Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305234N *I Small (Level 0) Tactical UAS (STUASL0)*

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	98.542	8.773	1.772	3.761	-	3.761	6.913	6.050	6.124	6.233	Continuing	Continuing
3192: *RQ-21 BLACKJACK*	98.542	8.773	1.772	3.761	-	3.761	6.913	6.050	6.124	6.233	Continuing	Continuing

A. Mission Description and Budget Item Justification

The RQ-21A BLACKJACK (formerly known as The Small Tactical Unmanned Aircraft System (STUAS)) is a United States Navy (USN) program that provides persistent maritime and land-based tactical Intelligence, Surveillance, and Reconnaissance/Target Acquisition support for tactical level maneuver decisions and unit level force defense/force protection for Naval amphibious assault ships (multi-ship classes) and Navy and Marine land forces. This system will support Naval Missions such as building the Recognized Maritime Picture, Maritime Security Operations, Maritime Interdiction Operations, and provide support for Naval Units operating from sea/shore in Overseas Contingency Operations. The RQ-21A BLACKJACK United States Marine Corps program (PE 0305239M) began divesting in 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.

The RQ-21A BLACKJACK will continue to upgrade the system to satisfy capability shortfalls, reliability, maintainability and safety issues. Upgraded capabilities may include Command and Control integration, Extended Range, Heavy Fuel Engine, Frequency Agile Communications Relay, Airborne Precision Engagement and Targeting, Digital Common Data Link, and periodic refresh of the Electro-Optical/Infrared camera. RQ-21A BLACKJACK will continue to expand its shipboard capability.

This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it includes development efforts to upgrade systems that have been fielded or have received approval for full-rate production and anticipate funding in the current or subsequent fiscal year.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	8.773	1.772	0.000	-	0.000
Current President's Budget	8.773	1.772	3.761	-	3.761
Total Adjustments	0.000	0.000	3.761	-	3.761
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	0.000	0.000	0.000	-	0.000
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000
• Adjustments to Budget Year	-	-	3.761	-	3.761

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305234N *I Small (Level 0) Tactical UAS (STUASL0)*

Change Summary Explanation

Schedule: Revised to reflect the program's latest procurement funding profile.

FY 2023 funding request was reduced by $0.044 million to account for the availability of prior year execution balances.

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

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305234N / *Small (Level 0) Tactical UAS (STUASL0)*	Project (Number/Name) 3192 / *RQ-21 BLACKJACK*	

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
3192: *RQ-21 BLACKJACK*	98.542	8.773	1.772	3.761	-	3.761	6.913	6.050	6.124	6.233	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The RQ-21A BLACKJACK (formerly known as The Small Tactical Unmanned Aircraft System (STUAS)) is a United States Navy (USN) program that provides persistent maritime and land-based tactical Intelligence, Surveillance, and Reconnaissance/Target Acquisition support for tactical level maneuver decisions and unit level force defense/force protection for Naval amphibious assault ships (multi-ship classes) and Navy and Marine land forces. This system will support Naval Missions such as building the Recognized Maritime Picture, Maritime Security Operations, Maritime Interdiction Operations, and provide support for Naval Units operating from sea/shore in Overseas Contingency Operations. The RQ-21A BLACKJACK United States Marine Corps program (PE 0305239M) began divesting in 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.

The RQ-21A BLACKJACK will continue to upgrade the system to satisfy capability shortfalls, reliability, maintainability and safety issues. Upgraded capabilities may include Command and Control integration, Extended Range, Heavy Fuel Engine, Frequency Agile Communications Relay, Airborne Precision Engagement and Targeting, Digital Common Data Link, and periodic refresh of the Electro-Optical/Infrared camera. RQ-21A BLACKJACK will continue to expand its shipboard capability.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Product Development/Upgrade Efforts	5.286	1.000	2.766	0.000	2.766
Articles:	-	-	-	-	-
FY 2022 Plans: The program will perform investigations, studies, and continue prototype efforts for an Airborne Precision Engagement and Targeting capability, and Weapons integration 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 command and control, reduce recovery damage, increase Propulsion Module Unit (PMU) performance and reliability, improved turret optics and target acquisition capability, and decreasing the system's expeditionary footprint. The program will perform software development and trade studies to correct deficiencies from test as well as enable additional capabilities such as Extended Range and enable a block upgrade of multiple system components at a time.					
FY 2023 Base Plans: The program will perform investigations, studies, and continue prototype efforts for an Airborne Precision Engagement and Targeting capability, and Weapons integration capability for RQ-21A platform. The program will					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305234N / *Small (Level 0) Tactical UAS (STUASL0)*	**Project (Number/Name)** 3192 / *RQ-21 BLACKJACK*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
improve the ability of the RQ-21A air vehicle to recover in a GPS denied environment and continue upgrades to command and control, reduce recovery damage, increase Propulsion Module Unit (PMU) performance and reliability, improved turret optics and target acquisition capability, and decreasing the system's expeditionary footprint. The program will perform software development and trade studies to correct deficiencies identified from test as well as enable additional capabilities such as Command and Control. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Increase from FY2022 to FY2023 of $1.766M is to support the Laser Designation and field user evaluation testing of the EO/IR Turret Upgrade efforts and the IFF Transponder field user evaluation testing for the encryption to correct operational deficiencies.					
Title: Engineering Support	3.487	0.772	0.995	0.000	0.995
Articles:	-	-	-	-	-
FY 2022 Plans: Continue Government Engineering Technical Support, Test and Evaluation, other Government Support, Contract Support Services, Program Management Support, and program related travel in support of correction of deficiencies. ***FY 2023 Base Plans:*** The program will perform investigations, studies, and continue prototype efforts for an Airborne Precision Engagement and Targeting capability, and Weapons integration 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 command and control, reduce recovery damage, increase Propulsion Module Unit (PMU) performance and reliability, improved turret optics and target acquisition capability, and decreasing the system's expeditionary footprint. The program will perform software development and trade studies to correct deficiencies from test as well as enable additional capabilities such as Extended Range and enable a block upgrade of multiple system components at a time. ***FY 2023 OCO Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305234N / *Small (Level 0) Tactical UAS (STUASL0)*	**Project (Number/Name)** 3192 / *RQ-21 BLACKJACK*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Increase from FY2022 to FY2023 of $0.223M is due to additional Engineering support required to support the EO/IR Turret Upgrade and IFF Transponder field user evaluations.					
Accomplishments/Planned Programs Subtotals	8.773	1.772	3.761	0.000	3.761

C. Other Program Funding Summary ($ in Millions)

Line Item	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
• APN/0444: *STUASLO*	30.121	13.151	2.703	-	2.703	2.778	2.832	0.000	0.000	0.000	347.890
• RDTEN/0305239M: *(U)RQ-21A*	10.853	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	27.767
• APN/0598: *RQ-21 Series*	7.794	14.123	6.576	-	6.576	6.554	6.638	0.000	0.000	0.000	119.410

Remarks

D. Acquisition Strategy

The program office has utilized a competitive acquisition approach for award of the Engineering and Manufacturing Development effort to field a capability that meets threshold requirements. Low Rate Initial Production (LRIP) test article was utilized to successfully complete Initial Operational Test and Evaluation (IOT&E). LRIP continues through Future payload upgrades and development shall be competitively sourced or procured via Government Laboratories with Insitu, the prime contractor, performing integration efforts as required.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305234N / *Small (Level 0) Tactical UAS (STUASL0)*	**Project (Number/Name)** 3192 / *RQ-21 BLACKJACK*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Upgrade Efforts/Correction of Deficiencies	C/BOA	Insitu, Inc : Bingen, WA	16.231	5.286	Mar 2021	1.000	Mar 2022	2.766	Mar 2023	-		2.766	Continuing	Continuing	Continuing
Prior year Prod Devt no longer funded in the FYDP	Various	Various : Various	29.125	0.000		0.000		0.000		-		0.000	0.000	29.125	-
		Subtotal	45.356	5.286		1.000		2.766		-		2.766	Continuing	Continuing	N/A

Remarks

Product development corresponds to R-2A Upgrade Efforts.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Engineering Support	WR	NAWC-WD : China Lake, CA	15.917	1.413	Dec 2020	0.293	Dec 2021	0.330	Dec 2022	-		0.330	Continuing	Continuing	Continuing
Government Engineering Support	WR	Various : Various	15.147	0.901	Dec 2020	0.061	Dec 2021	0.086	Dec 2022	-		0.086	Continuing	Continuing	Continuing
Prior year Support no longer funded in the FYDP	Various	Various : Various	8.482	0.000		0.000		0.000		-		0.000	0.000	8.482	-
		Subtotal	39.546	2.314		0.354		0.416		-		0.416	Continuing	Continuing	N/A

Remarks

Support is included within R-2A Engineering Support.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	Various : Various	4.111	0.413	Jul 2021	0.131	Jul 2022	0.155	Jul 2023	-		0.155	Continuing	Continuing	Continuing
Operational Test & Evaluation	WR	Various : Various	0.387	0.047	Dec 2020	0.022	Dec 2021	0.039	Dec 2022	-		0.039	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305234N / *Small (Level 0) Tactical UAS (STUASL0)*	Project (Number/Name) 3192 / *RQ-21 BLACKJACK*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			4.498	0.460		0.153		0.194		-		0.194	Continuing	Continuing	N/A

Remarks

Test and Evaluation is included within R-2A Engineering Support.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	MIPR	Various : Various	3.607	0.240	Mar 2021	0.100	Mar 2022	0.180	Mar 2023	-		0.180	Continuing	Continuing	Continuing
Program Management Support	C/CPFF	Bowhead : Patuxent River, MD	2.639	0.418	Jan 2021	0.125	Jan 2022	0.152	Jan 2023	-		0.152	Continuing	Continuing	Continuing
Travel	WR	Various : Various	0.547	0.055	Oct 2020	0.040	Oct 2021	0.053	Oct 2022	-		0.053	Continuing	Continuing	Continuing
Prior Year Mgmt Svcs no longer funded in the FYDP	Various	Various : Various	2.349	0.000		0.000		0.000		-		0.000	0.000	2.349	Continuing
Subtotal			9.142	0.713		0.265		0.385		-		0.385	Continuing	Continuing	N/A

Remarks

Management Services is included within R-2A Engineering Support.

	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	98.542	8.773		1.772		3.761		-		3.761	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305234N / *Small (Level 0) Tactical UAS (STUASL0)*	**Project (Number/Name)** 3192 / *RQ-21 BLACKJACK*

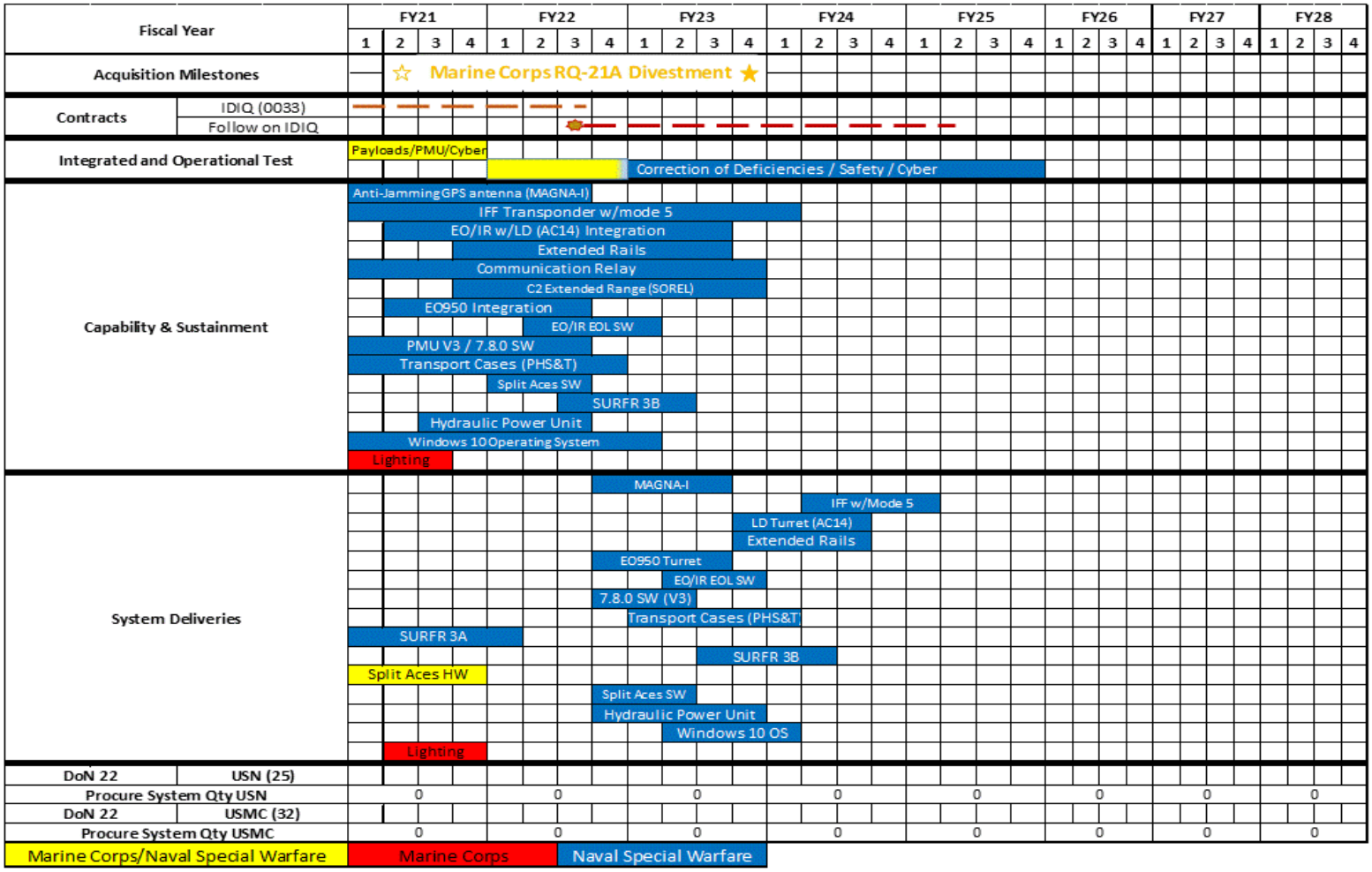

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305234N / *Small (Level 0) Tactical UAS (STUASL0)*	**Project (Number/Name)** 3192 / *RQ-21 BLACKJACK*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
RQ-21A				
Integrated and Operational Test: Integrated and Operational Test - Payloads (Correction of Deficiencies, Safety, Cybersecurity)	1	2022	4	2025
Capability Development: GPS Anti-Jam (MAGNA-I)	1	2021	3	2022
Capability Development: Communication Relay	1	2021	2	2022
Capability Development: C2 Capability Upgrade - Extended Range (SOREL)	4	2021	4	2022
Capability Development: EO/IR w/LD (AC14) Intergration	2	2021	2	2023
Capability Development: V3 Propulsion Module Unit (PMU) / 7.8.0 SW	1	2021	2	2022
Capability Development: Extended Rails/Alternative Navigation	3	2021	4	2022
Capability Development: EO950 Integration	2	2021	2	2022
Capability Development: EO/IR EOL SW	2	2022	4	2022
Capability Development: PHS&T (Transport Cases)	1	2021	2	2022
Systems Deliveries: EO/IR EOL SW	1	2023	3	2023
Systems Deliveries: LD Turrett (AC14)	2	2023	1	2024
Systems Deliveries: Extended Rails	3	2022	3	2023
Systems Deliveries: 7.8.0 SW (V3 PMU)	3	2022	1	2023
Systems Deliveries: PHS&T (Transport Cases)	3	2022	3	2023
Systems Deliveries: EO950 Turret	3	2022	3	2023