

## UNCLASSIFIED

PE NUMBER: 0207410F

PE TITLE: Air and Space Operations Center - Weapon System (AOC-WS)

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

DATE

February 2006

## BUDGET ACTIVITY

## 07 Operational System Development

## PE NUMBER AND TITLE

## 0207410F Air and Space Operations Center - Weapon System (AOC-WS)

Cost (\$ in Millions)	FY 2005 Actual	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	22.301	67.029	87.483	89.994	93.948	102.116	86.861	Continuing	TBD
4372 Time Critical Targeting	0.741	0.000	0.000	0.000	0.000	0.000	0.000	0.000	26.752
5117 Integration Development	21.560	67.029	87.483	89.994	93.948	102.116	86.861	Continuing	TBD

(U) **A. Mission Description and Budget Item Justification**

The Air & Space Operations Center Weapon System (AOC WS), AN/USQ-163 Falconer, the senior element of the Theater Air Control System (TACS), is the weapon system the Commander, Air Force Forces (COMAFFOR) provides the Coalition/Joint Force Air Component Commander (C/JFACC) for planning, executing, and assessing theater-wide air and space operations. The C/JFACC provides air and space support to the Coalition/Joint Force Commander (C/JFC) by coordinating, deconflicting, and assessing the progress of various weapon systems to advance the C/JFC's campaign. The C/JFACC employs the weapon system to plan, execute, and assess theater-wide air and space operations. The AOC WS develops operational strategy and planning documents. The weapon system also disseminates tasking orders, executes day-to-day peacetime and combat air and space operations, and provides rapid reaction to immediate situations by exercising positive control of friendly forces.

The AOC WS program develops and integrates system hardware, software and integration training. The program consists of Falconer AOCs, Tailored Falconer AOCs, Functional AOCs, and AOC Support (e.g. Formal Training Unit, Help Desk, Combined Air and Space Operations Center-Experimental [CAOC-X]). This development program will also provide a single integrated technical manual package to the user. To keep the future AOC WS evolving and to meet future warfighter needs, the AOC WS program plans to build on its current capability and develop a series of new capability increments.

This program is Budget Activity 7 - Operation System Development because it provides funding for the modernization of a currently existing and operating system.

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	27.695	68.099	89.430
(U) Current PBR/President's Budget	22.301	67.029	87.483
(U) Total Adjustments	-5.394	-1.070	
(U) Congressional Program Reductions	-0.648	-0.099	
Congressional Rescissions		-0.971	
Congressional Increases			
Reprogrammings	-4.000		
SBIR/STTR Transfer	-0.746		

(U) **Significant Program Changes:**

In FY06 & FY07 Project 834530 Other Procurement funds were realigned to RDT&E PE 0207410F, Project 675117 (\$35M in FY06 and \$31M in FY07) to fund Chief of

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<p>Staff, Air Force, directed Modernization and Integration efforts. There was a \$4.0M reduction in FY05 as a result of higher Air Force priorities. In FY05, Time Critical Targeting Functionality (TCTF) Project 674372 was issued a termination notice for the convenience of the Government. Prior year TCTF funds are being used for termination cost and contract closeout. FY05 TCTF BPAC 674372 funds in the amount of \$1.545M were reallocated to AOC WS Integration Development BPAC 675117. The FY05 TCTF balance of \$0.741M will be used for contract closeout purposes.</p>		

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

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## BUDGET ACTIVITY

07 Operational System Development

## PE NUMBER AND TITLE

0207410F Air and Space Operations  
Center - Weapon System (AOC-WS)

## PROJECT NUMBER AND TITLE

4372 Time Critical Targeting

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
4372 Time Critical Targeting	0.741	0.000	0.000	0.000	0.000	0.000	0.000	0.000	26.752
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

In FY05, TCTF was issued a termination notice at the convenience of the Government. Prior year TCTF funds are being used for termination cost and contract closeout. FY05 TCTF BPAC 674372 funds in the amount of \$1.545M were reallocated to AOC WS Integration Development BPAC 675117. \$0.741M remains in TCTF FY05 to closeout the contract.

(U) **A. Mission Description and Budget Item Justification**

The Time Critical Targeting Functionality (TCTF) is an integrated set of automated decision aids / tools that enable successful prosecution of Time Sensitive Targets (TSTs) with key functionality to include Terrain Analysis (TA), Intelligence Preparation of the Battlespace (IPB), tracking and nominating multiple TSTs, and Weapon Target Pairing (WTP). TCTF funding supports development of enhanced Command and Control (C2) capabilities to find, fix, track, target, engage, and assess time critical targets (TCTs).

The primary program objective of the TCTF program is to provide capabilities to collect, share and aggregate decision quality data between Command and Control Centers of Operation, ISR assets and attack aircraft; correlate/fuse information; reduce AOC forward footprint; improve deployability; and make improvements in information sharing among coalition partners.

In FY05, the Air Force issued a termination notice for the convenience of the Government to Time Critical Targeting Functionality (TCTF) Project 674372. FY05 and Prior year TCTF funds are being used for termination cost and contract closeout.

This program is in Budget Activity 7 - Operation System Development because it provided funding for the modernization of a currently existing and operating system.

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Complete final TCTF Contract Closeout Action.	0.741	0.000	0.000
(U) Total Cost	0.741	0.000	0.000

In FY05, TCTF was terminated for the convenience of the Government. Final Contract closeout action is being taken and the remaining program funds are being used for this purpose. FY05 TCTF BPAC 674372 funds in the amount of \$1.545M were reallocated to AOC WS Integration Development BPAC 675117. \$0.741M remains in TCTF FY05 to closeout the contract.

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

	<u>FY 2005</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>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other Procurement, AF (3080) PEC: 27410F BPAC: 83453B	1.736	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.736

In FY05, Time Critical Targeting Functionality (TCTF) was issued a Termination Notice at the convenience of the Government. The \$0.625M in FY06 and the \$1.472M in

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

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4372 Time Critical Targeting

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

FY07 have been moved into AOC WS Increment Fielding PEC 0207410F, BPAC 83453A

(U) D. Acquisition Strategy

In FY05, TCTF was issued a Termination Notice at the convenience of the Government.

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## Exhibit R-3, RDT&amp;E Project Cost Analysis

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(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &amp;</u> <u>Type</u>	<u>Performing</u> <u>Activity &amp;</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>
(U) <u>Product Development</u>												
Software Development -Contract Termination	CPAF	Zel Technologies, Hampton, VA	13.885	0.741	Sep-06					0.000	14.626	TBD
Engineering/Requirements	CPFF	MITRE, Bedford, MA	3.280							0.000	3.280	TBD
Subtotal Product Development			17.165	0.741		0.000		0.000		0.000	17.906	TBD
Remarks:												
(U) <u>Support</u>												
Systems Engineering	FFP	MITRE, Bedford, MA	2.380							0.000	2.380	TBD
Program Support	FFP	A&AS, AFMC/ESC	3.248							0.000	3.248	TBD
Subtotal Support			5.628	0.000		0.000		0.000		0.000	5.628	TBD
Remarks:												
(U) <u>Test &amp; Evaluation</u>												
Test Engineering	CPFF	A&AS, AFMC/ESC	0.248							0.000	0.248	TBD
Test Support	MIPR	46 TS, Eglin AFB, FL	0.600							0.000	0.600	TBD
Test Support	CPAF	Zel Technologies, Hampton, VA	0.825								0.825	TBD
Subtotal Test & Evaluation			1.673	0.000		0.000		0.000		0.000	1.673	TBD
Remarks:												
(U) Total Cost			24.466	0.741		0.000		0.000		0.000	25.207	TBD

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

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**0207410F Air and Space Operations  
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## 4372 Time Critical Targeting

# TCTF Termination Schedule

## PE 27410F Project 674372

[illegible]

Current As Of: 10 Jan 06

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

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07 Operational System Development

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0207410F Air and Space Operations  
Center - Weapon System (AOC-WS)

PROJECT NUMBER AND TITLE

4372 Time Critical Targeting

(U) Schedule ProfileFY 2005FY 2006FY 2007

(U) Spiral 9 Development

1-2Q

(U) TCT Final Contract Termination Closeout

3-4Q

1-4Q

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Center - Weapon System (AOC-WS)

PROJECT NUMBER AND TITLE

5117 Integration Development

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5117 Integration Development	21.560	67.029	87.483	89.994	93.948	102.116	86.861	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

FY05 TCTF BPAC 674372 funds in the amount of \$1.545M were reallocated to AOC WS Integration Development BPAC 675117. In FY05, Time Critical Targeting Functionality (TCTF) was issued a termination notice at the convenience of the Government.

(U) **A. Mission Description and Budget Item Justification**

Air and Space Operations Center Weapon System (AOC WS) Program: The AOC WS Integration Development project provides system hardware, software and documentation to make the AOC WS a viable weapons system. The program consists of Falconer AOCs, Tailored Falconer AOCs, Functional AOCs, and Support AOCs that are configured according to mission need. The project will develop and integrate C2 and ISR capabilities through software and hardware improvements to the AOC WS baseline. To keep the future AOC weapon system evolving to meet warfighter needs, the AOC WS Program plans to spirally develop the AOC with capability increments. The December 2003 Acquisition Decision Memorandum directed the Air and Space Operations Center Weapon System to use a Weapon System Integrator (WSI) to ensure system of system perspective and systems engineering rigor, move AOC Modernization to Network Centric Operations (NCO) through spirally developed increments, to make recommendations on transitions to the "to be" architecture, and to conduct other weapon system standardization activities as defined in AOC WS requirements documents. This direction is driving significantly increased program funding. The AOC WS Integration Development program provides a structure to transition and act as the focal point for systems integration, technical transition, and process refinement for rapidly evolving C2 programs, processes and concepts.

The program is in Budget Activity 7 - Operation System Development because it provides funding for the modernization of a currently existing and operating system.

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Continue AOC development and integration of items to include, but not limited to, legacy systems, multi-level security, visualization, coalition interoperability, airspace management and deconfliction, strategy and assessment, information management, and predictive battlespace awareness for air and space operations.	13.560		21.800
(U) Integration to include, but not limited to, legacy systems, multi-level security, visualization, coalition interoperability, airspace management and deconfliction, strategy and assessment, information management, and predictive battlespace awareness for air and space operations.		27.721	26.695
(U) Modernization & Integration Systems Engineering Program Management and Data		5.756	17.664
(U) Integration Training (Type 1, Part Task Trainer, Distributed Mission Training)		1.219	4.569
(U) Modernization Integration Test and Evaluation		5.877	2.164
(U) Government Support to include, but not limited to, Government Systems Engineering, Government Test	5.000	15.817	9.036
(U) Program Management Support	3.000	10.639	5.555
(U) Total Cost	21.560	67.029	87.483

Project 5117

R-1 Shopping List - Item No. 144-9 of 144-13

Exhibit R-2a (PE 0207410F)



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

	<u>FY 2005</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>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other Procurement, AF (3080) PEC: 27410F; BPAC: 83453A	39.534	20.302	24.889	38.318	34.923	43.503	29.569	Continuing	TBD

(U) **D. Acquisition Strategy**

The December 2003 Acquisition Decision Memorandum directed the Air and Space Operations Center Weapon System (AOC WS) to hire a Weapon System Integrator (WSI) through full and open competition, to ensure system of system perspective and systems engineering rigor and to move AOC Modernization to Network Centric Operations (NCO) through spirally developed increments. The acquisition strategy builds on existing capabilities, using evolutionary acquisition and spiral development, to standardize, modernize and sustain AOC WSs.

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5117 Integration Development

(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &amp;</u> <u>Type</u>	<u>Performing</u> <u>Activity &amp;</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>
(U) <u>Product Development</u>												
AOC Software Development	CPAF	LMMS, Colorado Springs, CO	9.400					9.600	Nov-06	Continuing	TBD	TBD
Modernization & Integration	CPAF	ITSP & TBD WSI		2.206	Jul-05	10.177	Mar-06	30.943	Nov-06	Continuing	TBD	TBD
Integration & Version Upgrades 10.1.1	CPAF	Contractor WSI TBD				17.896	Feb-06	20.149	Nov-06	Continuing	TBD	TBD
Training	MIPR	AFMC/ESC, Hanscom AFB, MA	10.500	3.425	Jan-05	2.800	Nov-05	0.275	Nov-06	Continuing	TBD	TBD
Other Contracts (GSA, ETC)	MIPR	Various	21.072	7.651	Nov-04	9.139	Nov-05	2.955	Nov-06	Continuing	TBD	TBD
Increment 10.1 & 10.2 Development	CPAF	ISS , Colorado Springs, CO	9.363			12.500	Feb-06	12.200	Jan-07	Continuing	TBD	TBD
Subtotal Product Development			50.335	13.282		52.512		76.122		Continuing	TBD	TBD
Remarks:												
(U) <u>Support</u>												
Systems Engineering	CPFF	MITRE, Bedford, MA	6.000	3.883	Oct-04	7.432	Oct-05	4.496	Oct-06	Continuing	TBD	TBD
Program Support	FFP	A&AS AFMC/ESC, Hanscom AFB, MA	12.147	0.939	Dec-04	3.400	Dec-05	5.200	Dec-06	Continuing	TBD	TBD
Program Office Support	Various	AFMC/ESC, Hanscom AFB, MA	1.400	1.556	Oct-04	1.300	Oct-05	0.700	Oct-06	Continuing	TBD	TBD
Subtotal Support			19.547	6.378		12.132		10.396		Continuing	TBD	TBD
Remarks:												
(U) <u>Test &amp; Evaluation</u>												
46TS	MIPR	Eglin AFB, FL	1.524	1.900	Nov-04	2.385	Nov-05	0.965	Nov-06	Continuing	TBD	TBD
Subtotal Test & Evaluation			1.524	1.900		2.385		0.965		Continuing	TBD	TBD
Remarks:												
(U) Total Cost			71.406	21.560		67.029		87.483		Continuing	TBD	TBD

Project 5117

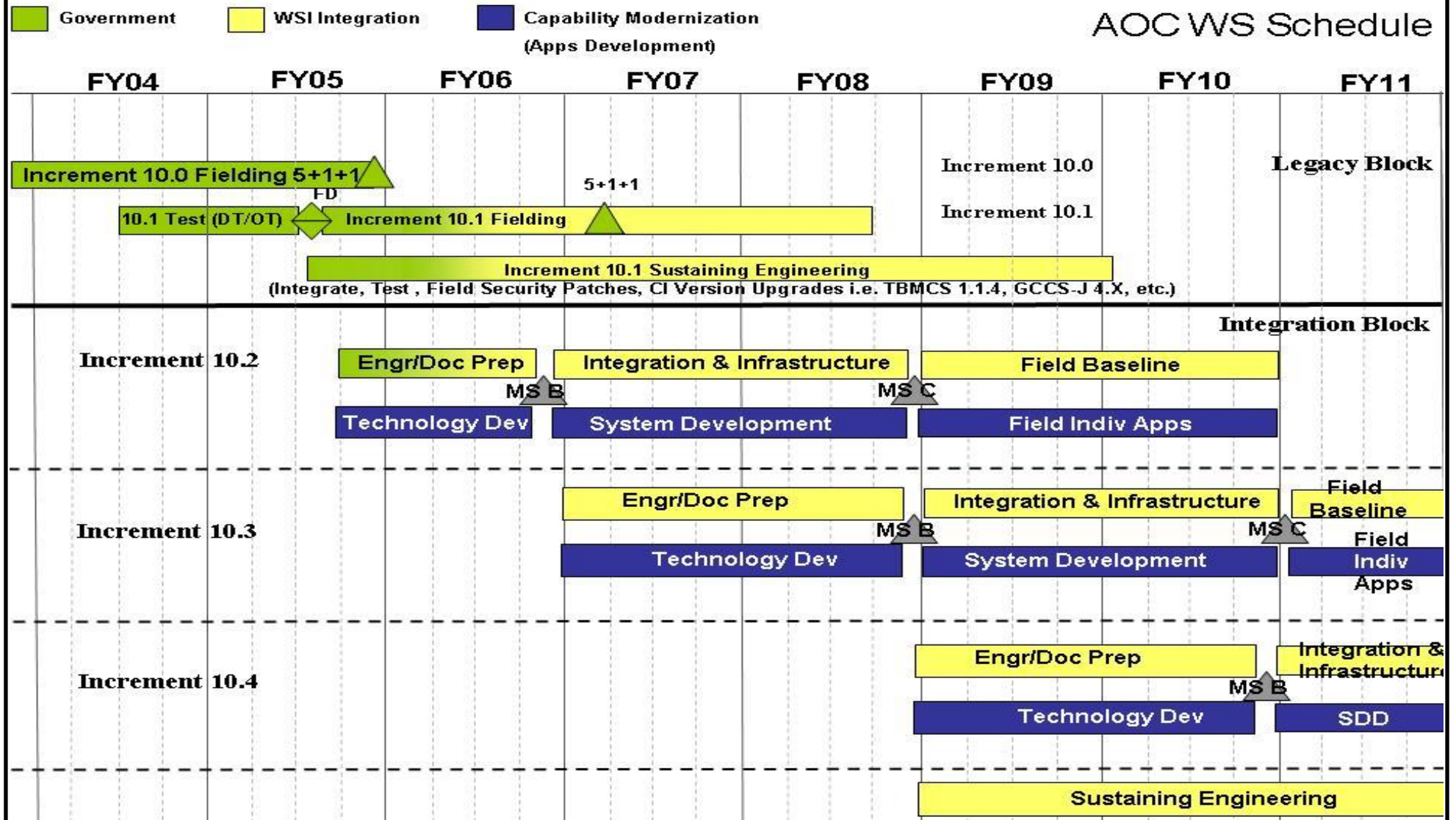
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Exhibit R-3 (PE 0207410F)

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

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

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**5117 Integration Development**(U) **Schedule Profile**FY 2005FY 2006FY 2007

(U) Increment 10.0 Fielding 5+1+1

1-4Q

(U) Increment 10.1 Test (DT/OT)

1-3Q

(U) Increment 10.1 Fielding 5+1+1

3-4Q

1-4Q

1-4Q

(U) Increment 10.2 MS B

4Q

(U) Increment 10.2 System Development

4Q

1-4Q

(U) Increment 10.3 Technology Development

1-4Q