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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Army **Date:** April 2022

<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 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	5.780	2.275	6.530	-	6.530	9.254	3.097	3.098	3.129	Continuing	Continuing
BR7: <i>Small Unmanned Aircraft System (6.5)</i>	-	5.780	2.275	6.530	-	6.530	9.254	3.097	3.098	3.129	Continuing	Continuing

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

The Rucksack Portable Unmanned Aircraft System (RPUAS) Family of Small Unmanned Aircraft System (FoSUAS) provides battalion and below ground maneuver elements with critical situational awareness and enhanced force protection. The system provides the small unit commander an organic and responsive reconnaissance and targeting capability with real-time Full Motion Video and sensor data. Other compatible receivers, such as the One System Remote Video Terminal and appropriately equipped manned platforms may also receive the FoSUAS products.

The RPUAS FoSUAS provides the battalion and below ground maneuver elements with an organic, on-demand, asset to develop situational awareness, enhance force protection, and secure routes, points, and areas. The system provides the small unit commander an organic and responsive reconnaissance and targeting capability with real-time Full Motion Video and sensor data.

The RPUAS FoSUAS includes a combination of three separate hand-launched mission specific configurable aircraft that do not require an improved launch/recovery. The three separate mission specific configurable Unmanned Aircraft (UA) are the Short Range Reconnaissance (SRR), the Medium Range Reconnaissance (MRR), and the Long Range Reconnaissance (LRR). In addition to the aircraft, the system contains ground control equipment, which includes an interoperable handheld ground control station (H-GCS) which incorporates the Tactical Open Government Owned Architecture (TOGA). The FoSUAS mission specific capability for MRR will utilize existing RQ-11 systems. The SRR capability will utilize the upcoming RQ-28A SRR. The LRR capability is under development.

The total cost of the Short Range Reconnaissance (SRR) Middle Tier of Acquisition effort is \$34.20 million of RDT&E on from FY20 to FY24. The remainder of the SRR program is fully funded across the Future Years Defense Program.

Justification: FY 2023 Research, Development, Test, and Evaluation (RDTE) Base funding of \$6.530 million to meet Capabilities Production Document (CPD) Increment II Block II related requirements. Specifically, to conduct SRR Tranche 2 system development, integration, testing and evaluation.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Army	<b>Date:</b> April 2022
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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 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	5.780	2.275	0.000	-	0.000
Current President's Budget	5.780	2.275	6.530	-	6.530
Total Adjustments	0.000	0.000	6.530	-	6.530
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	6.530	-	6.530

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 2040 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>				<b>Project (Number/Name)</b> BR7 / <i>Small Unmanned Aircraft System (6.5)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
BR7: <i>Small Unmanned Aircraft System (6.5)</i>	-	5.780	2.275	6.530	-	6.530	9.254	3.097	3.098	3.129	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The Rucksack Portable Unmanned Aircraft System (RPUAS) Family of Small Unmanned Aircraft System (FoSUAS) provides battalion and below ground maneuver elements with critical situational awareness and enhanced force protection. The system provides the small unit commander an organic and responsive reconnaissance and targeting capability with real-time Full Motion Video and sensor data. Other compatible receivers, such as the One System Remote Video Terminal and appropriately equipped manned platforms may also receive the FoSUAS products.

The RPUAS FoSUAS provides the battalion and below ground maneuver elements with an organic, on-demand, asset to develop situational awareness, enhance force protection, and secure routes, points, and areas. The system provides the small unit commander an organic and responsive reconnaissance and targeting capability with real-time Full Motion Video and sensor data.

The RPUAS FoSUAS includes a combination of three separate hand-launched mission specific configurable aircraft that do not require an improved launch/recovery. The three separate mission specific configurable Unmanned Aircraft (UA) are the Short Range Reconnaissance (SRR), the Medium Range Reconnaissance (MRR), and the Long Range Reconnaissance (LRR). In addition to the aircraft, the system contains ground control equipment, which includes an interoperable handheld ground control station (H-GCS) which incorporates the Tactical Open Government Owned Architecture (TOGA). The FoSUAS mission specific capability for MRR will utilize existing RQ-11 systems. The SRR capability will utilize the upcoming RQ-28A SRR. The LRR capability is under development.

The total cost of the Short Range Reconnaissance (SRR) Middle Tier of Acquisition effort is \$34.20 million of RDT&E on from FY20 to FY24. The remainder of the SRR program is fully funded across the Future Years Defense Program.

Justification: FY 2023 Research, Development, Test, and Evaluation (RDT&E) Base funding of \$6.301 million to meet Capabilities Production Document (CPD) Increment II Block II related requirements. Specifically, to conduct SRR Tranche 2 system development, integration, testing and evaluation.

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

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Systems Engineering Program Management	0.603	0.120	0.345
<b>Description:</b> Systems Engineering Program Management support for SRR development and demonstration efforts.			
<b>FY 2022 Plans:</b> Systems Engineering and Program Management support for SRR development and demonstration efforts.			
<b>FY 2023 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>	<b>Project (Number/Name)</b> BR7 / <i>Small Unmanned Aircraft System (6.5)</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Systems Engineering and Program Management support for SRR development and demonstration efforts. <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase due to efforts to complete SRR Tranche 2 development and Demonstration efforts.				
<b>Title:</b> System Development and Integration <b>Description:</b> SRR Development Engineering efforts. <b>FY 2022 Plans:</b> Development of SRR air vehicle and complete system integration. <b>FY 2023 Plans:</b> Development of SRR air vehicle and complete system integration. <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase due to efforts to complete SRR Tranche 2 development and integration to support CPD requirements.		3.972	1.331	3.820
<b>Title:</b> Developmental Test and Evaluation <b>Description:</b> Test and Evaluation efforts for SRR System Development. <b>FY 2022 Plans:</b> Efforts to conduct testing and evaluation of mature SRR prototype system. <b>FY 2023 Plans:</b> Efforts to conduct testing and evaluation of mature SRR prototype system. <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase due to efforts to complete SRR Tranche 2 testing and evaluation of mature SRR prototype system.		1.205	0.741	2.365
<b>Title:</b> FY22 SIBR/STTR Transfer <b>Description:</b> FY22 SIBR/STTR Transfer from the Consolidated Appropriation Act FY22 Enactment. <b>FY 2022 Plans:</b> SIBR/STTR Transfer from the FY22 Enactment. <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> SBIR/STTR amount in accordance with Title 15 USC 638.		-	0.083	-
<b>Accomplishments/Planned Programs Subtotals</b>		5.780	2.275	6.530

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>	<b>Project (Number/Name)</b> BR7 / <i>Small Unmanned Aircraft System (6.5)</i>

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>			<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• BR6: <i>Small Unmanned Aircraft System (6.4)</i>	1.328	0.926	1.425	-	1.425	1.801	1.832	1.833	1.851	0.000	10.996
• A00010: <i>SMALL UNMANNED AIRCRAFT SYSTEM</i>	16.551	16.005	0.000	-	0.000	-	-	-	-	Continuing	Continuing
• A12511: <i>SHORT RANGE RECONNAISSANCE</i>	-	-	10.598	-	10.598	20.666	20.817	20.917	20.816	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>	<b>Project (Number/Name)</b> BR7 / <i>Small Unmanned Aircraft System (6.5)</i>
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<b>Management Services (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
System Engineering Program Management (SEPM)	Various	Various : Various	-	0.603		0.120		0.345	Oct 2022	-		0.345	Continuing	Continuing	Continuing
SIBR/STTR Transfer8	TBD	TBD : TBD	-	-		0.083	Apr 2022	-		-		-	0.000	0.083	-
<b>Subtotal</b>			-	0.603		0.203		0.345		-		0.345	Continuing	Continuing	N/A

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Development Engineering	Various	ACC Redstone : Redstone Arsenal	-	3.972	Jun 2021	1.331	Jun 2022	3.820	Jan 2023	-		3.820	Continuing	Continuing	Continuing
<b>Subtotal</b>			-	3.972		1.331		3.820		-		3.820	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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 and Evaluation	Various	ACC Redstone : Redstone Arsenal	-	1.205	Aug 2021	0.741	Aug 2022	2.365	Aug 2023	-		2.365	Continuing	Continuing	Continuing
<b>Subtotal</b>			-	1.205		0.741		2.365		-		2.365	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		-	5.780	2.275	6.530	-	6.530	Continuing	Continuing	N/A

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 Army</b>		<b>Date: April 2022</b>
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>	<b>Project (Number/Name)</b> BR7 / <i>Small Unmanned Aircraft System (6.5)</i>

Event Name	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
Systems Engineering Program Management (SEPM)	[Blue bar]																											
Test and Evaluation	[Blue bar]																											
SRR Tranche I Production Decision (PD)																												
SRR Tranche II OTA Award																												
SRR Tranche II Prototyping																												
SRR Tranche II End User Assessment																												
SRR Tranche II Production Decision (PD)																												
SRR Tranche III Prototyping																												
LRR OTA Award (Component)																												
LRR Prototyping (System)																												
LRR/HGCS Integration																												
LRR End User Assessment																												
LRR FRP Decision																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Army		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>	<b>Project (Number/Name)</b> BR7 / <i>Small Unmanned Aircraft System (6.5)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Tactical Open Government Owned Architecture Development	4	2014	4	2014
Tactical Open Government Architecture Test Event 2	3	2015	3	2015
Systems Engineering Program Management (SEPM)	2	2018	4	2024
SRR Tranche I Other Transactional Agreements (OTA) Award	3	2019	3	2019
SRR Tranche I Prototyping	3	2019	4	2020
Test and Evaluation	4	2018	4	2024
SRR/(HGCS) Integration	2	2018	4	2020
SRR Tranche I End User Assessment	4	2020	4	2020
SRR Tranche I Production Decision (PD)	1	2022	1	2022
SRR Tranche II OTA Award	2	2022	2	2022
SRR Tranche II Prototyping	2	2022	2	2023
SRR Tranche II End User Assessment	2	2023	2	2023
SRR Tranche II Production Decision (PD)	3	2023	3	2023
SRR Tranche III Prototyping	3	2023	1	2025
LRR OTA Award (Component)	2	2024	2	2025
LRR Prototyping (System)	2	2025	2	2027
LRR/HGCS Integration	3	2025	3	2027
LRR End User Assessment	3	2027	3	2027
LRR FRP Decision	3	2027	3	2027

**Note**  
Schedule events shown prior to Fiscal Year (FY) 2021 are for informational purposes only.