

UNCLASSIFIED

PE NUMBER: 0207438F
 PE TITLE: Theater Battle Management (TBM) C4I

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2008
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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207438F Theater Battle Management (TBM) C4I
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Cost (\$ in Millions)	FY 2007 Actual	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	35.950	9.898	19.437	19.569	11.815	12.045	12.290	Continuing	TBD
4790 Theater Battle Management Core System (TBMCS)	21.366	0.000	0.000	0.000	0.000	0.000	0.000	0.000	55.013
4802 Deliberate and Crisis Action Planning and Execution Segment (DCAPES)	14.584	9.898	19.437	19.569	11.815	12.045	12.290	Continuing	TBD

Starting in FY08 Project 674790 (Theater Battle Management Core Systems) was transferred to PE 0207410F (Air and Space Operations Center Weapon System), Projects 675218 (Applications Development) and 675220 (Unit Level).

(U) A. Mission Description and Budget Item Justification

The TBM C4I PE includes Deliberate and Crisis Action Planning and Execution Segments (DCAPES), which is being developed as the next-generation AF interface to the Joint Operational Planning and Execution System (JOPEs). DCAPES is the Air Force's single system to present, plan, source, mobilize, deploy, account for, sustain, redeploy, and reconstitute forces for contingency and crisis operations. This system provides a real time, two way interchange of personnel, manpower, logistics, and operational data between the Air Force and the warfighting Combatant Commanders. It matches people, cargo, and airframes/weapon systems to the Combatant Commander's warfighting requirements. Acquisition of this system supports the Air Force's expeditionary force concept.

Prior to FY08, the TBMC4I PE included the Theater Battle Management Core Systems (TBMCS) program and the Joint Targeting Toolbox project. TBMCS develops force-level and wing-level command, control, and intelligence systems which utilize DoD's Common Operating Environment (COE). Acquisition of these systems supports the Air Force's expeditionary force concept and will allow the execution of Theater Battle Management (TBM) planning, intelligence, and operational functions of the Joint Forces Air Component Commander (JFACC). Those functions include: generation and dissemination of the air tasking order (ATO) from the Air and Space Operations Center-Weapon System (AOC-WS) down to the wing and unit levels; air and space defense planning and execution; airspace deconfliction; targeting and weaponeering; and many other applications supporting air operations command and control. Joint Targeting Toolbox (JTT) is a joint service development effort that enhances joint targeting functionality.

The TBMCS and DCAPES efforts are post Milestone B and are in Budget Activity 7, Operational Systems Development because both systems incrementally upgrade and develop capabilities for currently operational systems.

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2008

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207438F Theater Battle Management (TBM) C4I

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	31.701	9.961	10.190
(U) Current PBR/President's Budget	35.950	9.898	19.437
(U) Total Adjustments	4.249	-0.063	
(U) Congressional Program Reductions			
Congressional Rescissions		-0.063	
Congressional Increases			
Reprogrammings	5.140		
SBIR/STTR Transfer	-0.891		

(U) **Significant Program Changes:**

- FY06 was the last year for JTT RDT&E funding.
- Starting in FY08, TBMCS (Project 674790) funding is transferred to PE 0207410F (AOC WS), projects 675218 (Applications Development) and 675220 (Unit Level).
- The increase in FY09 reflects \$9.9M added to BPAC 674802 for DCAPEs Service Oriented Architecture (SOA) development activities to keep the crisis planning and deployment system operational to support current and future Combatant Commander requirements.

Exhibit R-2a, RDT&E Project Justification

DATE
February 2008

BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0207438F Theater Battle Management (TBM) C4I			PROJECT NUMBER AND TITLE 4790 Theater Battle Management Core System (TBMCS)		
Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
4790 Theater Battle Management Core System (TBMCS)	21.366	0.000	0.000	0.000	0.000	0.000	0.000	0.000	55.013
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

Starting in FY08 Project 674790 (Theater Battle Management Core Systems) was transferred to PE 0207410F (AOC WS), Projects 675218 (Applications Development) and 675220 (Unit Level).

(U) A. Mission Description and Budget Item Justification

The Theater Battle Management Core Systems (TBMCS) develops force-level and wing-level command, control, and intelligence systems. It links planning, intelligence, and operations functions in an integrated battle management system for planning and executing the air war at the theater level. It also evaluates future air and space command and control concepts identified through Global War on Terrorism (GWOT) and incorporates new capability via evolutionary acquisition. Functions supported include: generation and dissemination of the air tasking order in support of the Joint Forces Air Component Commander (JFACC) from the Air and Space Operations Center-Weapon System (AOC WS) down to the wing and unit levels; air and space defense planning and execution; airspace deconfliction; targeting and weaponeering; and many other applications supporting air operations command and control.

Realignment of TBMCS funding into the AOC WS aligns funding with overall weapons system configuration control responsibility.

The TBMCS effort is post Milestone B and is in Budget Activity 7, Operational Systems Development because it incrementally upgrades and develops capabilities for currently operational systems.

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Continue TBMCS baseline Spirals (including Force Level, Unit Ops & Unit Intel Spirals)	3.212	0.000	0.000
(U) Continue C2 Capabilities/Applications/Infrastructure Upgrade Planning/Development, Test and Field	12.818	0.000	0.000
(U) TBMCS System engineering and interoperability with US, NATO, or other coalition systems	4.296	0.000	0.000
(U) TBMCS Test Support for Force Level and Unit Level Spirals	1.040	0.000	0.000
(U) Total Cost	21.366	0.000	0.000

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

	<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>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other Procurement, AF, PE 0207438F, WSC 834520	23.467	0.000	0.000	0.000	0.000	0.000	0.000	0.000	TBD
(U) Other Procurement, AF, PE 0207410F, WSC 834520	0.000	22.702	22.677	29.232	27.258	27.845	28.266	Continuing	TBD

Exhibit R-2a, RDT&E Project Justification

DATE

February 2008

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207438F Theater Battle Management
(TBM) C4I

PROJECT NUMBER AND TITLE

4790 Theater Battle Management
Core System (TBMCS)(U) D. Acquisition Strategy

Projects were awarded following full and open competition and will use an evolutionary acquisition strategy based on spiral development.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2008

BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE			
07 Operational System Development				0207438F Theater Battle Management (TBM) C4I					4790 Theater Battle Management Core System (TBMCS)			
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2007 Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) <u>Product Development</u> TBMCS Increment/Spiral development	C/CPAF	LM IS&S, Colorado Springs, CO		14.345	Nov-06					14.703	29.048	TBD
Unit Level Intel	MIPR	Various		0.685	Nov-06					0.685	1.370	TBD
TBMCS Spiral 1.1.4 Core	C/CPFF	ISS, Colorado Springs, CO,		1.000	Oct-06					1.000	2.000	TBD
Subtotal Product Development			0.000	16.030		0.000		0.000		16.388	32.418	TBD
Remarks:												
(U) <u>Support</u> TBMCS - System Engineering	C/CPAF	MITRE, Bedford, MA		4.296	Oct-06	0.000		0.000		4.396	8.692	TBD
Subtotal Support			0.000	4.296		0.000		0.000		4.396	8.692	TBD
Remarks:												
(U) <u>Test & Evaluation</u> TBMCS Test Support	MIPR	46TS, Eglin AFB, FL		1.040	Nov-06	0.000		0.000		1.283	2.323	TBD
Subtotal Test & Evaluation			0.000	1.040		0.000		0.000		1.283	2.323	TBD
Remarks:												
(U) <u>Management</u> Subtotal Management				0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			0.000	21.366		0.000		0.000		22.067	43.433	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

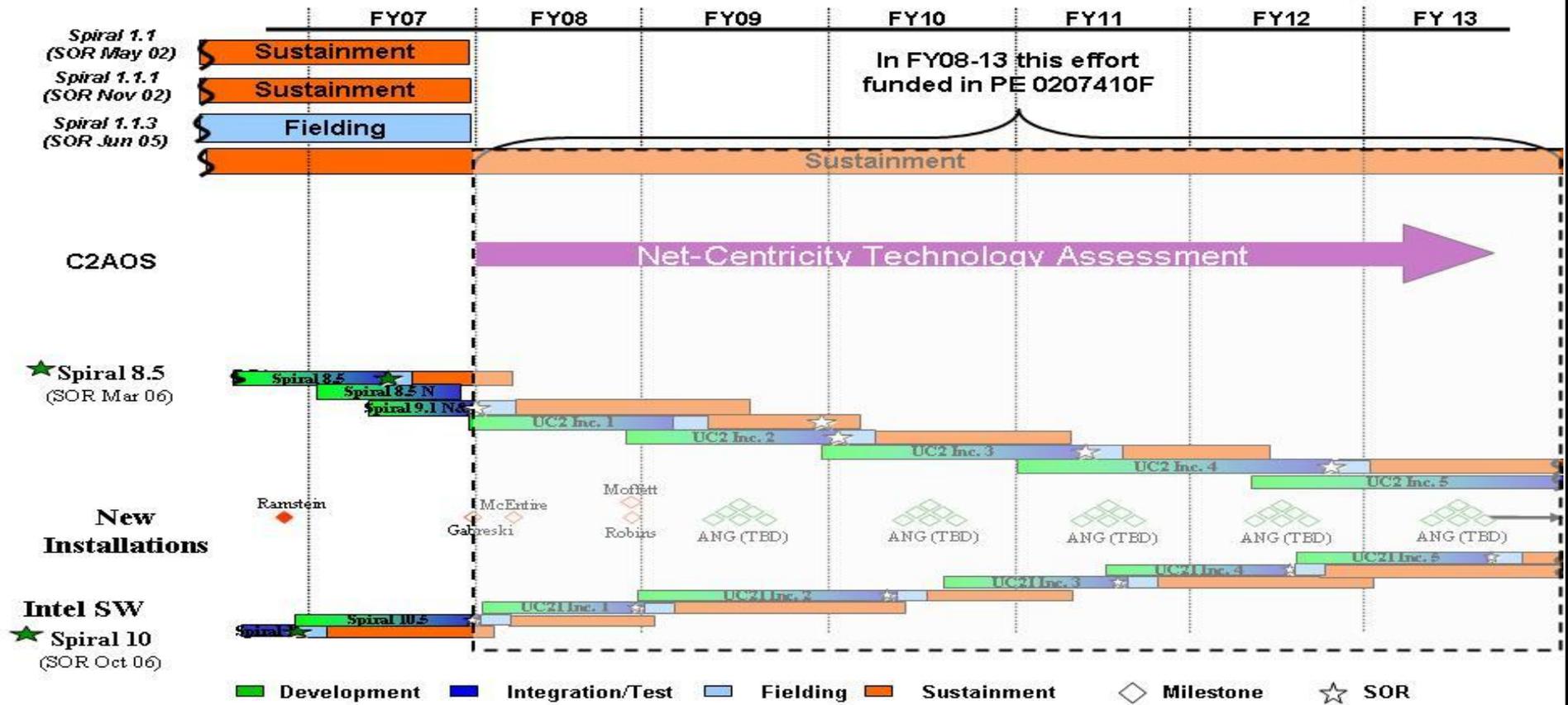
February 2008

BUDGET ACTIVITY
07 Operational System Development

PE NUMBER AND TITLE
0207438F Theater Battle Management (TBM) C4I

PROJECT NUMBER AND TITLE
4790 Theater Battle Management Core System (TBMCS)

TBMCS Program Schedule



As of: 1 Aug 2007

R-1 Line Item No. 142

Page-6 of 13

Project 4790

Exhibit R-4 (PE 0207438F)

UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail	DATE February 2008
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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207438F Theater Battle Management (TBM) C4I	PROJECT NUMBER AND TITLE 4790 Theater Battle Management Core System (TBMCS)
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	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) <u>Schedule Profile</u>			
(U) Continuing TBMCS Force Level Software Spirals	1-4Q		
(U) Continuing C2 Capabilities/Applications/Infrastructure Upgrade Planning/Development, Test & Field	1-4Q		
(U) Continuing TBMCS Unit Level Ops Spirals	1-4Q		
(U) Continuing TBMCS Unit Level Intel Spirals	1-4Q		

Exhibit R-2a, RDT&E Project Justification

DATE
February 2008

BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0207438F Theater Battle Management (TBM) C4I			PROJECT NUMBER AND TITLE 4802 Deliberate and Crisis Action Planning and Execution Segment (DCAPES)		
Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
4802 Deliberate and Crisis Action Planning and Execution Segment (DCAPES)	14.584	9.898	19.437	19.569	11.815	12.045	12.290	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

Deliberate and Crisis Action Planning and Execution Segments (DCAPES) is being developed as the next-generation AF interface to the Joint Operational Planning and Execution System (JOPES). Development activities may also include Logistics Feasibility Analysis Capability (LOGFAC), Logistics Module/Manpower and Personnel Module-Base (LOGMOD/MANPER B), War and Mobilization Planning (WMP), Enhanced Contingency Rotational AEF Scheduling Tool (ECAST), Web Enablement, and JOPES Modernization Migration. This effort is an evolutionary follow-on to the Contingency Operations Mobility Planning and Execution System (COMPES). DCAPES replaced the operational tasking and priorities functionality of COMPES with modern relational databases, integrated-distributed database, and common and shared data consistent with the Joint vision for integrated Command and Control. DCAPES is intended to provide a command and control capability by exchanging data with a range of planning support systems to provide a more effective force projection capability for a wider range of operational scenarios and will fully support the force provider function of the AF Forces (AFFOR) commander. DCAPES along with numerous other war planning support legacy systems are transitioning into a net-centric Service Oriented Architecture (SOA) environment via a War Planning and Execution System (WPES) management construct. DCAPES provides a real time, two way interchange of personnel, manpower, logistics, and operational data between the Air Force and the warfighting Combatant Commanders. It matches people, cargo, and airframes/weapon systems to the Combatant Commander's warfighting requirements.

This program is in Budget Activity 7, Operational System Development, because it upgrades and develops capabilities for current operational systems.

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Accomplishments/Planned Programs			
(U) Continue DCAPES Increment 2 contractor development, requirements definition, prototyping, coding, and testing, and service oriented architecture development.	11.256	9.269	18.173
(U) Support	1.878	0.367	0.376
(U) Program Management	1.034	0.063	0.226
(U) Test & Evaluation - Continue Government deployment operational testing and interoperability support	0.416	0.199	0.662
(U) Total Cost	14.584	9.898	19.437

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

	<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>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Operations and Maintenance	2.861	4.444	4.766	4.928	5.000	5.094	5.214	Continuing	TBD

Exhibit R-2a, RDT&E Project Justification

DATE

February 2008

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

**0207438F Theater Battle Management
(TBM) C4I**

PROJECT NUMBER AND TITLE

**4802 Deliberate and Crisis Action
Planning and Execution Segment
(DCAPES)****(U) D. Acquisition Strategy**

The program uses an evolutionary acquisition strategy with incremental development with multiple software releases to accommodate refinement and prioritization of user requirements and improve adaptability with commercial technology.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2008

BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207438F Theater Battle Management (TBM) C4I	PROJECT NUMBER AND TITLE 4802 Deliberate and Crisis Action Planning and Execution Segment (DCAPES)
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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 2007 Cost</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> DCAPES Increment 2a	Various	CSC, Falls Church, VA		10.554	Jan-07	8.700	Nov-07			Continuing	TBD	TBD
DCAPES Increment 2a Contract Engineering	TBD T&M	TBD Oasis Systems Inc, Lexington MA		0.277	Jan-07	0.210	Apr-08	17.587	Jan-09	Continuing	TBD	TBD
FFRDC	CPAF	Mitre, Bedford, MA		0.425	Jan-07	0.359	Dec-07	0.370	Dec-08	Continuing	TBD	TBD
Subtotal Product Development			0.000	11.256		9.269		18.173		Continuing	TBD	TBD
Remarks:												
(U) <u>Support</u> Contract Logistic Functional Support	T&M	AC Technologies, Fairfax, VA		0.338	Jan-07					Continuing	TBD	TBD
Contract Logistic Functional Support	T&M	OASIS Systems, Inc, Lexington MA				0.158	Feb-08	0.161	Feb-09		0.319	
Contract Cost Analysis Support	T&M	Tecolote Research, Inc. Goleta, CA		0.225	Mar-07	0.209	Apr-08	0.215	Apr-09	Continuing	TBD	
Contract Architecture Studies/Modeling & Simulation	FFP	BTAS, Dayton, OH; ICF Fairfax, VA		0.375	Sep-07						0.375	
CJCS-Directed Joint Force Projection ACTD	MIPR	DISA, Arlington, VA		0.940	Apr-07						0.940	
Subtotal Support			0.000	1.878		0.367		0.376		Continuing	TBD	TBD
Remarks:												
(U) <u>Test & Evaluation</u> 46 Test Sqdn	MIPR/Other	Eglin AFB, FL		0.656	Jan-07	0.045	Jan-08	0.330	Jan-09	Continuing	TBD	TBD
605 Test Sqdn	MIPR/Other	Eglin AFB, FL		0.264	Jun-07	0.018	Dec-07	0.215	Dec-08	Continuing	TBD	TBD
DISA JITC	MIPR	Ft Haachuca, AZ		0.114	Nov-07			0.117	Dec-08		0.231	
Subtotal Test & Evaluation			0.000	1.034		0.063		0.662		Continuing	TBD	TBD
Remarks:												

R-1 Line Item No. 142

Page-10 of 13

Project 4802

Exhibit R-3 (PE 0207438F)

1406

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2008

BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT NUMBER AND TITLE				
07 Operational System Development				0207438F Theater Battle Management (TBM) C4I				4802 Deliberate and Crisis Action Planning and Execution Segment (DCAPES)				
(U) <u>Management</u>												
Program Management Office (PMO) Support	Various	Maxwell-Gunter AFB/ Montgomery, AL		0.089	Dec-06	0.052	Dec-07	0.075	Dec-08	Continuing	TBD	TBD
Contract PMO Support	T&M	DSD, Sudbury, MD		0.327	Jan-07	0.147	Apr-08	0.151	Jan-09	Continuing	TBD	
Subtotal Management			0.000	0.416		0.199		0.226		Continuing	TBD	TBD
Remarks:												
(U) Total Cost			0.000	14.584		9.898		19.437		Continuing	TBD	TBD

Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2008

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207438F Theater Battle Management (TBM) C4I

PROJECT NUMBER AND TITLE

4802 Deliberate and Crisis Action Planning and Execution Segment (DCAPES)

(U) Schedule Profile

(U) Increment 2a 4.0.2.0 Fielding

(U) Increment 2a 4.1.0.0 Development

(U) Increment 2a 4.1.0.0 Fielding

(U) Service Oriented Architecture Development/Transition Spiral

FY 2007

1Q

1-4Q

FY 2008

1-2Q

3Q

1-4Q

FY 2009

1-4Q