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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0604932F I Long Range Standoff Weapon							
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	10.274	16.143	95.604	451.290	0.000	451.290	619.547	727.970	478.877	361.901	Continuing	Continuing
657011: LONG RANGE STAND-OFF	10.274	16.143	95.604	451.290	0.000	451.290	619.547	727.970	478.877	361.901	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Program MDAP/MAIS Code: 489

Note

In FY 2017, Materiel Solution Analysis completes.

A. Mission Description and Budget Item Justification

The Long Range Stand-Off (LRSO) effort will develop a weapon system to replace the Air Force's Air Launched Cruise Missile (ALCM), operational since 1986. The LRSO weapon system will be capable of penetrating and surviving advanced Integrated Air Defense Systems (IADS) from significant stand-off range to prosecute strategic targets in support of the Air Force's global attack capability and strategic deterrence core function.

This program is in Budget Activity 5, System Development and Demonstration (SDD), because it is conducting technology maturation and risk reduction (TMRR) development tasks aimed at meeting validated requirements prior to the engineering & manufacturing phase.

B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	16.143	95.604	419.817	0.000	419.817
Current President's Budget	16.143	95.604	451.290	0.000	451.290
Total Adjustments	0.000	0.000	31.473	0.000	31.473
• 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	31.473	0.000	31.473

Change Summary Explanation

FY18: Adjusted to match updated service cost estimate.

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: LRSO Materiel Solution Analysis (MSA) Description: Conduct LRSO Weapon Milestone A and pre-TMRR activities FY 2016 Accomplishments: Continued LRSO MS A and TMRR preparation/support. Activities included: Pre-TMRR efforts with industry (concept/component refinement and technology analyses), modeling and simulation support, engineering studies, test support, program cost and schedule estimation, program security plan implementation (to include secure connectivity and communication between Department of Defense (DoD), Department of Energy (DOE) and industry), acquisition strategy refinement, risk reduction efforts, continued requirements definition/refinement, completing MS A documentation, RFP release and preparation for/initiation of source selection activities. Expanded program office staff, facilities and security infrastructure upgrades in preparation for TMRR. Established and implemented practices that ensure the following were met: requirements flow down, requirement allocation to hardware and software, requirements compliance matrix, system performance, reliability, maintainability, product assurance, testability, and supportability. Performed planning activities necessary to integrate LRSO with aircraft. Performed test activities and support for LRSO design validation, verification, and nuclear certification. Developed and refined LRSO Interface Control Documents (ICD) to include missile to warhead ICD. Continued to support the DoD/DOE Interagency warhead life extension program 6.X process. FY 2017 Plans: Execute TMRR source selection. Continue expanding program office staff, facilities and security infrastructure upgrades in preparation for TMRR. Continue aircraft integration planning activities with aircraft SPO. Continue refining missile-to-warhead interface control document. Perform test planning activities and support for LRSO design validation, verification, and nuclear certification. Continue supporting DOE warhead life extension program. FY 2018 Base Plans: Material solution analysis efforts conclude in FY17. FY 2018 OCO Plans: N/A		16.143	43.287	0.000	0.000	0.000
Title: LRSO Weapon Development Description: Conduct LRSO Weapon Development activities		0.000	52.317	451.290	0.000	451.290

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
FY 2016 Accomplishments: N/A						
FY 2017 Plans: Award Prime TMRR contract(s) for design, development, integration and testing of the LRSO system. Perform Aircraft Integration efforts including activities associated with integration on B-52 threshold aircraft and aircraft mission planning system upgrades to accommodate the new weapon. Furthermore, these efforts include activities related to weapon design compatibility with both threshold (B-52) and objective aircraft (B-2 and B-21). Other activities falling under these efforts include: developing mission planning upgrade needs, Operational Flight Profile (OFP) development and integration to deliver the OFP test tapes, planning activities necessary to integrate LRSO with aircraft using MIL STD 1760D based aircraft/store interface, and ensuring the logical, electrical, and physical interfaces of the LRSO as defined in the ICD. Perform Test Support efforts, including test activities and support for design validation and verification and nuclear certification, as well as system qualification (includes design and operational certification activities). Furthermore, these efforts will continue test planning and execution activities to support LRSO weapon development, All-Up-Round technical integration, and aircraft integration.						
This program is reported in accordance with Title 10, United State Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress. For further information, please contact the Director of Special Programs, OUSD(AT&L)/DSP.						
FY 2018 Base Plans: Continue Prime TMRR contract(s) for design, development, integration and testing of the LRSO system. Continue program practices that ensure the following are met: requirements flow down, requirement allocation to hardware and software, requirements compliance matrix, system performance, reliability, maintainability, product assurance, testability, producibility and supportability. Continue to perform Aircraft Integration efforts including activities associated with integration on B-52 threshold aircraft and aircraft mission planning system upgrades to accommodate the new weapon. Furthermore, these efforts include activities related to weapon design compatibility with both threshold (B-52) and objective aircraft (B-2 and B-21). Other activities falling under these efforts include: developing mission planning upgrade needs, OFP development and integration to deliver the OFP test tapes, planning activities necessary to integrate LRSO with aircraft using MIL STD 1760D based aircraft/store interface, and ensuring the logical, electrical, and physical interfaces of the LRSO as defined						

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C. Accomplishments/Planned Programs (\$ in Millions)											
			FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total				
<p>in the ICD. Continue to perform Test Support efforts, including test activities and support for design validation and verification and nuclear certification, as well as system qualification (includes design and operational certification activities). Furthermore, these efforts will continue test planning and execution activities to support LRSO weapon development, All-Up-Round technical integration, and aircraft integration.</p> <p>This program is reported in accordance with Title 10, United State Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress. For further information, please contact the Director of Special Programs, OUSD(AT&L)/DSP.</p> <p>FY 2018 OCO Plans: N/A</p>											
Accomplishments/Planned Programs Subtotals			16.143	95.604	451.290	0.000	451.290				
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
• MILCON: PE 0604932: <i>Long Range Standoff Weapon</i>	0.000	0.000	38.000	0.000	38.000	0.000	0.000	0.000	9.628	Continuing	Continuing
Remarks											
E. Acquisition Strategy											
The Milestone Decision Authority directed in accordance with the approved acquisition strategy, upon entering the TMRR phase, the Air Force will conduct a competitive source selection and award up to two contracts to mature the relevant technologies, reduce program risks, and produce designs that allow establishment of an Engineering and Manufacturing Development (EMD) program baseline.											
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.											

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force												Date: May 2017			
Appropriation/Budget Activity 3600 / 5						R-1 Program Element (Number/Name) PE 0604932F / Long Range Standoff Weapon				Project (Number/Name) 657011 / LONG RANGE STAND-OFF					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Long Range Standoff Weapon Development	TBD	TBD : TBD	0.000	0.000		52.317	Aug 2017	451.290	Jan 2018	0.000		451.290	Continuing	Continuing	-
Subtotal			0.000	0.000		52.317		451.290		0.000		451.290	-	-	-
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Material Solution Analysis Support	Various	Various : TBD	4.308	7.076	May 2016	21.064	Nov 2016	0.000		0.000		0.000	0.000	32.448	-
Aircraft Integration Planning	Various	Various : TBD	0.000	0.872	Aug 2016	6.750	Jan 2017	0.000		0.000		0.000	0.000	7.622	-
Subtotal			4.308	7.948		27.814		0.000		0.000		0.000	0.000	40.070	-
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration	Various	Various : TBD	5.966	8.195	Oct 2015	15.473	Oct 2016	0.000		0.000		0.000	0.000	29.634	-
Subtotal			5.966	8.195		15.473		0.000		0.000		0.000	0.000	29.634	-

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	Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	10.274	16.143		95.604		451.290		0.000		451.290	-	-	-
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Air Force																Date: May 2017			
Appropriation/Budget Activity 3600 / 5								R-1 Program Element (Number/Name) PE 0604932F / <i>Long Range Standoff Weapon</i>								Project (Number/Name) 657011 / <i>LONG RANGE STAND-OFF</i>			

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Materiel Solution Analysis Phase																												
Milestone A Decision																												
Technology Maturation and Risk Reduction Phase																												
Technology Maturation and Risk Reduction Contract Award																												
Milestone B Decision																												
Engineering and Manufacturing Development Phase																												
Engineering and Manufacturing Development Contract Award																												

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force			Date: May 2017
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604932F / <i>Long Range Standoff Weapon</i>	Project (Number/Name) 657011 / <i>LONG RANGE STAND-OFF</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Materiel Solution Analysis Phase	1	2016	3	2017
Milestone A Decision	4	2016	4	2016
Technology Maturation and Risk Reduction Phase	4	2017	2	2022
Technology Maturation and Risk Reduction Contract Award	4	2017	4	2017
Milestone B Decision	2	2022	2	2022
Engineering and Manufacturing Development Phase	2	2022	4	2022
Engineering and Manufacturing Development Contract Award	2	2022	2	2022