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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2002		
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0101120F ADVANCED CRUISE MISSILE				PROJECT 4798		
COST (\$ in Thousands)		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4798	Life Extension Program	3,881	2,462	2,788	5,310	3,079	3,139	3,201	Continuing	TBD
	Quantity of RDT&E Articles	2	0	0	0	0	0	0	0	0

In FY 2003, Project 4798 renamed Life Extension Program (formerly Life Extension Study). This action did not change program content.
 In FY 2003, Project 4798, Life Extension Program, includes new start efforts.

(U) A. Mission Description
 AGM-129, The Advanced Cruise Missile (ACM), is a low-observable air-launched, strategic missile with significant improvements over the Air Launched Cruise Missile B version (ALCM-B) in range, accuracy, and survivability. Armed with a W-80 warhead, it is designed to evade air and ground-based defenses in order to strike heavily defended, hardened targets at any location within any enemy's territory. The ACM is designed for B-52H external carriage and there is currently 406 ACM in the inventory. The ACM fleet design service life expires between the years 2003 and 2008.

A Service Life Extension Plan (SLEP) was developed to meet an AF Long Range Plan requirement to extend ACM Service Life to FY30. The results of Service Life Extension Program (SLEP) studies will identify system components that cannot be sustained beyond the standard service life. The current system is experiencing obsolescence of parts/components. Missile support equipment and components are becoming non-supportable. Service Life Extension of this critical weapon is essential to meet ACC and STRATCOM SIOP commitments.

The FY01 PB request indicated the ACM SLEP program efforts would focus on ACM Nitrile Rubber element replacement. Subsequent analysis found Nitrile Rubber elements did not require immediate replacement. The current requirement for ACM SLEP is the development of a conforming JTIC door design. The program will develop 2 prototype JTIC doors for qualification and system-level testing.

New test range safety requirements and a Department of Energy (DOE)-mandated Joint Test Assembly (JTA) redesign, required the AF to re-configure existing Joint Test Instrumentation Kit (JTIC) doors and Non-tactical Test Instrumentation Kit (NTIK) doors. Range Commanders Council (RCC) #319 safety mandates require flight test vehicles, used on the test ranges, to possess a Global Positioning System (GPS) tracking capability in FY04 due to the shutting down of existing range radar systems.

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07 - Operational System Development	0101120F ADVANCED CRUISE MISSILE	4798
<p>(U) <u>A. Mission Description Continued</u> New start authorization for JTIK development was received in Nov 01 and efforts commenced immediately. Together government and contractor personnel prepared an efficient, economical program schedule, in order to realize potential program economies of scale and to ensure the contractor can manage any increased workload. The JTIK development effort is a low risk program, but an essential effort because DOE-compliant JTIK doors will be required in FY04 in order to continue conducting flight testing for weapon system reliability data collection used for Nuclear Certification and support of the W-80 Warhead Life Extension Program (LEP).</p>		
<p>(U) <u>FY 2001 (\$ in Thousands)</u></p>		
(U) \$562	Accomplished Design Definition, Develop Prime Item Specification and Begin Preliminary Design Review (PDR) for Development of JTIK doors.	
(U) \$903	Began JTIK Component Qualification	
(U) \$2,416	Began Development of 2 JTIK Prototype Doors to Conduct Qualification	
(U) \$3,881	Total	
<p>(U) <u>FY 2002 (\$ in Thousands)</u></p>		
(U) \$870	Continue Integration and Compatibility Testing of New JTIK Components	
(U) \$1,170	Continue JTIK Door/Vehicle Qualification and Integration	
(U) \$422	Continue Electromagnetic Compatibility (EMC) Testing of New JTIK Door/Vehicle	
(U) \$2,462	Total	
<p>(U) <u>FY 2003 (\$ in Thousands)</u></p>		
(U) \$938	Initiate System Design for Subsystem Simulator (SSS) and Advanced Missile Simulator (AMS) Upgrade	
(U) \$875	Begin Integration Design for 3rd Party Software to Support PDR & Critical Design Review (CDR) of Subsystem Simulator and Advanced Missile Simulator upgrade	
(U) \$975	Re-Host Raytheon Developed/Maintained software for SSS and AMS	
(U) \$2,788	Total	
<p>(U) <u>B. Budget Activity Justification</u> These programs are in Budget Activity 7, Operational System Development, due to efforts supporting a fielded, post Milestone III weapon system.</p>		
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BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0101120F ADVANCED CRUISE MISSILE			PROJECT 4798		
(U) C. Program Change Summary (\$ in Thousands)									
				<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>		<u>Total Cost</u>	
(U)	Previous President's Budget			4,144	2,487	2,795		TBD	
(U)	Appropriated Value			4,182	2,487				
(U)	Adjustments to Appropriated Value								
	a. Congressional/General Reductions			-38	-25				
	b. Small Business Innovative Research			-263					
	c. Omnibus or Other Above Threshold Reprogram								
	d. Below Threshold Reprogram								
	e. Rescissions								
(U)	Adjustments to Budget Years Since FY 2002 PBR					-7			
(U)	Current Budget Submit/FY 2003 PBR			3,881	2,462	2,788		TBD	
(U)	<u>Significant Program Changes:</u>								
	None								
(U) D. Other Program Funding Summary (\$ in Thousands)									
		<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</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)	MPAF, Aeronautical Vehicle (BA02, PE 0101120F, P-2)	63	0	0	0	0	0	0	63
(U)	MPAF, Missile Modifications (BA03, PE 0101120F, P-9)	0	779	3,376	3,626	3,683	3,334	1,316	Continuing TBD
(U)	MPAF, Replenishment Spares (BA04, PE 0101120F, P-17)	4,624	6,710	9,565	9,721	10,039	8,621	2,016	Continuing TBD
(U)	MPAF, Missile Modification Initial Spares (BA04, PE 0101120F, P-16)	1,924	0	379	322	322	320	252	Continuing TBD
(U) E. Acquisition Strategy									
JTIK door development will be performed by the prime contractor, Raytheon, utilizing Cost Plus Fixed Fee (CPFF) contract.									
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(U) F. Schedule Profile														
		<u>FY 2001</u>					<u>FY 2002</u>					<u>FY 2003</u>		
		1	2	3	4	1	2	3	4	1	2	3	4	
(U)	FY01 New-Start approval received 11/21/01					*								
(U)	JTIK Development													
(U)	Contract Award						*							
(U)	PDR							X						
(U)	CDR								X					
(U)	Prototype delivery (2)								X	X				
(U)	Integration Testing									X	X			
(U)	Qual, Test & Evaluation									X	X	X	X	
(U)	Subsystem Simulator/Advanced Missile Sim													
(U)	Contract Award										X			
(U)	PDR											X		
(U)	CDR												X	
Note: * Represents a Completed Event; X Represents a Planned Event														

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002				
BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT			
07 - Operational System Development					0101120F ADVANCED CRUISE MISSILE			4798			
(U) A. Project Cost Breakdown (\$ in Thousands)											
					<u>FY 2001</u>			<u>FY 2002</u>		<u>FY 2003</u>	
(U)	Accomplish design definition, develop prime item specification and begin Preliminary Design Review (PDR) for development of the Joint Test Instrumentation Kit (JTIK) doors.				562						
(U)	JTIK component qualification				903						
(U)	Develop 2 prototype JTIK doors				2,416						
(U)	JTIK Integration testing, door/vehicle qualification, EMC testing of new JTIK door/vehicle						2,462				
(U)	Perform system design for Subsystem Sim/Advance Missile Simulator Upgrade									938	
(U)	Integration design for 3rd party software to support PDR & CDR									875	
(U)	Re-Host Raytheon developed/maintained software									975	
(U)	Total				3,881		2,462			2,788	
(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 2001</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget to Complete</u>	<u>Total Program</u>
		<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>						
<u>Product Development Organizations</u>											
	Raytheon	CPFF	Dec 01	6,343	6,343	0	3,881	2,462	0	0	6,343
	Raytheon	CPFF	2 Q FY03	5,830	5,830	0	0	0	2,788	3,042	5,830
<u>Support and Management Organizations</u>											
N/A											
<u>Test and Evaluation Organizations</u>											
N/A											

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BUDGET ACTIVITY		PE NUMBER AND TITLE				PROJECT			
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(U) Government Furnished Property:									
<u>Item</u>	<u>Contract</u>	<u>Award or</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Description</u>	<u>Method/Type</u>	<u>or Funding</u>	<u>Date</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>						
<u>Product Development Property</u>									
<u>Support and Management Property</u>									
<u>Test and Evaluation Property</u>									
None									
<u>Subtotals</u>				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
				<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development				0	3,881	2,462	2,788	3,042	12,173
Subtotal Support and Management									
Subtotal Test and Evaluation									
Total Project				0	3,881	2,462	2,788	3,042	12,173