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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0101125F: <i>NUCLEAR WEAPON MODERNIZATION</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	-	-	93.867	-	93.867	158.218	315.238	397.880	336.786	Continuing	Continuing
657007: <i>B61 LIFE EXTENSION PROGRAM</i>	-	-	83.941	-	83.941	118.823	116.609	57.038	41.281	Continuing	Continuing
657008: <i>LONG RANGE STAND-OFF</i>	-	-	9.926	-	9.926	39.395	198.629	340.842	295.505	Continuing	Continuing

Note

The program funding includes reductions for acquisition excellence efficiencies in FY15 and FY16 that are not intended to impact program content. Reductions for efficiencies may be spread to other Air Force programs at a later date. Amounts of the reductions are: \$7.0M/FY15 and \$102.5M/FY16.

In FY12 B61 LEP efforts were transferred from PE 0604222F, Nuclear Weapons Support, to PE 0101125F, Nuclear Weapon Modernization in order to support B61 LEP development.

In FY12 LRSO efforts were transferred from PE 0101122F, Air Launched Cruise Missile, to PE 0101125F, Nuclear Weapon Modernization in order to support LRSO development.

A. Mission Description and Budget Item Justification

The purpose of this program element is to conduct and support Air Force and Joint DoD-DoE acquisition activities for the modernization and sustainment of nuclear weapons.

B61 Life Extension Program (LEP): Lead the joint DoD-DoE B61 Life Extension Program (LEP) feasibility, design, cost, and down-select effort. Lead development and acquisition of B61 tail subassembly for B61 LEP. Ensure integration of B61 LEP with current and future aircraft.

Long Range Stand Off (LRSO): identify viable concepts and materiel solutions to replace the legacy Air Launched Cruise Missile (ALCM) fleet in support of the Air Force's strategic deterrence and global strike mission requirements.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

UNCLASSIFIED

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0101125F: <i>NUCLEAR WEAPON MODERNIZATION</i>
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B. Program Change Summary (\$ in Millions)	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>
Previous President's Budget	-	-	93.867	-	93.867
Current President's Budget	-	-	93.867	-	93.867
Total Adjustments	-	-	-	-	-
• Congressional General Reductions					
• Congressional Directed Reductions					
• Congressional Rescissions	-	-			
• Congressional Adds					
• Congressional Directed Transfers					
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-	-	-

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0101125F: <i>NUCLEAR WEAPON MODERNIZATION</i>	PROJECT 657007: <i>B61 LIFE EXTENSION PROGRAM</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
657007: <i>B61 LIFE EXTENSION PROGRAM</i>	-	-	83.941	-	83.941	118.823	116.609	57.038	41.281	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

In FY12 B61 LEP efforts were transferred from PE 0604222F, Nuclear Weapons Support, to PE 0101125F, Nuclear Weapon Modernization in order to support B61 LEP development.

A. Mission Description and Budget Item Justification

B61 Life Extension Program (LEP): The LEP of the B61 gravity weapon will extend the service life of the weapon, consolidate multiple B61 variants into one modification and improve safety, security, and use control (surety). Provides leadership, management, and oversight of the Air Force-led, joint Department of Defense (DoD) - Department of Energy (DoE) B61 Project Officer's Group (POG). Lead the joint DoD-DoE B61 LEP feasibility, design, cost, and down-select study. Provide technical oversight of the DoE nuclear package LEP activities. Develop weapons trainers, test equipment, tech data, and training for the B61 LEP. Conduct ground and flight tests and support aircraft integration for the B61 LEP. Develop and acquire a B61 tail subassembly (TSA) and ensure integration of B61 LEP onto threshold aircraft. This may include weapon trainers, test equipment, tech data, training and training materials. Additionally, the program office will conduct lab, ground and flight tests, engineering studies and technology analyses, modeling and simulation, logistics evaluations, human system integration, technology maturation, and risk reduction activities in support of the required materiel solution.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: B61 POG Support and B61 LEP	-	-	83.941	-	83.941
Description: Accomplish DoD-DoE B61 LEP effort. Develop and acquire B61 tail subassembly and ensure integration of B61 LEP onto current and future aircraft.					
FY 2010 Accomplishments:					
FY 2011 Plans:					
FY 2012 Base Plans:					

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Provide technical oversight of the DoE B61 LEP activities. Refine proposed materiel solution concepts. Refine acquisition strategy to include program development schedule and cost estimates. Prepare documentation for Technology Development phase exit criteria and Milestone B entrance criteria. Support DoD-DoE B61 POG. <i>FY 2012 OCO Plans:</i>					
Accomplishments/Planned Programs Subtotals	-	-	83.941	-	83.941

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PE 0604222F: <i>RDT&E</i>	6.382	25.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy
Full and open competition as approved by the MDA.

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 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				PE 0101125F: NUCLEAR WEAPON MODERNIZATION				657007: B61 LIFE EXTENSION PROGRAM					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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
B61 LEP	C/TBD	TBD:,	-	-	Jan 2011	39.301	Nov 2012	-		39.301	Continuing	Continuing	TBD
Subtotal			-	-		39.301		-		39.301			
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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
B61 LEP Program Office	MIPR	AAC/EBD:,	-	-		11.169	Nov 2011	-		11.169	Continuing	Continuing	0.000
Aircraft Integration	MIPR	Various:,	-	-		32.550	Nov 2011	-		32.550	Continuing	Continuing	0.000
Subtotal			-	-		43.719		-		43.719			0.000
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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 Oversight	MIPR	RTO:,	-	-		0.921	Nov 2011	-		0.921	Continuing	Continuing	0.000
Subtotal			-	-		0.921		-		0.921			0.000
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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
Subtotal			-	-		-		-		-	0.000	0.000	0.000
Project Cost Totals			-	-		83.941		-		83.941			
Remarks													

UNCLASSIFIED

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0101125F: <i>NUCLEAR WEAPON</i> <i>MODERNIZATION</i>	PROJECT 657007: <i>B61 LIFE EXTENSION PROGRAM</i>

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UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0101125F: <i>NUCLEAR WEAPON MODERNIZATION</i>	PROJECT 657007: <i>B61 LIFE EXTENSION PROGRAM</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MDD and Milestone A Preparation	1	2010	3	2011
Combined Materiel Development Decision / Milestone A Decision	3	2011	3	2011
Technology Development Phase	3	2011	1	2014
Milestone B Decision	1	2014	1	2014

UNCLASSIFIED

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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
657008: <i>LONG RANGE STAND-OFF</i>	-	-	9.926	-	9.926	39.395	198.629	340.842	295.505	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

In FY12 LRSO efforts were transferred from PE 0101122F, Air Launched Cruise Missile, to PE 0101125F, Nuclear Weapon Modernization in order to support LRSO development.

A. Mission Description and Budget Item Justification

Long Range Stand Off (LRSO) seeks to identify viable concepts and materiel solutions to replace the legacy Air Launched Cruise Missile (ALCM) fleet in support of the Air Force's strategic deterrence and global strike capabilities. This effort will analyze the areas of survivability, lethality, reliability and affordability. Funding supports Materiel Solution Analysis (MSA) phase activities and associated engineering studies and technology analyses, requirements definition, technology maturation, and risk reduction activities.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: LRSO	-	-	9.926	-	9.926
Description: Conduct LRSO Materiel Solution Analysis (MSA) phase. Identify and refine viable materiel solution concepts for LRSO.					
FY 2010 Accomplishments:					
FY 2011 Plans:					
FY 2012 Base Plans: Complete LRSO Analysis of Alternatives (AoA). Refine concepts for viable materiel solutions. Develop technology development strategy and refine program schedule and cost estimate. Prepare documentation for Milestone A decision.					
FY 2012 OCO Plans:					
Accomplishments/Planned Programs Subtotals	-	-	9.926	-	9.926

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>			<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• PE 0101122F: <i>RDT&E</i>	3.219	3.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

During MSA phase, an AoA will be completed. Multiple contracts will 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.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force **DATE:** February 2011

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Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			-	-		-		-		-	0.000	0.000	0.000

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
LRSO Materiel Solution Analysis Phase activities	TBD	Various:,	-	-		9.926	Nov 2011	-		9.926	Continuing	Continuing	0.000
Subtotal			-	-		9.926		-		9.926			0.000

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			-	-		-		-		-	0.000	0.000	0.000

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			-	-		-		-		-	0.000	0.000	0.000

			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		9.926		-		9.926			0.000

Remarks

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
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UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0101125F: <i>NUCLEAR WEAPON</i> <i>MODERNIZATION</i>	PROJECT 657008: <i>LONG RANGE STAND-OFF</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Materiel Development Decision Preparation	1	2010	2	2011
Materiel Development Decision	2	2011	2	2011
Materiel Solutions Analysis Phase	2	2011	3	2013
Milestone A Decision	3	2013	3	2013
Technology Development Phase	3	2013	4	2016