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

<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>							
3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				PE 0101122F: <i>AIR LAUNCHED CRUISE MISSILE</i>							
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	3.536	3.631	0.803	-	0.803	0.430	0.450	0.455	0.459	Continuing	Continuing
674797: <i>Flight Testing &amp; Navigation Enhancement</i>	3.536	3.631	0.803	-	0.803	0.430	0.450	0.455	0.459	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The AGM-86B, Air Launched Cruise Missile (ALCM), is a subsonic, air-to-surface strategic nuclear missile, operational since 1982. Armed with a W80 warhead, it is designed to evade air and ground-based defenses in order to strike targets at any location within any enemy's territory. The ALCM is designed for B-52H internal and external carriage.

The purpose of this program element is to ensure ALCM sustainability to FY30 and identify concepts and materiel solutions to replace the aging ALCM fleet in support of Air Force strategic nuclear deterrence and global strike mission requirements.

An ALCM Service Life Extension Program (SLEP) was developed to meet an AF Long Range Plan requirement to extend ALCM Service Life to FY30. The results of SLEP studies identified system components and support equipment that will become non-supportable prior to 2030. Service life extension of this critical weapon is essential to meet United States Strategic Command (USSTRATCOM) deliberate planning commitments.

W80 Joint Test Assembly (JTA-8) Replacement was an effort to improve the unsupportable W80 JTA-1, a simulated warhead used for flight testing. This replacement effort revised and improved the W80 JTA-1, Interface Control Documents (ICDs), provided integration support, and supported flight test qualification. In FY09, the Research, Development, Test, and Evaluation (RDT&E) effort completed. Minimal effort remains through FY11 for finalizing and completing archival of all data.

The Aging and Surveillance program for ALCM continuously assesses critical components such as those in the safe arm and fuze subsystem, navigation/guidance system, and electrical/power distribution system. The program identifies aging trends prior to failures in fielded components that would result in fleet-wide reliability and supportability problems. Development funds are required to update software, test procedures, and test equipment from the original Advanced Cruise Missile (ACM) configurations to the new ALCM configurations. Development of new support equipment is also required for the Ageing & Surveillance program.

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 Air Force's strategic deterrence and global strike mission requirements. Funding and program content for this effort moves into PE 010125F Nuclear Weapons Modernization in FY12.

BA7- This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0101122F: <i>AIR LAUNCHED CRUISE MISSILE</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	3.652	3.631	0.424	-	0.424
Current President's Budget	3.536	3.631	0.803	-	0.803
Total Adjustments	-0.116	-	0.379	-	0.379
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.101	-			
• Other Adjustments	-0.015	-	0.379	-	0.379

**Change Summary Explanation**

The LRSO program moves to PE 0101125F beginning in FY12.

FY12 funding increase supports continuation of the ALCM Aging & Surveillance program.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0101122F: AIR LAUNCHED CRUISE MISSILE				PROJECT 674797: Flight Testing & Navigation Enhancement			
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
674797: Flight Testing & Navigation Enhancement	3.536	3.631	0.803	-	0.803	0.430	0.450	0.455	0.459	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**A. Mission Description and Budget Item Justification**

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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 Air Force's strategic deterrence and global strike mission requirements. Funding and program content for this effort moves into PE 010125F Nuclear Weapons Modernization in FY12.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force				DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0101122F: AIR LAUNCHED CRUISE MISSILE		PROJECT 674797: Flight Testing & Navigation Enhancement		
B. Accomplishments/Planned Programs (\$ in Millions)						
		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Title:</b> W80 Joint Test Assembly (JTA-8) Replacement Support <b>Description:</b> W80 JTA-8 Replacement Support, W80 LEP; revise the W80-1 ICDs, provide integration support, and flight test qualification.  <b>FY 2010 Accomplishments:</b> Continued integration support and flight test qualification.  <b>FY 2011 Plans:</b> Complete integration support and flight test qualification.  <b>FY 2012 Base Plans:</b>  <b>FY 2012 OCO Plans:</b>		0.005	0.070	-	-	-
<b>Title:</b> ALCM Aging and Surveillance Program <b>Description:</b> Continue aging and surveillance program for ALCM system components to identify age related failure trends and prevent reliability and supportability issues.  <b>FY 2010 Accomplishments:</b> Continued execution of aging and surveillance program for ALCM system components to identify age related failure trends and prevent reliability and supportability issues.  <b>FY 2011 Plans:</b> Continue execution of aging and surveillance program for ALCM system components to identify age related failure trends and prevent reliability and supportability issues.  <b>FY 2012 Base Plans:</b> Continue execution of aging and surveillance program for ALCM system components to identify age related failure trends and prevent reliability and supportability issues.  <b>FY 2012 OCO Plans:</b>		0.312	0.261	0.803	-	0.803
<b>Title:</b> Long Range Stand Off (LRSO) <b>Description:</b> Conduct Materiel Solution Analysis (MSA) phase for LRSO effort.  <b>FY 2010 Accomplishments:</b>		3.219	3.300	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011		
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B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Initiated Pre-LRSO MSA planning.											
FY 2011 Plans: Support Materiel Development Decision (MDD). Initiate LRSO MSA phase activities.											
FY 2012 Base Plans: Effort moved to Nuclear Weapons Modernization PE 0101125F.											
FY 2012 OCO Plans:											
Accomplishments/Planned Programs Subtotals							3.536	3.631	0.803	-	0.803
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 0101122F - ALCM: MPAF, Missile Modifications BA 03	0.000	10.795	9.996	0.000	9.996	6.255	0.000	0.000	0.000	Continuing	Continuing
• PE 0101122F - ALCM (1): MPAF, Replenishment Spares BA 04	10.875	0.266	1.296	0.000	1.296	5.192	4.561	4.819	2.236	Continuing	Continuing
• PE 010122F - ALCM: OPAF, Electronics & Telecommunications Equipment (BP83) BA 03	1.535	1.584	1.582	0.000	1.582	1.635	1.659	1.687	1.716	Continuing	Continuing
• PE 0101125F: RDT&E	0.000	0.000	9.926	0.000	9.926	39.395	198.629	340.842	295.505	Continuing	Continuing
D. Acquisition Strategy											
The ALCM JTA-8 Replacement Support will be performed utilizing a Firm Fixed Price (FFP) contract.											
The ALCM Aging and Surveillance Program is being developed and matured by the prime contractor utilizing annual delivery orders on a Firm Fixed Price (FFP) contract. A new contract in FY12 will change the period of performance from June-to-June to December-to-December.											
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 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0101122F: AIR LAUNCHED CRUISE MISSILE				PROJECT 674797: Flight Testing & Navigation Enhancement						
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	
W80 JTA-1 Replacement Support	C/FFP	Boeing:Seattle, WA	2.202	0.070	Feb 2011	-		-		-	0.000	2.272	0.000	
Subtotal			2.202	0.070		-		-		-	0.000	2.272	0.000	
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	
ALCM Aging and Surveillance Program	C/FFP	ESpectrum:San Antonio, TX	2.509	0.261	Jun 2011	0.803	Dec 2011	-		0.803	Continuing	Continuing	0.000	
Subtotal			2.509	0.261		0.803		-		0.803			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	
Subtotal			-	-		-		-		-	0.000	0.000	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	
LRSO (Cruise Missile) Materiel Solution Analysis Phase activities	MIPR	Multiple:Multiple,	3.219	3.300	Jan 2011	-		-		-	Continuing	Continuing	TBD	
Subtotal			3.219	3.300		-		-		-				
Remarks LRSO MSA effort moves to PE 0101125F in FY12.														

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force								DATE: February 2011						
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				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				7.930	3.631		0.803		-		0.803			

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 Air Force		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0101122F: <i>AIR LAUNCHED CRUISE MISSILE</i>	<b>PROJECT</b> 674797: <i>Flight Testing &amp; Navigation Enhancement</i>

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 Air Force			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0101122F: <i>AIR LAUNCHED CRUISE MISSILE</i>	<b>PROJECT</b> 674797: <i>Flight Testing &amp; Navigation Enhancement</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
ALCM JTA-8 Support	1	2010	4	2011
ALCM Aging & Surveillance Program Development	1	2010	4	2015
LRSO MDD	3	2011	3	2011
LRSO MSA Phase	3	2011	4	2013
LRSO Technology Development Phase	4	2013	4	2015

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