

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE
February 2000

BUDGET ACTIVITY		PE NUMBER AND TITLE							
07 - Operational System Development		0208060F Theater Missile Defenses							
COST (\$ in Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	30,571	25,904	19,824	0	0	0	0	Continuing	TBD
674478 Command, Control, Communications, Computers, and Intelligence Enhancements	22,044	17,723	19,824	0	0	0	0	Continuing	TBD
674479 Attack Operations Concept Development	8,527	8,181	0	0	0	0	0	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0

(U) **A. Mission Description**

Air Force Theater Missile Defense/Time Critical Target (TMD/TCT) effort is focused in two areas: Battle Management/Command, Control, Communications, Computers, and Intelligence (BM/C4I) enhancements and improvements to existing Attack Operations systems and procedures. AF TMD concentrates on defining improvements to existing operational capabilities, developing and evaluating prototypes, demonstrating as well as simulating modifications through operational concept demonstrations, and coordinating the transition of these capabilities to operational systems. BM/C4I projects [including, for example, Dynamic Battle Management, Attack Operations Decision Aid (AODA), Automatic Application of Intelligence Preparation of Battlespace (A2IPB) and Joint TADIL-J Range Extension (JRE)] reduce timelines required to negate the theater missile threat by increasing interoperability, improving battle management tools, and providing accurate target data via datalinks for Offensive Counterair (Attack Operations). Attack Operations focuses on improving the ability to locate, identify, target and destroy theater missiles and supporting infrastructure, including theater missile threats in production, deployment, prior to and during launch, as well as soon after launch before critical mobile targets are able to egress to hide locations. The foundation for Attack Operations is improved C4I, advanced sensors, target identification capabilities, CONOPS, training, tactics and procedures, and requirements development for offensive counterair and integration with defensive systems.

(U) **B. Budget Activity Justification**

This program is in Budget Activity 7 because its projects are upgrades to existing operational systems.

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BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0208060F Theater Missile Defenses
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	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>
(U) <u>C. Program Change Summary (\$ in Thousands)</u>				
(U) Previous President's Budget (FY 2000 PBR)	30,352	26,129	28,551	TBD
(U) Appropriated Value	31,057	26,129		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-705	-83		
b. Small Business Innovative Research	-1,004			
c. Omnibus or Other Above Threshold Reprogram		-142		
d. Below Threshold Reprogram	1,394			
e. Rescissions	-171			
f. Other				TBD
(U) Adjustments to Budget Years Since FY 2000 PBR			-8,727	
(U) Current Budget Submit/FY 2001 PBR	30,571	25,904	19,824	TBD
(U) <u>Significant Program Changes:</u>				
PE 28060F was reduced across the FYDP to provide funding for higher AF priority programs.				

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2000	
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0208060F Theater Missile Defenses				PROJECT 674478	
COST (\$ in Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
674478 Command, Control, Communications, Computers, and Intelligence Enhancements	22,044	17,723	19,824	0	0	0	0	Continuing	TBD
<p>(U) A. Mission Description</p> <p>Battle Management, Command, Control, Communications, Computers, and Intelligence (BMC4I) enhancements are needed to reduce timelines required to negate Theater Missiles and Time Critical Targets (TCTs) by increasing interoperability, improving battle management tools, and providing accurate target data via datalinks for Offensive Counterair (Attack Operations) against TCTs. The Combat Air Force (CAF) CONOPS for C2 Against Time Critical Targets and Air Superiority Mission Area Plan (MAP) provide the foundation. The BM/C4I program encompasses:</p> <p>1) Dynamic Battle Management (DBM), the CAF vision for providing flexible, centralized C2 throughout conflict spectrum to meet Joint Vision 2010 objectives. Will allow JFACC to tailor decentralized execution to best meet the Rule of Engagement (ROE) and span of control requirements enabling prosecution of any TCT. DBM will identify technical capabilities and migration path required to support DBM environment consisting of wide area connectivity, decision support tools, and shared information.</p> <p>2) Automated Planning Tools / Decision Aids which prototype and demonstrate advanced decision aid capabilities to upgrade the battle management tools and infrastructure to better execute the Theater Missile Defense (TMD) mission. Examples include the integration of the Time Critical Target Aid (TCTA) and Joint Defensive Planner (JDP) into Theater Battle Management Core Systems (TBMCS)/ Global Command and Control System (GCCS) architecture as well as the development and migration of the Attack Operations Decision Aid (AODA) into TACS platforms.</p> <p>3) Intelligence Preparation Of Battlespace (IPB) which enables the Commander and supporting staff to visualize the full spectrum of adversary capabilities and course of actions (COAs) across all dimensions of the battlespace. Examples include the revision of the methodology for the IPB process as it supports TMD; development of an information architecture populated with linked digital products; generation of training material for use in Air Force schoolhouse and field IPB training; and development of a software Automated Assistance with IPB (A2IPB) tool for TBMCS/GCCS to assist the intelligence analyst at a Joint Intelligence Center (JIC), and the Intel/Ops Planner at an AOC.</p> <p>4) Data Link Connectivity which provides upgrades to existing Air Force platforms to better utilize existing communications systems. These include Joint Tactical Information Dissemination System (JTIDS) TMD Message Set Integration and JTIDS gateways to extend range beyond line of sight and interface with National Technical Means (NTM) to provide attack and early launch reporting to theater.</p>									
Project 674478			Page 3 of 12 Pages				Exhibit R-2A (PE 0208060F)		

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE
BUDGET ACTIVITY		PROJECT
07 - Operational System Development	0208060F Theater Missile Defenses	February 2000 674478
(U)	<u>A. Mission Description Continued</u>	
(U)	<u>FY 1999 (\$ in Thousands)</u>	
(U)	\$6,316	Conducted (DBM operations onboard AWACS and JSTARS live-fly platforms during EFX 99.
(U)	\$5,940	Continued to develop IPB evolutionary prototypes (EPs) for TBMCS and Air Intelligence Agency's Virtual Production environment; demonstrate improved automated procedures and IPB system capabilities in Ops Concept Demonstrations (OCDs).
(U)	\$6,383	Completed AODA spiral 1 prototype development and EFX 99 demonstration; integrate and demonstrate JTE concept in laboratory (single site); completed ATR/TCTA integration and EFX 99 demonstration; began Intelligence Surveillance Recce (ISR) Real Time Requirements definition effort; utilized TCT test bed to improve integration into operational systems and demonstrated integrated capabilities
(U)	\$3,405	Completed JRE prototype development, EFX 99 demonstration, and implementation plan; performed kill chain based C4I analysis.
(U)	\$22,044	Total
(U)	<u>FY 2000 (\$ in Thousands)</u>	
(U)	\$4,268	Integration of DBM concepts and prototype capabilities into TMD/TCT cell. Develop upgraded capability for Air Operations Center (AOC) and GTACS and conduct operations experiments during EFX 00.
(U)	\$5,893	Continue to develop IPB evolutionary prototypes (EPs) for TBMCS and Air Intelligence Agency's Virtual Production environment; demonstrate improved automated procedures and IPB system capabilities in Ops Concept Demonstrations (OCDs) and Joint exercises. Complete Area Limitation module development and conduct FY00 EFX demonstration.
(U)	\$4,819	Complete AODA spiral 2 prototype development; continue to develop JTE and conduct EFX 00 demonstrations (distributed, collaborative targeting). Kickoff ISR-Real Time prototype development effort based on FY99 analysis. Maintain TMD Cell Testbed to improve integration into operational systems and demonstrate integrated capabilities in operational concept demonstrations.
(U)	\$2,743	Continue to explore communications improvements that compress Theater Missile engagement timelines and demonstrate integrated capabilities in OCDs, CINC experiments, and Joint Exercises.
(U)	\$17,723	Total
(U)	<u>FY 2001 (\$ in Thousands)</u>	
(U)	\$6,165	Continue to develop IPB evolutionary prototypes (EPs) for TBMCS and Air Intelligence Agency's Virtual Production environment; demonstrate improved automated procedures and IPB system capabilities in Ops Concept Demonstrations (OCDs), CINC experiments and joint exercises.
(U)	\$5,292	Complete AODA spiral 2 prototype development and conduct EFX 00 demonstration; continue to develop JTE and conduct EFX 00 demonstration (distributed, collaborative targeting); kickoff ISR-Real Time prototype development effort; maintain TCT Testbed to improve integration into operational systems and demonstrate integrated capabilities in CINC experiments and joint exercises.
(U)	\$1,052	Continue to explore communications improvements that compress Theater Missile engagement timelines and demonstrate integrated capabilities
Project 674478		Exhibit R-2A (PE 0208060F)

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BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0208060F Theater Missile Defenses			PROJECT 674478																																																											
<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2001 (\$ in Thousands) Continued</u></p> <p style="padding-left: 40px;">in OCDs, CINC experiments, and Joint Exercises.</p> <p>(U) \$4,626 Conduct BMC4I and Attack Operations Operational Concept Demonstrations.</p> <p>(U) \$2,689 Conduct development of prototype JSTARS ATR HW & SW for multisensor application in the TCTA.</p> <p>(U) \$19,824 Total</p> <p>(U) <u>B. Project Change Summary</u></p> <p style="padding-left: 40px;">- FY2001 budget is inclusive of BMC4I initiatives and Attack Operations. The FY01-05 budget is reduced to reflect the impact due to budget constraints and funding AF higher priorities.</p> <p>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:15%;"></th> <th style="width:10%;"><u>FY 1999</u></th> <th style="width:10%;"><u>FY 2000</u></th> <th style="width:10%;"><u>FY 2001</u></th> <th style="width:10%;"><u>FY 2002</u></th> <th style="width:10%;"><u>FY 2003</u></th> <th style="width:10%;"><u>FY 2004</u></th> <th style="width:10%;"><u>FY 2005</u></th> <th style="width:10%;"><u>Cost to</u></th> <th style="width:10%;"><u>Total Cost</u></th> </tr> <tr> <td></td> <td style="text-align: center;"><u>Actual</u></td> <td style="text-align: center;"><u>Estimate</u></td> <td style="text-align: center;"><u>Complete</u></td> <td></td> </tr> </thead> <tbody> <tr> <td>(U) AF RDT&E</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Other APPN</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) RDT&E, BMDO PMA F3261, BM/C4I</td> <td style="text-align: center;">9,885</td> <td style="text-align: center;">4,000</td> <td></td> <td style="text-align: center;">TBD</td> </tr> </tbody> </table> <p style="padding-left: 40px;">Funding provided by the Ballistic Missile Defense Office for BMC4I interoperability evaluations and prototype development.</p> <p>(U) <u>D. Acquisition Strategy</u></p> <p style="padding-left: 40px;">HQ Electronic Systems Center (ESC) provides program management for the concept exploration of C4I enhancements. Prototypes and analysis of improvements to existing C4I assets will complement the Attack Operations effort with combined participation in Operational Concept Demonstrations. These Attack Operations and C4I analyses and demonstrations are specifically targeted against operational deficiencies identified in the TMD Mission Area Plan (MAP), are traceable to the AF and JROC Mission Need Statement (MNS) and are consistent with the Air Force and Joint TMD CONOPS in accordance with Joint Doctrine. Integration of TMD requirements and fielding of proposed material solutions will continue beyond concept exploration in the appropriate program element for a particular system. Existing contracts will be used for those systems where engineering change proposals are appropriate. Systems Engineering and Technical Analysis (SETA) contracts will be used to support the requirements definition phase of TMD improvements. In those areas where new material solutions are necessary to correct a deficiency, the source selection process will be followed.</p> <p>(U) <u>E. Schedule Profile</u></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;"></th> <th style="width:20%;"><u>FY 1999</u></th> <th style="width:20%;"><u>FY 2000</u></th> <th style="width:20%;"><u>FY 2001</u></th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>										<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</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) AF RDT&E										(U) Other APPN										(U) RDT&E, BMDO PMA F3261, BM/C4I	9,885	4,000	4,000	4,000	4,000	4,000	4,000		TBD		<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>				
	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Cost to</u>	<u>Total Cost</u>																																																									
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(U) RDT&E, BMDO PMA F3261, BM/C4I	9,885	4,000	4,000	4,000	4,000	4,000	4,000		TBD																																																									
	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>																																																															
Project 674478			Page 5 of 12 Pages			Exhibit R-2A (PE 0208060F)																																																												

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2000
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BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0208060F Theater Missile Defenses	PROJECT 674478
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	<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) <u>E. Schedule Profile Continued</u>												
(U) TPS-75 Expert Missile Tracker Prototypes/Contingency Support Systems												
(U) Establish BMC4I prototype development plan and schedule. Annual review			*				X				X	
(U) JEFX demonstrations			*				X					
(U) Demonstrate automated IPB procedures and system capabilities in Ops Concept				*				X				X
(U) CINC experiments and Joint Exercises.			*			X	X			X	X	
(U) Evaluate use of C2 planning/decision aids. Annual Review.				*				X				X
(U) Continue to explore JTIDS/Link-16 Integration/Improvements. Annual Rev				*				X				X
* - Completed												
X- Planned Start Date												

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2000			
BUDGET ACTIVITY 07 - Operational System Development					PE NUMBER AND TITLE 0208060F Theater Missile Defenses			PROJECT 674478			
(U) A. Project Cost Breakdown (\$ in Thousands)											
						<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>	
(U)	Dynamic Battle Management (DBM)					6,316		4,268			
(U)	Intelligence Preparation of Battlespace (IPB)					5,940		5,893		6,165	
(U)	Automated Decision Aids/Planning Tools					6,383		4,819		5,292	
(U)	JTIDS/Link-16 Integration & Beyond LOS Capability					3,405		2,743		1,052	
(U)	Operations Concept Demonstrations and CINC Exercises									4,626	
(U)	Joint STARS ATC/ATR Demonstration									2,689	
(U)	Total					22,044		17,723		19,824	
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)											
(U) Performing Organizations:											
	<u>Contractor or Government</u>	<u>Contract Method/Type</u>	<u>Award or Obligation</u>	<u>Performing Activity</u>	<u>Project Office</u>	<u>Total Prior to FY 1999</u>	<u>Budget FY 1999</u>	<u>Budget FY 2000</u>	<u>Budget FY 2001</u>	<u>Budget to Complete</u>	<u>Total Program</u>
	<u>Performing Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>						
<u>Product Development Organizations</u>											
	TRW (AODA)	CPFF	Oct 97	N/A	N/A		2,879	3,080	2,000	Continuing	TBD
	Boeing (DBM)	T&M	Dec 97	N/A	N/A		2,339	0	0		2,339
	Northrop Grumman (DBM)	T&M	Dec 97	N/A	N/A		2,415	0	0		2,415
	Zel Technologies (A2IPB)	T&M	May 96	N/A	N/A		3,160	3,090	2,812	Continuing	TBD
	Sparta (Intel Data Base)	T&M	May 96	N/A	N/A		1,534	1,170	1,100	Continuing	TBD
	Raytheon (JRE)	T&M	Oct 97	N/A	N/A		2,119	405	325	Continuing	TBD
	Motorola (TCTA)	T&M	Mar 96	N/A	N/A		1,945	1,820	3,259	Continuing	TBD
	Army TEC (Area Lim)	MIPR	June 99	N/A	N/A			1,556	985		2,541
	For Profit Contractor (Analyses)	TBD	Nov 99	N/A	N/A			575		Continuing	TBD
	Sandia National Labs	MIPR	Oct 99	N/A	N/A				2,034	Continuing	TBD

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)						DATE February 2000		
BUDGET ACTIVITY			PE NUMBER AND TITLE			PROJECT		
07 - Operational System Development			0208060F Theater Missile Defenses			674478		
(U) <u>Performing Organizations Continued:</u>								
<u>Support and Management Organizations</u>								
FFRDC	N/A	N/A	2,500	1,353	985	Continuing	TBD	
Non-FFRDC (ESC)	N/A	N/A	1,031	875	650	Continuing	TBD	
Non-FFRDC (AC2ISRC)	N/A	N/A	540	525	525	Continuing	TBD	
Non-FFRDC (AF/XORT)	N/A	N/A	500	955	984	Continuing	TBD	
<u>Test and Evaluation Organizations</u>								
C2TIG/AFTED			1,082	2,319	4,165	Continuing	TBD	
			<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>			<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development				16,391	11,696	12,515	TBD	TBD
Subtotal Support and Management				4,571	3,708	3,144	TBD	TBD
Subtotal Test and Evaluation				1,082	2,319	4,165	TBD	TBD
Total Project				22,044	17,723	19,824	TBD	TBD

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2000	
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0208060F Theater Missile Defenses				PROJECT 674479	
COST (\$ in Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
674479 Attack Operations Concept Development	8,527	8,181	0	0	0	0	0	0	0
<p>(U) <u>A. Mission Description</u> Improvements in Attack Operations are based on the ability to locate, identify, and destroy theater missiles, their launchers, and associated infrastructure on the ground. In addition to the enhancements to C4I, the Attack Operations Project focuses on advanced sensor and target identification capabilities, CONOPS and requirements development for TMD offensive counter-air and optimized integration with defensive systems. Specific technologies such as automatic target cueing/recognition (ATC/R) and moving target indicator/track (MTI/T) upgrades to Joint STARS, F-15E and potentially the U-2, F-16 and UAVs are to be analyzed using constructive analysis and evaluated through Technology/Operational Concept Demonstrations and CINC Experiments along with command and control connectivity upgrades critical to their optimum employment against theater missile targets. Effectiveness and affordability parameters defined will be used in support of follow on acquisition decisions involving P3I upgrades to existing weapon systems and potential new start programs within existing/other program elements.</p>									
<p>(U) <u>FY 1999 (\$ in Thousands)</u></p>									
(U) \$2,135	Conducted Attack Operations Operational Concept Demonstration.								
(U) \$1,520	Continued analysis of updated architectures with weapon system and BMC4I upgrades, to support future year mission analysis. Planned participation in future year distributed simulations to demonstrate improvements in attack operations capabilities.								
(U) \$2,691	Conducted demonstration of F-15E ATC/R prototype with sensor fusion.								
(U) \$2,181	Conducted development of common ATR for integration in the Time-Critical Targeting Aid (TCTA) for multi-sensor application. Continued development and demonstration planning of ATR onboard the JSTARS test aircraft (T3).								
(U) \$8,527	Total								
<p>(U) <u>FY 2000 (\$ in Thousands)</u></p>									
(U) \$2,145	Conduct Attack Operations Operational Concept Demonstration.								
(U) \$1,900	Continue analysis of architectures with weapon system and BMC4I upgrades. Participate in a distributed simulation to verify improvements in attack operations capabilities from sensor to shooter that were demonstrated on prototype attack and surveillance systems. Support development of user's operational requirements for weapon system ORDs.								
(U) \$2,090	Conduct demonstration of prototype TCTA with ATR. Conduct demonstration of JSTARS ATR with expanded target set of time-critical targets.								
(U) \$2,046	Conduct development of F-15E ATC/R prototype with on- and off-board sensor fusion. Perform lab demonstration of prototyped capabilities.								
(U) \$8,181	Total								
Project 674479			Page 9 of 12 Pages				Exhibit R-2A (PE 0208060F)		

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2000
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BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0208060F Theater Missile Defenses	PROJECT 674479
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(U) **A. Mission Description Continued**

(U) FY 2001 (\$ in Thousands)

(U) \$0 FY01 Attack Operations programs included in BPAC 674479.

(U) \$0 Total

(U) **B. Project Change Summary**

FY01 funding consolidated in BPAC 674478

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

	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</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) AF RDT&E

(U) Other APPN

(U) **D. Acquisition Strategy**

HQ Aeronautical Systems Center (ASC) provides the program management for the concept exploration and prototype development of TMD Attack Operations. ASC conducts lab demonstrations with Wright Labs and supports Concept of Operations (CONOPS) development and requirements definition by analyzing and demonstrating measures of effectiveness for various sensor improvements and cueing schemes.

(U) **E. Schedule Profile**

	<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) ATC/R Demos (F-15E/Surveillance)		*				X						
(U) Ops Concept Demonstrations			*			X						

* - Completed

X - Planned Start Date

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2000		
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0208060F Theater Missile Defenses				PROJECT 674479		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
						<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>		
(U)	Joint STARS ATC/R Demonstration/Improvements					2,181	2,046	0		
(U)	Operational Concept Demonstration (RS99 and EFX99)					2,135	2,145	0		
(U)	Sensor Prototypes and Attack Ops Demonstrations/Sims					1,520	1,900	0		
(U)	F-15E ATC/R Demonstrations					2,691	2,090	0		
(U)	Total					8,527	8,181	0		
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
	<u>Contractor or</u>	<u>Contract</u>								
	<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>					
	<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>
	<u>Product Development Organizations</u>									<u>Total</u>
	For Profit Contractor	TBD	Nov 99	N/A	N/A		1,240	1,600		2,840
	(Analyses)									
	Sandia National Labs	MIPR	Oct 99	N/A	N/A		2,310	2,090		4,400
	Raytheon (F-15E Radar)	CPFF	Mar 95	N/A	N/A		2,265	1,564		3,829
	Lockheed (Tgt Pod)	CPFF	Nov 99	N/A	N/A		1,316	891		2,207
	<u>Support and Management Organizations</u>									
	FFRDC			N/A	N/A				Continuing	TBD
	Non-FFRDC			N/A	N/A				Continuing	TBD
	HQ ASC			N/A	N/A	300	355		Continuing	TBD
	<u>Test and Evaluation Organizations</u>									
	C2ITG/AFTED	MIPR	Mar 95	N/A	N/A		734	1,581		Continuing
	AFSAA	MIPR	Feb 95	N/A	N/A				0	0
	Eglin-46 Tst Wg	PO	May 94	N/A	N/A		362	100		Continuing

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)				DATE February 2000		
BUDGET ACTIVITY		PE NUMBER AND TITLE			PROJECT	
07 - Operational System Development		0208060F Theater Missile Defenses			674479	
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Total</u>
		<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Program</u>
<u>Subtotals</u>						
Subtotal Product Development			7,131	6,145		13,276
Subtotal Support and Management			300	355	TBD	TBD
Subtotal Test and Evaluation			1,096	1,681	TBD	TBD
Total Project			8,527	8,181	TBD	TBD