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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force **Date:** May 2017

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0101122F / <i>Air-Launched Cruise Missile (ALCM)</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	0.451	0.453	0.463	0.000	0.463	0.472	0.482	0.490	0.500	Continuing	Continuing
674797: <i>ALCM Upgrades</i>	-	0.451	0.453	0.463	0.000	0.463	0.472	0.482	0.490	0.500	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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 W-80 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.

RDT&E funds are used to develop new tests and evaluation procedures, software, and equipment, and provide sustainment solutions for Line Replaceable Units (LRU) to ensure ALCM sustainability supports Air Force strategic nuclear deterrence and Global Strike mission requirements through 2030.

The ALCM Test Plan Development and Evaluation program develops plans and procedures for testing nuclear systems, and implements those procedures as directed by the Chairman, Joint Chiefs of Staff and to satisfy the recurring requirements to test Chemical, Biological, Radiological, and Nuclear (CBRN) susceptibility.

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.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018 Base</u>	<u>FY 2018 OCO</u>	<u>FY 2018 Total</u>
Previous President's Budget	0.451	0.453	0.462	0.000	0.462
Current President's Budget	0.451	0.453	0.463	0.000	0.463
Total Adjustments	0.000	0.000	0.001	0.000	0.001
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	0.001	0.000	0.001

Change Summary Explanation

No Significant Program Changes

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C. Accomplishments/Planned Programs (\$ in Millions)										FY 2016	FY 2017	FY 2018
Title: ALCM Test Plan Development and Evaluation										0.451	0.453	0.463
Description: Develop test procedures to implement CJCS-directed requirement for Electromagnetic (EM) testing for nuclear systems.												
FY 2016 Accomplishments: Successfully executed consecutive tests for High Altitude Electromagnetic Pulse (HEMP), High Power Microwave (HPM), and Hazards of Electromagnetic Radiation to Ordnance (HERO).												
FY 2017 Plans: Began development of test plans and procedures for implementation of Chemical Biological Radiological Neutron (CBRN) testing requirements.												
FY 2018 Plans: Continue development of test plans and procedures for implementation of Chemical Biological Radiological Neutron (CBRN) testing requirements and Line Replaceable Units (LRU) test plan development and execution.												
Accomplishments/Planned Programs Subtotals										0.451	0.453	0.463
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• MPAF: BA03: Line Item # MALCBG: ALCM, Missile Modifications	25.019	21.762	36.425	0.000	36.425	25.171	24.804	24.981	25.482	Continuing	Continuing	
• MPAF: BA04: Line Item # MALCBG: ALCM, Replenishment Spares	0.000	3.232	2.942	0.000	2.942	2.300	2.339	2.380	2.428	Continuing	Continuing	
• OPAF: BA03: Line Item # MALCBG: ALCM, Electronics & Telecommunications Equipment (BP83)	1.908	1.710	1.757	0.000	1.757	1.788	1.820	1.853	1.887	Continuing	Continuing	
• MPAF: BA04: Line Item # 999/ Repl...: ALCM, Initial Spares	0.000	0.294	0.304	0.000	0.304	0.311	0.321	0.331	0.388	Continuing	Continuing	
Remarks												

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<u>E. Acquisition Strategy</u> <p>The Electro Magnetic (EM) test development is currently funded via Military Interdepartmental Purchase Requests to White Sands Missile Range, NM.</p> <p>Follow-on EM test development and verification strategy (organic or contractor) is expected to be determined 4QFY17 with a focus on existing IDIQ contracts.</p> <u>F. Performance Metrics</u> <p>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>		