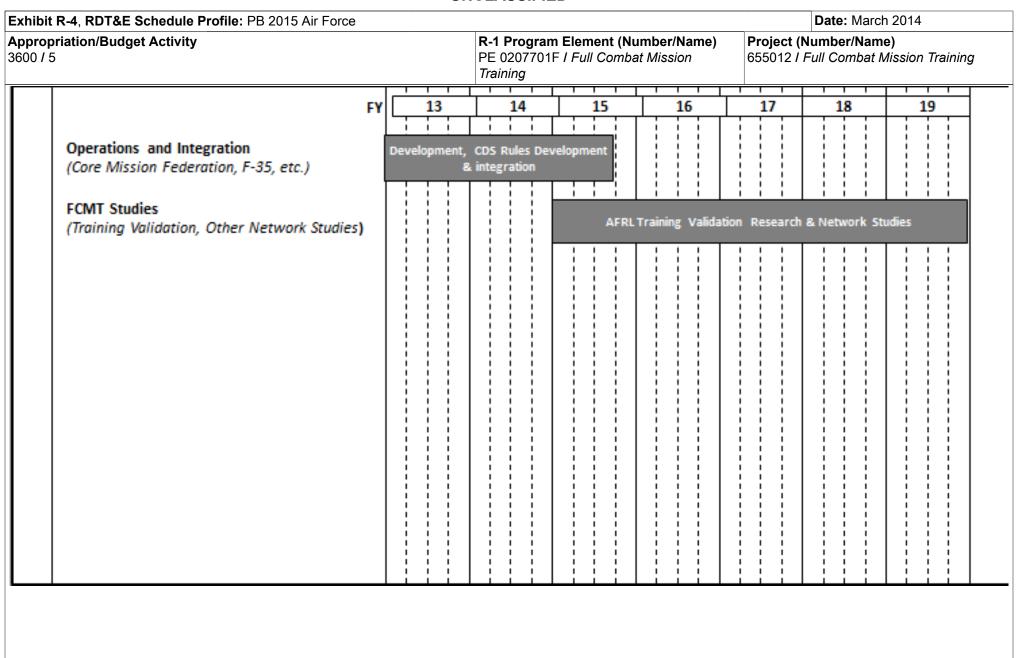
## D. Acquisition Strategy

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 contributir	ng to Air
Force performance goals and most importantly, how they contribute to our mission	

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600 / 5		,				Project (Number/Name) 655354 / F-16 Block 40/50 MTC						
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO <sup>#</sup>	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
655354: F-16 Block 40/50 MTC	-	12.742	4.663	6.219	-	6.219	15.519	10.564	8.900	9.070	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

<sup>\*</sup>The FY 2015 OCO Request will be submitted at a later date.

## 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 2013	FY 2014	FY 2015
Title: F-16 MTC Modification Dvelopment	12.742	4.663	6.219
<b>Description:</b> Development and testing of modifications to the F-16 MTC to maintain concurrency with F-16 aircraft.			
FY 2013 Accomplishments: Development, test and fielding F-16 MTC Operational Flight Plan (OFP) M6.1 concurrency modifications.			
FY 2014 Plans: Development, test and fielding 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) and intial definition of OFP M7.1+ concurrency modifications.			
Accomplishments/Planned Programs Subtotals	12.742	4.663	6.219

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

	- '	•	FY 2015	FY 2015	FY 2015					<b>Cost To</b>	
<u>Line Item</u>	FY 2013	FY 2014	<b>Base</b>	<u>000</u>	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	<b>Total Cost</b>
APAF: BA05: Line Item #OTHACF: Other Aircraft	1.563	0.918	2.751	-	2.751	2.481	1.904	1.941	1.977	Continuing	Continuing
• APAF: BA06: Line item # 000999: Initial Spares/Repair Parts	1.302	0.177	0.130	-	0.130	0.322	0.270	0.212	0.216	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0207701F I Full Combat Mission Training	Project (Number/Name) 655354 / F-16 Block 40/50 MTC
C. Other Program Funding Summary (\$ in Millions)		

			FY 2015	FY 2015	FY 2015				Cost To		
<u>Line Item</u>	FY 2013	FY 2014	<b>Base</b>	000	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	<b>Total Cost</b>
<ul> <li>APAF: BA07: Line Item</li> </ul>	0.009	-	0.027	-	0.027	-	-	-	-	Continuing	Continuing
#OTHACF: Other Aircraft											

## **Remarks**

## **D. Acquisition Strategy**

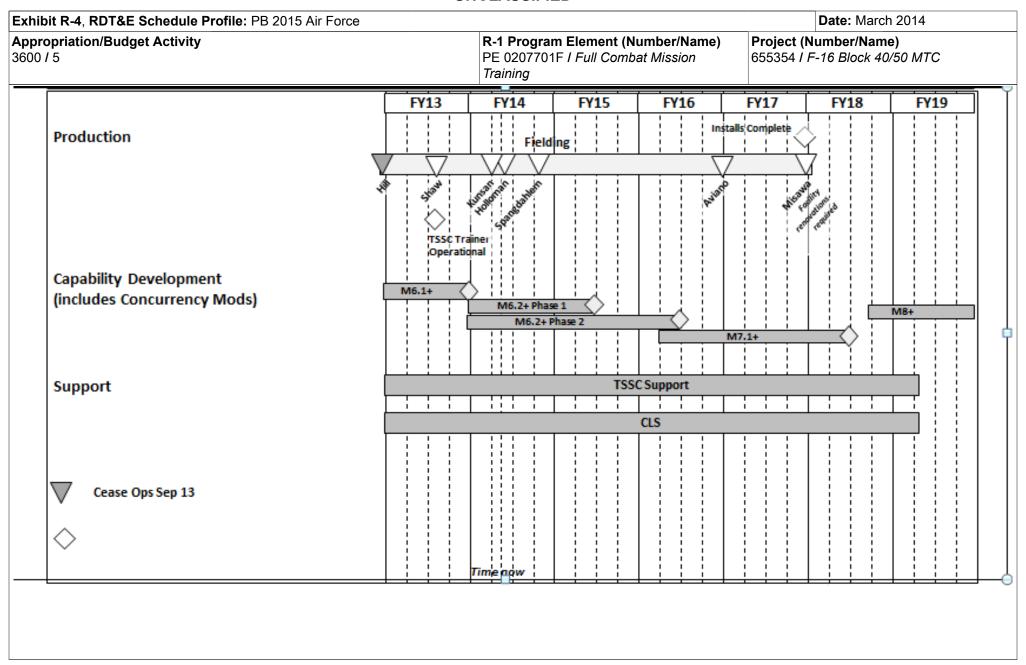
F-16 Block 40/50 MTCs are being developed and fielded under a competitively awarded Federal Acquisition Regulation (FAR) Part 15 Supply contract with RDT&E and APAF funds. The MTCs will be sustained by Contract Logistic Support (CLS) using Operations and Maintenance funds.

## 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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