

UNCLASSIFIED

PE NUMBER: 0207701F
 PE TITLE: Full Combat Mission Training

Exhibit R-2, RDT&E Budget Item Justification	DATE May 2009
---	-------------------------

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207701F Full Combat Mission Training
--	--

Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	60.171	134.786	99.807	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
5012 Full Combat Mission Training	60.171	134.786	21.850	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
5354 F-16 Block 40/50 MTC	0.000	0.000	77.957	0.000	0.000	0.000	0.000	0.000	0.000	152.449

(U) A. Mission Description and Budget Item Justification

Full Combat Mission Training 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 Full Combat Mission Training is funded in Budget Activity 5, System Development and Demonstration. BPAC 5012, FCMT, efforts are focused on development, demonstration, and transitioning of critical functions associated with the DMO/LVC network and linked simulators. BPAC 5354, F-16 Block 40/50 MTC, efforts are focused on development and demonstration of the F-16 Block 40/50 Mission Training Centers (MTC).

(U) B. Program Change Summary (\$ in Millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Previous President's Budget	87.096	135.152	89.568
(U) Current PBR/President's Budget	60.171	134.786	99.807
(U) Total Adjustments	-26.925	-0.366	
(U) Congressional Program Reductions	-15.000		
Congressional Rescissions	-0.453	-0.366	
Congressional Increases			
Reprogrammings	-9.519		
SBIR/STTR Transfer	-1.953		

(U) Significant Program Changes:

- FY08
- Decreased by Congressional programmatic reduction (-\$15M for F-15/F-16 Simulator Integration Development)
 - Decreased by Congressional General Reductions
 - Decreased by Air Force Reprogramming for higher priorities
 - Decreased by SBIR

FY09

Exhibit R-2, RDT&E Budget Item Justification

DATE

May 2009

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0207701F Full Combat Mission Training

- Decreased by Congressional General Reductions

FY10

- Increased to fully fund F-16 trainer development and to integrate additional platforms and networks

Exhibit R-2a, RDT&E Project Justification

DATE
May 2009

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0207701F Full Combat Mission Training				PROJECT NUMBER AND TITLE 5012 Full Combat Mission Training		
Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
5012 Full Combat Mission Training	60.171	134.786	21.850	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) 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 provides research in areas benefiting the AF DMO/LVC environment as a whole. Provides development funding for DMO capable F-16 flight simulators to replace training capability currently provided by training simulation service contracts. Provides Mission Essential Competency studies and contract administration for new systems that support the initial Combat Air Forces (CAF) DMO/LVC capability. Provides research and development to facilitate integration of fielded and newly acquired, Air Force owned, aircraft 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. 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.

(U) B. Accomplishments/Planned Program (\$ in Millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Development, demonstration and insertion of multi-level security capability	4.040	2.950	3.785
(U) Continue development, demonstration, studies and insertion of DMO/LVC related technologies and proficiency based continuation training strategies. Includes, but is not limited to, common databases, improved image generation fidelity, enhanced Brief/Debrief capabilities, Mission Essential Competencies and multi-level security.	4.944	4.950	6.943
(U) Studies to assess and validate warfighter seasoning required/desired in continuation training and accreditation of portions of this experiencing process utilizing the Mission Essential Competencies (MECs) in the DMO/LVC environment	1.000	1.000	1.000
(U) Studies to develop objective performance enhancement and measurement tools, for use in the DMO/LVC environment, which will be used for certification of a team and/or a team of teams' proficiency/currency	1.000	1.000	1.000
(U) Identify training and rehearsal gaps in DMO/LVC architecture based on current weapons system and operational tactics, training, procedures (TTPs), especially those essential to operational Kill Chain	1.000	1.000	1.000
(U) Research and development to provide for the integration of fielded and newly introduced, Air Force high-fidelity flight and mission trainers. Includes but is not limited to studies and development to provide for integration of Air Operation Center (AOC), A-10, B-1, B-2, B-52, Control and Reporting Center (CRC) F-22, F-35, E-8, EC-130, Joint Terminal Control Training and Rehearsal (JTCTR), Joint Theater Air-Ground Simulation System (JTAGSS), CSAR-X, HC-130, MQ-1 and MQ-9.	36.547	25.841	3.167

Exhibit R-2a, RDT&E Project Justification	DATE May 2009
--	-------------------------

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207701F Full Combat Mission Training	PROJECT NUMBER AND TITLE 5012 Full Combat Mission Training
--	--	---

(U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Research for and development of DMO capable flight simulators to replace training capability currently provided by training simulation service contracts. Includes but is not limited to the development of F-16 flight simulators	7.311	92.338	0.000
(U) Program Office support	4.329	5.707	4.955
(U) Total Cost	60.171	134.786	21.850

(U) <u>C. Other Program Funding Summary (\$ in Millions)</u>		<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost to</u>	<u>Total Cost</u>
		<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) PE 0207701, Full Combat Mission Training, Aircraft Procurement, AF	75.355	50.395	0.000							Continuing	TBD
(U) PE 0207701, Full Combat Mission Training, O & M, AF	175.415	146.092	189.648							Continuing	TBD

(U) 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, business case analysis (BCA) 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 had to be 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. The FY07 NDAA specifically limited the Air Force's ability to acquire military flight simulators with service contracts. As a result, training capability currently provided on the F-16 MTC is being replaced under a separate program with training provided with procured flight simulators. (Acquisition of the F-16 Block 40/50 MTCs is detailed under the 655354 BPAC in this document.) The FY08 NDAA language allows continued use of the service contract approach on systems where it was already in use. Currently fielded and projected Air Force-owned Flight and Mission Training Systems without DMO/LVC capability will be modified using FCMT funds to ensure compatibility with the DMO/LVC environment. Additional DMO capable trainers will be acquired for those systems where current quantities are inadequate to meet training requirements using FCMT funds.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

May 2009

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207701F Full Combat Mission Training	PROJECT NUMBER AND TITLE 5012 Full Combat Mission Training
--	--	---

<u>(U) Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2008 Cost</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>FY 2010 Cost</u>	<u>FY 2010 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
<u>(U) Product Development</u>												
677 AESG AFMC		677 AESG AFMC, Wright Patterson AFB, OH	41.641	8.042	Jan-08	104.479		9.102		Continuing	TBD	
478 AESW (F-22)		478 AESW AFMC, Wright Patterson AFB, OH	33.500	21.200		17.600		0.200		0.000	72.500	
507 MASSG (B-52)		507 MASSG, Hill AFB, UT	0.000	4.800	Jan-08	0.000		0.200		0.000	5.000	
677 AESG/SYCB (B-1, B-2 & Joint Terminal Control Training and Rehearsal System [JTC TRS]))		677 AESG/SYCB AFMC, Wright Patterson AFB, OH	0.000	18.800	Jan-08	4.000		4.393		0.000	27.193	
Subtotal Product Development			75.141	52.842		126.079		13.895		Continuing	TBD	0.000
Remarks:												
<u>(U) Support</u>												
- Air Force Research Lab Human Effectiveness Directorate		AFRL/HEA, Mesa, AZ	8.402	3.000		3.000		3.000		Continuing	TBD	
Subtotal Support			8.402	3.000		3.000		3.000		Continuing	TBD	0.000
Remarks:												
<u>(U) Test & Evaluation</u>												
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
<u>(U) Management</u>												
Program Office Support		677 AESG AFMC, Wright Patterson AFB, OH	15.208	4.329		5.707		4.955		Continuing	TBD	
Subtotal Management			15.208	4.329		5.707		4.955		Continuing	TBD	0.000
Remarks:												
<u>(U)</u>												
Subtotal			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
<u>(U) Total Cost</u>			98.751	60.171		134.786		21.850		Continuing	TBD	0.000

R-1 Line Item No. 95

Page-5 of 13

Project 5012

Exhibit R-3 (PE 0207701F)

Exhibit R-4, RDT&E Schedule Profile

DATE

May 2009

BUDGET ACTIVITY
05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE
0207701F Full Combat Mission Training

PROJECT NUMBER AND TITLE
5012 Full Combat Mission Training



DMO CAF Schedule Training Service Contracts

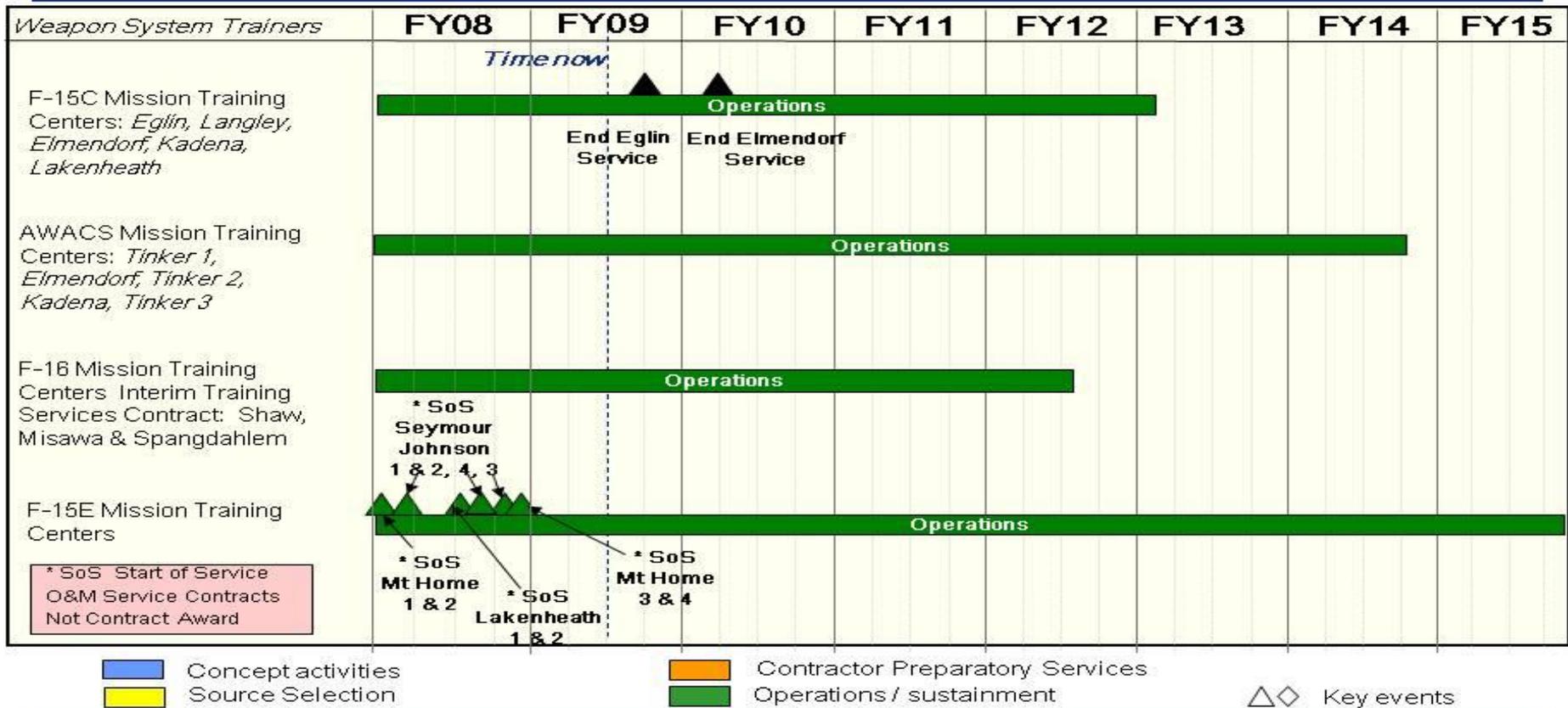


Exhibit R-4, RDT&E Schedule Profile

DATE
May 2009

BUDGET ACTIVITY
05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE
0207701F Full Combat Mission Training

PROJECT NUMBER AND TITLE
5012 Full Combat Mission Training



DMO CAF Schedule AF Owned Systems I

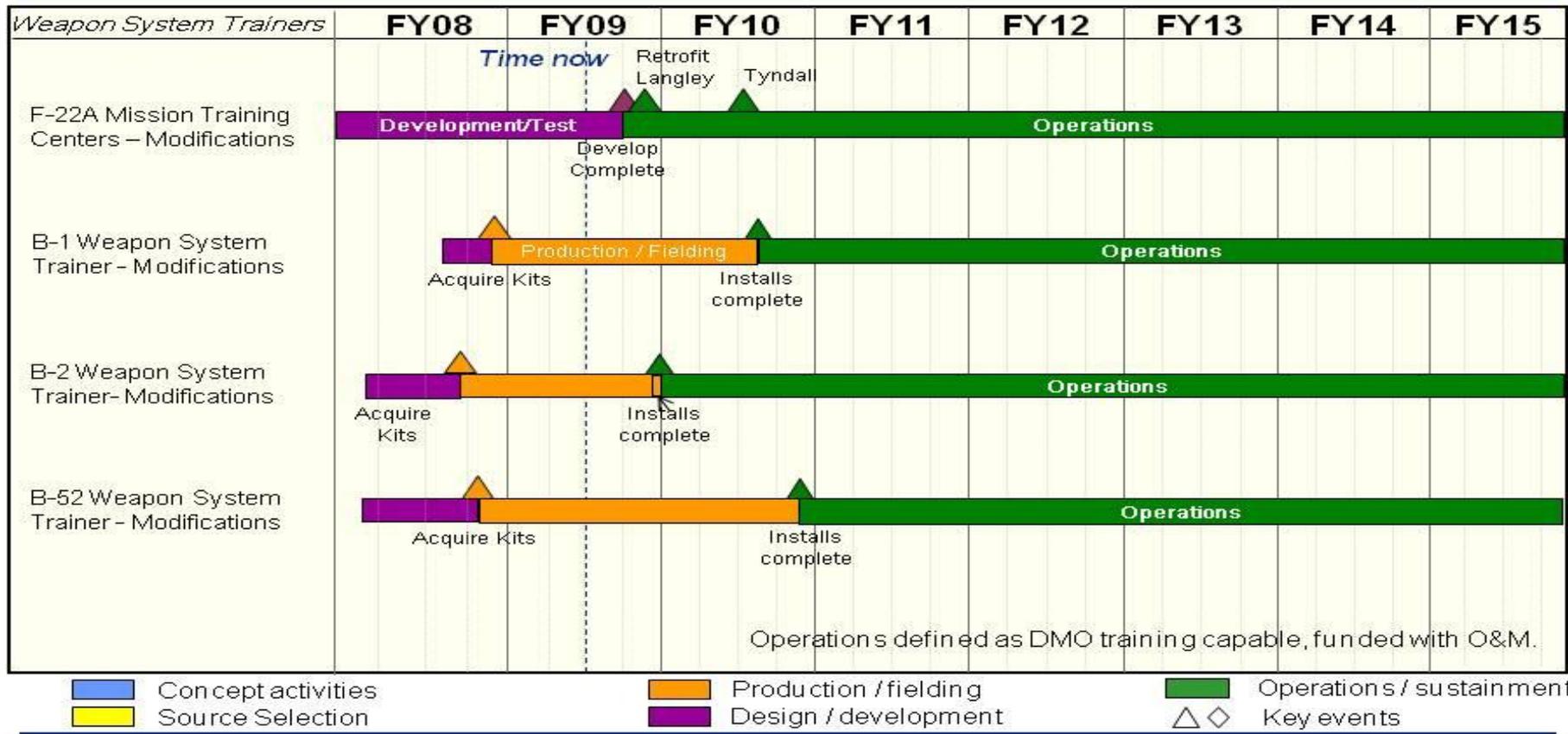


Exhibit R-4, RDT&E Schedule Profile

DATE

May 2009

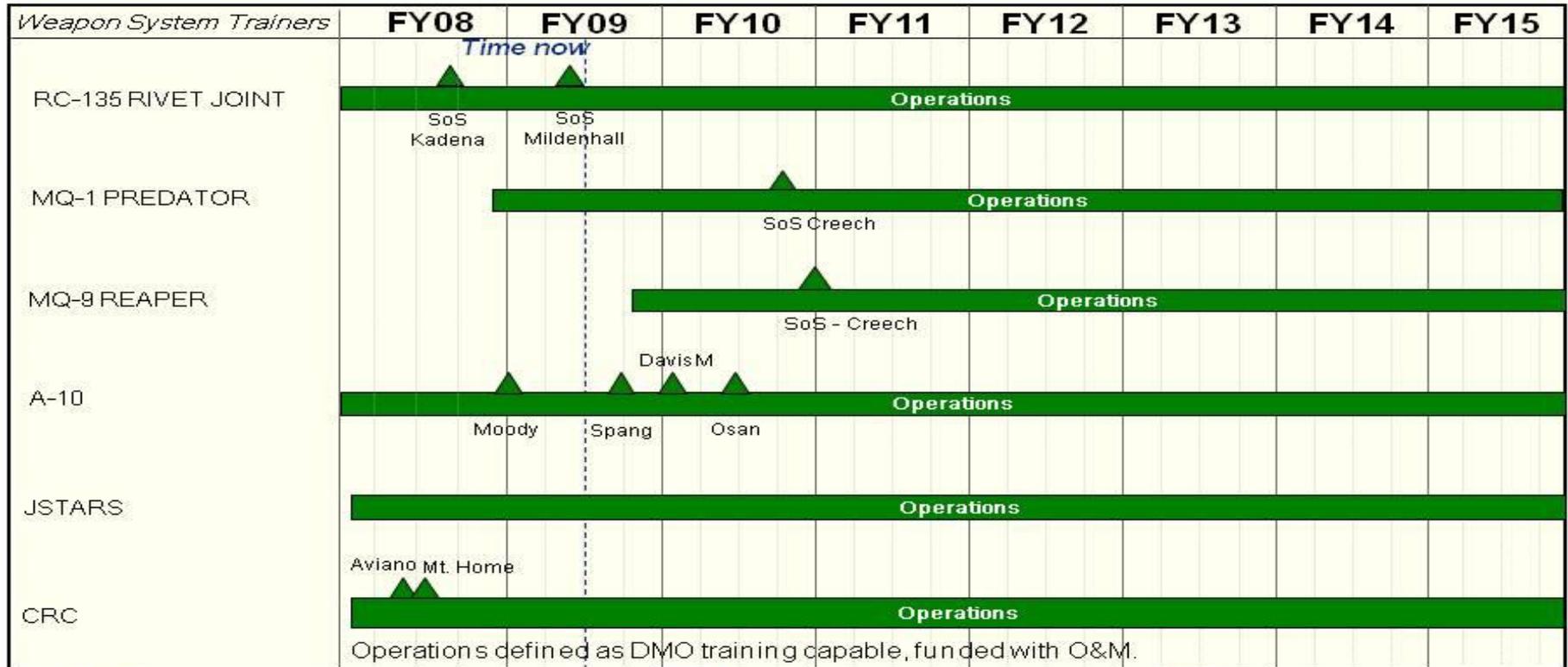
BUDGET ACTIVITY
05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE
0207701F Full Combat Mission Training

PROJECT NUMBER AND TITLE
5012 Full Combat Mission Training



DMO
CAF Schedule
AF Owned Systems II



- Concept activities
- Production / fielding
- Operations / sustainment
- Source Selection
- Design / development
- Key events

UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail	DATE May 2009
--	-------------------------

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207701F Full Combat Mission Training	PROJECT NUMBER AND TITLE 5012 Full Combat Mission Training
--	--	---

(U) <u>Schedule Profile</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) F-15E 2-ship operations begin: Mt Home	1Q		
(U) F-15E 2-ship operations begin: Seymour Johnson	1Q		
(U) F-15E 2-ship operations begin: Lakenheath	3Q		
(U) F-15E 2-ship operations (2nd) begin: Mt Home	4Q		
(U) F-15E 2-ship operations (2nd) begin: Seymour Johnson	4Q		
(U) F-22 DMO Development Complete		3Q	
(U) F-22 Retrofit: Langley		4Q	
(U) F-22 Retrofit: Tyndall			3Q
(U) B-1 Development begins	3Q		
(U) B-1 Mod kits acquired	4Q		
(U) B-1 Mod kits installed			3Q
(U) B-2 Development begins	1Q		
(U) B-2 Mod kits acquired	3Q		
(U) B-2 Mod kits installed		4Q	
(U) B-52 Development begins	1Q		
(U) B-52 Mod kits acquired	4Q		
(U) B-52 Mod kits installed			4Q

Exhibit R-2a, RDT&E Project Justification

DATE
May 2009

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0207701F Full Combat Mission Training			PROJECT NUMBER AND TITLE 5354 F-16 Block 40/50 MTC			
Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
5354 F-16 Block 40/50 MTC	0.000	0.000	77.957	0.000	0.000	0.000	0.000	0.000	0.000	152.449
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

FY08 and FY09 funding contained in BPAC 655012 . Separate BPAC, 655354, established in FY10 as F-16 Block 40/50 MTC was established as a separate program on the Non-Space programs list.

(U) 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. 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.

(U) B. Accomplishments/Planned Program (\$ in Millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Research and development of DMO capable flight simulators to replace training capability which has been provided by training simulation service contracts. Includes, but is not limited to, the development and support of F-16 flight simulators	0.000	0.000	76.564
(U) Program Office support			1.393
(U) Total Cost	0.000	0.000	77.957

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) PE 0207701, F-16 Block 40/50 MTC; Aircraft Procurement, AF	0.000	0.000	57.756						Continuing	TBD

(U) D. Acquisition Strategy

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

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE
May 2009

BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT NUMBER AND TITLE				
05 System Development and Demonstration (SDD)				0207701F Full Combat Mission Training				5354 F-16 Block 40/50 MTC				
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2008 Cost</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>FY 2010 Cost</u>	<u>FY 2010 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u> L3 Comm	FPIF/FFP	LINK SIMULATION & TRAINING Arlington, TX	0.000	0.000		0.000	Dec-08	76.564			76.564	
Subtotal Product Development			0.000	0.000		0.000		76.564		0.000	76.564	0.000
Remarks:	FY 08 & FY09 Funding contained in BPAC 655012.											
(U) <u>Support</u>											0.000	0.000
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Test & Evaluation</u>											0.000	0.000
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Management</u> Program Office Support		677 AESG AFMC, Wright Patterson AFB, OH						1.393			1.393	
Subtotal Management			0.000	0.000		0.000		1.393		0.000	1.393	0.000
Remarks:												
(U) Total Cost			0.000	0.000		0.000		77.957		0.000	77.957	0.000

Exhibit R-4, RDT&E Schedule Profile

DATE

May 2009

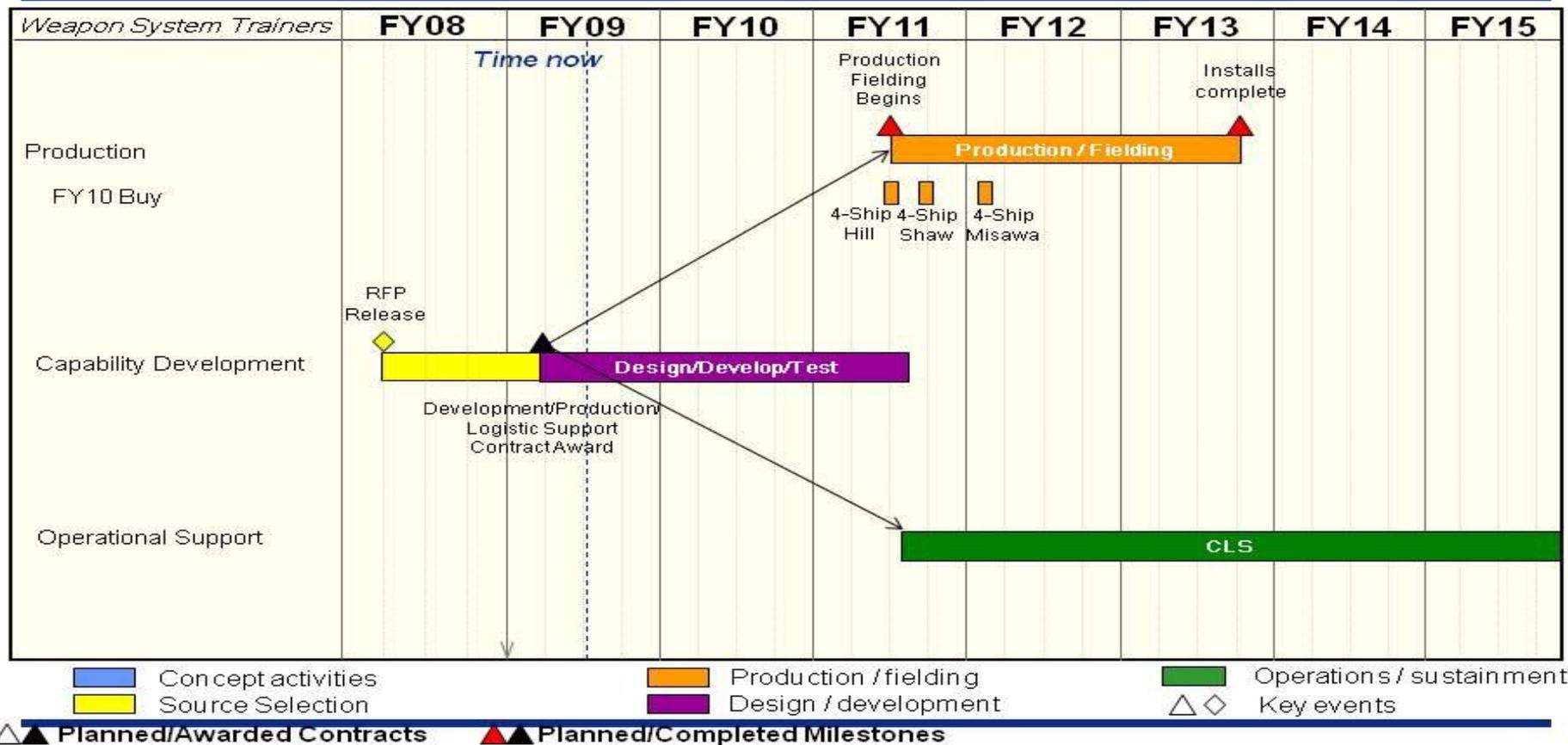
BUDGET ACTIVITY
05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE
0207701F Full Combat Mission Training

PROJECT NUMBER AND TITLE
5354 F-16 Block 40/50 MTC



F-16 Block 40/50 MTC Schedule



UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail

DATE

May 2009

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0207701F Full Combat Mission
Training

PROJECT NUMBER AND TITLE

5354 F-16 Block 40/50 MTC

(U) Schedule Profile

FY 2008

FY 2009

FY 2010

(U) F-16 Procurement contract award/development begins

1Q

THIS PAGE INTENTIONALLY LEFT BLANK