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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>					PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013[#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	71.824	71.181	86.737	-	86.737	93.549	82.005	63.170	64.307	Continuing	Continuing
641020: <i>ICBM Guidance Applications</i>	-	18.355	14.522	36.484	-	36.484	44.282	33.154	15.455	15.733	Continuing	Continuing
641021: <i>ICBM Propulsion Applications</i>	-	43.327	44.959	40.853	-	40.853	49.267	48.851	47.715	48.574	Continuing	Continuing
641022: <i>ICBM Reentry Vehicle Applications</i>	-	5.179	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
641023: <i>Rocket System Launch Program</i>	-	0.024	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
641025: <i>Ground Based Strategic Deterrence (GBSD)</i>	-	0.000	11.700	9.400	-	9.400	0.000	0.000	0.000	0.000	Continuing	Continuing
644209: <i>Long Range Planning (LRP)</i>	-	4.939	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program ensures a responsive design and development engineering infrastructure to address emerging issues and technology insertion within the current Intercontinental Ballistic Missile (ICBM), future strategic systems/capability, and other common strategic mission areas, where appropriate, to develop enhanced multi-use capabilities. Efforts identify methods to reduce life cycle costs, improve nuclear safety and surety, and ensure strategic missile viability. Demonstration and validation projects include guidance applications, propulsion applications, reentry vehicles, development of enhanced command/control capabilities, rocket system launch program efforts, long range planning efforts, and Ground Based Strategic Deterrence (GBSD).

BA4 - This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P) because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
3600: Research, Development, Test & Evaluation, Air Force		PE 0603851F: Intercontinental Ballistic Missile - Dem/Val			
BA 4: Advanced Component Development & Prototypes (ACD&P)					
B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	69.436	71.181	69.801	-	69.801
Current President's Budget	71.824	71.181	86.737	-	86.737
Total Adjustments	2.388	0.000	16.936	-	16.936
• Congressional General Reductions	-	0.000			
• Congressional Directed Reductions	-	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	-	0.000			
• Congressional Directed Transfers	-	0.000			
• Reprogrammings	4.734	0.000			
• SBIR/STTR Transfer	-1.917	0.000			
• Other Adjustments	-0.429	0.000	16.936	-	16.936
Change Summary Explanation					
FY12 Significant Changes include: \$5M Below Threshold Reprogramming Add and SIBR and FFRDC reductions					
FY14 Signifcant Changes include: \$21.9M add in Guidance Applications Project (641020) for technology development activities; -\$4.8M reduction for higher AF priorities					

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val				PROJECT 641020: ICBM Guidance Applications			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
641020: ICBM Guidance Applications	-	18.355	14.522	36.484	-	36.484	44.282	33.154	15.455	15.733	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
^{##} The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The Guidance Applications Program ensures the development of strategic capability in response to the Nuclear Posture Review, recommendations of the United States Strategic Command (USSTRATCOM) Strategic Advisory Group, USSTRATCOM Commander guidance, and the Defense Science Board Task Force on Nuclear Deterrence. Efforts are focused on current and future requirements and technologies, reduced life cycle costs, and increased nuclear surety and safety. Activities leverage the efforts of the Science and Technology community and are coordinated with the Navy strategic application program to enhance synergy and avoid duplication. Key elements include developing responsive technologies with common applications for future strategic guidance capabilities.												
BA4 - This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P) because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2012	FY 2013	FY 2014	
Title: Guidance Applications									17.249	13.408	35.370	
Description: Develop, in coordination with the Navy, advanced guidance technology such as solid-state instruments, with higher reliability.												
FY 2012 Accomplishments: Developed, prototyped, and tested advanced guidance technologies, such as solid-state instruments (accelerometers, gyros and advanced inertial measurement unit concepts). Completed radiation hardening qualification unit builds and radiation testing. Assessed, evaluated, and tested radiation hard electronics for Air Force advanced strategic guidance applications (total dose, prompt gamma, neutron and optics radiation testing). Conducted experiments to demonstrate future strategic system concepts. Developed, assessed, and implemented Advanced Inertial Measurement Unit (AIMU) Engineering Model 2 testing and continued development, assessment and implementation of protoqual design and build. Conducted AIMU sled test and flight test planning.												
FY 2013 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force							DATE: April 2013				
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>			PROJECT 641020: <i>ICBM Guidance Applications</i>				
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2012	FY 2013	FY 2014		
Continue to develop, prototype, and test advanced guidance technologies, such as solid-state instruments (accelerometers and gyroscopes) and AIMU concepts. Continue assessment, evaluation, and test of radiation hard electronics for strategic guidance applications. Continue to conduct experiments to demonstrate future strategic system concepts. Develop, implement and assess AIMU sled and flight tests. FY 2014 Plans: Continue to develop, prototype, and test advanced guidance technologies, such as solid-state instruments (accelerometers and gyroscopes) and Advanced Inertial Measurement Unit (AIMU) concepts. Mature radiation hardened component and system designs and continue assessment, evaluation, and test of radiation hard electronics for strategic guidance applications. Continue to conduct experiments to demonstrate future strategic system concepts.											
Title: Program Management Administration Description: Direct unique program cost required for program management and oversight. FY 2012 Accomplishments: Program support, travel, printing, supplies, Advisory and Assistance Service. FY 2013 Plans: Program support, travel, printing, supplies, Advisory and Assistance Service. FY 2014 Plans: Program support, travel, printing, supplies, Advisory and Assistance Service.							1.106	1.114	1.114		
Accomplishments/Planned Programs Subtotals							18.355	14.522	36.484		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• None.: N/A	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Remarks											
D. Acquisition Strategy Accomplish studies, analyses, and engineering/pre-prototype hardware development; efforts will be conducted using contracting strategies deemed most appropriate, generally using competitive contracts.											

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val	PROJECT 641020: ICBM Guidance Applications

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)						R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val				PROJECT 641020: ICBM Guidance Applications					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Develop, analyze, evaluate, prototype and test instrument technologies and Inertial Measurement Unit (IMU) concepts	Various	AFRL, AFNWC, Honeywell, Orbital Sciences, various:**See Remarks,	-	15.495	Nov 2011	10.450	Nov 2012	27.736	Nov 2013	-		27.736	Continuing	Continuing	TBD
Assess, evaluate and test of radiation hard electronics	Various	Navy Crane, Institute for Space and Defense Electronics:Vanderbilt U.,	-	0.500	Nov 2011	0.500	Nov 2012	0.500	Nov 2013	-		0.500	Continuing	Continuing	TBD
Concept Architecture Development	MIPR	TASC, INC.:San Bernardino, CA	-	0.000	Jan 2012	1.208	Feb 2013	4.250	Dec 2013	-		4.250	Continuing	Continuing	TBD
Subtotal			0.000	15.995		12.158		32.486		0.000		32.486			
Remarks															
**AFRL, Kirtland AFB NM; AFNWC, Hill AFB UT; Honeywell, Redmond WA, Clearwater FL, Phoenix AZ; Orbital Sciences, Chandler AZ, Various															
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	Various	AFNWC:Kirtland AFB, NM	-	1.004	Nov 2011	1.000	Nov 2012	1.884	Nov 2013	-		1.884	Continuing	Continuing	TBD
Subtotal			0.000	1.004		1.000		1.884		0.000		1.884			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation	Various	AFRL; Honeywell; Various:**See Remarks,	-	0.250	Nov 2011	0.250	Nov 2012	1.000	Nov 2013	-		1.000	Continuing	Continuing	TBD

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>							R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>				PROJECT 641020: <i>ICBM Guidance Applications</i>				
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.250		0.250		1.000		0.000		1.000			
Remarks ***476 TS; Holloman AFB; AFRL, Kirtland AFB NM; Honeywell, Redmond WA, Clearwater FL, Phoenix AZ, Various															
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA-Contractor Support	Various	Various:Various,	-	1.012	Nov 2011	1.018	Nov 2012	1.018	Nov 2013	-		1.018	Continuing	Continuing	TBD
PMA-Government Costs	Various	Various:Various,	-	0.094	Nov 2011	0.096	Nov 2012	0.096	Nov 2013	-		0.096	Continuing	Continuing	TBD
Subtotal			0.000	1.106		1.114		1.114		0.000		1.114			
Remarks **AFRL, Kirtland AFB NM; AFNWC, Hill AFB UT; Honeywell, Redmond WA, Clearwater FL, Phoenix AZ; Orbital Sciences, Chandler AZ, Various ***476 TS; Holloman AFB; AFRL, Kirtland AFB NM; Honeywell, Redmond WA, Clearwater FL, Phoenix AZ, Various															
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	18.355		14.522		36.484		0.000		36.484			
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

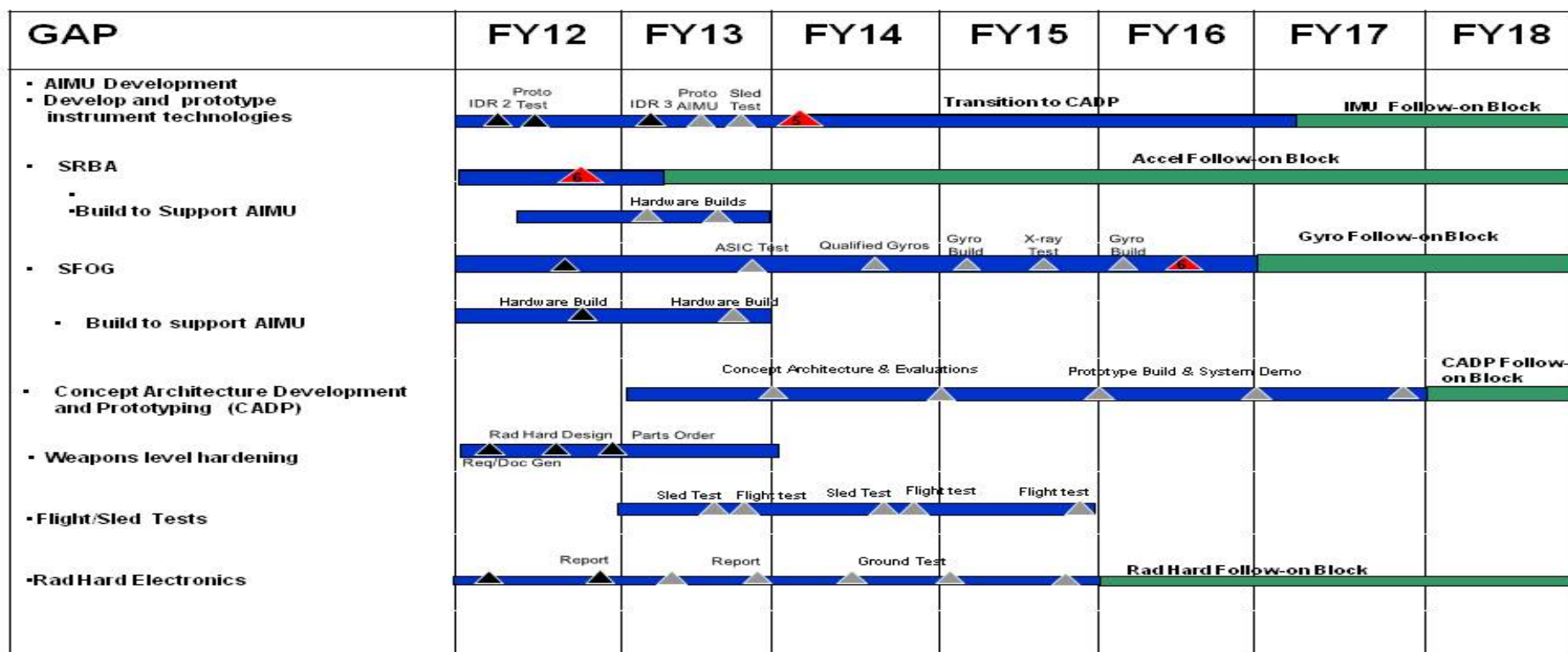
3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603851F: Intercontinental Ballistic
Missile - Dem/Val

PROJECT

641020: ICBM Guidance Applications



▲ Completed Milestone

▲ Upcoming Milestone

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>	PROJECT 641020: <i>ICBM Guidance Applications</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
IMU Test Hardware Deliveries	1	2012	4	2013
IMU Tests	1	2012	3	2013
IMU Design Reviews	1	2012	2	2013
Gyro/Accelerometer Prototype Build	1	2012	2	2016
Gyro/Accelerometer Tests	3	2012	3	2015
Concept Architure Development Evaluation	4	2013	4	2017
Rad-Hard Electronics Testing	1	2012	4	2015
Flight/Sled Tests	3	2013	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val				PROJECT 641021: ICBM Propulsion Applications			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
641021: ICBM Propulsion Applications	-	43.327	44.959	40.853	-	40.853	49.267	48.851	47.715	48.574	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The Intercontinental Ballistic Missile (ICBM) Propulsion Application Program develops strategic propulsion capability through projects exploring improvements and/ or alternatives to current propulsion systems, conducting studies assessing application of new technologies to meet future common propulsion systems requirments, assessing opportunities for applying common materials and technology between the ICBM, submarine-launched ballistic missile (SLBM) propulsion systems, and other solid rocket motor propulsion capabilities to demonstrate a potential family of motors capability. Efforts are focused on current and future requirements and technologies, reduced life cycle costs, and increase nuclear surety and safety.												
BA4 - This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P) because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2012	FY 2013	FY 2014
Title: Propulsion Application Program										41.954	44.120	39.877
Description: Assess, develop, evaluate, and demonstrate common solid and liquid propulsion technology and manufacturing leading up to a static fires and/or a flight test. Develop strategic propulsion capability and explore improvements to current and future systems. Supports the research and development industrial base and critical infrastructure.												
FY 2012 Accomplishments: Supported the Solid Rocket Motor (SRM) research and development industrial base and critical infrastructure. Continued assessment and demonstration of ordnance and post-boost technology development. Continued Large Class Stage I & II (LCS) motor development; completed intermediate Preliminary Design Review (PDR) for LCS motors. Completed LCS III development effort with hydroburst testing. Initiated Medium Class Stage (MCS) development activities.												
FY 2013 Plans: Continue to support the SRM research and development industrial base and critical infrastructure. Continue assessment and demonstration of ordnance and post-boost technology development. Complete LCS I & II efforts. Transition from LCS to MCS												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force							DATE: April 2013																											
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val			PROJECT 641021: ICBM Propulsion Applications																											
B. Accomplishments/Planned Programs (\$ in Millions) development leveraging existing launch vehicle integration efforts. Continue to design and develop MCS III motor. Continue to integrate and analyze medium class motors and technology insertion opportunities. FY 2014 Plans: Continue to support the SRM research and development industrial base and critical infrastructure. Continue assessment and demonstration of ordnance and post-boost technology development. Continue MCS development and prepare for static fire testing. Continue to integrate and analyze medium class motors and technology insertion opportunities.							FY 2012	FY 2013	FY 2014																									
Title: Program Management Administration Description: Direct unique program cost required for program management and oversight. FY 2012 Accomplishments: Program support, travel, printing, supplies, Advisory and Assistance Service. FY 2013 Plans: Program support, travel, printing, supplies, Advisory and Assistance Service. FY 2014 Plans: Program support, travel, printing, supplies, Advisory and Assistance Service.							1.373	0.839	0.976																									
Accomplishments/Planned Programs Subtotals							43.327	44.959	40.853																									
C. Other Program Funding Summary (\$ in Millions)																																		
<table border="1"> <thead> <tr> <th>Line Item</th> <th>FY 2012</th> <th>FY 2013</th> <th>FY 2014 Base</th> <th>FY 2014 OCO</th> <th>FY 2014 Total</th> <th>FY 2015</th> <th>FY 2016</th> <th>FY 2017</th> <th>FY 2018</th> <th>Cost To Complete</th> <th>Total Cost</th> </tr> </thead> <tbody> <tr> <td>• None: N/A</td> <td>0.000</td> <td>0.000</td> <td>0.000</td> <td></td> <td>0.000</td> <td>0.000</td> <td>0.000</td> <td>0.000</td> <td>0.000</td> <td>Continuing</td> <td>Continuing</td> </tr> </tbody> </table>											Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost	• None: N/A	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost																							
• None: N/A	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing																							
Remarks																																		
D. Acquisition Strategy Studies, analyses, limited engineering, and pre-prototype hardware development will be accomplished; efforts will be conducted using contracting strategies deemed most appropriate, generally using competitive contracts.																																		
E. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.																																		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>	PROJECT 641021: <i>ICBM Propulsion Applications</i>
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Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Large Class Stage I solid propulsion technologies	Various	ATK:Corrinne, UT	-	14.829	Nov 2012	7.040	Jan 2013	0.000		-		0.000	Continuing	Continuing	TBD
Large Class Stage II solid propulsion technologies	Various	Aerojet:Sacramento, CA	-	14.078	Nov 2012	6.750	Jan 2013	0.000		-		0.000	Continuing	Continuing	
Assess and Demonstrate Ordnance and Post Boost Components. Evaluation of Hazard Classification Methods	MIPR	AFRL:Edwards AFB, CA	-	0.689	Dec 2011	1.500	Dec 2012	1.500	Dec 2013	-		1.500	Continuing	Continuing	TBD
Design & Development of Medium Class Stage III Motor	TBD	ATK; Aerojet:See Remarks,	-	0.000		23.000	May 2013	17.000	Dec 2013	-		17.000	Continuing	Continuing	TBD
Carbon Composite Fiber & Single Flexseal Nozzle qualification	TBD	TBD:,	-	0.000		0.000		18.000	Dec 2013	-		18.000	Continuing	Continuing	TBD
Subtotal			0.000	29.596		38.290		36.500		0.000		36.500			

Remarks

*Aerojet, Sacramento CA; ATK Thiokol, Corrinne UT

Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Launch Vehicle Integration	Various	SMC/SDTL:*See Remarks,	-	8.199	Dec 2011	2.000	Dec 2012	2.000	Dec 2013	-		2.000	Continuing	Continuing	
Other Program Support	Various	SURVIAC:Hill AFB, UT	-	0.150	Apr 2012	0.250	Nov 2012	0.250	Nov 2013	-		0.250	Continuing	Continuing	TBD
Propellant Development (1.3 NEPE)	Various	ATK:Corrinne, UT	-	0.500	Jan 2012	0.000		0.000		-		0.000	Continuing	Continuing	
Thrust Termination Development for Medium Class Stage III Design	Various	Aerojet:Sacramento, CA	-	1.974	Jan 2012	0.000		1.127	Nov 2013	-		1.127	Continuing	Continuing	TBD

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APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)							R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val				PROJECT 641021: ICBM Propulsion Applications				
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	10.823		2.250		3.377		0.000		3.377			
Remarks **AFNWC/NWI, Hill AFB UT; AFRL, Edwards AFB CA; Space Development Test Directorate															
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Static Fire LCS	MIPR	AEDC:Edwards AFB, CA	-	0.768	Nov 2011	1.790	Nov 2012	0.000		-		0.000	Continuing	Continuing	
Static Fire MCS	MIPR	AEDC:Edwards AFB, CA	-	0.767	Nov 2011	1.790	Nov 2012	0.000		-		0.000	Continuing	Continuing	TBD
Subtotal			0.000	1.535		3.580		0.000		0.000		0.000			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA-Contractor Support	Various	Various:Various,	-	1.066	Nov 2011	0.679	Nov 2012	0.796	Nov 2013	-		0.796	Continuing	Continuing	TBD
PMA-Government Costs	Various	Various:Various,	-	0.307	Nov 2011	0.160	Nov 2012	0.180	Nov 2013	-		0.180	Continuing	Continuing	TBD
Subtotal			0.000	1.373		0.839		0.976		0.000		0.976			
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	43.327		44.959		40.853		0.000		40.853			
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

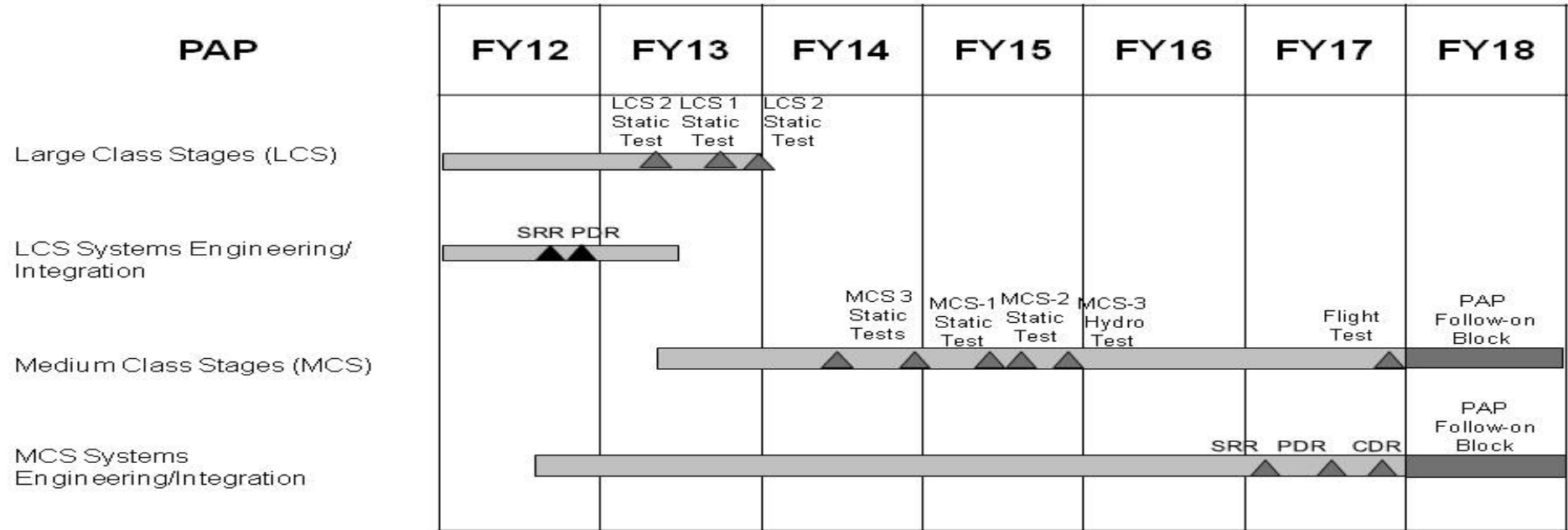
R-1 ITEM NOMENCLATURE

PE 0603851F: Intercontinental Ballistic
Missile - Dem/Val

PROJECT

641021: ICBM Propulsion Applications

PAP



▲ Completed Milestone

▲ Upcoming Milestone

SRR – System Requirements Review
PDR – Preliminary Design Review
CDR – Critical Design Review

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>	PROJECT 641021: <i>ICBM Propulsion Applications</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
LCS Motors Static Test Fires	1	2012	4	2013
LCS Systems Engineering/Integration Design Reviews	1	2012	2	2013
MCS 3 Development and Static Test	2	2013	4	2017
MCS System Engineering/Integration Booster Delivery	3	2012	4	2017

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val				PROJECT 641022: ICBM Reentry Vehicle Applications			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
641022: ICBM Reentry Vehicle Applications	-	5.179	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
^{##} The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The Intercontinental Ballistic Missile (ICBM) Reentry Vehicle (RV) Applications Program ensures the ICBM force is equipped with the safest, most reliable Reentry Systems, and explores options for common, multi-mission capabilities. The program enables a responsive engineering infrastructure to support Reentry Systems beyond their original design life by addressing operational system issues and ensuring the availability of long-lead components and materials while identifying life cycle cost reduction methods. In addition, the program also develops and tests advanced Reentry System technologies to meet future requirements. The program leverages investments by the Science & Technology community and Navy reentry systems applications program. Products are tested on a space available basis on Minuteman and Trident Force Development Evaluation (FDE) flights.												
BA4 - This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P) because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2012	FY 2013	FY 2014	
Title: ICBM Reentry Vehicle Applications									5.165	0.000	0.000	
Description: Develop, evaluate, and test reentry system materials and technologies for use in current and future strategic applications.												
FY 2012 Accomplishments: Developed and demonstrated alternate electrochemical battery technologies as part of an advanced battery demonstration effort. Also tested advanced battery designs in operational and non-operational dynamic environments and completed safety testing. Continued nosetip and thermal protection system material development and Arc-Jet testing. Continued conceptual penetration aid designs against current and predicted defenses. Continued planning and software development work on a demonstration of an Air Force Weather Reentry Interaction Planner module.												
FY 2013 Plans: N/A												
FY 2014 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force							DATE: April 2013				
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>			PROJECT 641022: <i>ICBM Reentry Vehicle Applications</i>				
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2012	FY 2013	FY 2014		
N/A											
Title: Program Management Administration							0.014	0.000	0.000		
Description: Direct unique program cost required for program management and oversight.											
FY 2012 Accomplishments: Program support, travel, printing, supplies, Advisory and Assistance Service.											
FY 2013 Plans: N/A											
FY 2014 Plans: N/A											
Accomplishments/Planned Programs Subtotals							5.179	0.000	0.000		
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• None: N/A	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Remarks											
D. Acquisition Strategy Studies, analyses, limited engineering, and pre-prototype hardware development will be accomplished; efforts will be conducted using contracting strategies deemed most appropriate, generally using competitive contracts.											
E. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE				PROJECT					
3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)						PE 0603851F: Intercontinental Ballistic Missile - Dem/Val				641022: ICBM Reentry Vehicle Applications					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Continue development, evaluation and testing of Reentry Vehicle materials and technologies	Various	*See Remarks:**See Remarks, CA	-	3.251	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	TBD
Subtotal			0.000	3.251		0.000		0.000		0.000		0.000			
Remarks															
*Northrup Grumman, FMI, Boeing **Northrop Grumman, Clearfield UT; FMI. Biddeford ME; Boeing, Anaheim CA															
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	Various	AFNWC/NIC:Hill AFB, UT	-	0.714	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	TBD
Subtotal			0.000	0.714		0.000		0.000		0.000		0.000			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Materials	Reqn	AFRL Materials Lab:Wright-Patterson AFB, OH	-	0.450	Dec 2011	0.000		0.000		-		0.000	Continuing	Continuing	TBD
Ground Arc Jet Testing	PO	Arnold Engineering & Development Center:Arnold AFB, TN	-	0.250	Dec 2011	0.000		0.000		-		0.000	Continuing	Continuing	TBD
TPS Testing	MIPR	***See Remarks:****See Remarks,	-	0.500	Dec 2011	0.000		0.000		-		0.000	Continuing	Continuing	
Subtotal			0.000	1.200		0.000		0.000		0.000		0.000			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>							R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>				PROJECT 641022: <i>ICBM Reentry Vehicle Applications</i>				
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks ***NASA Ames ****NASA Ames, Santa Clara CA															
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA-Contractor Support	Various	Various:Various,	-	0.014	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	
PMA-Government Costs	Various	Various:Various,	-	0.000	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	
Subtotal			0.000	0.014		0.000		0.000		0.000		0.000			
Remarks *Northrup Grumman, FMI, Boeing **Northrop Grumman, Clearfield UT; FMI. Biddeford ME; Boeing, Anaheim CA ***NASA Ames ****NASA Ames, Santa Clara CA															
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	5.179		0.000		0.000		0.000		0.000			
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY

3600: *Research, Development, Test & Evaluation, Air Force*
BA 4: *Advanced Component Development & Prototypes (ACD&P)*

R-1 ITEM NOMENCLATURE

PE 0603851F: *Intercontinental Ballistic Missile - Dem/Val*

PROJECT

641022: *ICBM Reentry Vehicle Applications*

RVAP	FY12	FY13	FY14	FY15	FY16	FY17	FY18
ArcJet Testing of Thermal Protection System Materials	Thermal Test ▲ ▲	Final Report					
Development, Evaluation and Testing of Reentry Vehicle Antenna Window Technologies	Thermal Test ▲ ▲	Final Report					
Development, Evaluation and Testing of Carbon-Carbon Materials	Billet Mechanical Build Test ▲ ▲ ▲	Final Report					
Advanced Minuteman Battery Demonstration	Environmental/ Safety Testing ▲ ▲	Final Report					
Penetration Aid Suite	▲	Final Report					
Weather Reentry Vehicle Interaction Planner (WRIP) Demonstration	▲	Final Report					

▲ Completed Milestones

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>	PROJECT 641022: <i>ICBM Reentry Vehicle Applications</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Reentry Vehicles Materials Arc Jet Testing	1	2012	4	2012
Reentry Vehicle Antenna Window Tests	1	2012	4	2012
Nosetip Materials Testing	1	2012	4	2012
Battery Testing	1	2012	4	2012
Penetration Aid Alternative Design Study	1	2012	4	2012
Weather Reentry Vehicle Interaction Planner (WRIP)	1	2012	4	2012

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val				PROJECT 641023: Rocket System Launch Program			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013[#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
641023: Rocket System Launch Program	-	0.024	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012 ^{##} The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The purpose of the ICBM Rocket System Launch Program (RSLP) is to perform studies and analyses that determine the most constructive and cost effective use of missile assets after they are deactivated or considered excess and added to the RSLP inventory. BA4 - This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P) because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2012	FY 2013	FY 2014
Title: ICBM Rocket System Launch Program										0.024	0.000	0.000
Description: Study and analyze the most constructive use of deactivated missile assets to be added to the RSLP inventory.												
FY 2012 Accomplishments: Conducted RSLP studies and analyses.												
FY 2013 Plans: N/A												
FY 2014 Plans: N/A												
Accomplishments/Planned Programs Subtotals										0.024	0.000	0.000
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost	
• None: N/A	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing	
Remarks												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>	PROJECT 641023: <i>Rocket System Launch Program</i>
<p><u>D. Acquisition Strategy</u></p> <p>Studies and analyses will be performed primarily in-house augmented with contractor support as required. Any special projects funded under this project that will require development and/or evaluation of hardware along with the associated employment concepts, will be awarded to qualified industry sources following open competition. Type of contract used (e.g., CPIF, FPIF, etc) will be that deemed most advantageous to the government, generally using cost plus contracts.</p> <p><u>E. Performance Metrics</u></p> <p>Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)							R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val					PROJECT 641023: Rocket System Launch Program			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	Various	Space Development and Test Directorate:Kirtland AFB, NM	-	0.024	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	TBD
Subtotal			0.000	0.024		0.000		0.000		0.000		0.000			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
			All Prior Years	FY 2012	FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			0.000	0.024		0.000		0.000		0.000					
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force	DATE: April 2013
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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>	PROJECT 641023: <i>Rocket System Launch Program</i>
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RSLP	FY12	FY13	FY14	FY15	FY16	FY17	FY18
Continue on-going study/analysis of the most constructive use of deactivated missile assets and adoption of low cost front-end systems for use on deactivated missile assets							
		Final Report					

▲ Completed Milestones

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>	PROJECT 641023: <i>Rocket System Launch Program</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Annual Studies/Analyses	1	2012	4	2012

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val				PROJECT 641025: Ground Based Strategic Deterrence (GBSD)			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
641025: Ground Based Strategic Deterrence (GBSD)	-	0.000	11.700	9.400	-	9.400	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The Ground-Based Strategic Deterrence (GBSD) will identify viable concepts and materiel solutions for a Minuteman III follow-on in support of the Air Force's strategic deterrence and global strike capabilities. Funding supports pre-Milestone A activities, to include an AoA and associated concept refinement activities of potential materiel solutions. This effort will explore materiel technology alternatives at the system and sub-system levels and during the Materiel Solution Analysis Phase leading to a Milestone-A decision.												
BA4 - This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P) because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.												
B. Accomplishments/Planned Programs (\$ in Millions)												
Title: Ground-based Strategic Deterrent (GBSD) Materiel Solutions Phase activities Description: Perform Pre-Milestone A activities to identify potential materiel solutions for a future GBSD. FY 2012 Accomplishments: Effort funded under Project 644209 Long Range Planning. FY 2013 Plans: Perform pre-Materiel Solution Analysis Phase activities and initiate a GBSD AoA. Identify and refine viable concepts and materiel solutions for a follow-on to the Minuteman strategic deterrent in support of the global strike capabilities. FY 2014 Plans: Complete GBSD AoA. Continue concept refinement, technology analyses, modeling and simulation support, engineering studies, program cost and schedule estimation, acquisition strategy development, risk reduction efforts, initial requirements definition, Milestone A preparation to include development of Milestone A exit/Technology Development phase entrance documentation.									FY 2012	FY 2013	FY 2014	
									0.000	11.208	8.900	
Title: Program Management Administration									0.000	0.492	0.500	
Description: Direct unique program cost required for program management and oversight.												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force								DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>				PROJECT 641025: <i>Ground Based Strategic Deterrence (GBSD)</i>			
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2012	FY 2013	FY 2014	
<i>FY 2012 Accomplishments:</i> Effort funded under Project 644209 Long Range Planning											
<i>FY 2013 Plans:</i> Program support, travel, printing, supplies, Advisory and Assistance Service.											
<i>FY 2014 Plans:</i> Program support, travel, printing, supplies, Advisory and Assistance Service.											
Accomplishments/Planned Programs Subtotals								0.000	11.700	9.400	
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RDT&E: BA04: PE 0604337F: <i>Requirements Analysis and Maturation; BPAC 645349 Non-Space System Requirements Analysis & Maturation</i>	2.370	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Remarks											
D. Acquisition Strategy During the MSA phase, an AoA will be completed. Multiple contracts may be awarded to refine materiel solution concepts. A technology development strategy will be developed during the MSA phase.											
E. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)						R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val						PROJECT 641025: Ground Based Strategic Deterrence (GBSD)			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Concept Development	MIPR	Various; see remarks;	-	0.000		8.708	Nov 2012	6.900	Nov 2013	-		6.900	Continuing	Continuing	TBD
Concept Maturation	TBD	Various; see remarks;	-	0.000		2.500	Mar 2013	2.000	Nov 2013	-		2.000	Continuing	Continuing	TBD
Subtotal			0.000	0.000		11.208		8.900		0.000		8.900			
Remarks *AFGSC/A5, Barksdale AFB, LA; AFNWC/XZ, Kirtland AFB, NM; SURVIAC, Various Locations, Aerospace, Various Locations															
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA - Contractor Support	Various	Various:Various,	-	0.000		0.000	Nov 2012	0.000	Nov 2013	-		0.000	Continuing	Continuing	
PMA - Government Costs	Various	Vaious:Various,	-	0.000		0.492	Nov 2012	0.500	Nov 2013	-		0.500	Continuing	Continuing	
Subtotal			0.000	0.000		0.492		0.500		0.000		0.500			
Remarks *AFGSC/A5, Barksdale AFB, LA; AFNWC/XZ, Kirtland AFB, NM; SURVIAC, Various Locations, Aerospace, Various Locations															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force											DATE: April 2013				
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val					PROJECT 641025: Ground Based Strategic Deterrence (GBSD)					
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	0.000		11.700		9.400		0.000		9.400			

Remarks

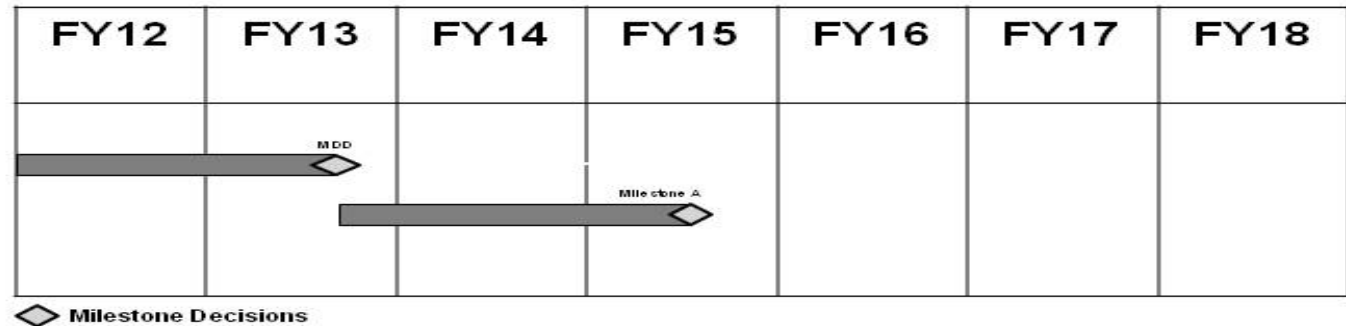
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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>	PROJECT 641025: <i>Ground Based Strategic Deterrence (GBSD)</i>

GBSD

Materiel Development Decision (MDD) Preparation Phase

Materiel Solution Analysis Phase (Includes Analysis of Alternatives)



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>	PROJECT 641025: <i>Ground Based Strategic Deterrence (GBSD)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Materiel Development Decision	4	2013	4	2013
Materiel Solutions Analysis Phase	4	2013	2	2015
Milestone A Decision	2	2015	2	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val				PROJECT 644209: Long Range Planning (LRP)			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
644209: Long Range Planning (LRP)	-	4.939	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The Long Range Planning (LRP) task analyzes systems to identify common potential modifications of the Minuteman III required to meet user objectives relative to long term sustainment, technology insertion, employment, and force structure. The studies focus on system supportability, operability, reliability, and maintainability. Options/ concepts generated by these studies are evaluated for feasibility, system impacts, and cost. The LRP also lays the groundwork for analysis supporting future weapon systems development and deployment. Pre-milestone activities may be conducted for current or future Intercontinental Ballistic Missile (ICBM) weapon systems to include entry criteria for milestone activities.												
BA4 - This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P) because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2012	FY 2013	FY 2014	
Title: Long Range Planning									4.939	0.000	0.000	
Description: Analyze and plan current and future ICBM modifications for long term sustainment, technology insertion, employment and force structure.												
FY 2012 Accomplishments: Continued support of the consolidated long range plan. Continued feasibility and life extension studies. Conducted pre-milestone activities for current or future ICBM weapon systems. Initiated the following studies: Interior Denial, Guidance Test and Evaluation, Mechanical Modular Ordnance Destruction System phase II.												
FY 2013 Plans: N/A												
FY 2014 Plans: N/A												
Accomplishments/Planned Programs Subtotals									4.939	0.000	0.000	

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>					R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>			PROJECT 644209: <i>Long Range Planning (LRP)</i>				
C. Other Program Funding Summary (\$ in Millions)												
	<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
	• None: N/A	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Remarks												
D. Acquisition Strategy												
Studies and analyses will be accomplished; efforts will be conducted using contracting strategies deemed most appropriate, generally using competitive contracts.												
E. Performance Metrics												
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)							R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val					PROJECT 644209: Long Range Planning (LRP)			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Long Range Planning; Life Extension Studies	Various	Various;	-	4.939		0.000		0.000		-		0.000	Continuing	Continuing	
Subtotal			0.000	4.939		0.000		0.000		0.000		0.000			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	4.939		0.000		0.000		0.000		0.000			
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force			DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603851F: <i>Intercontinental Ballistic Missile - Dem/Val</i>		PROJECT 644209: <i>Long Range Planning (LRP)</i>

LRP	FY12	FY13	FY14	FY15	FY16	FY17	FY18
Consolidated Long Range Plan Support	Report 						
Feasibility and Life Extension Studies	Report 						

▲ Completed Milestones

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603851F: Intercontinental Ballistic Missile - Dem/Val	PROJECT 644209: Long Range Planning (LRP)	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Long Range Planning Studies	1	2012	4	2012
Feasibility/Life Extension Studies	1	2012	4	2012