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

DATE: February 2010

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

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	0.384	3.652	3.631	0.000	3.631	0.424	50.061	248.273	495.514	Continuing	Continuing
674797: Flight Testing & Navigation Enhancement	0.384	3.652	3.631	0.000	3.631	0.424	50.061	248.273	495.514	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 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.

A Service Life Extension Plan (SLEP) was developed to meet an AF Long Range Plan requirement to extend ALCM Service Life to FY30. The results of Service Life Extension Program (SLEP) studies identified system components that cannot be sustained beyond the initial missile service life. The current system is experiencing obsolescence of parts/components. Missile components and support equipment are becoming non-supportable. Service Life Extension of this critical weapon is essential to meet Air Combat Command (ACC) and United States Strategic Command (USSTRATCOM) commitments (also known as OPLAN 8010).

The W-80 LEP replaces warhead components to extend its service life. The National Nuclear Security Administration (NNSA) is responsible for most of the refurbishment costs associated with the W-80 warhead. The Air Force was responsible for funding ALCM W-80 integration. Integration included evaluation of interface control changes as part of the Initial Concept Design (ICD), missile testing, and logistics requirements necessary to support a First Production Unit (FPU) delivery in 2008. The W-80 LEP program has been archived.

Aging and surveillance program for ALCM critical components such as those in the safe arm and fuze subsystem, navigation/guidance system, and electrical/power distribution system. This is needed to identify aging trends prior to failures in fielded components that would result in fleet-wide reliability and supportability problems.

Analysis of alternatives (AOA) is in development for the future of long range strategic stand-off vehicles.

These programs are in Budget Activity 7, Operational System Development, due to efforts supporting a fielded, post Milestone III operational weapon system.

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

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0101122F: AIR LAUNCHED CRUISE MISSILE

BA 7: Operational Systems Development

B. Program Change Summary (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.395	3.652	0.000	0.000	0.000
Current President's Budget	0.384	3.652	3.631	0.000	3.631
Total Adjustments	-0.011	0.000	3.631	0.000	3.631
 Congressional General Reductions 		0.000			
 Congressional Directed Reductions 		0.000			
 Congressional Rescissions 	0.000	0.000			
 Congressional Adds 		0.000			
 Congressional Directed Transfers 		0.000			
Reprogrammings	0.000	0.000			
 SBIR/STTR Transfer 	0.000	0.000			
 Other Adjustments 	-0.011	0.000	3.631	0.000	3.631

Change Summary Explanation

The FY 2010 President's Budget submittal did not reflect FY 2011 through FY 2015 funding. Therefore, explanation of changes between the two budget positions cannot be made in a relevant manner."

Exhibit R-2A, RDT&E Project Jus	tification: P	B 2011 Air F	orce						DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTIVATION: 3600: Research, Development, Tes BA 7: Operational Systems Development	t & Evaluatio	n, Air Force			IOMENCLA 2F: <i>AIR LAU</i>		UISE	PROJECT 674797: Fli Enhanceme	•	& Navigation	
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
674797: Flight Testing & Navigation Enhancement	0.384	3.652	3.631	0.000	3.631	0.424	50.061	248.273	495.514	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

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.

A Service Life Extension Plan (SLEP) was developed to meet an AF Long Range Plan requirement to extend ALCM Service Life to FY30. The results of Service Life Extension Program (SLEP) studies identified system components that cannot be sustained beyond the initial missile service life. The current system is experiencing obsolescence of parts/components. Missile components and support equipment are becoming non-supportable. Service Life Extension of this critical weapon is essential to meet Air Combat Command (ACC) and United States Strategic Command (USSTRATCOM) commitments (also known as OPLAN 8010).

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Aging and surveillance program for ALCM critical components such as those in the safe arm and fuze subsystem, navigation/guidance system, and electrical/power distribution system. This is needed to identify aging trends prior to failures in fielded components that would result in fleet-wide reliability and supportability problems.

Analysis of alternatives (AOA) is in development for the future of long range strategic stand-off vehicles.

These programs are in Budget Activity 7, Operational System Development, due to efforts supporting a fielded, post Milestone III operational weapon system.

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

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: Febr	uary 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0101122F: AIR LAUNCHED CRUMISSILE	UISE	PROJECT 674797: Fli Enhanceme	•	g & Navigation		
B. Accomplishments/Planned Program (\$ in Millions)							
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
MAJOR THRUST: W80 Joint Test Assembly (JTA-8) Replacement Sup Interface Control Documents (ICDs), provide integration support, and fli		0.010	0.005	0.070	0.000	0.070	
FY 2009 Accomplishments: IN FY 2009: Revise the W80-1 Interface Control Documents (ICDs flight test qualification	s), provide integration support, and						
FY 2010 Plans: IN FY 2010: Continue integration support, and flight test qualification.	on						
FY 2011 Base Plans: IN FY 2011: Continue integration support, and flight test qualification.	on						
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.							
MAJOR THRUST: Develop aging and surveillance program for ALCM	critical components	0.374	0.347	0.261	0.000	0.261	
FY 2009 Accomplishments: IN FY 2009: Develop aging and surveillance program for ALCM cri in the safe arm and fuze subsystem, navigation/guidance system, a system to identify aging trends prior to failures in fielded component	and electrical/power distribution						
FY 2010 Plans: IN FY 2010: Continue development of aging and surveillance prog	ram for ALCM critical components						
FY 2011 Base Plans: IN FY 2011: Continue development of aging and surveillance prog	ram for ALCM critical components						

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Exhibit R-2A, RDT&E Project Justi	fication: PB	2011 Air Fo	rce						DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTIVI 3600: Research, Development, Test BA 7: Operational Systems Developr	& Evaluation	, Air Force		R-1 ITEM NO PE 0101122 <i>MISSILE</i>			UISE	PROJECT 674797: Flig Enhanceme		& Navigation	
B. Accomplishments/Planned Prog	gram (\$ in N	lillions)									
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable	е.										
MAJOR THRUST: Conduct Analysis	s of Alternati	ves (AOA) fo	or future long	g range stand	d-off vehicle	(LRSO).	0.000	3.300	3.300	0.000	3.300
FY 2009 Accomplishments: IN FY2009: Not Applicable											
FY 2010 Plans: IN FY 2010: Initiate LRSO AoA	study plan a	and begin LF	SO AOA								
FY 2011 Base Plans: IN FY 2011: Complete LRSO A	.OA										
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable	е.										
			Accomplish	ments/Plann	ed Program	s Subtotals	0.384	3.652	3.631	0.000	3.631
C. Other Program Funding Summa	rv (\$ in Mill	ions)									
O. Other i rogram runding Summe	<u>ιι y (Ψ ιιι ινιιιι</u>	<u>10113<i>)</i></u>	FY 2011	FY 2011	FY 2011					Cost To	
Line Item	FY 2009	FY 2010	Base	OCO	Total	FY 2012	FY 2013	FY 2014	FY 2015		Total Cost
• PE 0101122F: MPAF, Missile	10.120	0.000	10.795	0.000	10.795	10.013	6.267	0.000	0.000	0.000	0.000
Modifications (BA 03, P-15) • PE 0101122F (1): MPAF, Missile Modifications Initial Spares (BA 04 P-16)	0.194	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
, , ,	0.270	10.875	0.266	0.000	0.266	1.298	5.202	4.570	4.829	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force		l	ht Testing & Navigation
BA 7: Operational Systems Development	MISSILE	Enhanceme	nt

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

	 _	,	FY 2011	FY 2011	FY 2011					Cost To	
<u>Line Item</u>	FY 2009	FY 2010	Base	OCO	Total	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost
• PE 0101122F (2): <i>MPAF</i> ,											
Replenishment Spares (BA 04,											
P-16)											
• PE 0101122F (3):	1.495	1.535	1.584	0.000	1.584	1.611	1.638	1.662	1.690	0.000	0.000
OPAF, Electronics and											
Telecommunications Equipment											

(BP83) (BA 03, P-18) D. Acquisition Strategy

The ALCM/W-80 LEP integration is being performed by the prime contractor utilizing a Time and Materials (T&M) engineering assignment on an existing sustainment contract.

The ALCM JTA-8 Replacement Support will be performed utilizing a Firm Fixed Price (FFP) contract.

The ALCM Aging and Surveillance Program will be developed and matured by the prime contractor utilizing a Time and Materials (T&M) engineering assignment on an existing contract.

Analysis of Alternatives (AOA) is in development for the future of long range strategic stand-off vehicles.

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.

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

DATE: February 2010

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 2	010	FY 2 Ba		FY 2		FY 2011 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 LEP Support	TM	Boeing Seattle, WA	0.000	0.000		0.000		0.000		0.000	0.000	0.000	Continuing
JTA-1 Replacement Support	C/FFP	Boeing Seattle, WA	0.010	0.005	Feb 2010	0.070	Feb 2011	0.000		0.070	0.000	0.085	0.000
		Subtotal	0.010	0.005		0.070		0.000		0.070	0.000	0.085	

Remarks

Support (\$ in Millions)

				FY 2	2010	FY 2 Ba		FY 2	2011 CO	FY 2011 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 Support/PSM	TM	Boeing Seattle, WA	0.000	0.000		0.000		0.000		0.000	0.000	0.000	Continuing
ALCM Aging and Surveillance Program	TM	ESpectrum San Antonio, TX	0.374	0.347	Jun 2010	0.261	Jun 2011	0.000		0.261	0.000	0.982	0.000
	•	Subtotal	0.374	0.347		0.261		0.000		0.261	0.000	0.982	

Remarks

R-1 ITEM NOMENCLATURE

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

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

PROJECT

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

PE 0101122F: AIR LAUNCHED CRUISE

674797: Flight Testing & Navigation

MISSILE

Enhancement

Test and Evaluation (\$ in Millions)

				FY 2	010	FY 2 Ba	-	FY 2		FY 2011 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
49th Test Wing (W-80 LEP)	MIPR	TBD TBD	0.000	0.000		0.000		0.000		0.000	0.000	0.000	Continuing
		Subtotal	0.000	0.000		0.000		0.000		0.000	0.000	0.000	

Remarks

Management Services (\$ in Millions)

				FY 2	2010	FY 2 Ba	-	FY 2	2011 CO	FY 2011 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
Cruise Missile AoA	MIPR	TBD TBD	0.000	3.300	Jan 2010	3.300	Jan 2011	0.000		3.300	0.000	6.600	0.000
		Subtotal	0.000	3.300		3.300		0.000		3.300	0.000	6.600	0.000

Remarks

					,					Tannat
	Total Prior Years Cost		2010		2011 Ise	FY 2011 OCO	FY 2011 Total	Cost To	Total Cost	Target Value of Contract
	Tears Cost	F 1 4	2010	Б	ise	000	IOlai	Complete	TOTAL COST	Contract
Project Cost Totals	0.384	3.652		3.631		0.000	3.631	0.000	7.667	

Remarks

Total Prior Years Cost may include only FY 2009 data.

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

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

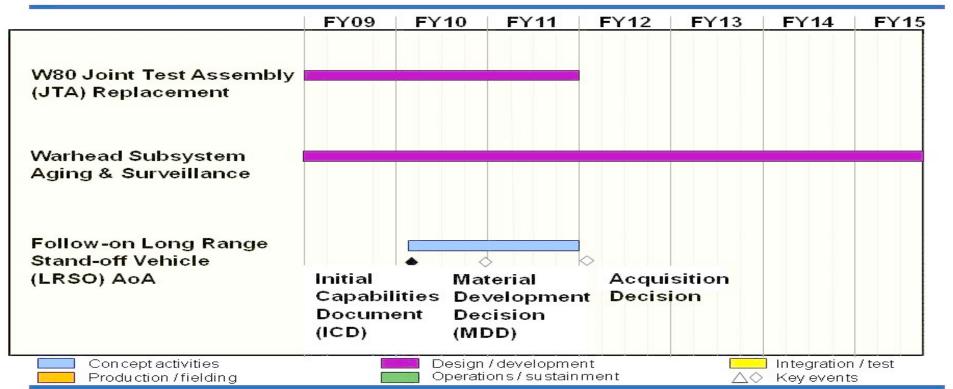
PROJECT

674797: Flight Testing & Navigation

Enhancement



PE 0101122F - ALCM



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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0101122F: AIR LAUNCHED CRUISE	674797: <i>Fli</i>	ght Testing & Navigation
BA 7: Operational Systems Development	MISSILE	Enhanceme	ent

Schedule Details

	Start		End	
Event	Quarter	Year	Quarter	Year
ALCM JTA-8 Support	1	2009	4	2011
LRSO AOA	2	2010	4	2011
ALCM Aging & Surveillance Program Development	1	2009	4	2011