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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army	Date: February 2018
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	PE 0604768A / <i>Brilliant Anti-Armor Submunition(BAT)</i>											
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	-	0.000	10.000	9.894	-	9.894	9.886	109.884	160.416	358.713	0.000	658.793
688: <i>ATACMS BLK II</i>	-	0.000	5.000	4.947	-	4.947	4.943	4.942	4.941	4.940	0.000	29.713
P01: <i>Multi-Mode Seeker Development and Test</i>	-	0.000	5.000	4.947	-	4.947	4.943	104.942	155.475	353.773	0.000	629.080

A. Mission Description and Budget Item Justification

Army Tactical Missile System (ATACMS) is the United States (U.S.) Army's primary all-weather, surface-to-surface long-range artillery precision guided missile used by Combatant Commanders to shape the battlefield with long-range fires against hard & soft targets in open, complex, and urban environments.

FY19 base dollars in the amount of \$9.894 million support ATACMS BLK II (Project #: 688) and the Multi-Mode Seeker (MMS) program (Project #: P01) which focus on development, integration & test of warheads and sensors to engage moving maritime & armored land-based targets. Strategic Capabilities Office (SCO) demonstrations through FY21 will inform technology maturity and transition plans to U.S. Army programs.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019 Base</u>	<u>FY 2019 OCO</u>	<u>FY 2019 Total</u>
Previous President's Budget	0.000	10.000	0.000	-	0.000
Current President's Budget	0.000	10.000	9.894	-	9.894
Total Adjustments	0.000	0.000	9.894	-	9.894
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	9.894	-	9.894

Change Summary Explanation

FY 2019 funding change due to realignment of funds from ATACMS PIP (PE 0203802A, Project 788) to Brilliant Anti-Armor Submunition (BAT) (PE 0604768A).

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Army										Date: February 2018		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604768A / <i>Brilliant Anti-Armor Submunition(BAT)</i>				Project (Number/Name) 688 / ATACMS BLK II			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
688: ATACMS BLK II	-	0.000	5.000	4.947	-	4.947	4.943	4.942	4.941	4.940	0.000	29.713
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification ATACMS BLK II will integrate Strategic Capabilities Office (SCO) Breaker program demonstrated capabilities into ATACMS. This effort focuses on providing ATACMS with integrated sensor & warhead technologies to engage moving land-based armored targets. FY19 Base funds in the amount of \$4.947 million supports system analysis & evaluation, requirements & specification development, and program transition activities.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2017	FY 2018	FY 2019	
Title: Transition of SCO demonstrated capabilities to defeat armored targets Description: Conduct warhead component requirements development, system integration analysis, and transition planning targeted at rapid qualification and fielding of the armor engagement capability. FY 2018 Plans: Began system analysis & evaluation, requirements & specification development, contract requirements package development, and program transition activities. FY 2019 Plans: Continue system analysis & evaluation, requirements & specification development, and program transition activities. FY 2018 to FY 2019 Increase/Decrease Statement: FY18-19 funding decrease due to reduction in effort needed to support transition of SCO demonstrated capabilities to defeat armored targets.									-	5.000	4.947	
Accomplishments/Planned Programs Subtotals									-	5.000	4.947	
C. Other Program Funding Summary (\$ in Millions) N/A Remarks N/A												
D. Acquisition Strategy Accelerate the transition of Strategic Capabilities Office (SCO) Breaker program demonstrated capabilities into ATACMS.												

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Army		Date: February 2018
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604768A / <i>Brilliant Anti-Armor Submunition(BAT)</i>	Project (Number/Name) 688 / <i>ATACMS BLK II</i>
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army												Date: February 2018			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604768A / <i>Brilliant Anti-Armor Submunition(BAT)</i>				Project (Number/Name) 688 / <i>ATACMS BLK II</i>					

Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Gov SEPM	MIPR	Various : RSA	-	-		1.000		0.947	Nov 2019	-		0.947	0.000	1.947	-
Subtotal			-	-		1.000		0.947		-		0.947	0.000	1.947	N/A

Remarks
RSA - Redstone Arsenal, Alabama

Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Warhead Development	C/CPFF	LMMFC : Dallas, TX	-	-		3.000		3.000	Jan 2019	-		3.000	0.000	6.000	-
System Analysis, Requirement & Spec Dev	MIPR	AMRDEC : RSA	-	-		1.000		1.000	Nov 2019	-		1.000	0.000	2.000	-
Subtotal			-	-		4.000		4.000		-		4.000	0.000	8.000	N/A

Remarks
AMRDEC-U.S. Army Research, Development and Engineering Command; RSA-Redstone Arsenal, Alabama; LMMFC - Lockheed Martin Missiles and Fire Control

	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		5.000		4.947		-		4.947	0.000	9.947	N/A

Remarks

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Appropriation/Budget Activity
2040 / 5

R-1 Program Element (Number/Name)
PE 0604768A / *Brilliant Anti-Armor*
Submunition(BAT)

Project (Number/Name)
688 / ATACMS BLK II

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army		Date: February 2018
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604768A / Brilliant Anti-Armor Submunition(BAT)	Project (Number/Name) 688 / ATACMS BLK II

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
System Analysis, Requirement & Spec Development	1	2018	4	2019
Warhead Development	1	2019	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Army										Date: February 2018		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604768A / <i>Brilliant Anti-Armor Submunition(BAT)</i>				Project (Number/Name) P01 / <i>Multi-Mode Seeker Development and Test</i>			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
P01: <i>Multi-Mode Seeker Development and Test</i>	-	0.000	5.000	4.947	-	4.947	4.943	104.942	155.475	353.773	0.000	629.080
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification <p>Multi-Mode Seeker will integrate Strategic Capabilities Office (SCO) STRIKE-X program demonstrated capabilities into ATACMS. This effort focuses on providing integration of a seeker to search, detect, acquire, and engage moving maritime/land-based targets.</p> <p>FY19 Base funds in the amount of \$4.947 million supports system analysis & evaluation, requirements & specification development, Sensor development, System Integration, and program transition activities.</p>												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2017	FY 2018	FY 2019	
Title: Transition of SCO demonstrated capabilities to defeat maritime targets Description: Conduct seeker component requirements development, system integration analysis, and transition planning targeted at rapid qualification and fielding of the maritime engagement capability. FY 2018 Plans: Began system analysis & evaluation, requirements & specification development, contract requirements package development, and program transition activities. FY 2019 Plans: Continue system analysis & evaluation, requirements & specification development, Sensor Development, System Integration, and program transition activities. FY 2018 to FY 2019 Increase/Decrease Statement: FY18-19 funding decrease due to reduction in effort needed to transition SCO demonstrated capabilities to defeat maritime targets.									-	5.000	4.947	
Accomplishments/Planned Programs Subtotals									-	5.000	4.947	
C. Other Program Funding Summary (\$ in Millions) N/A												

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Army		Date: February 2018
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604768A / <i>Brilliant Anti-Armor Submunition(BAT)</i>	Project (Number/Name) P01 / <i>Multi-Mode Seeker Development and Test</i>
C. Other Program Funding Summary (\$ in Millions)		
<u>Remarks</u> N/A		
D. Acquisition Strategy Accelerate the transition of Strategic Capabilities Office (SCO) STRIKE-X program demonstrated capabilities into ATACMS.		
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army													Date: February 2018		
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604768A / <i>Brilliant Anti-Armor Submunition(BAT)</i>				Project (Number/Name) P01 / <i>Multi-Mode Seeker Development and Test</i>					
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Gov SEPM	MIPR	Various : RSA	-	-		1.000		0.947	Nov 2019	-		0.947	0.000	1.947	-
Subtotal			-	-		1.000		0.947		-		0.947	0.000	1.947	N/A
Remarks RSA-Redstone Arsenal, Alabama															
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Seeker Development	C/CPFF	Various : Various	-	-		1.000		1.500	Jan 2019	-		1.500	0.000	2.500	-
System Analysis, Requirement & Spec Dev	MIPR	AMRDEC : RSA	-	-		1.500		1.500		-		1.500	0.000	3.000	-
Subtotal			-	-		2.500		3.000		-		3.000	0.000	5.500	N/A
Remarks AMRDEC-U.S. Army Research, Development and Engineering Command; RSA-Redstone Arsenal, Alabama															
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Test Support Hardware	MIPR	Redstone Test Center : RSA	-	-		1.500		1.000	Nov 2019	-		1.000	0.000	2.500	-
Subtotal			-	-		1.500		1.000		-		1.000	0.000	2.500	N/A
Remarks RSA-Redstone Arsenal, Alabama															

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Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604768A / <i>Brilliant Anti-Armor Submunition(BAT)</i>					Project (Number/Name) P01 / <i>Multi-Mode Seeker Development and Test</i>			
	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		5.000		4.947		-		4.947	0.000	9.947	N/A
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army			Date: February 2018		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604768A / <i>Brilliant Anti-Armor Submunition(BAT)</i>		Project (Number/Name) P01 / <i>Multi-Mode Seeker Development and Test</i>	

Event Name	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
System Analysis, Requirement & Spec Development																												
Sensor Study & Analysis																												
Sensor Development																												
System Integration																												
System Engineering Development Tests																												
System Flight Test Demonstrations (DM-1 thru DM-4)																												
Sensor Subsystem Qualification																												
System Qualification Flight Tests (SQT-1 thru -6)																												
System Updates, Delta-Qual, and Fielding Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army			Date: February 2018
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604768A / <i>Brilliant Anti-Armor Submunition(BAT)</i>	Project (Number/Name) P01 / <i>Multi-Mode Seeker Development and Test</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
System Analysis, Requirement & Spec Development	1	2018	4	2018
Sensor Study & Analysis	2	2018	4	2018
Sensor Development	4	2018	3	2020
System Integration	3	2018	1	2021
System Engineering Development Tests	2	2020	3	2020
System Flight Test Demonstrations (DM-1 thru DM-4)	3	2020	1	2021
Sensor Subsystem Qualification	3	2020	1	2021
System Qualification Flight Tests (SQT-1 thru -6)	1	2021	3	2021
System Updates, Delta-Qual, and Fielding Support	1	2021	4	2023