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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2022 Army **Date:** May 2021

<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604768A / <i>Brilliant Anti-Armor Submunition (BAT)</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	-	19.177	24.064	-	-	-	-	-	-	-	-	-
688: <i>ATACMS BLK II</i>	-	19.177	24.064	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

This program element was for Army Tactical Missile System Block II (ATACMS BLK II) missile system Brilliant Anti-Armor (BAT) submunition. In FY18, it was repurposed for BREAKER and in FY19, CD ATACMS was added. BREAKER ended in FY19 and CD ATACMS was moved to a different program element. In FY20 and beyond, this program element funds only PFAL (Palletized Field Artillery Launcher).

Project P01. Multi-Mode Seeker began integration of Strategic Capabilities Office (SCO) STRIKE-X program demonstrated capabilities into ATACMS. This effort focused on providing integration of a seeker to search, detect, acquire, and engage moving maritime/land-based targets. There is no funding in FY2021.

Project 688 is a developmental effort for the Palletized Field Artillery Launcher (PFAL). Previously, PFAL was STRIKE-X capability 1 of the SCO Demonstration program and CD ATACMS was STRIKE X capability 3. PFAL is a palletized erectable launcher that provides alternatives to deliver near-term innovative long-range strike capabilities to improve operational effectiveness for Combatant Commanders. The PFAL launcher consists of an erectable palletized mechanical structure, Fire Control System (FCS), and Power Management System (PMS). PFAL is capable of firing all current Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM) rockets and missiles, to include the Guided Multiple Launch Rocket System (GMLRS), the Army Tactical Missile System (ATACMS), and future munitions such as the Precision Strike Missile (PrSM) and Extended Range GMLRS (ER GMLRS). PFAL is capable of carrying two launch pods each containing either six GMLRS / MLRS rockets or one ATACMS missile. The PFAL launcher is capable of firing from a fixed ground position, Palletized Load System (PLS) trailer, or maritime vessel.

In FY2020 and FY2021, the Army will procure the kits to build 1 prototype to replace the 3 SCO prototypes that were dispositioned to an Army unit in FY2020. In FY2021, the Army will design and develop upgrades to the baseline design based upon the directed requirement.

Justification:  
 There is no FY22 funding request.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2022 Army	<b>Date:</b> May 2021
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<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604768A / <i>Brilliant Anti-Armor Submunition (BAT)</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Previous President's Budget	20.000	24.975	32.769	-	32.769
Current President's Budget	19.177	24.064	0.000	-	0.000
Total Adjustments	-0.823	-0.911	-32.769	-	-32.769
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.823	-0.911			
• Adjustments to Budget Years	-	-	-32.769	-	-32.769

**Change Summary Explanation**

FY22 funding is being reallocated to other Army priorities.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Army **Date:** May 2021

<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604768A / <i>Brilliant Anti-Armor Submunition (BAT)</i>	<b>Project (Number/Name)</b> 688 / <i>ATACMS BLK II</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
688: <i>ATACMS BLK II</i>	-	19.177	24.064	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

This program element was for Army Tactical Missile System Block II (ATACMS BLK II) missile system Brilliant Anti-Armor (BAT) submunition. In FY18, it was repurposed for BREAKER and in FY19, CD ATACMS was added. BREAKER ended in FY19 and CD ATACMS was moved to a different program element. In FY20 and beyond, this program element funds only PFAL (Palletized Field Artillery Launcher).

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Project 688 is a developmental effort for the Palletized Field Artillery Launcher (PFAL). Previously, PFAL was STRIKE-X capability 1 of the SCO Demonstration program and CD ATACMS was STRIKE X capability 3. PFAL is a palletized erectable launcher that provides alternatives to deliver near-term innovative long-range strike capabilities to improve operational effectiveness for Combatant Commanders. The PFAL launcher consists of an erectable palletized mechanical structure, Fire Control System (FCS), and Power Management System (PMS). PFAL is capable of firing all current Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM) rockets and missiles, to include the Guided Multiple Launch Rocket System (GMLRS), the Army Tactical Missile System (ATACMS), and future munitions such as the Precision Strike Missile (PrSM) and Extended Range GMLRS (ER GMLRS). PFAL is capable of carrying two launch pods each containing either six GMLRS / MLRS rockets or one ATACMS missile. The PFAL launcher is capable of firing from a fixed ground position, Palletized Load System (PLS) trailer, or maritime vessel.

In FY2020 and FY2021, the Army will procure the kits to build 1 prototype to replace the 3 SCO prototypes that were dispositioned to an Army unit in FY2020. In FY2021, the Army will design and develop upgrades to the baseline design based upon the directed requirement.

There is no FY22 funding request.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2020	FY 2021	FY 2022
<b>Title:</b> Palletized Field Artillery Launcher (PFAL)	19.177	24.064	-
<b>Description:</b> The Palletized Field Artillery Launcher (PFAL) Program provides a palletized erectable launcher capable of firing the Multiple Launched Rocket System (MLRS) Family of Munitions (MFOM). This effort will refine prototypes against Combatant Commanders specific requirements to support a continuous user evaluation.			
<b>FY 2021 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Army		<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604768A / <i>Brilliant Anti-Armor Submunition (BAT)</i>	<b>Project (Number/Name)</b> 688 / ATACMS BLK II		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p>Base year funding allows for continued design, development, and integration to ensure the safe and effective deployment of operational prototypes in a continuous user evaluation. Procure and receive hardware/materials to implement design improvements to the mechanical structure, FCS, and/or PMS subsystems of existing prototypes transitioned from the SCO. Support component-level and system-level qualification and integration. Conduct flight tests of existing munitions with existing prototypes to evaluate readiness for supporting a user evaluation. Procure long lead-time hardware/materials necessary to start the fabrication of up to 7 additional prototypes.</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> There is no FY22 funding request.</p>				
<b>Accomplishments/Planned Programs Subtotals</b>		19.177	24.064	-
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
<p>The Palletized Field Artillery Launcher (PFAL) transitions from a Strategic Capabilities Office (SCO) managed effort to management by the Precision Fires Rocket and Missile Systems Project Office. The PFAL program performs development efforts required to refine prototypes against Combatant Commander's specific requirements to support a user evaluation. The PFAL program will conduct analysis and implement design improvements to demonstrate safe and effective design to enable deployment of prototypes as part of a continuous user evaluation.</p>				

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Army** **Date: May 2021**

<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604768A / Brilliant Anti-Armor Submunition (BAT)	<b>Project (Number/Name)</b> 688 / ATACMS BLK II
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<b>Management Services (\$ in Millions)</b>				<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Government Program Management	MIPR	Various : RSA	1.688	-		0.872	Nov 2020	-		-		-	0.000	2.560	-
FY 2020 SBIR/STTR Transfer	TBD	Various : Various	-	0.908		-		-		-		-	0.000	0.908	-
<b>Subtotal</b>			1.688	0.908		0.872		-		-		-	0.000	3.468	N/A

<b>Product Development (\$ in Millions)</b>				<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
FY 2019 SBIR / STTR Transfer	TBD	TBD : TBD	0.159	-		-		-		-		-	0.000	0.159	-
BREAKER Warhead Development	C/CPFF	LMMFC : Dallas, TX	2.300	-		-		-		-		-	0.000	2.300	-
BREAKER System Analysis, Requirement & Spec Dev	MIPR	AMRDEC : Redstone Arsenal, AL	1.477	-		-		-		-		-	0.000	1.477	-
PFAL Development Engineering	MIPR	CCDC AvMC : Redstone Arsenal	-	18.269	Jan 2020	7.738	Dec 2020	-		-		-	0.000	26.007	-
PFAL Prototype Development	C/CPFF	AMTC : Redstone Arsenal, AL	-	-		3.259	Dec 2020	-		-		-	0.000	3.259	-
Prototype Fabrication	TBD	TBD : TBD	-	-		10.649	Dec 2020	-		-		-	0.000	10.649	-
<b>Subtotal</b>			3.936	18.269		21.646		-		-		-	0.000	43.851	N/A

<b>Support (\$ in Millions)</b>				<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Quality, Safety, Systems Engineering, and Analysis	TBD	Various : Redstone Arsenal, AL	-	-		0.457	Dec 2020	-		-		-	0.000	0.457	-
<b>Subtotal</b>			-	-		0.457		-		-		-	0.000	0.457	N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Army** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604768A / <i>Brilliant Anti-Armor Submunition (BAT)</i>	<b>Project (Number/Name)</b> 688 / <i>ATACMS BLK II</i>
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test Support	MIPR	Various : Various	-	-		1.089	Dec 2020	-		-		-	0.000	1.089	-
<b>Subtotal</b>			-	-		1.089		-		-		-	0.000	1.089	N/A
<b>Project Cost Totals</b>			5.624	19.177		24.064		-		-		-	0.000	48.865	N/A

**Remarks**  
 Acronyms:  
 AvMC: Aviation and Missile Center;  
 AMTC: Aviation & Missile Technology Consortium;  
 CCDC: Combat Capabilities Development Command;  
 AMRDEC: Aviation and Missile Research, Development and Engineering Command;  
 LMMFC: Lockheed Martin Missiles and Fire Control;  
 RSA: Redstone Arsenal, Alabama;  
 CD: Cross Domain  
 STORM - Strategic and Operational Rockets and Missiles

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2022 Army</b>			<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604768A / <i>Brilliant Anti-Armor Submunition (BAT)</i>	<b>Project (Number/Name)</b> 688 / <i>ATACMS BLK II</i>	

Event Name	FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026			
	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
PFAL Development Engineering																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2022 Army		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604768A / <i>Brilliant Anti-Armor Submunition (BAT)</i>	<b>Project (Number/Name)</b> 688 / <i>ATACMS BLK II</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
System Analysis, Requirement & Spec Development	1	2018	4	2019
Warhead Development	1	2019	4	2019
Contract Requirements Package Development	1	2018	4	2019
PFAL Development Engineering	1	2020	4	2021