

## UNCLASSIFIED

PE NUMBER: 0207701F

PE TITLE: Full Combat Mission Training

## Exhibit R-2, RDT&amp;E Budget Item Justification

DATE

February 2005

## BUDGET ACTIVITY

## 05 System Development and Demonstration (SDD)

## PE NUMBER AND TITLE

## 0207701F Full Combat Mission Training

Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	7.591	10.699	26.423	20.432	34.956	14.136	16.786	19.734	Continuing	TBD
4673 Distributed Mission Training (DMT)	0.000	0.000	19.589	15.300	28.707	8.676	11.512	14.705	Continuing	TBD
5012 Full Combat Mission Training	7.591	10.699	6.834	5.132	6.249	5.460	5.274	5.029	Continuing	TBD

(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 C2 and ISR systems.

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	6.946	5.894	7.240	6.804
(U) Current PBR/President's Budget	7.591	10.699	26.423	20.432
(U) Total Adjustments	0.645	4.805		
(U) Congressional Program Reductions				
Congressional Rescissions	-0.059	-0.095		
Congressional Increases	1.000	4.900		
Reprogrammings	-0.178			
SBIR/STTR Transfer	-0.118			

(U) **Significant Program Changes:**

## In FY 04 Funding

- Increased by Congressional Add for F-16 Motion Cueing (originally added as O&M changed to RDT&E in Omnibus Aug 2004)
- Decreased by Congressional Rescissions, reprogramming to support higher Air Force Priorities and SBIR/STTR Transfer.

## FY 05 Funding:

- Increased by Congressional Add for ANG F-16 Block 30 MTCs
- Decreased by Congressional Rescissions

## FY 06 Funding

- Current PB increase from previous PB reflects a an \$18.8M investment in RDT&E to support F/A-22 trainer DMO integration

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Exhibit R-2, RDT&E Budget Item Justification		DATE
BUDGET ACTIVITY	PE NUMBER AND TITLE	
<b>05 System Development and Demonstration (SDD)</b>	<b>0207701F Full Combat Mission Training</b>	
<p>FY 07 Funding</p> <p>- Current PB reflects a \$15..3M investment in RDT&amp;E to support F/A-22 trainer DMO integration</p>		

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## Exhibit R-2a, RDT&amp;E Project Justification

DATE

February 2005

## 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 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
4673 Distributed Mission Training (DMT)	0.000	0.000	19.589	15.300	28.707	8.676	11.512	14.705	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(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 C2 and 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 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Study, research and develop solutions to multi-service standards, test asset implementation and platform specific multi-level security issues	0.000	0.000	0.389	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/A-22 F-35, E-8, EC-130, Joint Terminal Attack Controller [JTAC] and Joint Theater Air-Ground Simulation System [JTAGSS])			0.400	0.000
(U) Research and development to provide for the DMO integration of F/A-22 high-fidelity flight trainers.			18.800	15.300
(U) Total Cost	0.000	0.000	19.589	15.300

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

	<u>FY 2004</u> <u>Actual</u>	<u>FY 2005</u> <u>Estimate</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) PE 0207701, Full Combat Mission Training, Aircraft Procurement, AF	0.000	0.000	0.000	10.424	87.960	66.570	33.860	41.889	Continuing	TBD
(U) PE 0207701, Full Combat Mission Training, other Procurement, AF	0.000	0.000	0.000	4.074	21.413	10.754	4.630	4.613	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 base

Project 4673

R-1 Shopping List - Item No. 99-3 of 99-13

Exhibit R-2a (PE 0207701F)

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Exhibit R-2a, RDT&E Project Justification		DATE <b>February 2005</b>
BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0207701F Full Combat Mission Training</b>	PROJECT NUMBER AND TITLE <b>4673 Distributed Mission Training (DMT)</b>
<p>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 where current quantities are inadequate to meet training requirements</p>		
<p>Project 4673</p>		

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Exhibit R-3, RDT&E Project Cost Analysis												DATE February 2005			
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)				
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2004 Cost	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
(U) Product Development Training Products System Group (ASC/YWI)		Training Systems Product Group, AFMC, Wright Patterson AFB, OH		0.000		0.000		0.789		0.000		Continuing	TBD		
F/A-22 System Program Office		F/A-22 System Program Office, AFMC, Wright Patterson AFB, OH						18.800		15.300		Continuing	TBD		
Subtotal Product Development Remarks:			0.000	0.000		0.000		19.589		15.300		Continuing	TBD	0.000	
(U) Support													0.000	0.000	
Subtotal Support Remarks:			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	
(U) Test & Evaluation													0.000	0.000	
Subtotal Test & Evaluation Remarks:			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	
(U) Management													0.000	0.000	
Subtotal Management Remarks:			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	
(U) Total Cost			0.000	0.000		0.000		19.589		15.300		Continuing	TBD	0.000	

Project 4673

R-1 Shopping List - Item No. 99-5 of 99-13

Exhibit R-3 (PE 0207701F)

## Exhibit R-4, RDT&amp;E Schedule Profile

DATE

February 2005

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)

## 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/A-22 F-35, E-8, EC-130, JTAC and JTAGSS										▲														
F/A-22 DMO Integration									△									▲						



Studies Initiated



Phase A Requirements Development



IOC

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Exhibit R-4a, RDT&E Schedule Detail			DATE February 2005	
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)	0207701F Full Combat Mission Training	4673 Distributed Mission Training (DMT)		
(U) <b>Schedule Profile</b>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Study, research and develop solutions to multi-service standards, test asset implementation and platform specific multi-level security issues			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/A-22 F-35, E-8, EC-130, JTAC and JTAGSS			2Q	
(U) Research and development to provide for the DMO integration of F/A-22 high-fidelity flight trainers.			1Q	

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## Exhibit R-2a, RDT&amp;E Project Justification

DATE

February 2005

## 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 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5012 Full Combat Mission Training	7.591	10.699	6.834	5.132	6.249	5.460	5.274	5.029	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). 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. In addition FCMT provides Mission Essential Competency studies and contract administration for new systems that support the initial CAF DMO capability

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Continue development, demonstration and insertion of multi-level security capability	1.170	0.000	0.000	0.000
(U) Continue development, demonstration, studies and insertion of DMO related technologies and proficiency based continuation training strategies. Includes but not limited to common databases, improved image generation fidelity, enhanced Brief/Debrief capabilities, Mission Essential Competencies, multi-level security	4.581	1.271	1.628	0.740
(U) RDT&E for the development of a F-16 DMO capable trainer for the Air National Guard (FY 05 Congressional Add)		4.900		
(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		0.801	1.000	0.699
(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		0.801	1.000	0.699
(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		0.800	1.000	0.699
(U) Continue Program office support	1.840	2.126	2.206	2.295
(U) Total Cost	7.591	10.699	6.834	5.132

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

	<u>FY 2004</u> <u>Actual</u>	<u>FY 2005</u> <u>Estimate</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) PE 0207701, Full Combat Mission Training, O & M, AF	104.271	117.377	181.688	190.681	195.560	166.294	197.010	206.656	Continuing	TBD

(U) **D. Acquisition Strategy**

Project 5012

R-1 Shopping List - Item No. 99-8 of 99-13

Exhibit R-2a (PE 0207701F)



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Exhibit R-2a, RDT&E Project Justification		DATE <b>February 2005</b>
BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0207701F Full Combat Mission Training</b>	PROJECT NUMBER AND TITLE <b>5012 Full Combat Mission Training</b>
<p>Each platform joining the Distributed Mission Operations (DMO) environment selects its own acquisition strategy based on using command needs, business base considerations and the magnitude of the training system changes required to provide DMO capability. The pioneer systems in DMO including F-15C, AWACS, F-16, Operations and Integration and F-15E all required new training systems. The Commercial Training Simulation Service (CTSS) acquisition strategy was used for these systems. In the CTSS 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</p>		
Project 5012	R-1 Shopping List - Item No. 99-9 of 99-13	Exhibit R-2a (PE 0207701F)

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Exhibit R-3, RDT&E Project Cost Analysis												DATE February 2005			
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 &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior to FY 2004 Cost</u>	<u>FY 2004 Cost</u>	<u>FY 2004 Award Date</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>	
(U) <u>Product Development</u> - ASC, Training Products Systems Group - AFRL Human Effectiveness Directorate, Warfighter Training Division		- Training Systems Product Group, AFMC, Wright Patterson AFB, OH - AFRL/HEA, Mesa, AZ		5.751		6.171		1.628		0.740		Continuing	TBD		
Subtotal Product Development			0.000	5.751		6.171		1.628		0.740		Continuing	TBD	0.000	
Remarks:	Prior to FY 02 these fund were reported under PE 0604227F														
(U) <u>Support</u> - Air Force Research Lab Human Effectiveness Directorate		AFRL/HEA, Mesa, AZ 505 DWG, Kirtland AFB, NM		0.000		2.402		3.000		2.097		Continuing	TBD		
Subtotal Support			0.000	0.000		2.402		3.000		2.097		Continuing	TBD	0.000	
Remarks:	Study areas included in Product development in FY 04 broken out separately in FY 05														
(U) <u>Test &amp; 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		Training Systems Product Group, AFMC, Wright Patterson AFB, OH		1.840		2.126		2.206		2.295		Continuing	TBD		
Subtotal Management			0.000	1.840		2.126		2.206		2.295		Continuing	TBD	0.000	
Remarks:	Prior to FY 02 these fund were reported under PE 0604227F														
(U)															
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	
Remarks:															
Project 5012			R-1 Shopping List - Item No. 99-10 of 99-13										Exhibit R-3 (PE 0207701F)		

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Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2005

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) Total Cost

0.000

7.591

10.699

6.834

5.132

Continuing

TBD

0.000

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## Exhibit R-4, RDT&amp;E Schedule Profile

DATE

February 2005

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

## Exhibit R-4: BPAC 5012 Full Combat 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
AWACS Tinker #2	▲																							
F-16: 2 Ship, Mt Home		▲																						
F-16: 4 Ship, Spangdahlem			▲																					
F-15C: 4 Ship, Kadena							▲																	
F-16: 4 Ship, Misawa							▲																	
AWACS, Kadena							▲																	
AWACS: Tinker #3								△																
F-15C Lakenheath										▲														
F-15E Mt. Home												▲												
F-15E Seymour Johnson												▲												
F-15E Lakenheath															▲									
F-15E Elmendorf															▲									



Start of Service



Scheduled Start of Service; Letter of Intent issued to Contractor



Scheduled Start of Service; Letter of Intent not yet issued to Contractor

**Note:** A number of factors including contract issues, facility availability, multiple level security and others preclude the development of a firm schedule for Start of Service of additional sites beyond FY 05.

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## Exhibit R-4a, RDT&amp;E Schedule Detail

DATE

February 2005

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) **Schedule Profile**FY 2004FY 2005FY 2006FY 2007

(U) AWACS Operations begin: Tinker #2

1Q

(U) F-16 2-ship operations begin (adds one device): Mt. Home #2:

2Q

(U) F-16 4-ship operations begin: Spangdahlem

3Q

(U) F-15C Operations begin: Kadena

3Q

(U) F-16 4-ship operations begin: Misawa

3Q

(U) AWACS operations begin: Kadena

3Q

(U) AWACS Operations begin: Tinker #3

4Q

(U) F-15C 2-ship operations begin: Lakenheath

2Q

(U) F-15E 2-ship operations begin: Mt. Home

4Q

(U) F-15E 2-ship operations begin: Seymour Johnson

4Q

(U) F-15E 2-ship operations begin: Lakenheath

4Q

(U) F-15E 2-ship operations begin: Elmendorf

4Q