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

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 0605205A / Small Unmanned Aerial Vehicle (SUAV) (6.5)
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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	-	-	5.780	2.275	-	2.275	-	-	-	-	-	-
BR7: Small Unmanned Aircraft System (6.5)	-	-	5.780	2.275	-	2.275	-	-	-	-	-	-

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). FoSUAS will utilize existing RQ-11 in a system of systems fielding concept, with Short Range Reconnaissance (SRR) and Long Range Reconnaissance (LRR) options under development.

Justification: FY 2022 Research, Development, Test, and Evaluation (RDTE) Base funding of \$2.275 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. Program Change Summary (\$ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	0.000	5.999	2.407	-	2.407
Current President's Budget	0.000	5.780	2.275	-	2.275
Total Adjustments	0.000	-0.219	-0.132	-	-0.132
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-0.219			
• Adjustments to Budget Years	-	-	-0.132	-	-0.132

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Army										Date: May 2021		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>				Project (Number/Name) BR7 / <i>Small Unmanned Aircraft System (6.5)</i>			
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
BR7: <i>Small Unmanned Aircraft System (6.5)</i>	-	-	5.780	2.275	-	2.275	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Funding has been reprogrammed to Budget Activity (BA) 5 Program Element (PE) 0605205A Small Unmanned Aerial Vehicle (SUAV) (6.5) Project BR7 Small Unmanned Aircraft System (6.5) from BA 7 PE 0305232A RQ-11 UAV Project RA7 RQ-11 Raven (MIP) starting in Fiscal Year (FY) 2021.

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). FoSUAS will utilize existing RQ-11 in a system of systems fielding concept, with SRR and LRR options under development.

Justification: FY 2022 Research, Development, Test, and Evaluation (RDT&E) Base funding of \$2.275 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)

	FY 2020	FY 2021	FY 2022
Title: Systems Engineering Program Management	-	0.603	0.120
Description: Systems Engineering Program Management support for SRR development and demonstration efforts.			
FY 2021 Plans: Systems Engineering and Program Management support for SRR development and demonstration efforts.			
FY 2022 Plans:			

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>	Project (Number/Name) BR7 / <i>Small Unmanned Aircraft System (6.5)</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2020	FY 2021	FY 2022
Systems Engineering and Program Management support for SRR development and demonstration efforts. FY 2021 to FY 2022 Increase/Decrease Statement: SRR Tranche 2 is nearing completion.			
Title: System Development and Integration Description: SRR Development Engineering efforts. FY 2021 Plans: Efforts to conduct SRR development and integration to support CPD requirements. FY 2022 Plans: Efforts to conduct SRR development and integration to support CPD requirements. FY 2021 to FY 2022 Increase/Decrease Statement: SRR Tranche 2 is nearing completion.	-	3.972	1.331
Title: Developmental Test and Evaluation Description: Test and Evaluation efforts for SRR Component Development. FY 2021 Plans: Efforts to conduct testing and evaluation of mature SRR prototype system. FY 2022 Plans: Efforts to conduct testing and evaluation of mature SRR prototype system. FY 2021 to FY 2022 Increase/Decrease Statement: SRR Tranche 2 is nearing completion.	-	1.205	0.824
Accomplishments/Planned Programs Subtotals	-	5.780	2.275

C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• A00010: <i>SMALL UNMANNED AIRCRAFT SYSTEM</i>	21.420	16.551	16.005	-	16.005	-	-	-	-	-	-
• BR6: <i>Small Unmanned Aircraft System (6.4)</i>	-	1.328	0.926	-	0.926	-	-	-	-	-	-

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>	Project (Number/Name) BR7 / <i>Small Unmanned Aircraft System (6.5)</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u> <u>Base</u>	<u>FY 2022</u> <u>OCO</u>	<u>FY 2022</u> <u>Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RA7: RQ-11 Raven	3.218	-	-	-	-	-	-	-	-	-	-

Remarks

Funding has been reprogrammed to BA 5 PE 0605205A Small Unmanned Aerial Vehicle (SUAV) (6.5) Project BR7 Small Unmanned Aircraft System (6.5) from BA 7 PE 0305232A RQ-11 UAV Project RA7 RQ-11 Raven (MIP) starting in FY 2021.

D. Acquisition Strategy

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Army												Date: May 2021			
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 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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		-		0.120	Continuing	Continuing	Continuing
Subtotal			-	-		0.603		0.120		-		0.120	Continuing	Continuing	N/A
Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
Development Engineering	Various	ACC Redstone : Redstone Arsenal	-	-		3.972	Jun 2021	1.331	Jun 2022	-		1.331	Continuing	Continuing	Continuing
Subtotal			-	-		3.972		1.331		-		1.331	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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 and Evaluation	Various	ACC Redstone : Redstone Arsenal	-	-		1.205	Aug 2021	0.824	Aug 2022	-		0.824	Continuing	Continuing	Continuing
Subtotal			-	-		1.205		0.824		-		0.824	Continuing	Continuing	N/A
Project Cost Totals			-	-		5.780		2.275		-		2.275	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2022 Army		Date: May 2021
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>	Project (Number/Name) BR7 / <i>Small Unmanned Aircraft System (6.5)</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				
Systems Engineering Program Management (SEPM)	[Blue bar]																															
SRR Tranche I Prototyping	[Blue bar]																															
Test and Evaluation	[Blue bar]																															
SRR/(HGCS) Integration	[Blue bar]																															
SRR Tranche I End User Assessment																																
SRR Tranche I Full Rate Production (FRP) Decision																																
SRR Tranche II OTA Award																																
SRR Tranche II Prototyping																																
SRR Tranche II End User Assessment																																
SRR Tranche II FRP Decision																																
SRR Tranche III																																
LRR OTA Award (Component)																																
LRR Prototyping (System)																																

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Exhibit R-4A, RDT&E Schedule Details: PB 2022 Army		Date: May 2021
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605205A / <i>Small Unmanned Aerial Vehicle (SUAV) (6.5)</i>	Project (Number/Name) 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 Full Rate Production (FRP) Decision	3	2021	3	2021
SRR Tranche II OTA Award	4	2021	4	2021
SRR Tranche II Prototyping	4	2021	4	2022
SRR Tranche II End User Assessment	4	2022	4	2022
SRR Tranche II FRP Decision	1	2023	1	2023
SRR Tranche III	1	2023	4	2024
LRR OTA Award (Component)	4	2023	4	2024
LRR Prototyping (System)	4	2024	1	2026
LRR/HGCS Integration	4	2024	4	2026
LRR End User Assessment	3	2026	3	2026
LRR FRP Decision	2	2027	2	2027

Note
 Schedule events shown prior to Fiscal Year (FY) 2021 are for informational purposes only. Funding has transitioned to Budget Activity (BA) 5 Program Element (PE) 0605205A Small Unmanned Aerial Vehicle (SUAV) (6.5) Project BR7 Small Unmanned Aircraft System (6.5) from BA 7 PE 0305232A RQ-11 UAV Project RA7 RQ-11 Raven (MIP) starting in Fiscal Year (FY) 2021.