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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 / BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0305232A / RQ-11 UAV							
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	-	12.691	6.180	3.218	-	3.218	3.879	3.486	3.983	4.849	Continuing	Continuing
RA7: RQ-11 Raven (MIP)	-	12.691	6.180	3.218	-	3.218	3.879	3.486	3.983	4.849	Continuing	Continuing

A. Mission Description and Budget Item Justification

The 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.

A FoSUAS includes three hand-launched aircraft that do not require an improved launch/recovery location. 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 equipment is fully transportable in or on rucksack type packs that are organic to the unit. FoSUAS will utilize existing RQ-11 in a system of systems fielding concept, with Short Range Reconnaissance (SRR) and Long Range Reconnaissance and Surveillance (LRRS) options under development.

Justification: Fiscal Year (FY) 2020 Research, Development, Test, and Evaluation (RDTE) Base funding of \$3.218 million for Program Management Engineering support and to meet Capabilities Production Document (CPD) Increment II Block II related requirements. Specifically, to continue the research and development required to identify and baseline the SRR prototype solution and the LRRS prototype solution for the FoSUAS effort.

B. Program Change Summary (\$ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	2.191	6.180	3.222	-	3.222
Current President's Budget	12.691	6.180	3.218	-	3.218
Total Adjustments	10.500	0.000	-0.004	-	-0.004
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	10.500	-	-0.004	-	-0.004

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<u>Change Summary Explanation</u> Funding will be primarily used for Developmental Engineering, Systems Engineering and Program Management, and Test and Evaluation for the Short Range Reconnaissance (SRR) and Long Range Reconnaissance and Surveillance (LRRS).		

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Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0305232A / RQ-11 UAV				Project (Number/Name) RA7 / RQ-11 Raven (MIP)			
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
RA7: RQ-11 Raven (MIP)	-	12.691	6.180	3.218	-	3.218	3.879	3.486	3.983	4.849	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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Justification: Fiscal Year (FY) 2020 Research, Development, Test, and Evaluation (RDTE) Base funding of \$3.218 million for Program Management Engineering support and to meet CPD Increment II Block II related requirements. Specifically, to continue the research and development required to identify and baseline the SRR prototype solution and the LRRS prototype solution for the FoSUAS effort.

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

	FY 2018	FY 2019	FY 2020
Title: Systems Engineering/Program Management (SEPM)	1.015	0.380	0.244
Description: Systems Engineering and Program Management Support during SRR engineering, integration and preparation of documentation for FRP decision.			
FY 2019 Plans: Continue Program Management Support for Short Range Reconnaissance vendor down select and testing activities.			
FY 2020 Plans: Will continue Program Management Support for Short Range Reconnaissance Testing activities .			
FY 2019 to FY 2020 Increase/Decrease Statement: The decrease in SEPM funding is due to the Short Range Reconnaissance program moving to procurement funding.			
Title: SRR Developmental Engineering	7.850	4.050	0.974

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B. Accomplishments/Planned Programs (\$ in Millions)									FY 2018	FY 2019	FY 2020
Description: SRR Developmental Engineering and integration with Handheld Ground Control Station (H-GCS) FY 2019 Plans: Continue Short Range Reconnaissance (SRR) vendor down select FY 2020 Plans: Will continue Short Range Reconnaissance (SRR) formerly Short Range Micro (SRM) product validation and integration with the Handheld Ground Control Station in preparation for FRP decision. FY 2019 to FY 2020 Increase/Decrease Statement: Decrease in funds will complete integration efforts and preparation of documentation for FRP decision.											
Title: LRRS Requirements Decomposition/Systems Engineering/Component Level Projects/Market Research Description: Funding provided to initiate the Long Range Reconnaissance and Surveillance (LRRS) prototype materiel baseline FY 2019 Plans: Continuing the Long Range Reconnaissance and Surveillance (LRRS) prototype materiel baseline. FY 2020 Plans: Will continue the Long Range Reconnaissance and Surveillance (LRRS) prototype materiel baseline.									3.000	0.750	0.750
Title: SRR Test and Evaluation Description: Test and Evaluation of the Short Range Reconnaissance (SRR). FY 2019 Plans: Continue the development testing of the SRR and Limited User Test (LUT) FY 2020 Plans: Will continue the Development Testing of the Short Range Reconnaissance (SRR) FY 2019 to FY 2020 Increase/Decrease Statement: Increase in funding will complete finish up integration testing for SRR and H-GCS and document preparation for FRP decision.									0.826	1.000	1.250
Accomplishments/Planned Programs Subtotals									12.691	6.180	3.218
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
• A00010: RQ-11 (RAVEN)	-	46.416	23.510	-	23.510	30.948	33.831	10.041	16.988	Continuing	Continuing

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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>
Remarks											
FY 2019 funding procures 200 RQ-11B Raven Systems for Security Force Assistance Brigade, FY 2020 - 2023 procures 1985 SRR air vehicles. FY 2024 procures 345 SRR and 170 LRRS air vehicles.											
D. Acquisition Strategy											
The Tactical Unmanned Product Office (TUAS) will contract utilizing full and open competition via an Other Transaction Agreement (OTA) or a traditional contracting method to host a fly-off and down select. The Government will make contract award based upon competitive source selection criteria.											
E. Performance Metrics											
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 0305232A / RQ-11 UAV				Project (Number/Name) RA7 / RQ-11 Raven (MIP)					
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
Systems Engineering/ Program Management (SEPM)	RO	PM-TUAS/ AMRDEC : Redstone Arsenal, AL	1.690	1.015		0.380		0.244		-		0.244	Continuing	Continuing	-
Subtotal			1.690	1.015		0.380		0.244		-		0.244	Continuing	Continuing	N/A
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
Developmental Engineering 1	C/IDIQ	Various : Various	9.824	-		-		-		-		-	0.000	9.824	-
Developmental Engineering 2	C/IDIQ	AMRDEC : Redstone Arsenal, AI	1.935	-		-		-		-		-	0.000	1.935	-
SRR Developmental Engineering	TBD	Various : Various	-	7.850		4.050		0.974		-		0.974	Continuing	Continuing	-
LRRS Requirements Decomposition/Systems Engineering/Component Level Projects/Market Research	TBD	Various : Various	-	3.000		0.750		0.750		-		0.750	Continuing	Continuing	-
Subtotal			11.759	10.850		4.800		1.724		-		1.724	Continuing	Continuing	N/A
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 and Evaluation 1	MIPR	Various : Various	1.046	-		-		-		-		-	0.000	1.046	-
Test and Evaluation 2	MIPR	Various : Various	0.300	-		-		-		-		-	0.000	0.300	-
SRR Test and Evaluation	TBD	Various : Various	-	0.826		1.000		1.250		-		1.250	Continuing	Continuing	-
Subtotal			1.346	0.826		1.000		1.250		-		1.250	Continuing	Continuing	N/A

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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
Project Cost Totals	14.795	12.691		6.180		3.218		-		3.218	Continuing	Continuing	N/A

Remarks

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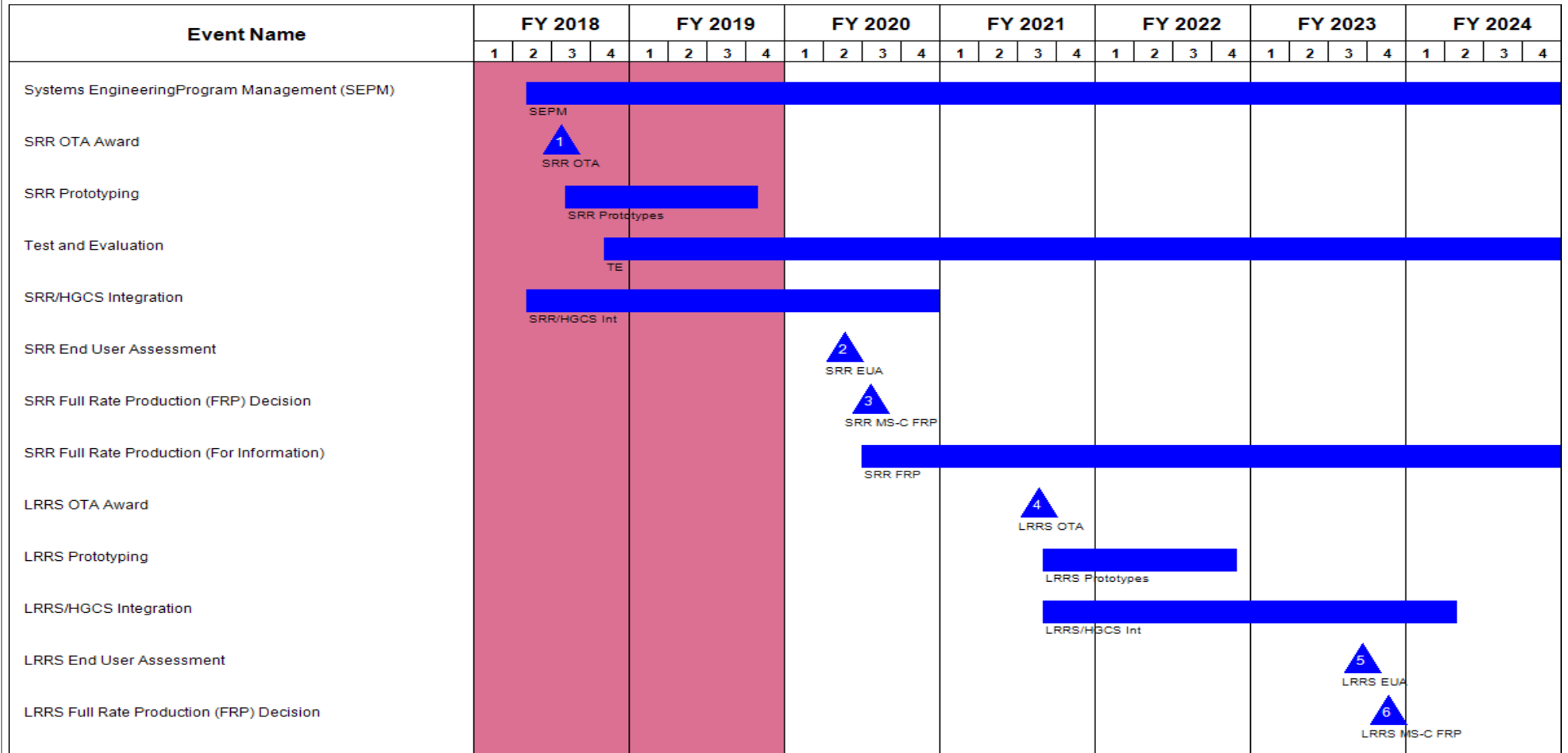
Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army

Date: March 2019

Appropriation/Budget Activity
2040 / 7

R-1 Program Element (Number/Name)
PE 0305232A / RQ-11 UAV

Project (Number/Name)
RA7 / RQ-11 Raven (MIP)



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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 0305232A / RQ-11 UAV	Project (Number/Name) RA7 / RQ-11 Raven (MIP)	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Tactical Open Government Architecture Test Event 2	3	2015	3	2015
Systems EngineeringProgram Management (SEPM)	2	2018	4	2024
SRR OTA Award	3	2018	3	2018
SRR Prototyping	3	2018	4	2019
Test and Evaluation	4	2018	4	2024
SRR/HGCS Integration	2	2018	4	2020
SRR End User Assessment	2	2020	2	2020
SRR Full Rate Production (FRP) Decision	3	2020	3	2020
SRR Full Rate Production (For Information)	3	2020	4	2024
LRRS OTA Award	3	2021	3	2021
LRRS Prototyping	3	2021	4	2022
LRRS/HGCS Integration	3	2021	2	2024
LRRS End User Assessment	3	2023	3	2023
LRRS Full Rate Production (FRP) Decision	4	2023	4	2023

Note

N/A