**R-1 ITEM NOMENCLATURE** 

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force PE 0101122F: Air-Launched Cruise Missile (ALCM)

BA 7: Operational Systems Development

COST (\$ in Millions)	All Prior Years		FY 2013 <sup>#</sup>	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	-	0.782	0.431	0.450	-	0.450	0.455	0.459	0.467	0.475	Continuing	Continuing
674797: Flight Testing & Navigation Enhancement	-	0.782	0.431	0.450	-	0.450	0.455	0.459	0.467	0.475	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

<sup>&</sup>lt;sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

### 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 2030 in support of Air Force strategic nuclear deterrence and global strike mission requirements.

An ALCM Service Life Extension Program (SLEP) was developed to support ALCM Service Life to 2030. 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.

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. FY12 funding supported development of new hardware and software to update the contractor's testing complex/capabilities in order to add the Guided Missile Flight Controller (GMFC) to the annual Aging & Surveillance testing program.

As part of the build phase of the sustaining engineering approach, the SPO is developing a plan for ALCM sustainment using a computer-aided decision making process. This concept is called ALCM Sustainment Enhancement Toolbox (ASET). The first phase of ASET is the ALCM Report Recommendation Tool (ARRT).

Beginning in FY13, development funds are required to develop ARRT to track and archive missile safety and flight test anamoly investigations, OEM failure analyses and feasibility studies. Also, FY13 funds are required to develop test procedures to implement a new CJCS-directed requirement for High-Altitude Electromagnetic Pulse (HEMP) testing for nuclear systems.

PE 0101122F: Air-Launched Cruise Missile (ALCM)

Air Force

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<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

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

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force PE 0101122F: Air-Launched Cruise Missile (ALCM)

**R-1 ITEM NOMENCLATURE** 

BA 7: Operational Systems Development

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.

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	<b>FY 2014 Base</b>	FY 2014 OCO	FY 2014 Total
Previous President's Budget	0.803	0.431	0.450	-	0.450
Current President's Budget	0.782	0.431	0.450	-	0.450
Total Adjustments	-0.021	0.000	0.000	-	0.000
<ul> <li>Congressional General Reductions</li> </ul>	-	0.000			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	0.000			
<ul> <li>Congressional Rescissions</li> </ul>	0.000	0.000			
<ul> <li>Congressional Adds</li> </ul>	-	0.000			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	0.000			
<ul> <li>Reprogrammings</li> </ul>	0.000	0.000			
SBIR/STTR Transfer	-0.021	0.000			
<ul> <li>Other Adjustments</li> </ul>	0.000	0.000	0.000	-	0.000

# **Change Summary Explanation**

No significant Changes

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2012	FY 2013	FY 2014
Title: ALCM Aging and Surveillance Program	0.782	0.392	0.405
<b>Description:</b> Continue aging and surveillance program for ALCM system components to identify age related failure trends and prevent reliability and supportability issues.			
FY 2012 Accomplishments: Continued execution of aging and surveillance program for ALCM system components to identify age related failure trends and prevent reliability and supportability issues. Developed hardware and software to update the contractor's testing complex/capabilities in order to add the Guided Missile Flight Controller (GMFC) to the annual A&S testing program.			
FY 2013 Plans: Continue execution of aging and surveillance program for ALCM system components to identify age related failure trends and prevent reliability and supportability issues. Develop HEMP Test procedures. Development of ASET.			
FY 2014 Plans:			

PE 0101122F: Air-Launched Cruise Missile (ALCM)
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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: Research, Development, Test & Evaluation, Air Force PE 0101122F: Air-Launched Cruise Missile (ALCM) BA 7: Operational Systems Development C. Accomplishments/Planned Programs (\$ in Millions) FY 2012 **FY 2013** FY 2014 Continue execution of aging and surveillance program for ALCM system components to identify age related failure trends and prevent reliability and supportability issues. Continue development of ASET. Title: HEMP Test Plan Development 0.000 0.039 0.000 **Description:** Develops test procedures to implement a new CJCS-directed requirement for High-Altitude Electromagnetic Pulse (HEMP) testing for nuclear systems. FY 2012 Accomplishments: N/A FY 2013 Plans: Develop test procedures to implement a new CJCS-directed requirement for High-Altitude Electromagnetic Pulse (HEMP) testing for nuclear systems. Title: ALCM A&S PMA 0.000 0.000 0.045 **Description:** Government travel in support of RDT&E portion of the ALCM A&S program. FY 2012 Accomplishments: N/A FY 2013 Plans: N/A FY 2014 Plans: Government travel in support of the RDT&E portion of the ALCM A&S program. **Accomplishments/Planned Programs Subtotals** 0.782 0.431 0.450 D. Other Program Funding Summary (\$ in Millions) FY 2014 FY 2014 FY 2014 **Cost To** Line Item FY 2012 **FY 2013 Base** OCO Total FY 2015 **FY 2016** FY 2017 FY 2018 Complete Total Cost • MPAF: BA03: MALCBG: 6.888 9.955 13.620 6.888 16.260 3.087 0.000 0.000 Continuing Continuing PE 0101122F: ALCM, Missile Modifications MPAF: BA04: MALCBG: PE 1.296 5.206 4.561 4.561 4.819 2.236 2.276 2.317 Continuing Continuing 0101122F: ALCM, Replenishment Spares

PE 0101122F: Air-Launched Cruise Missile (ALCM)

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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: Research, Development, Test & Evaluation, Air Force PE 0101122F: Air-Launched Cruise Missile (ALCM)

BA 7: Operational Systems Development

### D. Other Program Funding Summary (\$ in Millions)

	•	<b>-</b>	FY 2014	FY 2014	FY 2014					Cost To	
<u>Line Item</u>	FY 2012	FY 2013	Base	OCO	<u>Total</u>	FY 2015	FY 2016	FY 2017	FY 2018	Complete	<b>Total Cost</b>
OPAF: BA03: MALCBG: PE	1.582	1.635	1.659		1.659	1.687	1.716	1.747	1.778	Continuing	Continuing
0101122F: ALCM, Electronics &										_	
Telecomunications Equipment											
(BP83)											
MPAF: BA03: MALCBG:	4.991	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
PE 0701212F: Automated										_	

Test Systems, MPAF, Missile

Modifications

Remarks

# E. Acquisition Strategy

FY12 funding contract being competed by ALCM SPO as FFP Small Business set aside.

The ALCM Aging and Surveillance Program is being executed by the prime contractor utilizing annual delivery orders on a Firm Fixed Price (FFP) contract.

#### **F. 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.

PE 0101122F: Air-Launched Cruise Missile (ALCM) Air Force

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DATE: April 2013 Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 3600: Research, Development, Test & Evaluation, Air Force PE 0101122F: Air-Launched Cruise Missile 674797: Flight Testing & Navigation BA 7: Operational Systems Development (ALCM) Enhancement FY 2014 FY 2014 FY 2014 **Product Development (\$ in Millions)** FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Date Cost Date Cost Date Complete Cost Contract Cost Cost ALCM Aging and C/FFP 0.782 Feb 2013 0.392 Feb 2013 0.258 Dec 2013 0.258 Continuing Continuing TBD:, Surveillance ALCM Sustainment MIPR OC-ALC:OKC, OK 0.000 0.000 0.147 Continuing Continuing Enhancement Toolbox 0.147 Nov 2013 (ASET) 0.782 Subtotal 0.000 0.392 0.405 0.000 0.405 FY 2014 FY 2014 FY 2014 Support (\$ in Millions) FY 2012 FY 2013 oco Total Base Contract Target Method Performing All Prior Award Award Award Award Cost To Total Value of **Activity & Location** Cost Complete **Cost Category Item** & Type Years Date Cost Date Cost Date Cost Date Cost Cost Contract Subtotal 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 FY 2014 FY 2014 FY 2014 Test and Evaluation (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award Cost To Total Value of **Activity & Location** Cost Complete Contract **Cost Category Item** & Type Years Date Cost Date Cost Cost Date Cost Cost Date **HEMP Test Plan** White Sands Missile **MIPR** 0.000 0.039 Mar 2013 0.000 0.000 Continuing Continuing Range:, NM Development 0.000 Subtotal 0.000 0.000 0.039 0.000 0.000 FY 2014 FY 2014 FY 2014 Management Services (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Cost To Method Performing All Prior Award Award Award Award Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Cost Cost Cost Date Cost Complete Cost Contract Date Date PMA - Contractor Support **MIPR** TBD:. 0.000 0.000 0.045 Mar 2014 0.045 Continuing Continuing TBD PMA - Government Costs Various: Various, 0.000 0.000 0.000 0.000 Continuing Continuing TBD Various 0.000 0.000 0.000 0.045 0.000 0.045 Subtotal Remarks ALCM Aging and Surveillance Program PMA is for A&AS, Supplies and Travel in project number 674797

PE 0101122F: Air-Launched Cruise Missile (ALCM)

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force								13	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, A BA 7: Operational Systems Development	Air Force	<b>R-1 ITEM NOME</b> PE 0101122F: <i>Al</i> ( <i>ALCM</i> )	NCLATURE ir-Launched Cruise	Missile	PROJECT 674797: F Enhancen	light Te	sting & N	avigation	
									Γ_

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.782	0.431	0.450	0.000	0.450			

Remarks

PE 0101122F: Air-Launched Cruise Missile (ALCM)

Air Force

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force	DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	<b>PROJECT</b>	
3600: Research, Development, Test & Evaluation, Air Force	PE 0101122F: Air-Launched Cruise Missile	674797: <i>Fli</i>	ight Testing & Navigation
BA 7: Operational Systems Development	(ALCM)	Enhanceme	ent

# 0101122F Schedule

# BPAC 674797

 ALCM Aging and Surveillance Program

FY13	FY14	FY15	FY16	FY17	FY18
	1		3		
			*		

PE 0101122F: *Air-Launched Cruise Missile (ALCM)*Air Force

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

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 7: Operational Systems Development

DATE: April 2013

R-1 ITEM NOMENCLATURE
PE 0101122F: Air-Launched Cruise Missile
(ALCM)

FROJECT
674797: Flight Testing & Navigation
Enhancement

# Schedule Details

	Sta	art	End		
Events	Quarter	Year	Quarter	Year	
ALCM Aging & Surveillance Program Development	1	2013	4	2018	

PE 0101122F: *Air-Launched Cruise Missile (ALCM)* Air Force

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