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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603851F: ICBM - DEM/VAL							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	58.937	68.097	66.745	0.000	66.745	67.976	69.282	70.335	71.413	Continuing	Continuing
641020: ICBM Guidance Applications	20.572	16.387	15.154	0.000	15.154	14.351	14.559	14.781	15.007	Continuing	Continuing
641021: ICBM Propulsion Applications	26.022	43.383	43.260	0.000	43.260	45.272	46.202	46.907	47.625	Continuing	Continuing
641022: ICBM Reentry Vehicle Applications	4.898	5.471	5.538	0.000	5.538	5.757	5.925	6.014	6.107	Continuing	Continuing
641023: Rocket System Launch Program	0.027	0.026	0.024	0.000	0.024	0.025	0.025	0.026	0.026	Continuing	Continuing
644209: Long Range Planning (LRP)	7.418	2.830	2.769	0.000	2.769	2.571	2.571	2.607	2.648	Continuing	Continuing
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) force and other common 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, reentry vehicles, assessment of current and future propulsion systems, development of enhanced command/control capabilities, and Long Range Planning efforts.											
This program is in Budget Activity 04 - Advanced Component Development and Prototypes because the efforts demonstrate technology, component and subsystem maturity, and provide risk reduction.											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0603851F: ICBM - DEM/VAL			
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	70.237	66.079	0.000	0.000	0.000
Current President's Budget	58.937	68.097	66.745	0.000	66.745
Total Adjustments	-11.300	2.018	66.745	0.000	66.745
• Congressional General Reductions		-0.382			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		2.400			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	-11.300	0.000	66.745	0.000	66.745
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 641021: ICBM Propulsion Applications				FY 2009	FY 2010
Congressional Add: MM III Advanced Third Stage Domestic Fiber Motor Case Development				0.000	2.400
Congressional Add Subtotals for Project: 641021				0.000	2.400
Project: 644209: Long Range Planning (LRP)					
Congressional Add: Conventional Strike Mission Integration Demonstration				4.787	0.000
Congressional Add Subtotals for Project: 644209				4.787	0.000
Congressional Add Totals for all Projects				4.787	2.400
Change Summary Explanation					
The FY 2010 President's Budget submittal did not reflect FY 2011 through FY 2015 funding. Therefore, explanation of changes between the two budget positions cannot be made in a relevant manner.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603851F: ICBM - DEM/VAL				PROJECT 641020: ICBM Guidance Applications			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
641020: ICBM Guidance Applications	20.572	16.387	15.154	0.000	15.154	14.351	14.559	14.781	15.007	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
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, Commander, USSTRATCOM 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.											
This program is in Budget Activity 04 - Advanced Component Development and Prototypes because the efforts demonstrate technology, component, and subsystem maturity, and provide risk reduction.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Develop, in coordination with the Navy, advanced solid-state guidance technology with higher reliability.							20.572	16.387	15.154	0.000	15.154
FY 2009 Accomplishments: In FY09: Completed preliminary requirements/architecture review for the advanced inertial measurement unit (AIMU). Finished design trade analysis (i.e instrument packaging). The strategic gyro and the strategic resonating beam accelerometer met accuracy, performance, vibration and test goals. Validated use of modeling to enhance a radiation hardness assurance program.											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603851F: ICBM - DEM/VAL		PROJECT 641020: ICBM Guidance Applications		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: In FY10: Continue to develop, prototype, and test solid-state instrument technologies (accelerometers and gyros). Continue to develop, analyze, evaluate, prototype, and test advanced solid-state inertial measurement unit concepts. Continue assessment, evaluation, and test of radiation hard electronics for strategic guidance applications. Conduct assessment, development, and implementation of test options to demonstrate future system concepts. Finish build and test of AIMU engineering model 1 and design engineering model 2 which will incorporate the the solid state strategic gyro and accelerometer.						
FY 2011 Base Plans: In FY11: Continue to develop, prototype, and test solid-state instrument technologies (accelerometers and gyros). Continue to develop, analyze, evaluate, prototype, and test advanced solid-state inertial measurement unit concepts. Continue assessment, evaluation, and test of radiation hard electronics for strategic guidance applications. Conduct precision inertial navigation system experiment to demonstrate future strategic system concepts. Conduct assessment, development, and implementation of test options to demonstrate future system concepts. Complete model 2 AIMU prototype and conduct flight or sled test.						
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
Accomplishments/Planned Programs Subtotals		20.572	16.387	15.154	0.000	15.154

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>			<b>PROJECT</b> 641020: <i>ICBM Guidance Applications</i>				
<b><u>C. Other Program Funding Summary (\$ in Millions)</u></b>											
<b>Line Item</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PE Not Provided (9157): <i>None.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b><u>D. Acquisition Strategy</u></b> Accomplish studies, analyses, and limited engineering/pre-prototype hardware development; efforts will be conducted using contracting strategies deemed most appropriate, generally using competitive cost plus contracts.											
<b><u>E. Performance Metrics</u></b> 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 2011 Air Force											DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603851F: ICBM - DEM/VAL				PROJECT 641020: ICBM Guidance Applications					
Product Development (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Develop, analyze, evaluate, prototype, test instrument technologies; IMU concepts	Various/ Various	AFRL Kirtland AFB NM; Honeywell: Redmond WA, Clearw...	67.291	14.505	Nov 2009	12.403	Nov 2010	0.000		12.403	Continuing	Continuing	Continuing	
Assess, develop and implement precision inertial navigation system experiment	TBD/TBD	TBD TBD	0.000	0.000		1.000	Jan 2011	0.000		1.000	0.000	1.000	Continuing	
Assess, evaluate and test of radiation hard electronics	Various/ Various	Navy Crane, Institute for Space and Defense Electronics Vanderbilt U.	0.500	0.500	Jan 2010	0.500	Jan 2011	0.000		0.500	Continuing	Continuing	Continuing	
Subtotal			67.791	15.005		13.903		0.000		13.903				
Remarks														
Support (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Other Program Support	Various/ Various	SMC	6.017	1.132	Nov 2009	1.060	Nov 2010	0.000		1.060	Continuing	Continuing	Continuing	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: ICBM - DEM/VAL				<b>PROJECT</b> 641020: ICBM Guidance Applications					
Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Los Angeles CA; 526 ICBMSG, Hill AFB UT											
Subtotal			6.017	1.132		1.060		0.000		1.060			
Remarks													
Test and Evaluation (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test	Various/ Various	AFRL Kirtland AFB NM; Honeywell, Redmond WA, Clearwa...	0.750	0.250	Nov 2009	0.191	Nov 2010	0.000		0.191	Continuing	Continuing	Continuing
Subtotal			0.750	0.250		0.191		0.000		0.191			
Remarks													

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2011 Air Force							<b>DATE:</b> February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>			<b>PROJECT</b> 641020: <i>ICBM Guidance Applications</i>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 25%;"></div> <div style="width: 20%; text-align: center;"> <b>Total Prior Years Cost</b> </div> <div style="width: 10%; text-align: center;"> <b>FY 2010</b> </div> <div style="width: 10%; text-align: center;"> <b>FY 2011 Base</b> </div> <div style="width: 10%; text-align: center;"> <b>FY 2011 OCO</b> </div> <div style="width: 10%; text-align: center;"> <b>FY 2011 Total</b> </div> <div style="width: 10%; text-align: center;"> <b>Cost To Complete</b> </div> <div style="width: 10%; text-align: center;"> <b>Total Cost</b> </div> <div style="width: 10%; text-align: center;"> <b>Target Value of Contract</b> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 25%;"><b>Project Cost Totals</b></div> <div style="width: 20%; text-align: center;">74.558</div> <div style="width: 10%; text-align: center;">16.387</div> <div style="width: 10%; text-align: center;"></div> <div style="width: 10%; text-align: center;">15.154</div> <div style="width: 10%; text-align: center;">0.000</div> <div style="width: 10%; text-align: center;">15.154</div> <div style="width: 10%; text-align: center;"></div> <div style="width: 10%; text-align: center;"></div> </div>									
<b>Remarks</b> Total Prior Years Cost may include only FY 2009 data.									

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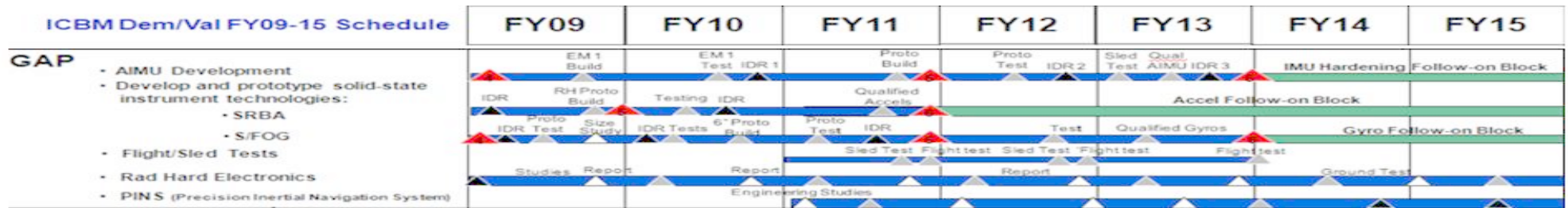
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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force		DATE: February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: ICBM - DEM/VAL	<b>PROJECT</b> 641020: ICBM Guidance Applications



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2011 Air Force			<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>	<b>PROJECT</b> 641020: <i>ICBM Guidance Applications</i>	

**Schedule Details**

<b>Event</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
IMU EM/Prototype Build	3	2009	3	2011
IMU Test	2	2010	2	2010
IMU Design Reviews	4	2010	4	2010
Gyro/Accelerometer Prototype build	4	2009	3	2010
Gyro/Accelerometer Design Reviews	2	2009	3	2011
Gyro/Accelerometer Tests	2	2009	1	2011
Rad-Hard Electronics Report	4	2009	4	2011
Flight/Sled Tests	3	2011	4	2011

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603851F: ICBM - DEM/VAL				PROJECT 641021: ICBM Propulsion Applications			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
641021: ICBM Propulsion Applications	26.022	43.383	43.260	0.000	43.260	45.272	46.202	46.907	47.625	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
(U) The 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 system requirements, 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.											
This program is in Budget Activity 04 - Advanced Component Development and Prototypes because the efforts demonstrate technology, component, and subsystem maturity, and provide risk reduction.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Assess, develop, evaluate, and demonstrate common solid propulsion technology and manufacturing leading to a static fire test launch.							26.022	40.983	43.260	0.000	43.260
FY 2009 Accomplishments: In FY2009: Develops strategic propulsion capability and explores improvements to current systems. Supports the Solid Rocket Motor (SRM) industrial base & critical infrastructure. Completed successful Medium Class Stage (MCS) sea level static test at Edwards AFB. Completed MCS altitude motor and awaiting testing at the Arnold Engineering Development Center (AEDC). Completed successful MCS hydro-test on advanced third stage motor. Completed system requirement review for Large Class Stage (LCS) motors. Began LCS motor development.											

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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: ICBM - DEM/VAL		PROJECT 641021: ICBM Propulsion Applications		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: In FY2010: Develops strategic propulsion capability and explores improvements to current systems. Supports the Solid Rocket Motor (SRM) industrial base & critical infrastructure. Continue assessment and demonstration of ordnance and post-boost technology development. Continue LCS motor development. Complete case build and wind for LCS hydro test. Complete hydro test on LCS motors. Begin composite case design and build for advanced third stage motor.						
FY 2011 Base Plans: In FY2011: Develops strategic propulsion capability and explores improvements to current systems. Supports the Solid Rocket Motor (SRM) industrial base & critical infrastructure. Continue assessment and demonstration of ordnance and post-boost technology development. Continue LCS motor development. Complete intermediate design review for the LCS motors. Complete static fire test for LCS motors.						
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
Accomplishments/Planned Programs Subtotals		26.022	40.983	43.260	0.000	43.260
		FY 2009	FY 2010			
Congressional Add: MM III Advanced Third Stage Domestic Fiber Motor Case Development		0.000	2.400			
FY 2009 Accomplishments: In FY2009: Not Applicable						
FY 2010 Plans: In FY2010: MM III Advanced Third Stage Domestic Fiber Motor Case Development						

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force							<b>DATE:</b> February 2010				
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<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
							<b>FY 2009</b>	<b>FY 2010</b>			
Congressional Adds Subtotals							0.000	2.400			
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PE Not Provided (9427): <i>None</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>D. Acquisition Strategy</b>											
Studies, analyses, and motor test firings will be accomplished; efforts will be conducted using contracting strategies deemed most appropriate, generally using competitive cost plus contracts.											
<b>E. Performance Metrics</b>											
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 2011 Air Force											DATE: February 2010			
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Product Development (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Evaluation and test of solid propulsion technologies	Various/ Various	AFRL Edwards AFB CA; Aerojet: Sacramento CA; ATK Th...	111.919	39.697	Nov 2009	34.474	Nov 2010	0.000		34.474	Continuing	Continuing	Continuing	
Assess and demonstrate ordnance and post-boost components	Various/ Various	AFRL Edwards AFB, CAAerojet: Sacramento CA; ATK Thi...	0.000	1.000	Jan 2010	1.000	Jan 2011	0.000		1.000	Continuing	Continuing	Continuing	
Evaluation of hazard classification methods	Various/ Various	AFRL , Edwards AFB, CAAerojet: Sacramento CA; ATK Th...	0.000	1.000	Jan 2010	1.000	Jan 2011	0.000		1.000	Continuing	Continuing	Continuing	
Subtotal			111.919	41.697		36.474		0.000		36.474				
Remarks														
Support (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Other Program Support		AFRL	10.729	1.686	Nov 2009	1.786	Nov 2010	0.000		1.786	Continuing	Continuing	Continuing	

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Air Force</b>											<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>				<b>PROJECT</b> 641021: <i>ICBM Propulsion Applications</i>						
<b>Support (\$ in Millions)</b>														
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>				
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
	Various/ Various	Edwards AFB CA; 526 ICBMSG: Hill AFB UT												
<b>Subtotal</b>			10.729	1.686		1.786		0.000		1.786				
<b>Remarks</b>														
<b>Test and Evaluation (\$ in Millions)</b>														
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>				
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
Static Fire (Edwards/ AEDC)	C/CPAF	Edwards/AEDC No text provided	0.531	0.000		5.000	Jan 2011	0.000		5.000	Continuing	Continuing	Continuing	
<b>Subtotal</b>			0.531	0.000		5.000		0.000		5.000				
<b>Remarks</b>														
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
<b>Project Cost Totals</b>			123.179	43.383		43.260		0.000		43.260				

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2011 Air Force							<b>DATE:</b> February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>			<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>			<b>PROJECT</b> 641021: <i>ICBM Propulsion Applications</i>			
	<b>Total Prior Years Cost</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
<b>Remarks</b> Total Prior Years Cost may include only FY 2009 data.									

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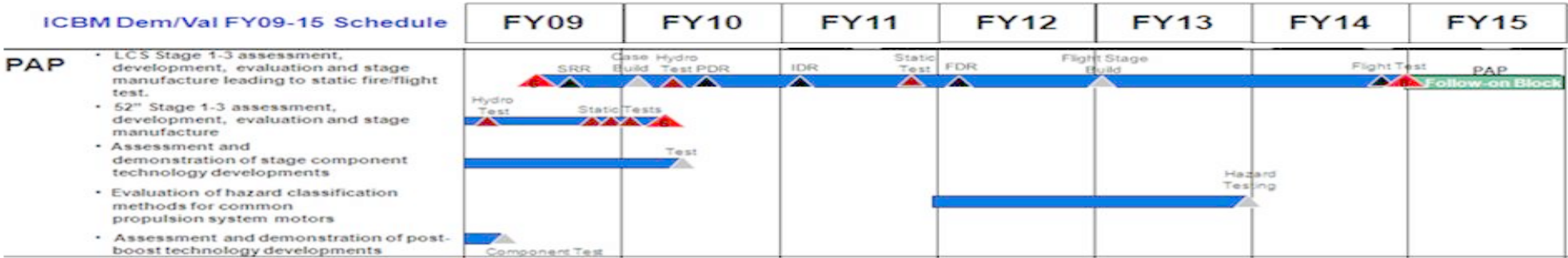
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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force			DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE		PROJECT	
3600: Research, Development, Test & Evaluation, Air Force		PE 0603851F: ICBM - DEM/VAL		641021: ICBM Propulsion Applications	
BA 4: Advanced Component Development & Prototypes (ACD&P)					



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2011 Air Force			<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>	<b>PROJECT</b> 641021: <i>ICBM Propulsion Applications</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
MCS motor static fire test	3	2009	1	2010
MCS motor hydro test	1	2009	1	2009
Post Boost Motor component test	1	2009	1	2009
LCS System Requirements Review	3	2009	3	2009
LCS motors case build	1	2010	3	2010
LCS motors hydro test	2	2010	2	2010
LCS motors Intermediate Design Review	1	2011	1	2011
LCS motors static fire test	4	2011	4	2011

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603851F: ICBM - DEM/VAL				PROJECT 641022: ICBM Reentry Vehicle Applications			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
641022: ICBM Reentry Vehicle Applications	4.898	5.471	5.538	0.000	5.538	5.757	5.925	6.014	6.107	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
The ICBM Reentry Vehicle (RV) Applications Program ensures the ICBM force is equipped with the safest and most reliable RVs and explores options for common, multi-mission capabilities. The program enables a responsive engineering infrastructure to support RVs beyond their original design life by addressing operational system issues and ensuring the availability of long-lead components/materials while identifying life cycle cost reduction methods. The program also develops and tests advanced RV 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.											
This program is in Budget Activity 04 - Advanced Component Development and Prototypes because the efforts demonstrate technology, component, and subsystem maturity, and provide risk reduction.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Develop, evaluate, and test reentry vehicle materials and technologies for use in current and future strategic systems.							4.898	5.471	5.538	0.000	5.538
FY 2009 Accomplishments: In FY09: Identified and evaluated replacement materials for carbon-carbon (C/C) thermal protection systems (TPS). Upgraded TPS mass ablation code to 3-D capability. Evaluated replacement C/C nosetip material. Validated reentry vehicle materials at Arnold Engineering Development Center (AEDC).											

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force							<b>DATE:</b> February 2010				
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>			<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>			<b>PROJECT</b> 641022: <i>ICBM Reentry Vehicle Applications</i>					
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
						<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	
<p><i>FY 2010 Plans:</i> In FY10: Continue C/C TPS material studies. Continue to validate reentry vehicle materials at NASA Ames. Conduct TPS testing of C/C silicon carbide at NASA Dryden. Evaluate alternate battery technology to increase service life, reduce costs, and increase reliability. Conduct material test vehicle flight data analysis.</p> <p><i>FY 2011 Base Plans:</i> In FY11: Continue development, evaluation, and testing of Reentry Vehicle materials and technologies.</p> <p><i>FY 2011 OCO Plans:</i> In FY 2011 OCO: Not Applicable.</p>											
Accomplishments/Planned Programs Subtotals						4.898	5.471	5.538	0.000	5.538	
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PE Not Provided (9675): <i>None</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>D. Acquisition Strategy</b>											
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 cost plus contracts.											
<b>E. Performance Metrics</b>											
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 2011 Air Force										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603851F: ICBM - DEM/VAL					PROJECT 641022: ICBM Reentry Vehicle Applications	

**Product Development (\$ in Millions)**

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	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 Rentry Vehicle materials and technologies	Various/ Various	Northrop Grumman Clearfield UT; FMI: Biddeford ME; Boeing: Anah...	38.642	3.606	Nov 2009	4.174	Nov 2010	0.000		4.174	Continuing	Continuing	Continuing
<b>Subtotal</b>			38.642	3.606		4.174		0.000		4.174			

**Remarks**

**Support (\$ in Millions)**

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SPO/Other Program Support	Various/ Various	526 ICBMSG Hill AFB UT	4.792	0.703	Nov 2009	0.714	Nov 2010	0.000		0.714	Continuing	Continuing	Continuing
<b>Subtotal</b>			4.792	0.703		0.714		0.000		0.714			

**Remarks**

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Air Force</b>											<b>DATE:</b> February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>				<b>PROJECT</b> 641022: <i>ICBM Reentry Vehicle Applications</i>					
<b>Test and Evaluation (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Materials	TM	AFRL Materials Lab Wright-Patterson AFB;	1.150	0.400	Feb 2010	0.400	Dec 2010	0.000		0.400	Continuing	Continuing	Continuing
Ground ARC Jet Testing	PO	Arnold Engineering & Development Center Arnold AFB TN; NASA Ames: Santa Clara CA	0.700	0.250	Jan 2010	0.250	Dec 2010	0.000		0.250	Continuing	Continuing	Continuing
TPS Testing	MIPR	Dryden Flight Research Center Edwards AFB CA	2.869	0.512	Dec 2009	0.000	Dec 2010	0.000		0.000	0.000	3.381	0.000
<b>Subtotal</b>			4.719	1.162		0.650		0.000		0.650			
<b>Remarks</b>													
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			48.153	5.471		5.538		0.000		5.538			
<b>Remarks</b> Total Prior Years Cost may include only FY 2009 data.													

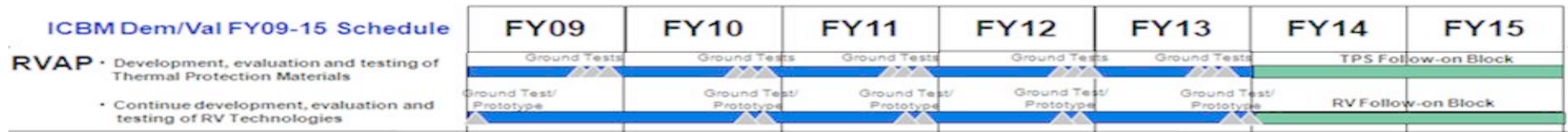
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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2011 Air Force</b>		<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>	<b>PROJECT</b> 641022: <i>ICBM Reentry Vehicle Applications</i>



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2011 Air Force			<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>	<b>PROJECT</b> 641022: <i>ICBM Reentry Vehicle Applications</i>	

## Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Reentry Vehicle Thermal Protection System Material Testing	3	2009	4	2011
Conduct Reentry Vehicle Antenna Window thermal testing	2	2011	4	2011
Conduct Material Test Vehicle Flight data analysis	4	2009	4	2009
Develop Rentry Vehicle modeling and simulation tools	2	2009	4	2011
Carbon-Carbon Nosetip Material Mechanical Test	3	2009	3	2011
Carbon-Carbon Nosetip Material Thermal Test	4	2009	4	2011
Battery Prototype Build	3	2010	3	2010
Battery Prototype Ground Test	1	2011	1	2011

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>				<b>PROJECT</b> 641023: <i>Rocket System Launch Program</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
641023: <i>Rocket System Launch Program</i>	0.027	0.026	0.024	0.000	0.024	0.025	0.025	0.026	0.026	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
<b>A. Mission Description and Budget Item Justification</b> <p>The purpose of the ICBM Rocket System Launch Program 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.</p> <p>This program is in Budget Activity 04 - Advanced Component Development and Prototypes because the efforts demonstrate technology, component, and subsystem maturity, and provide risk reduction.</p>											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
							<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
<b>MAJOR THRUST:</b> Study and analyze adoption of low cost front-end systems for use on deactivated missile assets.  <i>FY 2009 Accomplishments:</i> In FY09: Studied and analyzed adoption of low cost front-end systems for use on deactivated missile assets.  <i>FY 2010 Plans:</i> In FY10: Continue to study and analyze adoption of low cost front-end systems for use on deactivated missile assets.							0.027	0.026	0.024	0.000	0.024

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force					<b>DATE:</b> February 2010	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>		<b>PROJECT</b> 641023: <i>Rocket System Launch Program</i>		
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>						
				<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>
				<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	
<i>FY 2011 Base Plans:</i> In FY11: Continue to study and analyze adoption of low cost front-end systems for use on deactivated missile assets.						
<i>FY 2011 OCO Plans:</i> In FY 2011 OCO: Not Applicable.						
Accomplishments/Planned Programs Subtotals				0.027	0.026	0.024
				0.000	0.000	0.024
<b>C. Other Program Funding Summary (\$ in Millions)</b>						
<b>Line Item</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	<b>Cost To Complete</b>
<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>Total Cost</b>		
• PE Not Provided (9913): <i>None</i>	0.000	0.000	0.000	0.000	0.000	0.000
<b>D. Acquisition Strategy</b>						
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.						
<b>E. Performance Metrics</b>						
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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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2011 Air Force											<b>DATE:</b> February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>				<b>PROJECT</b> 641023: <i>Rocket System Launch Program</i>					
<b>Support (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Engineering Support	Various/ Various	Space Development and Test Wing Kirtland AFB NM	3.730	0.026	Jan 2010	0.024	Jan 2011	0.000		0.024	Continuing	Continuing	Continuing
<b>Subtotal</b>			3.730	0.026		0.024		0.000		0.024			
<b>Remarks</b>													
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			3.730	0.026		0.024		0.000		0.024			
<b>Remarks</b>													
Total Prior Years Cost may include only FY 2009 data.													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force			DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603851F: ICBM - DEM/VAL		PROJECT 641023: Rocket System Launch Program	
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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	R-1 ITEM NOMENCLATURE PE 0603851F: <i>ICBM - DEM/VAL</i>	PROJECT 641023: <i>Rocket System Launch Program</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Annual Study/Analysis	4	2009	4	2011

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>				<b>PROJECT</b> 644209: <i>Long Range Planning (LRP)</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
644209: <i>Long Range Planning (LRP)</i>	7.418	2.830	2.769	0.000	2.769	2.571	2.571	2.607	2.648	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
<b>A. Mission Description and Budget Item Justification</b> <p>The Long Range Planning (LRP) task analyzes systems to identify common potential modifications 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.</p> <p>This program is in Budget Activity 04 - Advanced Component Development and Prototypes because the efforts demonstrate technology, component, and subsystem maturity, and provide risk reduction.</p>											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
						<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	
<b>MAJOR THRUST:</b> Analyze and plan current and future ICBM modifications for long term sustainment, technology insertion, employment and force structure.  <i>FY 2009 Accomplishments:</i> In FY09: Completed a Next Generation ICBM Attributes and Fuze study. Developed an initial ICBM Roadmap.  <i>FY 2010 Plans:</i> In FY10: Complete range architecture, concrete, industrial base and modular mechanical ordinance destruct system (MMODS) studies. Continue ICBM Roadmap development and expansion.						2.631	2.830	2.769	0.000	2.769	

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force				<b>DATE:</b> February 2010	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>		<b>PROJECT</b> 644209: <i>Long Range Planning (LRP)</i>	
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>					
	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
<i>FY 2011 Base Plans:</i> In FY11: Continue support of the consolidated long range plan. Continue feasibility and life extension studies. Continue ICBM Roadmap development and expansion.  <i>FY 2011 OCO Plans:</i> In FY 2011 OCO: Not Applicable.					
Accomplishments/Planned Programs Subtotals	2.631	2.830	2.769	0.000	2.769
	<b>FY 2009</b>	<b>FY 2010</b>			
Congressional Add: Conventional Strike Mission Integration Demonstration  <i>FY 2009 Accomplishments:</i> In FY 2011 OCO: Not Applicable.  <i>FY 2010 Plans:</i> In FY 2011 OCO: Not Applicable. (1)	4.787	0.000			
Congressional Adds Subtotals	4.787	0.000			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force								<b>DATE:</b> February 2010																										
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>			<b>PROJECT</b> 644209: <i>Long Range Planning (LRP)</i>																											
<p><b><u>C. Other Program Funding Summary (\$ in Millions)</u></b></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Line Item</u></th> <th style="text-align: right;"><u>FY 2009</u></th> <th style="text-align: right;"><u>FY 2010</u></th> <th style="text-align: right;"><u>FY 2011</u> <u>Base</u></th> <th style="text-align: right;"><u>FY 2011</u> <u>OCO</u></th> <th style="text-align: right;"><u>FY 2011</u> <u>Total</u></th> <th style="text-align: right;"><u>FY 2012</u></th> <th style="text-align: right;"><u>FY 2013</u></th> <th style="text-align: right;"><u>FY 2014</u></th> <th style="text-align: right;"><u>FY 2015</u></th> <th style="text-align: right;"><u>Cost To</u> <u>Complete</u></th> <th style="text-align: right;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>• PE Not Provided (10044): <i>None</i></td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> </tr> </tbody> </table> <p><b><u>D. Acquisition Strategy</u></b> Studies and analyses will be accomplished; efforts will be conducted using contracting strategies deemed most appropriate, generally using competitive cost plus contracts.</p> <p><b><u>E. Performance Metrics</u></b> 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>											<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>	• PE Not Provided (10044): <i>None</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>																							
• PE Not Provided (10044): <i>None</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																							

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603851F: ICBM - DEM/VAL				PROJECT 644209: Long Range Planning (LRP)					
Product Development (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Long range plan	SS/CPAF	Northrop Grumman Clearfield UT	5.920	0.160	Dec 2009	0.170	Dec 2010	0.000		0.170	Continuing	Continuing	Continuing	
Conventional Strike Mission integration demo	Various/ Various	Various Various	9.504	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing	
Studies	Various/ Various	Northrop Grumman Clearfield UT; The MITRE Corporation: Bedford ...	37.560	1.920	Jan 2010	1.892	Dec 2010	0.000		1.892	Continuing	Continuing	Continuing	
Subtotal			52.984	2.080		2.062		0.000		2.062				
Remarks														
Support (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Other program support	Various/ Various	526 ICBMSG Hill AFB UT	4.745	0.750	Nov 2009	0.707	Nov 2010	0.000		0.707	Continuing	Continuing	Continuing	
Subtotal			4.745	0.750		0.707		0.000		0.707				

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2011 Air Force											<b>DATE:</b> February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>				<b>PROJECT</b> 644209: <i>Long Range Planning (LRP)</i>					
<b>Support (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Remarks</b>													
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			57.729	2.830		2.769		0.000		2.769			
<b>Remarks</b> Total Prior Years Cost may include only FY 2009 data.													

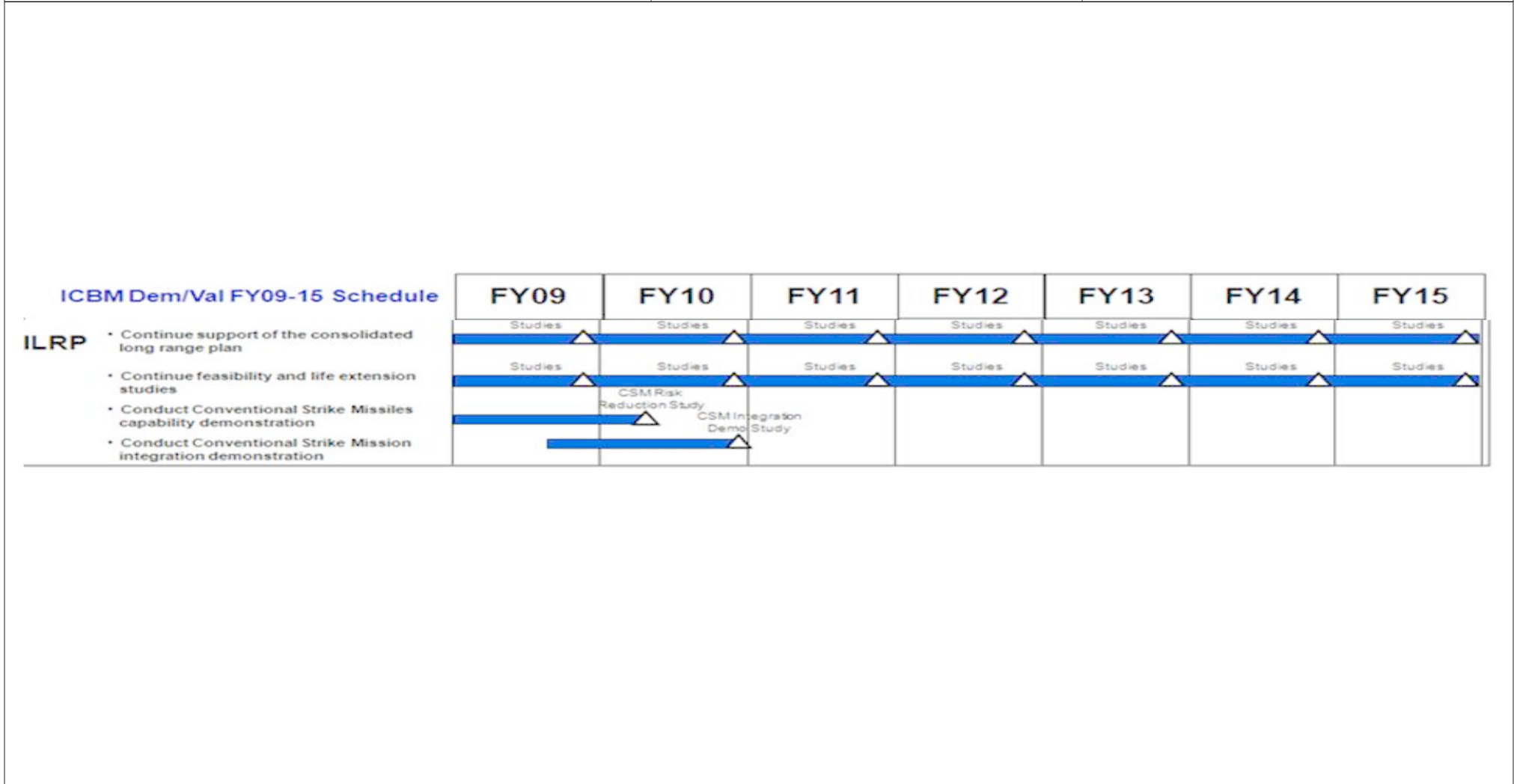
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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2011 Air Force</b>		<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>	<b>PROJECT</b> 644209: <i>Long Range Planning (LRP)</i>



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2011 Air Force			<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603851F: <i>ICBM - DEM/VAL</i>	<b>PROJECT</b> 644209: <i>Long Range Planning (LRP)</i>	

**Schedule Details**

<b>Event</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
ICBM Long Range Plan	4	2009	4	2011
Studies	4	2009	4	2011
Conventional Strike Missile Capability Demo -- Mission Planning, C2 Architecture, and CONOPS Delivered	2	2010	2	2010
Conventional Strike Mission Integration Demo -- Mission Integration/Planning and C2 Demo	2	2010	2	2010

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