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

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305239M / (U)RQ-21A
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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	6.000	10.914	10.853	0.000	-	0.000	-	-	-	-	-	-
3192: <i>RQ-21 BLACKJACK</i>	6.000	10.914	10.853	0.000	-	0.000	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The RQ-21A program provides persistent maritime and land-based tactical Reconnaissance, Surveillance and Target Acquisition (RSTA) data collection and dissemination capability to the war fighter. For the United States Marine Corps (USMC), RQ-21A provides the Marine Expeditionary Force and subordinate commands (divisions and regiments) with a dedicated, organic Intelligence, Surveillance, and Reconnaissance (ISR) capability delivering intelligence products directly to the tactical commander in real time. For the United States Navy (USN) RQ-21A provides persistent RSTA support for tactical maneuver decisions and unit-level force defense/force protection for Navy Ships, Marine Corps land forces, Navy Expeditionary Combat Command forces, and Navy Special Warfare Units. This is a combined development program between Navy and Marine Corps through FY21. In support of Marine Corps Force Design 2030, Deputy Commandant, Combat, Development and Integration (CD&I) directed divestment of RQ-21A via letter dated February 22, 2021. This submission is the Marine Corps portion of the program and has been coordinated with the Navy budget submission under PE 0305234N RQ-21A Blackjack.

B. Program Change Summary (\$ in Millions)

	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022 Base</u>	<u>FY 2022 OCO</u>	<u>FY 2022 Total</u>
Previous President's Budget	10.914	10.853	11.304	-	11.304
Current President's Budget	10.914	10.853	0.000	-	0.000
Total Adjustments	0.000	0.000	-11.304	-	-11.304
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	0.000	0.000	-11.304	-	-11.304

Change Summary Explanation

Funding:

-In support of Marine Corps Force Design 2030, Deputy Commandant, Combat, Development and Integration (CD&I) directed divestment of RQ-21A via letter dated February 22, 2021. All funding FY22 and out was removed from the program.

Schedule:

-Schedule updated to reflect USMC divestment starting in FY21.

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Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0305239M / (U)RQ-21A				Project (Number/Name) 3192 / RQ-21 BLACKJACK			
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
3192: RQ-21 BLACKJACK	6.000	10.914	10.853	0.000	-	0.000	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-	-	-

Note

Prior to FY 2019, this effort was funded under PU 2298: SMALL (LEVEL 0) TACTICAL UAS (STUAL0).

A. Mission Description and Budget Item Justification

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The RQ-21A system will continue to evolve addressing capability shortfalls, new requirements, obsolescence equipment, reliability, maintainability, and safety issues. Additional capabilities and/or system upgrades may include Navy Command and Control integration, Extended Range, Weapons Integration, Heavy Fuel Engine, Short Wave Infrared, Laser Designator, Frequency Agile Communications Relay, Digital Common Data link, and cyclic refresh of the Electro-optical/Infrared (EO/IR) camera.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: Product Development/Upgrades	8.012	8.064	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2021 Plans:					
The program will perform investigations, studies, and continue prototype efforts for a Vertical Takeoff and Landing (VTOL) capability for RQ-21A platform. The program will improve the ability of the RQ-21A air vehicle to recover in a GPS denied environment and continue upgrades to reduce recovery damage, increase Propulsion Module Unit performance and reliability, improved turret optics and target acquisition capability, and decreasing the system's expeditionary footprint. The program will perform software development to correct deficiencies from test as well as enable additional capabilities such as an improved communications suite, Extended Range and enable a block upgrade of multiple system components at a time.					
FY 2022 Base Plans:					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
N/A						
FY 2022 OCO Plans: N/A						
FY 2021 to FY 2022 Increase/Decrease Statement: Funding decrease due to USMC divestment from the RQ-21A program based on USMC Force Design 2030.						
Title: Engineering Support		0.752	0.626	0.000	0.000	0.000
		Articles:	-	-	-	-
FY 2021 Plans: The program will perform software development to correct deficiencies from test. Continue Government Engineering Technical Support, other Government Support, Contract Support Services, Program Management Support, and program related travel in support of correction of deficiencies and upgrade efforts. The program will perform trade studies to correct deficiencies and improve capabilities such as an improved communications suite and enable a block upgrade of multiple system components at a time.						
FY 2022 Base Plans: N/A						
FY 2022 OCO Plans: N/A						
FY 2021 to FY 2022 Increase/Decrease Statement: Funding decrease due to USMC divestment from the RQ-21A program based on USMC Force Design 2030.						
Title: Test and Evaluation		2.150	2.163	0.000	0.000	0.000
		Articles:	-	-	-	-
FY 2021 Plans: Continue follow-on cybersecurity test and evaluation Continue follow on test and evaluation to evaluate reliability improvements Continue follow-on test and evaluation for Propulsion Module Unit upgrades and reliability improvements Conduct follow-on test and evaluation for the integration of special intel payloads on the RQ-21.						
FY 2022 Base Plans: N/A						
FY 2022 OCO Plans:						

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
N/A					
<i>FY 2021 to FY 2022 Increase/Decrease Statement:</i> Funding decrease due to USMC divestment from the RQ-21A program based on USMC Force Design 2030.					
Accomplishments/Planned Programs Subtotals	10.914	10.853	0.000	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022 Base</u>	<u>FY 2022 OCO</u>	<u>FY 2022 Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APN/0444: STUASLO	40.740	37.650	13.151	-	13.151	-	-	-	-	-	-
• RDTE/0305234N: (U)Small (Level 0) Tactical UAS (STUASLO)	9.410	8.773	1.772	-	1.772	-	-	-	-	-	-
• APN/0598: RQ-21 Series	58.032	7.794	14.123	-	14.123	-	-	-	-	-	-

Remarks

D. Acquisition Strategy

The program office utilized a competitive acquisition approach to award the Engineering and Manufacturing Development effort to field a capability that meets threshold requirements. Full rate production decision was successfully achieved in 4Q FY 2016. Attrition Air Vehicles procurement from FY 2019 on will be done via sole source contracts with Insitu, the prime contractor. Future payload upgrades and development shall be competitively sourced or procured via Government Laboratories with Insitu performing integration efforts as required.

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

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Product Development (\$ in Millions)				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			
Upgrade Efforts/Correction of Deficiencies	C/BOA	Insitu, Inc : Bingen, WA	4.597	5.000	Apr 2020	5.005	Apr 2021	0.000		-		0.000	-	-	-
Alternative recovery and landing	WR	NAWC-AD : Patuxent River, MD	0.000	3.012	Apr 2020	3.059	Apr 2021	0.000		-		0.000	-	-	-
Subtotal			4.597	8.012		8.064		0.000		-		0.000	-	-	N/A

Support (\$ in Millions)				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			
Government Engineering Support	WR	NAWC-AD : Patuxent River, MD	0.556	0.752	Dec 2019	0.626	Dec 2020	0.000		-		0.000	-	-	-
Software Engineering Support	WR	NAWC-WD : China Lake, Ca	0.222	0.000		0.000		0.000		-		0.000	-	-	-
Subtotal			0.778	0.752		0.626		0.000		-		0.000	-	-	N/A

Test and Evaluation (\$ in Millions)				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			
Development Test & Evaluation	TBD	OPTEVFOR : Norfolk, VA	0.226	0.400	Jul 2020	0.404	Jul 2021	0.000		-		0.000	-	-	-
Operational Test & Evaluation	WR	OPTEVFOR : Norfolk, VA	0.399	0.000		0.000		0.000		-		0.000	-	-	-
Development Test & Evaluation	WR	NAWC_AD : Patuxent River, MD	0.000	1.200	Jul 2020	1.206	Jul 2021	0.000		-		0.000	-	-	-
Operational Test & Evaluation	C/BA	VMX-1 : Yuma, AZ	0.000	0.550	Jul 2020	0.553	Jul 2021	0.000		-		0.000	-	-	-
Subtotal			0.625	2.150		2.163		0.000		-		0.000	-	-	N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy Date: May 2021

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	FY20				FY21				FY22			
	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones					★							
Integrated and Operational Test	Payloads / PMU / Cyber											
Capability Development	Payload / PMU / Cyber / Future Capes				GPS / Alternative - Navigation / IFF				EO / IR LD Integration			
					Communication Relay				C2 Capabilit Upgrade			
					EO / IR Turret Upgrade				Future Capability Development (Airborne Precision)			
					PMU V3				Extended Rails			
					Lighting							
System Deliveries	Mast Upgrade				C2 Capability Upgrade				EO / IR Turret Upgrade			
					Extend Rails							
					Communication Relay							
					Split Aces							
					SURFR							
									PMU V3			
	USN (25)											
	Procure System Qty USN				0				0			
	USMC (32)											
	Procure System Qty USMC				0				0			
	USMC / NSW				USMC				NSW			

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Exhibit R-4A, RDT&E Schedule Details: PB 2022 Navy **Date:** May 2021

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305239M / (U)RQ-21A	Project (Number/Name) 3192 / RQ-21 BLACKJACK
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
RQ-21A				
Acquisition Milestones: Marine Corps RQ-21A Divestment	2	2021	2	2021
Integrated and Operational Test: Integrated and Operational Test - Payloads (Propulsion Module Unit (PMU), Cybersecurity, SWIR, SW)	1	2020	4	2021
Capability Development: Communication Relay	1	2020	2	2022
Capability Development: EO/IR Turret Upgrade	2	2021	2	2022
Capability Development: Collision Lightning	4	2020	2	2021
Capability Development: GPS Anti-Jam	1	2021	4	2022
Capability Development: Extended Rails	4	2021	4	2022
Capability Development: C2 Capability Upgrade	4	2021	3	2022
Capability Development: V3 Propulsion Module Unit (PMU)	1	2021	3	2021
System Deliveries: Mast Upgrade	1	2020	4	2020
System Deliveries: EO/IR Turret Upgrade	3	2022	4	2022
System Deliveries: Split Aces Payloads	3	2020	4	2021
System Deliveries: C2 Capability Upgrade	4	2022	4	2022
System Deliveries: SURFR Payloads	1	2021	4	2021
System Deliveries: Extended Rails	4	2022	4	2022
System Deliveries: V3 Propulsion Module Unit (PMU)	4	2021	4	2022