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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	2.192	6.530	31.284	-	31.284	24.542	19.909	13.706	13.744	Continuing	Continuing
BR7: <i>Small Unmanned Aircraft System (6.5)</i>	-	2.192	6.530	31.284	-	31.284	24.542	19.909	13.706	13.744	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 utilizes RQ-28A SRR for first generation and is prototyping the second generation air vehicle FY2022-FY2025. The LRR capability is in planning and will begin development in FY2024.

The total cost of the Short Range Reconnaissance (SRR) Middle Tier of Acquisition effort is \$30 million of RDT&E on from FY20 to FY25. The SRR program is fully funded across the Future Years Defense Program.

FY 2024 Research, Development, Test, and Evaluation (RDTE) Base funding of \$31.284 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, and LRR system development, integration, testing and evaluation. FY 2024 is the first year of allocation of 6.5 funding for LRR.

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B. Program Change Summary (\$ in Millions)	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>
Previous President's Budget	2.275	6.530	9.254	-	9.254
Current President's Budget	2.192	6.530	31.284	-	31.284
Total Adjustments	-0.083	0.000	22.030	-	22.030
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.083	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	22.030	-	22.030

Change Summary Explanation

Increase in FY2024 of \$22.030 million is for system development efforts for LRR and continuation of efforts for SRR.

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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
BR7: <i>Small Unmanned Aircraft System (6.5)</i>	-	2.192	6.530	31.284	-	31.284	24.542	19.909	13.706	13.744	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.

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The total cost of the Short Range Reconnaissance (SRR) Middle Tier of Acquisition effort is \$30 million of RDT&E on from FY20 to FY25. The SRR program is fully funded across the Future Years Defense Program.

Justification: FY 2024 Research, Development, Test, and Evaluation (RDT&E) Base funding of \$31.284 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, and LRR system development, integration, testing and evaluation. FY 2024 is the first year of allocation of 6.5 funding for LRR.

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

	FY 2022	FY 2023	FY 2024
Title: Systems Engineering Program Management	0.120	0.307	1.685
Description: Systems Engineering Program Management support for SRR development and demonstration efforts.			
FY 2023 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
Systems Engineering and Program Management support for SRR development and demonstration efforts. FY 2024 Plans: Systems Engineering and Program Management support for SRR and LRR development and demonstration efforts. FY 2023 to FY 2024 Increase/Decrease Statement: Increase in funding supports effort directly contributed with Engineering and demonstration.				
Title: SRR System Development and Integration Description: SRR Development Engineering efforts. FY 2023 Plans: Development of SRR air vehicle and complete system integration. FY 2024 Plans: Development and system integration of SRR air vehicle. FY 2023 to FY 2024 Increase/Decrease Statement: Increase in funding supports SRR air vehicle and complete system integration.		1.331	3.720	5.355
Title: LRR System Development and Integration Description: LRR Development Engineering efforts. FY 2024 Plans: Development and system integration of LRR air vehicle. FY 2023 to FY 2024 Increase/Decrease Statement: This is a new effort in FY24		-	-	19.545
Title: SRR Developmental Test and Evaluation Description: Test and Evaluation efforts for SRR System Development. FY 2023 Plans: Efforts to conduct testing and evaluation of mature SRR prototype system. FY 2024 Plans: Efforts to conduct testing and evaluation of mature SRR prototype system. FY 2023 to FY 2024 Increase/Decrease Statement:		0.741	2.265	3.399

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Increase in funding is to support efforts around SRR air vehicle and complete system testing.			
Title: LRR Development Test and Evaluation Description: Test and Evaluation efforts for LRR System Development. FY 2024 Plans: Efforts to conduct testing and evaluation of LRR prototype system. FY 2023 to FY 2024 Increase/Decrease Statement: Increase in FY2024 is funding for LRR System Testing.	-	-	1.300
Title: Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) Description: Funding transferred in accordance with Title 15 USC §638 FY 2023 Plans: Funding transferred in accordance with Title 15 USC §638 FY 2023 to FY 2024 Increase/Decrease Statement: Funding transferred in accordance with Title 15 USC §638	-	0.238	-
Accomplishments/Planned Programs Subtotals	2.192	6.530	31.284

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• BR6: <i>Small Unmanned Aircraft System (6.4)</i>	0.892	1.425	5.144	-	5.144	1.796	1.799	1.818	1.839	0.000	14.713
• A00010: <i>SMALL UNMANNED AIRCRAFT SYSTEM</i>	16.005	-	0.000	-	0.000	-	-	-	-	0.000	16.005
• A12511: <i>SHORT RANGE RECONNAISSANCE</i>	-	10.598	20.769	-	20.769	20.937	20.550	20.534	20.492	Continuing	Continuing
• A12513: <i>LONG RANGE RECONNAISSANCE</i>	-	-	0.000	-	0.000	-	-	50.400	76.420	Continuing	Continuing

Remarks

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D. Acquisition Strategy

The Short Range Reconnaissance utilizes Middle Tier Acquisition pathway for rapid prototyping. The Medium Range Reconnaissance is in sustainment. The Long Range Reconnaissance will complete an Acquisition Shaping Panel in FY 2023.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army												Date: March 2023				
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)								
2040 / 5				PE 0605205A / Small Unmanned Aerial Vehicle (SUAV) (6.5)				BR7 / Small Unmanned Aircraft System (6.5)								
Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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	
System Engineering Program Management (SEPM)	Various	Various : Various	0.603	0.120		0.307	Oct 2022	1.685	Oct 2023	-		1.685	Continuing	Continuing	Continuing	
Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR)	TBD	TBD : TBD	-	-		0.238	Sep 2023	-		-		-	0.000	0.238	-	
Subtotal			0.603	0.120		0.545		1.685		-		1.685	Continuing	Continuing	N/A	
Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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	
SRR Development Engineering	Various	ACC Redstone : Redstone Arsenal	3.972	1.331	Jun 2022	3.720	Jan 2023	5.355	Jan 2024	-		5.355	Continuing	Continuing	Continuing	
LRR Development Engineering	Various	ACC Redstone : Redstone Arsenal, AL	-	-		-		19.545	Feb 2024	-		19.545	Continuing	Continuing	Continuing	
Subtotal			3.972	1.331		3.720		24.900		-		24.900	Continuing	Continuing	N/A	
Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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	
SRR Test and Evaluation	Various	ACC Redstone : Redstone Arsenal	1.205	0.741	Aug 2022	2.265	Aug 2023	3.399	Aug 2024	-		3.399	Continuing	Continuing	Continuing	
LRR Test and Evaluation	Various	ACC Redstone : Redstone Arsenal, AL	-	-		-		1.300	May 2024	-		1.300	Continuing	Continuing	Continuing	
Subtotal			1.205	0.741		2.265		4.699		-		4.699	Continuing	Continuing	N/A	

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
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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	2028
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	2028
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 Component Development Award	2	2024	2	2025
LRR Prototyping (System)	2	2024	2	2026
LRR/HGCS Integration	2	2025	2	2026
LRR End User Assessment	4	2026	1	2027
LRR FRP Decision	2	2027	2	2027

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