

UNCLASSIFIED

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

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2007
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207701F Full Combat Mission Training
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Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	25.723	35.010	87.096	99.380	89.568	30.996	26.887	27.972	Continuing	TBD
4673 Distributed Mission Training (DMT)	19.076	27.209	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
5012 Full Combat Mission Training	6.647	7.801	87.096	99.380	89.568	30.996	26.887	27.972	Continuing	TBD

Beginning in FY 08 funding previously documented in BPAC 4673 is consolidated in BPAC 5012

(U) A. Mission Description and Budget Item Justification

Full Combat Mission Training supports Air Force Distributed Mission Operations (DMO). 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 Live-Virtual-Constructive 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.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	26.423	32.243	35.768	15.340
(U) Current PBR/President's Budget	25.723	35.010	87.096	99.380
(U) Total Adjustments	-0.700	2.767		
(U) Congressional Program Reductions				
Congressional Rescissions	-0.377	-0.133		
Congressional Increases		2.900		
Reprogrammings	-0.088			
SBIR/STTR Transfer	-0.235			

(U) Significant Program Changes:

FY 06 Funding:

- Decreased by Congressional Rescissions, SBIR, and below threshold reprogramming

FY 07 Funding

- Increased by Congressional add

- Decreased by Congressional Rescissions

FY 08 Funding

- AF increase to support DMO integration of B-1, B-2 and B-52 trainers

- AF increase to support development of F-16 & F-15C trainers to comply with FY 07 NDAA limitation on use of service contracts

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FY 09

- AF increase to support DMO integration of B-1 and B-2 trainers
- AF increase to support development of F-16 & F-15C trainers to comply with FY 07 NDAA limitation on use of service contracts

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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0207701F Full Combat Mission Training			PROJECT NUMBER AND TITLE 4673 Distributed Mission Training (DMT)			
Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
4673 Distributed Mission Training (DMT)	19.076	27.209	0.000	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		

Beginning in FY 08 funding previously documented in BPAC 4673 is consolidated in BPAC 5012

(U) A. Mission Description and Budget Item Justification

Air Force Distributed Mission Training (DMT). DMT provides the research and development to facilitate the integration of fielded and newly acquired, Air Force owned, aircraft training devices into Distributed Mission Operations (DMO) networks. Enhances the quality of training for the systems added to the network. Enables aircrews to network with Live-Virtual-Constructive 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.. 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 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Study, research and develop solutions to multi-service standards, test asset implementation and platform specific multi-level security issues	0.110	6.791	0.000	0.000
(U) Research and development to provide for the DMO 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 Attack Controller [JTAC] and Joint Theater Air-Ground Simulation System [JTAGSS])	1.766	4.118	0.000	0.000
(U) Research and development to provide for the DMO integration of F-22 high-fidelity flight trainers.	17.200	16.300	0.000	0.000
(U) Total Cost	19.076	27.209	0.000	0.000

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

	<u>FY 2006</u>	<u>FY 2007</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>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) N/A										
All "Other Program Funding" is reflected in BPAC 5012										

(U) D. Acquisition Strategy

Each platform joining the Distributed Mission Operations (DMO) environment selects its own acquisition strategy based on using command needs, business case considerations and the magnitude of the training system changes required to provide DMO capability. Fielded and newly acquired, Air Force owned Flight and Mission Training Systems will be modified to ensure compatibility with the DMO environment. Additional DMO capable trainers will be acquired for those systems

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where current quantities are inadequate to meet training requirements.

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Exhibit R-3, RDT&E Project Cost Analysis

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<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 2006 Cost</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 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		677AEFG AFMC, Wright Patterson AFB, OH	0.000	1.876		10.909						Continuing	TBD	
670 AESS AFMC		670 AESS AFMC, Wright Patterson AFB, OH	0.000	17.200		16.300						Continuing	TBD	
Subtotal Product Development			0.000	19.076		27.209		0.000		0.000		Continuing	TBD	0.000
Remarks:														
<u>(U) Support</u>														
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000	0.000	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	0.000
Remarks:														
<u>(U) Management</u>														
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
<u>(U) Total Cost</u>			0.000	19.076		27.209		0.000		0.000		Continuing	TBD	0.000

Exhibit R-4, RDT&E Schedule Profile

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PROJECT NUMBER AND TITLE

4673 Distributed Mission Training (DMT)

Exhibit R-4: BPAC 4673 Distributed Mission Training (Distributed Mission Operations)

Fiscal Year	FY 04				FY 05				FY 06				FY 07				FY 08				FY 09			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Study, research and develop solutions to multi-service standards, test asset implementation and platform specific multi-level security issues									▲	→														
Research and development to provide for the DMO 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 AOC, A-10, B-1, B-2, B-52, CRC, F-22, F-35, E-8, EC-130, JTAC and JTAGSS									▲	→														
Phase A F-22 DMO requirements definition/ systems									▲	→	▲													
Phase B: F-22 DMO Development / Test/Retrofit													△	→	△									▲

- ▲ Studies/ Phase Initiated
- △ Phase Scheduled
- ▲ IOC

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Exhibit R-4a, RDT&E Schedule Detail	DATE February 2007
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207701F Full Combat Mission Training	PROJECT NUMBER AND TITLE 4673 Distributed Mission Training (DMT)
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	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) <u>Schedule Profile</u>				
(U) Study, research and develop solutions to multi-service standards, test asset implementation and platform specific multi-level security issues (Study initiation)	2Q			
(U) Research and development to provide for the DMO 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 AOC, A-10, B-1, B-2, B-52, CRC F-22 F-35, E-8, EC-130, JTAC and JTAGSS (Study Initiation)	2Q			
(U) Phase A: F-22 DMO requirements definition/ systems	2Q	2Q		
(U) Phase B: F-22 DMO Development / Test/Retrofit		2Q		

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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 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
5012 Full Combat Mission Training	6.647	7.801	87.096	99.380	89.568	30.996	26.887	27.972	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

Beginning in FY 08 funding previously documented in BPAC 4673 is consolidated in BPAC 5012

(U) A. Mission Description and Budget Item Justification

Full Combat Mission Training (FCMT) supports Air Force Distributed Mission Operations (DMO). 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 environment as a whole. Provides development funding for DMO capable F-16 and F-15C 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 CAF DMO capability. Provides research and development to facilitate integration of fielded and newly acquired, Air Force owned, aircraft training devices into DMO networks. Enhances the quality of training for the systems added to the network. Enables aircrews to network with Live-Virtual-Constructive 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. 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 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Development, demonstration and insertion of multi-level security capability	0.000	0.000	4.040	2.950
(U) Continue development, demonstration, studies and insertion of DMO 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	1.441	2.506	4.944	3.458
(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 environment	1.000	1.000	1.000	1.000
(U) Studies to Develop objective performance enhancement and measurement tools, for use in the DMO environment, which will be used for certification of a team and/or a team of teams' proficiency/currency	1.000	1.000	1.000	1.000
(U) Identify training and rehearsal gaps in DMO 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	1.000
(U) Research and development to provide for the DMO 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 Attack Controller [JTAC] and Joint Theater	0.000	0.000	37.000	8.800

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(U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Air-Ground Simulation System [JTAGSS])				
(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 and F-15C flight simulators	0.000	0.000	33.783	75.316
(U) Program Office support	2.206	2.295	4.329	5.856
(U) Total Cost	6.647	7.801	87.096	99.380

(U) <u>C. Other Program Funding Summary (\$ in Millions)</u>	<u>FY 2006</u>	<u>FY 2007</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>Cost to Complete</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>								
(U) PE 0207701, Full Combat Mission Training, Aircraft Procurement, AF	0.000	10.598	86.114	51.558	109.790	120.451	84.881	24.070	Continuing	TBD
(U) PE 0207701, Full Combat Mission Training, Other Procurement, AF	0.000	0.000	0.000	0.000	4.693	7.927	26.383	29.937	Continuing	TBD
(U) PE 0207701, Full Combat Mission Training, O & M, AF	181.891	197.340	175.415	144.328	163.602	167.447	172.824	208.374	Continuing	TBD

(U) **D. Acquisition Strategy**

Each platform joining the Distributed Mission Operations (DMO) 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 pioneer systems in DMO including 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 weapons system, and has incentives to keep the equipment up to date with simulator and network technologies. The NDAA for FY 07 specifically limits the acquisition of military flight simulators with service contracts. As a result, training capability currently provided on TSS contracts will be replaced with training provided with procured flight simulators as the TSS contracts expire. In addition, currently fielded and projected Air Force owned Flight and Mission Training Systems without DMO capability will be modified to ensure compatibility with the DMO environment. Additional DMO capable trainers will be acquired for those systems where current quantities are inadequate to meet training requirements.

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Exhibit R-3, RDT&E Project Cost Analysis											DATE February 2007			
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 2006 Cost</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 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	16.373	1.441		2.506		45.167	Jan-08	81.724		Continuing	TBD	
670 AESS (F-22)		670 AESS AFMC, Wright Patterson AFB, OH	0.000	0.000		0.000		11.000		0.000		0.000	11.000	
507 MASSG (B-52)		507 MASSG, Hill AFB, UT	0.000	0.000		0.000		4.800	Jan-08	0.000		0.000	4.800	
677 AESG/TQ (B-1 & B-2)		677 AESG/TQ AFMC, Wright Patterson AFB, OH	0.000	0.000		0.000		18.800	Jan-08	8.800	Jan-09		27.600	
Subtotal Product Development			16.373	1.441		2.506		79.767		90.524		Continuing	TBD	0.000
Remarks:	670 AESS funds reflected in BPAC 4673 through FY 07													
<u>(U) Support</u>														
- Air Force Research Lab Human Effectiveness Directorate		AFRL/HEA, Mesa, AZ	2.402	3.000		3.000		3.000		3.000		Continuing	TBD	
Subtotal Support			2.402	3.000		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	0.000
Remarks:														
<u>(U) Management</u>														
Program Office Support		677 AESG AFMC, Wright Patterson AFB, OH	6.770	2.206		2.295		4.329		5.856		Continuing	TBD	
Subtotal Management			6.770	2.206		2.295		4.329		5.856		Continuing	TBD	0.000

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PROJECT NUMBER AND TITLE

5012 Full Combat Mission Training

Remarks:

(U)

Subtotal	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Remarks:									
(U) Total Cost	25.545	6.647	7.801	87.096	99.380	Continuing	TBD	0.000	

Exhibit R-4, RDT&E Schedule Profile

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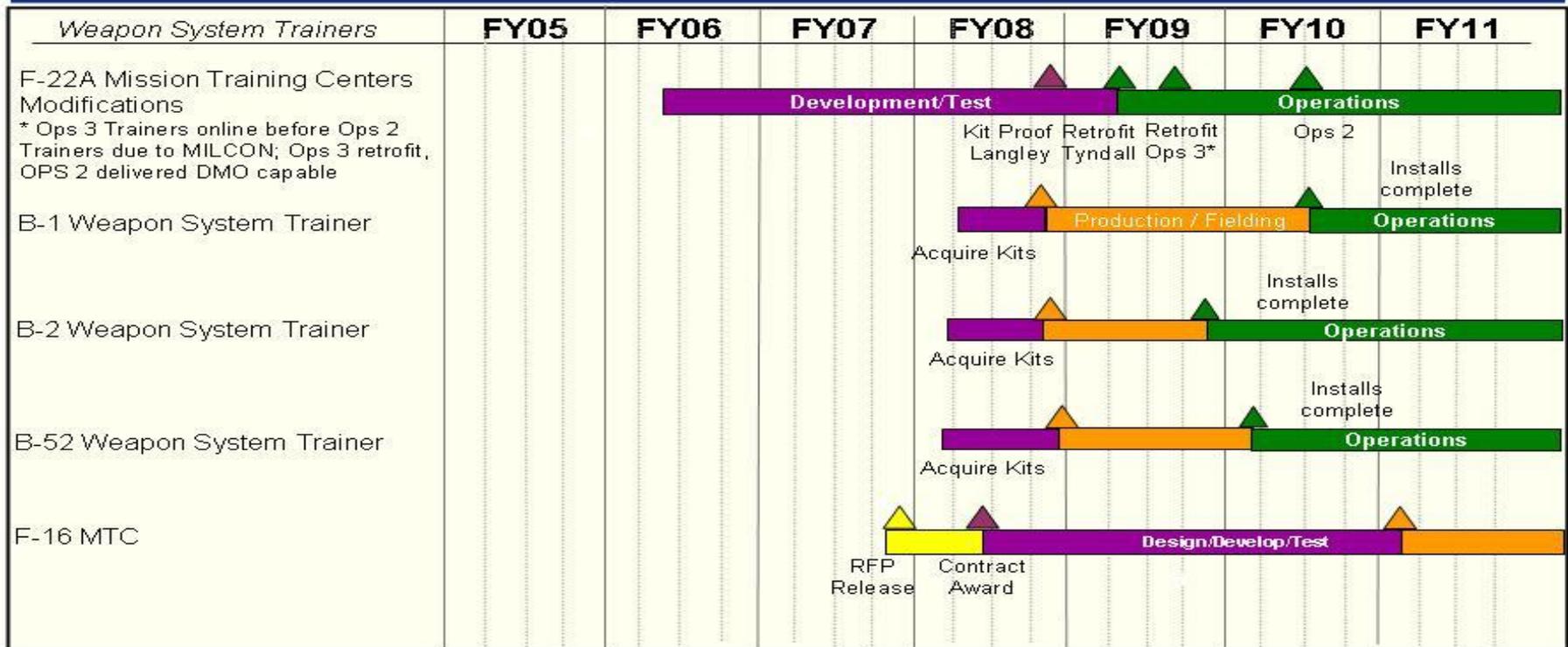
BUDGET ACTIVITY
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PROJECT NUMBER AND TITLE
5012 Full Combat Mission Training



DMO CAF Schedule AF Owned Systems



Source Selection
 Design/Develop/Test
 Production / Fielding
 Operations
 Key events

FY07 Staffer Brief

Exhibit R-4, RDT&E Schedule Profile

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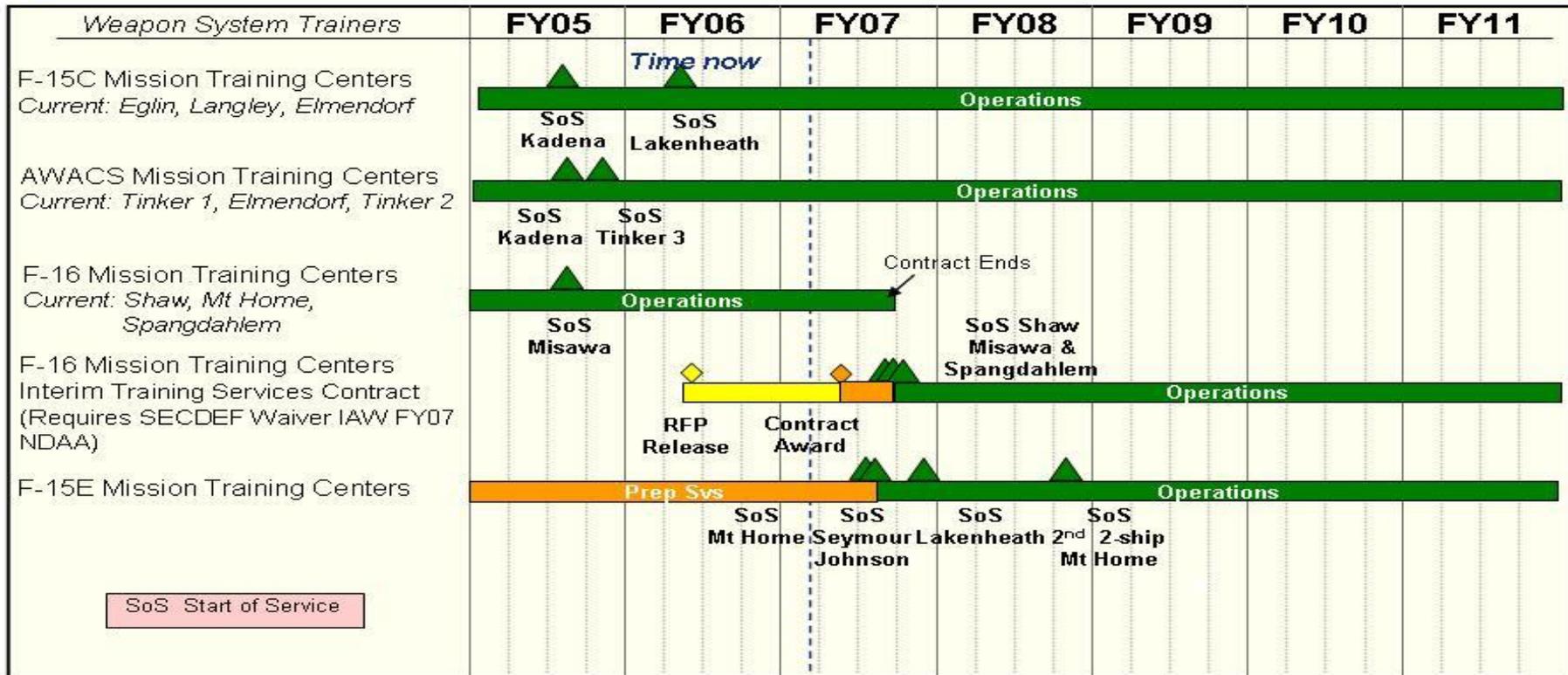
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5012 Full Combat Mission Training



DMO CAF Schedule Training Service Contracts



SoS Start of Service

Source Selection
 Contractor Preparatory Services
 Operations
 Key events

FY07 Staffer Brief

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Exhibit R-4a, RDT&E Schedule Detail	DATE February 2007
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<u>(U) Schedule Profile</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) F-15C 2-ship operations begin: Lakenheath	2Q			
(U) F-15E 2-ship operations begin: Mt. Home		3Q		
(U) F-15E 2-ship operations begin: Seymour Johnson		3Q		
(U) F-15E 2-ship operations begin: Lakenheath		4Q		
(U) F-15E 2-ship operations (2nd) begin: Mt Home				4Q
(U) F-22 Development	2Q			2Q
(U) F-22 Proof Kit: Langley			4Q	
(U) F-22 Kit install :Tyndall				2Q
(U) F-22 Kit install Ops 3				3Q
(U) B-1 Development begins			1Q	
(U) B-1 Mod kits acquired			4Q	
(U) B-2 Development begins			1Q	
(U) B-2 Mod kits acquired			4Q	
(U) B-2 Mod kits installed				4Q
(U) B-52 Development begins			1Q	
(U) B-52 Mod kits acquired			4Q	
(U) F-16 Procurement contract award/development begins			2Q	