Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force

Date: March 2014

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

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

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

Operational Systems Development

COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO <sup>#</sup>	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost	
Total Program Element	-	0.322	0.450	0.450	-	0.450	0.454	0.462	0.471	0.481	Continuing	Continuing	
674797: Flight Testing & Navigation Enhancement	-	0.322	0.450	0.450	-	0.450	0.454	0.462	0.471	0.481	Continuing	Continuing	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-			

<sup>&</sup>lt;sup>#</sup> The FY 2015 OCO Request will be submitted at a later date.

## 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 is to ensure ALCM sustainability through 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 through 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. Development funds are required to add capabilities to assist in identifying candidate components for future SLEP efforts.

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. FY15 funding will complete the Guided Missile Flight Controller sub-component testing and allow for the development of test capabilities for additional ALCM components.

As part of the build phase of the sustaining engineering approach, the program has developed a plan for ALCM sustainment using a computer-aided decision making process called the ALCM Sustainment Enhancement Toolbox (ASET). The first phase of ASET is the ALCM Report Recommendation Tool (ARRT). FY15 funds are required to continue developing test procedures to implement the Chairman of the Joint Chiefs of Staff (CJCS)-directed requirement for High-Altitude Electromagnetic Pulse (HEMP) testing for nuclear systems.

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.

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

Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force

R-1 Program Element (Number/Name)

Date: March 2014

Appropriation/Budget Activity

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

Operational Systems Development

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

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	0.431	0.450	0.455	-	0.455
Current President's Budget	0.322	0.450	0.450	-	0.450
Total Adjustments	-0.109	-	-0.005	-	-0.005
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
Congressional Adds	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.009	-			
Other Adjustments	-0.100	-	-0.005	-	-0.005

# **Change Summary Explanation**

FY13: Other Adjustments, -\$.100M due to Sequestration

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2013	FY 2014	FY 2015
Title: ALCM Aging and Surveillance Program (DMS A&S)	0.280	0.185	0.339
<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 2013 Accomplishments:  Continued Aging and Surveillance program for ALCM system components to identify age-related failure trends and prevent reliability and supportability issues. Developed High Altitude Electromagnetic Pulse (HEMP) Test procedures. Continued development of ALCM Sustainment Enhancement Toolbox (ASET).			
FY 2014 Plans: Continue Aging and Surveillance program for ALCM system components at a reduced level of effort due to a higher HEMP test priority. Will resume planned level of Aging and Surveillance effort in FY15.			
FY 2015 Plans: Continue Aging and Surveillance Program for ALCM system components to identify age-related failure trends and prevent reliability and supportability issues.			
Title: ALCM HEMP Test Plan Development (DMS A&S)	0.042	0.225	0.111

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

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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 A	ir Force					,	Date: Ma	arch 2014	
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I Operational Systems Development	BA 7:			<b>nent (Numb</b> r-Launched (		e (ALCM)			
C. Accomplishments/Planned Programs (\$ in Millions)						F	Y 2013	FY 2014	FY 2015
<b>Description:</b> Develops test procedures to implement a new (HEMP) testing for nuclear systems.	CJCS-directe	ed requireme	nt for High-	Altitude Elect	romagnetic	Pulse			
FY 2013 Accomplishments: Developed test procedures to implement a new CJCS-directe testing for nuclear systems.	ed requireme	ent for High-A	ltitude Elect	romagnetic F	Pulse (HEMI	P)			
FY 2014 Plans: Continue development of test procedures to implement CJCS (HEMP) testing for nuclear systems.	3-directed re	quirement for	<sup>-</sup> High-Altitu	de Electroma	ignetic Pulse				
FY 2015 Plans: Complete development of test procedures to implement CJC (HEMP) testing for nuclear systems.	S-directed re	equirement fo	r High-Altitu	de Electrom	agnetic Puls	e			
Title: ALCM Sustainment Enhancement Tool (ASET) (DMS	4&S)						-	0.040	-
<b>Description:</b> Develop a plan for ALCM sustainment using a the ALCM Report Recommendation Tool (ARRT).	computer-aic	ded decision-	making prod	ess. The fire	st phase of A	ASET is			
FY 2013 Accomplishments: N/A									
FY 2014 Plans: Develop a plan for ALCM sustainment using a computer-aide Report Recommendation Tool (ARRT).	ed decision-n	naking proces	ss. The firs	phase of AS	SET is the Al	_CM			
<b>FY 2015 Plans:</b> N/A									
		Accon	nplishment	s/Planned P	rograms Sເ	ıbtotals	0.322	0.450	0.450
D. Other Program Funding Summary (\$ in Millions)									
Line Item	FY 2015 Base 16.083	<u>FY 2015</u> <u>OCO</u> -	FY 2015 Total 16.083	<b>FY 2016</b> 3.059	FY 2017 -	FY 2018 -	FY 2019 -	Cost To Complete Continuing	Total Cost

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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

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

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

Operational Systems Development

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

D. Other i regram i anamg camme	<i>λ</i> ι <b>y</b> (Ψ ιιι ι <b>ν</b> ιιιιι	<u>0110<i>j</i></u>									
			FY 2015	FY 2015	FY 2015					<b>Cost To</b>	
<u>Line Item</u>	FY 2013	FY 2014	<b>Base</b>	OCO	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	<b>Total Cost</b>
<ul><li>MPAF: BA04: Line</li></ul>	5.206	4.561	4.767	-	4.767	2.216	2.258	2.299	2.342	Continuing	Continuing
Item # MALCBG: ALCM,											
Replenishment Spares											
<ul><li>OPAF: BA03: Line Item #</li></ul>	1.632	1.125	1.989	-	1.989	1.920	1.738	1.768	1.800	Continuing	Continuing
MALCBG: ALCM, Electronics											
& Telecomunications											
Equipment (BP83)											

#### Remarks

## E. Acquisition Strategy

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

The HEMP test development will be funded via a Military Interdepartmental Purchase Request (MIPR) to White Sands Missile Range, NM.

ARRT is a 206-funded organic workload to the Tinker Software Lab.

### 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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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force	Date: March 2014		
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Nu	umber/Name)
3600 / 7	PE 0101122F I Air-Launched Cruise Missile	674797 <i>I FI</i>	ight Testing & Navigation
	(ALCM)	Enhanceme	ent

# Air Launched Cruise Missile

