

**UNCLASSIFIED**

PE NUMBER: 0604851F  
 PE TITLE: ICBM - EMD

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	<b>DATE</b> <b>February 2004</b>
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<b>BUDGET ACTIVITY</b> <b>05 System Development and Demonstration (SDD)</b>	<b>PE NUMBER AND TITLE</b> <b>0604851F ICBM - EMD</b>
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Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	119.689	172.713	91.687	32.245	0.000	0.000	0.000	0.000	510.221
133B Rapid Execution & Combat Targeting (REACT)	19.274	22.225	16.244	0.000	0.000	0.000	0.000	0.000	71.679
4371 Safety Enhanced Reentry Vehicle (SERV) Program	59.586	64.783	53.373	26.426	0.000	0.000	0.000	0.000	240.015
4788 PSRE Life Extension Program	19.619	6.839	0.000	0.000	0.000	0.000	0.000	0.000	66.805
4823 ECS Replacement Program	7.293	13.375	16.404	0.000	0.000	0.000	0.000	0.000	37.072
5007 GPS Metric Tracking Capability	5.264	12.263	0.000	0.000	0.000	0.000	0.000	0.000	21.284
5037 Support Equipment	8.653	36.247	0.000	0.000	0.000	0.000	0.000	0.000	44.900
5080 ICBM Security	0.000	16.981	5.666	5.819	0.000	0.000	0.000	0.000	28.466

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

ICBM modernization efforts will ensure the extension of the operational life of the Minuteman III ICBM weapon system through 2020.

The Rapid Execution and Combat Targeting (REACT) Program designs and develops the modifications to the weapon system control consoles to correct launch readiness deficiencies.

The Safety Enhanced Reentry Vehicle (SERV) Program designs, develops, and tests the modifications necessary to adapt the Minuteman III Reentry System to accommodate the MK 21 Reentry Vehicle.

The Propulsion System Rocket Engine (PSRE) Life Extension Program (LEP) designs and develops the components necessary to refurbish the Minuteman III post-boost vehicle to correct age-related degradations.

The Environmental Control System (ECS) Replacement Program designs and develops the modifications necessary to refurbish, update, and/or replace components of the current Minuteman III ECS in the Launch Facilities (LFs) and Missile Alert Facilities (MAFs).

The Global Positioning System (GPS) Metric Tracking Capability Program designs and develops the modifications to the Minuteman III Range Instrumentation/Safety Wafer needed to use GPS for obtaining real-time position data to meet test range safety requirements.

The ICBM Support Equipment project designs and develops items used to maintain/modernize the Minuteman III weapons systems base, depot, launch control, and missile

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test capabilities.

The ICBM Security Program designs and develops the components necessary to counter emerging threats and vulnerabilities identified in the Security Review Document.

All of these modernization programs are designed to keep the Minuteman III weapon system at its required availability and reliability levels through 2020.

This program is in Budget Activity 05 because the projects are being developed for the Air Force but have not received production approval.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	119.689	184.193	91.928
(U) Current PBR/President's Budget	119.689	172.713	91.687
(U) Total Adjustments	0.000	-11.480	
(U) Congressional Program Reductions		-10.000	
Congressional Rescissions		-1.480	
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer			

**(U) Significant Program Changes:**

Congress reduced the President's Budget request by \$10M in FY2004 for execution..

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**Exhibit R-2a, RDT&E Project Justification**

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<b>BUDGET ACTIVITY</b> <b>05 System Development and Demonstration (SDD)</b>				<b>PE NUMBER AND TITLE</b> <b>0604851F ICBM - EMD</b>			<b>PROJECT NUMBER AND TITLE</b> <b>133B Rapid Execution &amp; Combat Targeting (REACT)</b>		
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
133B Rapid Execution & Combat Targeting (REACT)	19.274	22.225	16.244	0.000	0.000	0.000	0.000	0.000	71.679
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

The Rapid Execution and Combat Targeting (REACT) Service Life Extension Program (SLEP) will modify the 50 Minuteman (MM) III Launch Control Centers (LCCs), Weapon System Control Consoles (WSCC) and the 19 other trainer and test facilities which support the MM III Weapon System. Hardware changes include upgrading the Embedded Memory Array Dynamic (EMAD) Card, replacing the Video Display Units (VDU), and replacing the Head Disk Assembly (HDA) with current technology. The Console Operation Program (COP) software will be modified to correct identified deficiencies currently deployed to the warfighter and will be independently tested to provide Nuclear Surety Cross Check Analysis (NSCCA).

This document is for the RDT&E phase of REACT. The production phase is budgeted under (old and new) Modification # 3413, PE 0101213F.

This program is in Budget Activity 05 because this program is being developed for the Air Force but has not yet received complete production approval.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Continue development of COP software, HDA hardware, VDU hardware and EMAD hardware. Complete development of VDU, EMAD in 2004 and HDA in 2005	17.004	18.179	13.564
(U) Continue NSCCA on COP software, complete in 2005	1.752	3.469	2.193
(U) Provide other government support	0.518	0.577	0.487
(U) Total Cost	19.274	22.225	16.244

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</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 APPN Missile Procurement - AF (PE 0101213F, Minuteman									
(U) Squadrons, MM III Modifications, REACT, Mod #3413) (BA-03, P-011) BP21	15.167	13.539	13.907	0.119	0.000	0.000	0.000	0.000	42.732

NOTE: Procurement data above is only for items being procured as a result of the current RDT&E effort, not total procurement from REACT Program inception.

**(U) D. Acquisition Strategy**

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133B Rapid Execution & Combat Targeting (REACT)

A Cost Plus Award Fee (CPAF) contract addendum was added to the ICBM Prime Integration Contract in the 3QFY02 for everything but the Nuclear Safety Cross Check Analysis (NSCCA) effort which was contracted for separately under a CPAF contract.

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Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2004		
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604851F ICBM - EMD				PROJECT NUMBER AND TITLE 133B Rapid Execution & Combat Targeting (REACT)				
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2004</u> <u>Cost</u>	<u>FY</u> <u>2004</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2005</u> <u>Cost</u>	<u>FY</u> <u>2005</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total</u> <u>Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u> ICBM Prime Integration Contract	CPAF	Northrop Grumman, Clearfield, UT	13.037	17.004	Apr-03	18.179	Dec-03	13.564	Jan-05	0.000	61.784	
None											0.000	
Subtotal Product Development			13.037	17.004		18.179		13.564		0.000	61.784	0.000
Remarks:												
(U) <u>Support</u> NSCCA	CPAF	Logicon (Northrop Grumman), San Pedro, CA	0.742	1.752	Jun-03	3.469	Dec-03	2.193	Jan-05	0.000	8.156	
SPO/Other Program Support	Various	ICBM Program Office, Hill AFB, UT	0.157	0.518	N/A	0.577	N/A	0.487	N/A	0.000	1.739	
None											0.000	
Subtotal Support			0.899	2.270		4.046		2.680		0.000	9.895	0.000
Remarks:												
(U) <u>Test &amp; Evaluation</u> None								0.000			0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Management</u> None								0.000			0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			13.936	19.274		22.225		16.244		0.000	71.679	0.000

Exhibit R-4, RDT&E Schedule Profile

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PROJECT NUMBER AND TITLE

133B Rapid Execution & Combat Targeting (REACT)

REACT

	FY02				FY03				FY04				FY05				FY06				FY07			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
<b>Milestone B</b>			▲																					
<b>System Design/Development</b>							▲																	
<b>Contract Award</b>																								
<b>COP Test Readiness Review</b>												△												
<b>COP Functional Config Audit (FCA)</b>												△								△				
<b>VDU Interim Design Reviews 1 &amp; 2</b>											▲													
<b>VDU FCA</b>																				△				
<b>EMAD IDRs 1 &amp; 2</b>							▲				▲													
<b>EMAD Prod Go-Ahead</b>											▲													
<b>Head Disk Assembly (HDA) IDRs 1 &amp; 2</b>							▲				▲													
<b>HDA Prod Readiness Review</b>																△								

COP = Console Operations Program  
 EMAD = Embedded Memory Array Dynamic  
 VDU = Video Display Unit

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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0604851F ICBM - EMD</b>	PROJECT NUMBER AND TITLE <b>133B Rapid Execution &amp; Combat Targeting (REACT)</b>
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	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <b><u>Schedule Profile</u></b>			
(U) VDU Interim Design Review 1 (IDR)	4Q		
(U) VDU IDR 2		3Q	
(U) COP Test Readiness Review (TRR)		4Q	
(U) VDU Functional Configuration Audit (FCA)			1Q
(U) COP Functional Configuration Audit (FCA)			4Q
(U) EMAD IDR2	3Q		
(U) HDA IDRs	2Q	2Q	
(U) HDA Production Readiness Review (PRR)		4Q	

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<b>BUDGET ACTIVITY</b> <b>05 System Development and Demonstration (SDD)</b>				<b>PE NUMBER AND TITLE</b> <b>0604851F ICBM - EMD</b>			<b>PROJECT NUMBER AND TITLE</b> <b>4371 Safety Enhanced Reentry Vehicle (SERV) Program</b>		
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
4371 Safety Enhanced Reentry Vehicle (SERV) Program	59.586	64.783	53.373	26.426	0.000	0.000	0.000	0.000	240.015
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

The SERV program will modify the Minuteman III (MMIII) Reentry System (RS) to accept the Peacekeeper MK21 warhead, thus keeping the newest and safest warhead in the inventory. The MK21 will be deployed on MM III prior to the phase out of the MK12 warhead which is being driven by the pending decertification of this warhead by the Department of Energy (DOE). The SERV will modify the RS to accommodate differences in electrical and mechanical interfaces, system software, support equipment, and trainers along with nuclear surety and human intent certification. Test articles will be developed to support development and qualification testing, flight testing, systems integration, and weapon system-level testing. This document is for the RDT&E phase of SERV. The production phase is budgeted under Modification # 5911, PE 0101213F.

This program is in Budget Activity 05 because this program is being developed for the Air Force but has not yet received production approval.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Continue design of the MM III airborne vehicle equipment (AVE) hardware and software needed for the MK21 RV	10.787	21.969	14.155
(U) Continue development of the MM III command and launch equipment software needed for the MK21 RV	22.313	7.295	7.350
(U) Continue NSCCA on SERV software	5.576	7.127	5.620
(U) Continue design of the MM III support equipment needed for the MK21 RV	9.039	15.324	1.691
(U) Continue system test and evaluation for all newly designed/developed hardware/software	11.333	10.286	12.181
(U) Continue development of trainers/training needed for employing the MK21 RV on the MM III	0.388	2.482	2.971
(U) Conduct initial flight testing	0.000	0.000	9.205
(U) Provide other government support	0.150	0.300	0.200
(U) Total Cost	59.586	64.783	53.373

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</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 APPN Missile Procurement - AF (PE									
(U) 0101213F, Minuteman Squadrons, MM III	8.600	21.131	47.902	47.727	43.233	34.452	0.000	0.000	194.445



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

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**4371 Safety Enhanced Reentry Vehicle (SERV) Program****(U) C. Other Program Funding Summary (\$ in Millions)**

Modifications, Safety Enhanced  
 Reentry Vehicle, Mod #5911)  
 (BA-03, P-011)

All FY2003 dollars are for warhead containers and are not included in total.

**(U) D. Acquisition Strategy**

A Cost Plus Incentive Fee with Award Fee (CPIF/AF) contract addendum was added to the ICBM Prime Integration Contractor (IPIC) for everything but the Nuclear Safety Cross Check Analysis (NSCCA) effort which was contracted for separately under a CPAF contract.

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Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2004		
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604851F ICBM - EMD				PROJECT NUMBER AND TITLE 4371 Safety Enhanced Reentry Vehicle (SERV) Program				
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2004</u> <u>Cost</u>	<u>FY</u> <u>2004</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2005</u> <u>Cost</u>	<u>FY</u> <u>2005</u> <u>Award</u> <u>Date</u>	<u>Cost to Complete</u>	<u>Total</u> <u>Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u> ICBM Prime Integration Contract	CPIF/AF	Northrop Grumman, Clearfield, UT	31.045	53.860	Jan-03	57.356	Jan-04	38.348	Jan-05	17.329	197.938	
Subtotal Product Development			31.045	53.860		57.356		38.348		17.329	197.938	0.000
Remarks:												
(U) <u>Support</u> NSCCA	CPAF	Logicon, San Pedro, CA	3.402	5.576	Jan-03	7.127	Jan-04	5.620	Jan-05	0.000	21.725	
SPO/Other Program Support	Various	ICBM Program Office, Hill AFB, UT	1.400	0.150		0.300	N/A	0.200	N/A	0.250	2.300	
Subtotal Support			4.802	5.726		7.427		5.820		0.250	24.025	0.000
Remarks:												
(U) <u>Test &amp; Evaluation</u> Vandenberg AFB	Project Order	Air Force test team at Vandenberg AFB CA (AFOTEC, AFSPC, 576th Flight Test Sq, DOE)	0.000	0.000		0.000	N/A	9.205	N/A	8.847	18.052	
None												0.000
Subtotal Test & Evaluation			0.000	0.000		0.000		9.205		8.847	18.052	0.000
Remarks:												
(U) <u>Management</u>												0.000
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			35.847	59.586		64.783		53.373		26.426	240.015	0.000

Exhibit R-4, RDT&E Schedule Profile

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05 System Development and Demonstration (SDD)

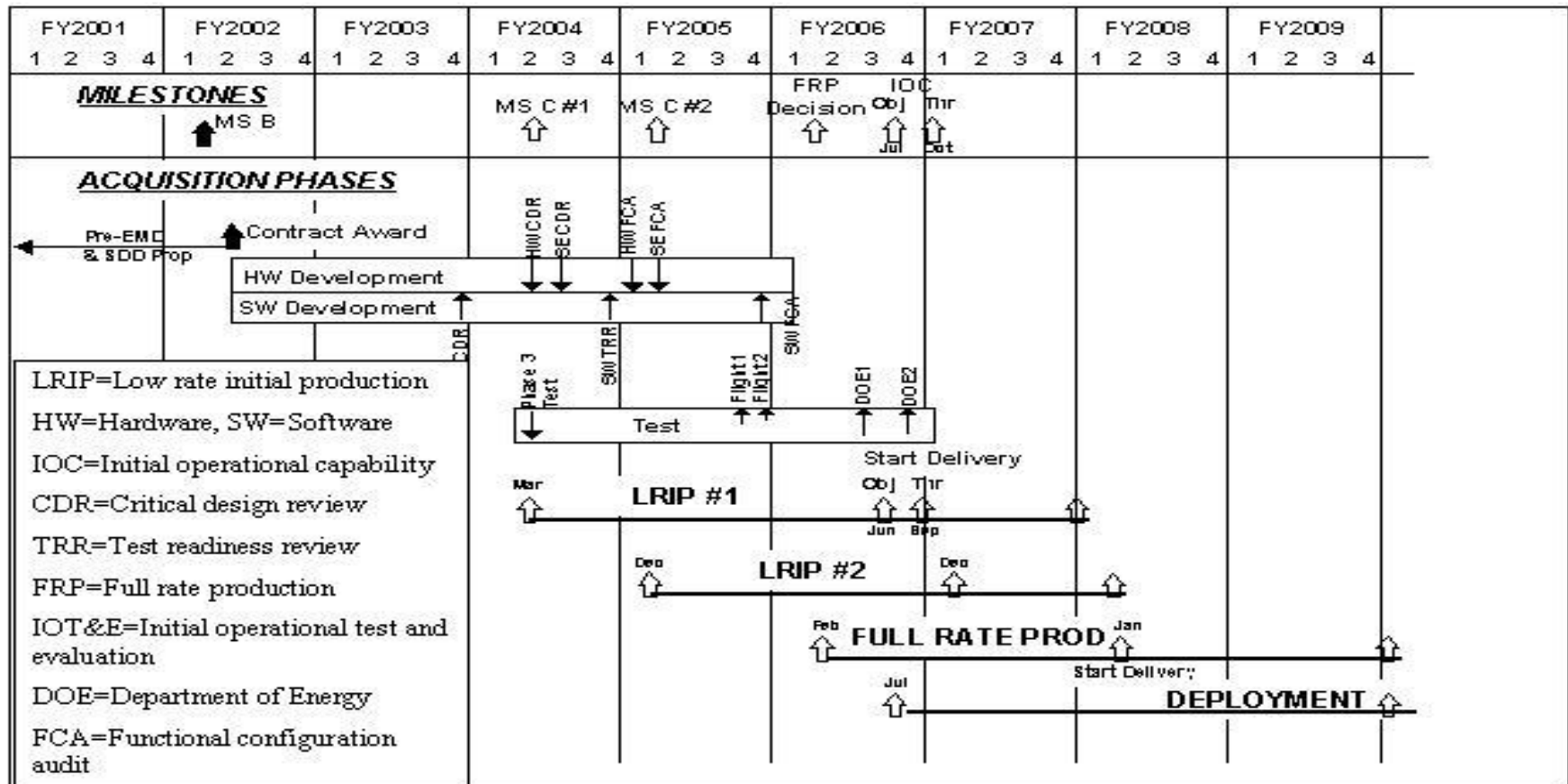
PE NUMBER AND TITLE

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4371 Safety Enhanced Reentry Vehicle (SERV) Program

## Safety Enhanced Reentry Vehicle Program



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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0604851F ICBM - EMD</b>	PROJECT NUMBER AND TITLE <b>4371 Safety Enhanced Reentry Vehicle (SERV) Program</b>
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	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <b><u>Schedule Profile</u></b>			
(U) Hardware and Software Preliminary Design Review (PDR)	2Q		
(U) Software Critical Design Review (CDR)	4Q		
(U) Software Test Readiness Review (TRR)		4Q	
(U) Airborne Vehicle Equipment (AVE) CDR		2Q	
(U) Phase 3 Test Execution		2Q	
(U) Support Equipment PDR	1Q		
(U) Support Equipment CDR		3Q	
(U) AVE Functional Configuration Audit			2Q
(U) Flight test #1			3Q
(U) Flight test #2			4Q

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<b>BUDGET ACTIVITY</b> <b>05 System Development and Demonstration (SDD)</b>				<b>PE NUMBER AND TITLE</b> <b>0604851F ICBM - EMD</b>			<b>PROJECT NUMBER AND TITLE</b> <b>4788 PSRE Life Extension Program</b>			
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total	
4788 PSRE Life Extension Program	19.619	6.839	0.000	0.000	0.000	0.000	0.000	0.000	66.805	
Quantity of RDT&E Articles	0	0	0	0	0	0	0			

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

The Propulsion System Rocket Engine (PSRE) Life Extension Program will refurbish the Minuteman (MM) III post-boost vehicle (PBV) propulsion system. This refurbishment will correct age-related degradations, reduce life cycle costs, and support MM III life extension while maintaining existing weapon system reliability. Deficiencies identified (e.g., relief valve aging, titanium pressure sensing (pressure chamber) PC tube cracking, and fuel flex line cracks) may cause system failure/loss of performance and, in turn, potential mission failure. Other deficiencies (e.g., staging connector aging and actuator motor performance) will impact weapon system availability in addition to reducing system performance.

RDT&E efforts will identify replacement materials for those no longer available or which have become environmentally unacceptable. The program will then design/develop components and manufacturing processes necessary to correct the identified deficiencies. This document is for the RDT&E phase of PSRE Life Extension Program. The production phase is budgeted under modification # 5768, PE 0101213F.

This program is in Budget Activity 05 because this program is being developed for the Air Force but has not yet received production approval.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Continued Initial Production Readiness Review of system, refurbished two qualification PSREs, planned support of dynamics test firings, continued vendor qualification	10.600		0.000
(U) Begin development of Emergency Response efforts and transportation build	2.350		0.000
(U) Perform Dynamics and Qualification Testing	2.000		0.000
(U) Continue to provide technician labor activities to include disassembly/re assembly of PSRE and selected subsystems; maintenance and repair of program unique depot support equipment, special test equipment program office support; an related activities	4.469		0.000
(U) Provide other government support	0.200		0.000
(U) Complete dynamics test firings results, Functional Configuration Audit and Production Readiness Review		4.327	0.000
(U) Complete various activities: technician labor activities to include disassembly/re assembly of PSRE and selected subsystems: maintenance and repair of program unique depot support equipment, special test equipment, and program office support		2.412	0.000
(U) Finish other government support		0.100	0.000
(U) Total Cost	19.619	6.839	0.000

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PROJECT NUMBER AND TITLE

4788 PSRE Life Extension Program

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</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 APPN									
Missile Procurement - AF (PE									
0101213F, Minuteman									
Squadrons, MM III									
(U) Modifications, PSRE Life	0.000	13.799	13.651	19.106	19.711	20.514	20.762	58.685	166.228
Extension, Mod #5768) (BA-03,									
P-011)									

(U) **D. Acquisition Strategy**

The PSRE Life Extension Program will be conducted under the ICBM Prime Integration Contractor (IPIC) and a joint refurbishment effort with the Government depot.

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Exhibit R-3, RDT&E Project Cost Analysis										DATE <b>February 2004</b>			
BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>					PE NUMBER AND TITLE <b>0604851F ICBM - EMD</b>					PROJECT NUMBER AND TITLE <b>4788 PSRE Life Extension Program</b>			
(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</u> Prior to FY 2003 <u>Cost</u>	<u>FY</u> 2003 <u>Cost</u>	<u>FY</u> 2003 <u>Award</u> <u>Date</u>	<u>FY</u> 2004 <u>Cost</u>	<u>FY</u> 2004 <u>Award</u> <u>Date</u>	<u>FY</u> 2005 <u>Cost</u>	<u>FY</u> 2005 <u>Award</u> <u>Date</u>	<u>Cost to Complete</u>	<u>Total</u> <u>Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>	
(U) <u>Product Development</u> ICBM Prime Integration Contract	CPAF	Northrop Grumman, Clearfield, UT	33.019	10.600	Jan-03	4.327	Jan-04	0.000		0.000	47.946		
Subtotal Product Development			33.019	10.600		4.327		0.000		0.000	47.946	0.000	
Remarks:													
(U) <u>Support</u> SPO/Other Program Support	WR	ICBM SPO and Depot, Hill AFB, UT	7.328	7.019	Jan-03	2.512	N/A	0.000			16.859		
Subtotal Support			7.328	7.019		2.512		0.000		0.000	16.859	0.000	
Remarks:													
(U) <u>Test &amp; Evaluation</u> White Sands Test Facility (WSTF)	Project Order	US Army, White Sands, NM	0.000	2.000	N/A	0.000	N/A	0.000		0.000	2.000		
Subtotal Test & Evaluation			0.000	2.000		0.000		0.000		0.000	2.000	0.000	
Remarks:													
(U) <u>Management</u> Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000	
Remarks:													
(U) Total Cost			40.347	19.619		6.839		0.000		0.000	66.805	0.000	

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

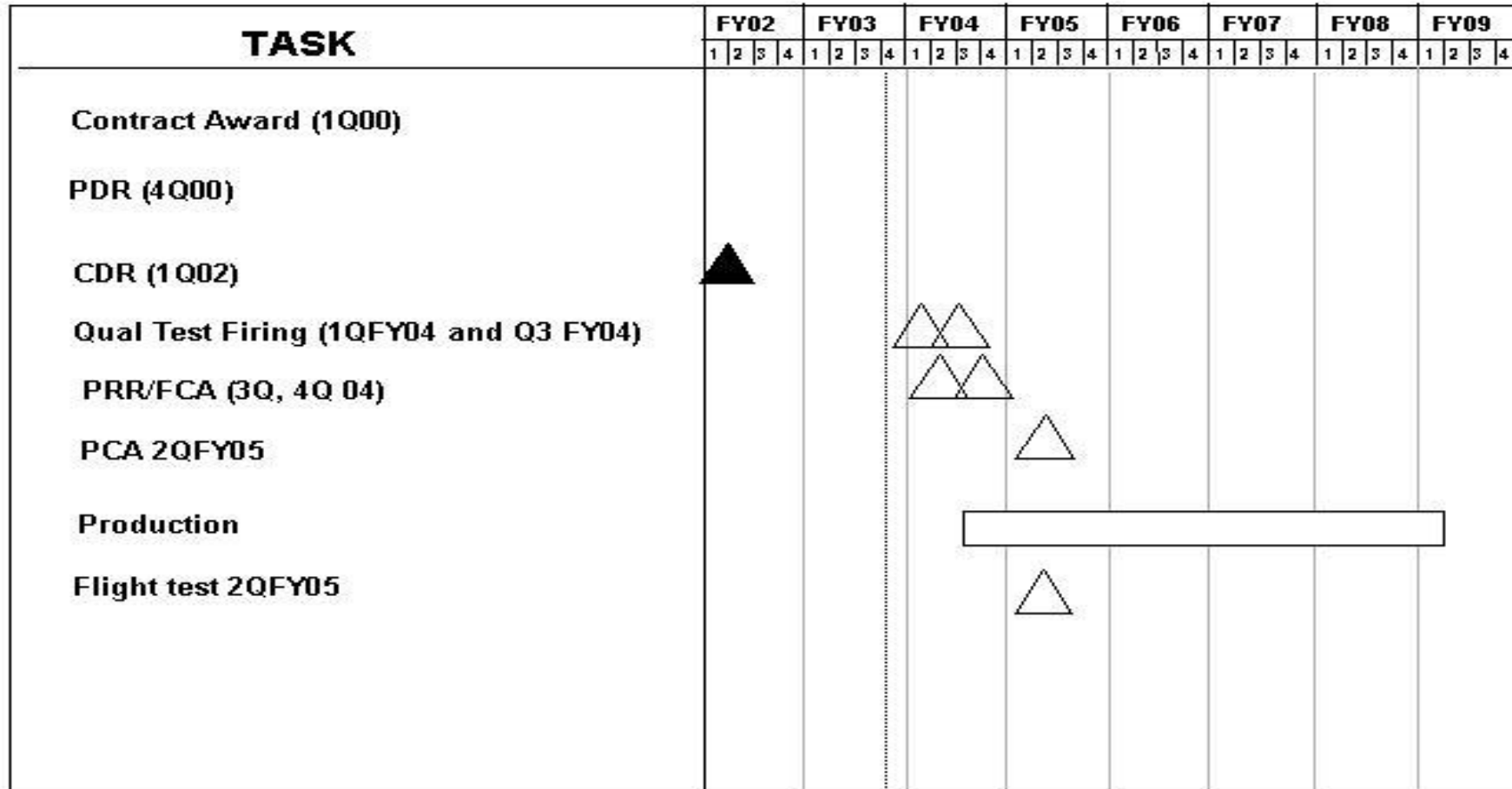
PE NUMBER AND TITLE

0604851F ICBM - EMD

PROJECT NUMBER AND TITLE

4788 PSRE Life Extension Program

## Propulsion System Rocket Engine





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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0604851F ICBM - EMD</b>	PROJECT NUMBER AND TITLE <b>4788 PSRE Life Extension Program</b>
-------------------------------------------------------------------------	---------------------------------------------------	---------------------------------------------------------------------

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <b>Schedule Profile</b>			
(U) Production Decision		2Q	
(U) Test Readiness Review	4Q		
(U) Qualification Test Fire #1		1Q	
(U) Qualification Test Fire #2		3Q	
(U) Functional Configuration Audit		3Q	
(U) Physical Configuration Audit			2Q
(U) Production Readiness Review		4Q	
(U) Flight Test			2Q

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**February 2004**

<b>BUDGET ACTIVITY</b> <b>05 System Development and Demonstration (SDD)</b>				<b>PE NUMBER AND TITLE</b> <b>0604851F ICBM - EMD</b>			<b>PROJECT NUMBER AND TITLE</b> <b>4823 ECS Replacement Program</b>			
Cost (\$ in Millions)		FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
4823	ECS Replacement Program	7.293	13.375	16.404	0.000	0.000	0.000	0.000	0.000	37.072
	Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

The Minuteman III Environmental Control System (ECS) Replacement Program will replace the failing 1960's ECS equipment. The existing ECS is adversely affecting weapon system availability as well as driving increased support costs due to high failure rates, non-availability of replacement parts, and a lack of diagnostic capabilities. This program will replace the existing ECS equipment in MM III Launch Facilities (LFs), Missile Alert Facilities (MAFs), and test and trainer sites with modern equipment to extend the life of ECS to 2020. This document is for the RDT&E phase of ECS. The production phase is budgeted under Modification #5739, PE 0101213F.

This program is in Budget Activity 05 because this program is being developed for the Air Force but has not yet received production approval.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Begin design/development, qualification and testing of Environmental Control System (ECS) components	5.173		
(U) Begin identification/compilation/revision of system data requirements	1.520		
(U) Provide other government support	0.600	0.698	0.700
(U) Continue design/development, qualification and testing of ECS components		6.500	
(U) Design and fabricate test components		4.085	
(U) Continue identification and compilation of system data requirements		2.092	
(U) Complete design and development of ECS components			2.375
(U) Complete test and evaluation of ECS components			11.795
(U) Complete diagnostics and retest efforts			1.534
(U) Total Cost	7.293	13.375	16.404

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</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 APPN									
Missile Procurement - AF (PE									
0101213F, Minuteman									
Squadrons, MM III									
(U) Modifications, Environmental	0.000	0.000	0.000	33.908	58.843	62.552	61.599	59.177	276.079
Control System Modification,									
Mod #5739) (BA-03, P-011)									

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

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604851F ICBM - EMD

PROJECT NUMBER AND TITLE

4823 ECS Replacement Program

(U) **D. Acquisition Strategy**

The ECS Replacement Program will be conducted under the ICBM Prime Integration Contractor (IPIC). The IPIC will conduct and manage the acquisition effort to determine the best value to the Government. It is anticipated that the development effort will be completed on a Cost Plus Award Fee (CPAF) contract.

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Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2004		
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604851F ICBM - EMD				PROJECT NUMBER AND TITLE 4823 ECS Replacement Program				
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2004</u> <u>Cost</u>	<u>FY</u> <u>2004</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2005</u> <u>Cost</u>	<u>FY</u> <u>2005</u> <u>Award</u> <u>Date</u>	<u>Cost to Complete</u>	<u>Total</u> <u>Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u> ICBM Prime Integration Contract	CPAF	Northrop Grumman, Clearfield, UT	0.000	6.693	Feb-03	12.677	Jan-04	15.704	Jan-05	0.000	35.074	
Subtotal Product Development			0.000	6.693		12.677		15.704		0.000	35.074	0.000
Remarks:												
(U) <u>Support</u> SPO/Other Program Support	Various	ICBM Program Office, Hill AFB, UT	0.000	0.600	N/A	0.698	N/A	0.700	N/A	0.000	1.998	
Subtotal Support			0.000	0.600		0.698		0.700		0.000	1.998	0.000
Remarks:												
(U) <u>Test &amp; Evaluation</u> None				0.000								0.000
None												0.000
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Management</u> Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			0.000	7.293		13.375		16.404		0.000	37.072	0.000

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

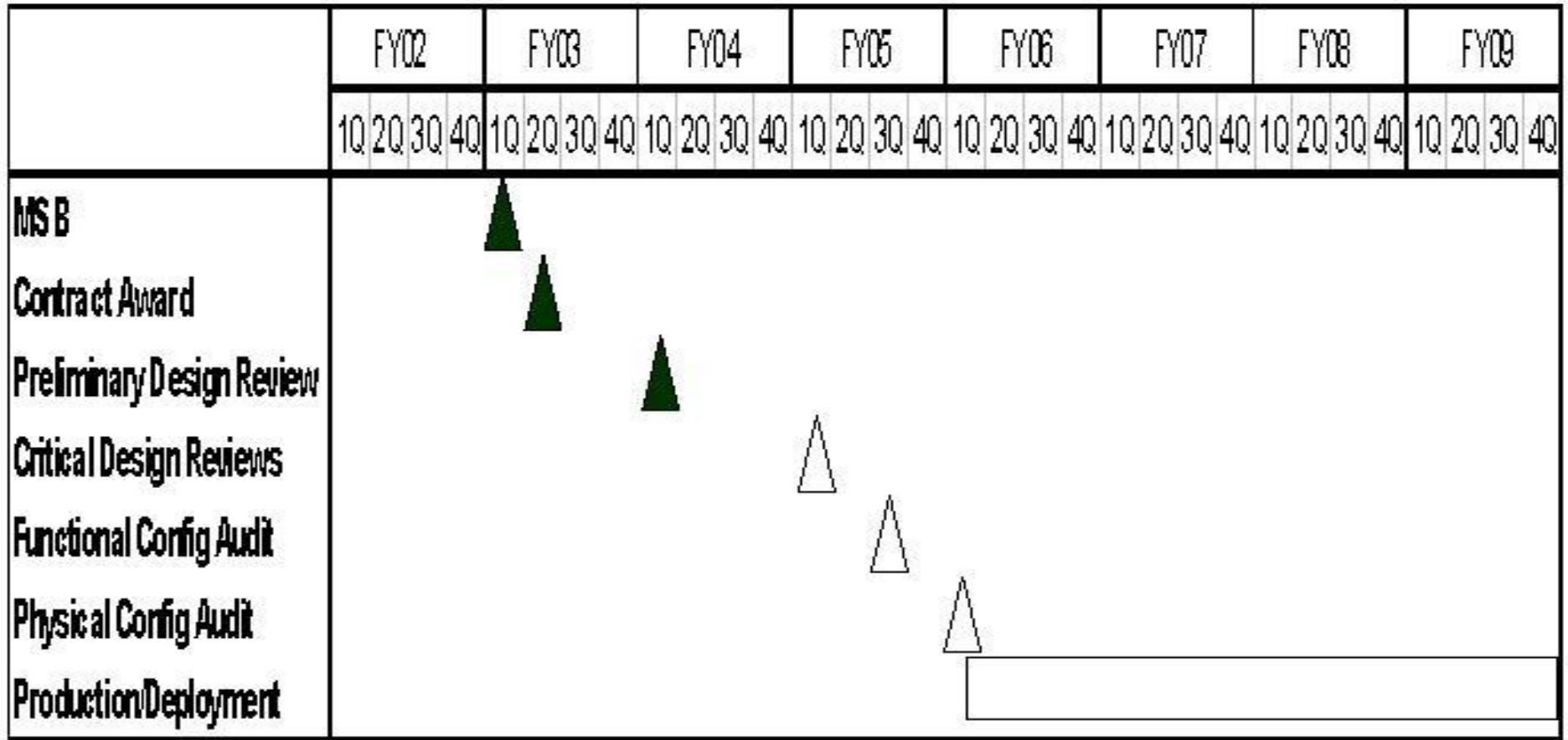
PE NUMBER AND TITLE

0604851F ICBM - EMD

PROJECT NUMBER AND TITLE

4823 ECS Replacement Program

**ICBM Environmental Control System**



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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	<b>DATE</b> <b>February 2004</b>
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<b>BUDGET ACTIVITY</b> <b>05 System Development and Demonstration (SDD)</b>	<b>PE NUMBER AND TITLE</b> <b>0604851F ICBM - EMD</b>	<b>PROJECT NUMBER AND TITLE</b> <b>4823 ECS Replacement Program</b>
--------------------------------------------------------------------------------	----------------------------------------------------------	------------------------------------------------------------------------

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <b><u>Schedule Profile</u></b>			
(U) Milestone B	1Q		
(U) System Development and Demonstration (SDD) Contract Award	2Q		
(U) Preliminary Design Review		1Q	
(U) Critical Design Review			1Q
(U) Functional Configuration Audit			3Q

**Exhibit R-2a, RDT&E Project Justification**

DATE

**February 2004**

<b>BUDGET ACTIVITY</b> <b>05 System Development and Demonstration (SDD)</b>				<b>PE NUMBER AND TITLE</b> <b>0604851F ICBM - EMD</b>			<b>PROJECT NUMBER AND TITLE</b> <b>5007 GPS Metric Tracking Capability</b>		
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
5007 GPS Metric Tracking Capability	5.264	12.263	0.000	0.000	0.000	0.000	0.000	0.000	21.284
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

The GPS Metric Tracking (GPS MT) program will develop a certified GPS tracking and range safety capability to replace the current C-Band transponder radar which is scheduled for retirement (FY05). This program will develop, modify, test and flight certify the necessary GPS hardware to be integrated onto the Mod 7 Flight Instrumentation package to support flight test operations of the Minuteman III weapon system. The GPS MT system will provide range operations with near instantaneous time/space position information and flight profile data required to safely conduct launch operations. This document is for the RDT&E phase of GPS MT. The production phase is budgeted under Modification #5799, PE 0101213F.

This program is in Budget Activity 05 because this program is being developed for the Air Force but has not yet received production approval.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Continued the design and development of the hardware/software needed to provide Minuteman III with a GPS-based metric tracking capability	4.498		0.000
(U) Provide other government support	0.766		0.000
(U) Complete design and development of GPS MT hardware and software and design related support equipment		10.198	0.000
(U) Complete other government support		2.065	0.000
(U) Total Cost	5.264	12.263	0.000

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</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 APPN									
Missile Procurement - AF (PE 11213F, Minuteman Squadrons,									
(U) MM III Modifications, GPS Metric Tracking Program, Mod #5799) (BA-03, P-011)	3.348	3.636	0.480	0.000	0.000	0.000	0.000	0.000	7.464

**(U) D. Acquisition Strategy**

A Cost Plus Award Fee (CPAF) contract addendum was added to the ICBM Prime Integration Contract 3rd Qtr of FY02.

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Exhibit R-3, RDT&E Project Cost Analysis										DATE <b>February 2004</b>		
BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>				PE NUMBER AND TITLE <b>0604851F ICBM - EMD</b>				PROJECT NUMBER AND TITLE <b>5007 GPS Metric Tracking Capability</b>				
(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</u> Prior to FY 2003 <u>Cost</u>	<u>FY</u> 2003 <u>Cost</u>	<u>FY</u> 2003 <u>Award</u> <u>Date</u>	<u>FY</u> 2004 <u>Cost</u>	<u>FY</u> 2004 <u>Award</u> <u>Date</u>	<u>FY</u> 2005 <u>Cost</u>	<u>FY</u> 2005 <u>Award</u> <u>Date</u>	<u>Cost to Complete</u>	<u>Total</u> <u>Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u> ICBM Prime Integration Contract	CPAF	Northrop Grumman, Clearfield, UT	3.097	4.498	Feb-03	10.198	Jan-04	0.000		0.000	17.793	
Subtotal Product Development			3.097	4.498		10.198		0.000		0.000	17.793	0.000
Remarks:												
(U) <u>Support</u> SPO/Other Program Support	Various	ICBM Program Office, Hill AFB, CA	0.660	0.050	N/A	0.065	N/A	0.000		0.000	0.775	
Subtotal Support			0.660	0.050		0.065		0.000		0.000	0.775	0.000
Remarks:												
(U) <u>Test &amp; Evaluation</u> Vandenberg integration and launch	MIPR	USAF Vandenberg AFB CA (576th Test Sq)	0.000	0.716	Feb-03	2.000	Jan-04	0.000		0.000	2.716	
Subtotal Test & Evaluation			0.000	0.716		2.000		0.000		0.000	2.716	0.000
Remarks:												
(U) <u>Management</u> Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			3.757	5.264		12.263		0.000		0.000	21.284	0.000



Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

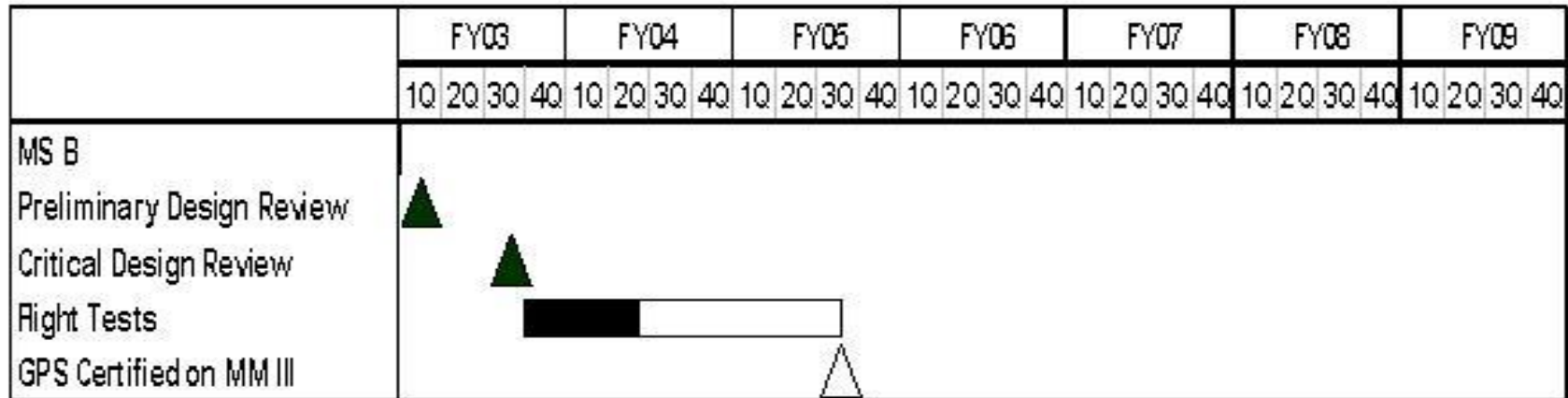
PE NUMBER AND TITLE

0604851F ICBM - EMD

PROJECT NUMBER AND TITLE

5007 GPS Metric Tracking Capability

GPS Metric



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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0604851F ICBM - EMD</b>	PROJECT NUMBER AND TITLE <b>5007 GPS Metric Tracking Capability</b>
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	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <b>Schedule Profile</b>			
(U) Program Preliminary Design Review	1Q		
(U) Program Critical Design Review	3Q		
(U) Certification Flight Test #1		2Q	
(U) Certification Flight Test #2		3Q	
(U) Certification Flight Test #3		4Q	
(U) GPS Metric Certified on Minuteman III			3Q

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**February 2004**

BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>							PE NUMBER AND TITLE <b>0604851F ICBM - EMD</b>		PROJECT NUMBER AND TITLE <b>5037 Support Equipment</b>	
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total	
5037 Support Equipment	8.653	36.247	0.000	0.000	0.000	0.000	0.000	0.000	44.900	
Quantity of RDT&E Articles	0	0	0	0	0	0	0			

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

The ICBM Support Equipment efforts will design and develop support equipment and various components required to sustain Minuteman III system reliability and maintainability and to also restore minimum maintenance and testing capabilities. Equipment to support the guidance system (Gyro Stabilized Platform {GSP} Fine Balance test set, GI-T1-B gyro drift test set, and five guidance repair stations ) will be designed and developed. The existing Reentry Vehicle Test Set Low Frequency Instrument Console (LFIC) emulator will also begin design. Lastly, Air Force Safety Board recommendations to protect against power surges in the Minuteman III Missile Alert Facility (MAF) and Launch Facility (LF) electrical systems will be implemented by adding protection to ground support equipment.

This program is in Budget Activity 05 because this program is being developed for the Air Force but has not yet received production approval.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Continue and complete design and development activities for the GSP Fine Balance and GI-T1-B test sets	8.488	21.034	0.000
(U) Provide other government support	0.165	0.105	0.000
(U) Design, develop, plan test and qualification for the guidance repair stations (instrument build).		11.855	0.000
(U) Begin and complete design and development for Surge Protection equipment		1.338	
(U) Begin design on Reentry Vehicle Test Set Low Frequency Instrument Console (LFIC)		1.915	
(U) Total Cost	8.653	36.247	0.000

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</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 APPN 3020 Funds, Missile Procurement-AF (PE 0101213F) , BP2100, Minuteman III	0.000	1.860	3.843	4.822	4.841	2.886	0.000	0.000	18.252
(U) Modifications, Minuteman Surge Protection, Mod # 5912 (BA-03, P-011)									

**(U) D. Acquisition Strategy**

The Support Equipment Program is being conducted under the ICBM Prime Integration Contract (IPIC) via a Cost Plus Award Fee (CPAF) contract. The LFIC portion is a Cost Plus Fixed Fee.

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**Exhibit R-3, RDT&E Project Cost Analysis**

DATE

**February 2004**

BUDGET ACTIVITY			PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE				
<b>05 System Development and Demonstration (SDD)</b>			<b>0604851F ICBM - EMD</b>					<b>5037 Support Equipment</b>				
<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</u> <u>Prior to FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2004</u> <u>Cost</u>	<u>FY</u> <u>2004</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2005</u> <u>Cost</u>	<u>FY</u> <u>2005</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total</u> <u>Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u>												
ICBM Prime Integration Contract	CPAF	Northrop Grumman Clearfield, UT	0.000	8.488	Feb-03	34.227	Jan-04	0.000	N/A	0.000	42.715	
			0.000							0.000	0.000	
LFIC	CPFF	Lockheed Martin, Valley Forge, PA	0.000	0.000	N/A	1.915	Mar-04	0.000			1.915	
			0.000							0.000	0.000	
											0.000	
Subtotal Product Development			0.000	8.488		36.142		0.000		0.000	44.630	0.000
Remarks:												
(U) <u>Support</u>												
SPO/Other Program Support	Various	ICBM Program Office, Hill AFB, UT	0.000	0.165	N/A	0.105	N/A	0.000	N/A	0.000	0.270	
None											0.000	
Subtotal Support			0.000	0.165		0.105		0.000		0.000	0.270	0.000
Remarks:												
(U) <u>Test &amp; Evaluation</u>												
None											0.000	
None											0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Management</u>												
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			0.000	8.653		36.247		0.000		0.000	44.900	0.000

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604851F ICBM - EMD

PROJECT NUMBER AND TITLE

5037 Support Equipment

### ICBM Support Equipment

	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Cont Award (Test Sets)	▲						
Cont Awards (other efforts)		▲▲					
Guid Repair Station PDR		▲					
GSP FB Test Set CDR		▲					
GI-T1-B Test Set CDR		▲					
Surge Protect CDR		▲					
Guid Repair Station CDR		▲					
LFIC Emulator Completion			▲				
Procurement		▬					

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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0604851F ICBM - EMD</b>	PROJECT NUMBER AND TITLE <b>5037 Support Equipment</b>
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	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <b><u>Schedule Profile</u></b>			
(U) SDD Contract Award for GSP FB and GI-T1-B test sets	2Q		
(U) GSP FB test set Critical Design Review (CDR)		2Q	
(U) GI-T1-B test set CDR		3Q	
(U) Contract Award for, Surge Protect, and Guidance Repair		2Q	
(U) Surge Protection CDR		4Q	
(U) Guidance Repair Station Preliminary Design Review		3Q	
(U) Guidance Repair Station CDR		4Q	
(U) Award LFIC contract		3Q	

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**February 2004**

BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>				PE NUMBER AND TITLE <b>0604851F ICBM - EMD</b>			PROJECT NUMBER AND TITLE <b>5080 ICBM Security</b>		
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
5080 ICBM Security	0.000	16.981	5.666	5.819	0.000	0.000	0.000	0.000	28.466
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

The ICBM Security program will design and develop the features necessary to modernize launch facility (LF) security systems. Modernized ICBM security systems will mitigate emerging threat technologies and methods, and will address the potential vulnerabilities identified in Air Force security reviews.

This document is for the RDT&E phase of ICBM Security and is in Budget Activity 05. The Production portion of the program is under PE 0101213F.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Component design, development and evaluation		16.804	5.506
(U) Provide other government support		0.177	0.160
(U) Total Cost	0.000	16.981	5.666

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</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>	
Missile Procurement AF, PE 0101213F, Minuteman									
(U) Squadrons, MMIII Modifications, ICBM Security, Mod 5914 (BA-03, P-011)	0.000	0.605	48.140	47.324	81.768	71.119	70.794	93.876	413.626

**(U) D. Acquisition Strategy**

The Security effort will be managed under a CPAF contract with the ICBM Prime Integration Contractor (IPIC).

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**Exhibit R-3, RDT&E Project Cost Analysis**

DATE

**February 2004**

BUDGET ACTIVITY			PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE				
<b>05 System Development and Demonstration (SDD)</b>			<b>0604851F ICBM - EMD</b>					<b>5080 ICBM Security</b>				
(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</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>Cost to</u>	<u>Total</u>	<u>Target</u>
			<u>Prior to FY</u>	<u>2003</u>	<u>2003</u>	<u>2004</u>	<u>2004</u>	<u>2005</u>	<u>2005</u>	<u>Complete</u>	<u>Cost</u>	<u>Value of</u>
			<u>2003</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>	<u>Contract</u>
			<u>Cost</u>	<u>Date</u>	<u>Date</u>	<u>Date</u>	<u>Date</u>	<u>Date</u>	<u>Date</u>			
(U) <u>Product Development</u> ICBM Prime Integration Contract	CPAF	Northrop Grumman, Clearfield, UT	0.000	0.000		16.804	Jan-04	5.506	Jan-05	5.659	27.969	
											0.000	
Subtotal Product Development			0.000	0.000		16.804		5.506		5.659	27.969	0.000
Remarks:												
(U) <u>Support</u> SPO/Other Program Support	Various	ICBM Program Office, Hill AFB, UT	0.000	0.000		0.177	N/A	0.160	N/A	0.160	0.497	
Subtotal Support			0.000	0.000		0.177		0.160		0.160	0.497	0.000
Remarks:												
(U) <u>Test &amp; Evaluation</u>			0.000	0.000							0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Management</u>											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			0.000	0.000		16.981		5.666		5.819	28.466	0.000



Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

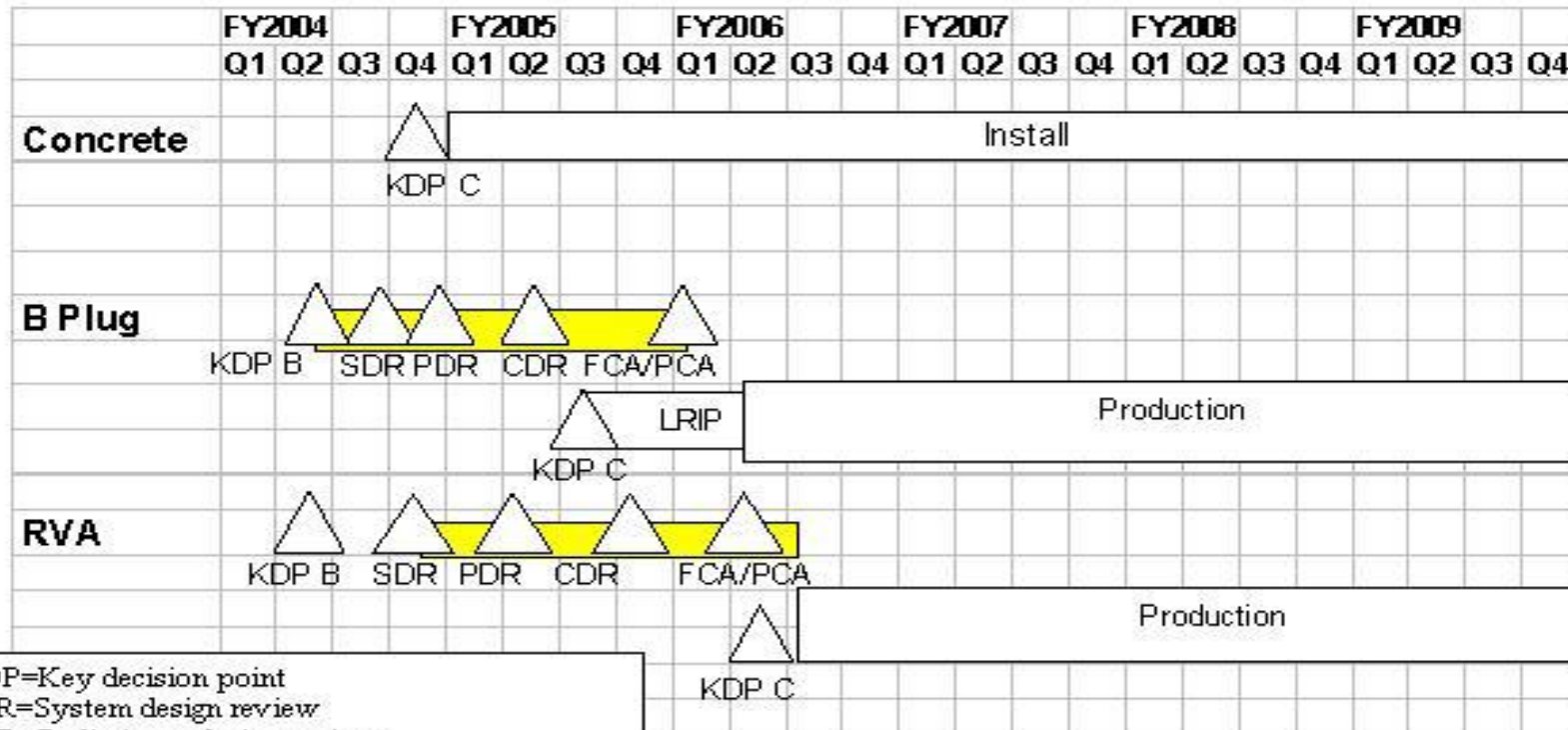
PE NUMBER AND TITLE

0604851F ICBM - EMD

PROJECT NUMBER AND TITLE

5080 ICBM Security

# ICBM Security



KDP=Key decision point  
 SDR=System design review  
 PDR=Preliminary design review  
 CDR=Critical design review  
 FCA/PCA=Functional/Physical configuration audit  
 LRIP=Low rate initial production  
 RVA=Remote visual assessment

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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0604851F ICBM - EMD</b>	PROJECT NUMBER AND TITLE <b>5080 ICBM Security</b>
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	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <b><u>Schedule Profile</u></b>			
(U) Contract Award B-Plug		2Q	
(U) Contract Award RVA		4Q	
(U) Preliminary Design Review B Plug		4Q	
(U) Critical Design Review B Plug			2Q
(U) Preliminary Design Review Remote Visual Assessment (RVA)			1Q
(U) Critical Design Review RVA			4Q