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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Army										Date: March 2019		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0203802A I Other Missile Product Improvement Programs							
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	4.800	4.941	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.741
788: ATACMS PIP	-	4.800	4.941	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.741
Program MDAP/MAIS Code: PRE												
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.												
788: ATACMS Product Improvement Program (PIP) focuses on safety, cost reduction, reliability, deficiency corrections, standardization, and new or improved operational capabilities. There is no funding in FY 2020.												
B. Program Change Summary (\$ in Millions)				FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total				
Previous President's Budget				5.000	4.947	4.943	-	4.943				
Current President's Budget				4.800	4.941	0.000	-	0.000				
Total Adjustments				-0.200	-0.006	-4.943	-	-4.943				
• Congressional General Reductions				-0.004	-0.006							
• Congressional Directed Reductions				-	-							
• Congressional Rescissions				-	-							
• Congressional Adds				-	-							
• Congressional Directed Transfers				-	-							
• Reprogrammings				-	-							
• SBIR/STTR Transfer				-0.196	-							
• Adjustments to Budget Years				-	-	-4.943	-	-4.943				
Change Summary Explanation												
FY 2020 funding change is due to completion of ATACMS PIP (PE 0203802A, Project #: 788).												

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army										Date: March 2019		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203802A / Other Missile Product Improvement Programs				Project (Number/Name) 788 / ATACMS PIP			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
788: ATACMS PIP	-	4.800	4.941	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.741
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
ATACMS Product Improvement Program (PIP) focuses on safety, cost reduction, reliability, deficiency corrections, standardization, and new or improved operational capabilities. There is no funding in FY 2020.												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Product Improvement Program (PIP) Activities								4.800	4.760	-	-	-
Description: PIP focuses on safety, cost reduction, reliability, deficiency corrections, standardization, and new or improved operational capabilities for ATACMS.												
FY 2019 Plans: Complete Height-of-Burst capability testing and activities for production cut-in and fielding, GPS M-code study and prototyping, Insensitive Munitions study, Cost Reduction study, and flight test support/equipment.												
FY 2019 to FY 2020 Increase/Decrease Statement: FY 2019 is the last year of funding.												
Title: FY 2019 SBIR / STTR Transfer								-	0.181	-	-	-
Description: FY 2019 SBIR / STTR Transfer												
FY 2019 Plans: FY 2019 SBIR / STTR Transfer												
FY 2019 to FY 2020 Increase/Decrease Statement: FY 2019 SBIR / STTR Transfer												
Accomplishments/Planned Programs Subtotals								4.800	4.941	-	-	-
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost	
• CA6700: ATACMS MODS	337.440	397.236	0.000	85.320	85.320	282.791	233.510	105.500	106.555	0.000	1,548.352	

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C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2020</u>	<u>FY 2020</u>	<u>FY 2020</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>Complete</u>	<u>Total Cost</u>
<u>Remarks</u>											
CA6700 is the ATACMS Mods procurement funding line.											
<u>D. Acquisition Strategy</u>											
After successful OT and DOT&E approval is received for the height-of-burst capability, a proximity sensor will be inserted into the ongoing ATACMS SLEP production. Future improvements, such as M-code and other capabilities, will be inserted into future production once those technologies are matured, tested, and approved for fielding.											
<u>E. Performance Metrics</u>											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army													Date: March 2019		
Appropriation/Budget Activity 2040 / 7							R-1 Program Element (Number/Name) PE 0203802A / Other Missile Product Improvement Programs					Project (Number/Name) 788 / ATACMS PIP			

Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Government Program Management	MIPR	AMRDEC : RSA	-	0.300	Nov 2017	0.250	Nov 2018	-		-		-	0.000	0.550	-
Subtotal			-	0.300		0.250		-		-		-	0.000	0.550	N/A

Remarks
AMRDEC - U.S Army Research, Development and Engineering Command; RSA - Redstone Arsenal, Alabama

Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Studies	Various	Various : Various	-	-		1.390	Nov 2018	-		-		-	0.000	1.390	-
Prototyping	C/CPFF	LMMFC : Dallas, TX	-	-		1.787	Mar 2019	-		-		-	0.000	1.787	-
FY 2019 SBIR / STTR Transfer	TBD	TBD : TBD	-	-		0.181		-		-		-	0.000	0.181	-
Subtotal			-	-		3.358		-		-		-	0.000	3.358	N/A

Remarks
LMMFC - Lockheed Martin Missiles and Fire Control

Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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	Various	Various : Various	-	4.500	Jan 2018	1.333	Nov 2018	-		-		-	0.000	5.833	-
Subtotal			-	4.500		1.333		-		-		-	0.000	5.833	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	4.800	4.941	-	-	-	0.000	9.741	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army							Date: March 2019			
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	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks										

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army			Date: March 2019		
Appropriation/Budget Activity 2040 / 7		R-1 Program Element (Number/Name) PE 0203802A / Other Missile Product Improvement Programs		Project (Number/Name) 788 / ATACMS PIP	

Event Name	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Operational Test Planning & Execution																												
Develop Test & Evaluation Master Plan (TEMP) for Height of																												
HWIL Models & Simulation																												
Conduct Operational Test Flight Preparations & OT Flight Testing																												
Operational Test Reports																												
Prox Sensor Cut-In Decision																												
Insensitive Munitions Study																												
GPS M-Code Study, Qualification & Integration																												
Flight Test Support/Equipment (HWIL, Flight Termination Systems, Modeling & Sim)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army			Date: March 2019
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203802A / <i>Other Missile Product Improvement Programs</i>	Project (Number/Name) 788 / <i>ATACMS PIP</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Operational Test Planning & Execution	1	2018	1	2019
Develop Test & Evaluation Master Plan (TEMP) for Height of Burst	1	2018	2	2018
HWIL Models & Simulation	2	2018	3	2018
Conduct Operational Test Flight Preparations & OT Flight Testing	2	2018	3	2018
Operational Test Reports	4	2018	4	2018
Prox Sensor Cut-In Decision	2	2019	2	2019
Insensitive Munitions Study	1	2019	4	2019
GPS M-Code Study, Qualification & Integration	1	2019	4	2019
Flight Test Support/Equipment (HWIL, Flight Termination Systems, Modeling & Sim)	1	2019	4	2019