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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy Date: February 2018

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development					PE 0305234N I (U)SMALL (LEVEL 0) TACTICAL UAS (STUASLO)							
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	73.969	5.071	4.835	5.360	-	5.360	5.103	5.210	5.314	5.422	Continuing	Continuing
3192: RQ-21 BLACKJACK	73.969	5.071	4.835	5.360	-	5.360	5.103	5.210	5.314	5.422	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 combined United States Navy (USN) and United States Marine Corps (USMC) 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. This submission is the USNs portion of the program and has been coordinated with the USMC budget submission PE 0305239M (RQ-21A).

The RQ-21A BLACKJACK system will continue to evolve and upgrade capabilities to satisfy capabilities shortfalls, new requirements, and reliability, maintainability and safety issues. Upgraded capabilities may include Navy Command and Control integration, Weapons Integration, Heavy Fuel Engine, Laser Designator, Frequency Agile Communications Relay, Digital Common Data Link, and cyclic refresh of the Electro-Optical/Infrared camera. RQ-21A BLACKJACK will also continue to expand its shipboard capability across new ship classes.

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	5.071	4.835	5.551	-	5.551
Current President's Budget	5.071	4.835	5.360	-	5.360
Total Adjustments	0.000	0.000	-0.191	-	-0.191
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rate/Misc Adjustments	0.000	0.000	-0.191	-	-0.191

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0305234N / (U)SMALL (LEVEL 0) TACTICAL UAS (STUASLO)				Project (Number/Name) 3192 / RQ-21 BLACKJACK			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
3192: RQ-21 BLACKJACK	73.969	5.071	4.835	5.360	-	5.360	5.103	5.210	5.314	5.422	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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The RQ-21A BLACKJACK system will continue to evolve and upgrade capabilities to satisfy capabilities shortfalls, new requirements, and reliability, maintainability and safety issues. Upgraded capabilities may include Navy Command and Control integration, Weapons Integration, Heavy Fuel Engine, Laser Designator, Frequency Agile Communications Relay, Digital Common Data Link, new launch and recovery methods, parts durability and manufacturability, and cyclic refresh of the Electro-Optical/Infrared (EO/IR) camera. RQ-21A BLACKJACK will also continue to expand its shipboard capability across new ship classes.

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

	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: Upgrade Efforts	1.833	1.523	2.157	0.000	2.157
Articles:	-	-	-	-	-
FY 2018 Plans: RQ-21A Blackjack Corrective Action Program will continue the correction of deficiencies from the IOT&E Report. The program will continue software engineering and development for block software updates. The program will continue to assess improvements to the fuel tank, maximum gross takeoff weight, recovery system, avionics module, and other components. Initiate assessment of block upgrade plan for the RQ-21A system.					
FY 2019 Base Plans: RQ-21A Blackjack Corrective Action Program will continue the correction of deficiencies from the IOT&E Report. The program will continue software engineering and development for block software updates. The program will continue to assess improvements to the fuel tank, maximum gross takeoff weight, launch and recovery systems,					

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Appropriation/Budget Activity 1319 / 7		R-1 Program Element (Number/Name) PE 0305234N / (U)SMALL (LEVEL 0) TACTICAL UAS (STUASL0)		Project (Number/Name) 3192 / RQ-21 BLACKJACK				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
parts durability and manufacturability, avionics module, and other components. Begin implementation of block upgrade plan for the RQ-21A system. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement: The FY2019 funding request was reduced by \$0.634 million to account for the availability of prior year execution balances.								
Title: Engineering and Technical Services Articles: Description: Provides for the Government Engineering Technical Support, Logistics Support, Test and Evaluation, other Government Support, Contractor Support Services, Program Management Support, Program related travel in support of the upgrade/payload efforts. FY 2018 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 and upgrade efforts. FY 2019 Base 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 and upgrade efforts. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement: The FY2019 funding request was reduced by \$0.109 million to account for the availability of prior year execution balances.				3.238 -	3.312 -	3.203 -	0.000 -	3.203 -
Accomplishments/Planned Programs Subtotals				5.071	4.835	5.360	0.000	5.360

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Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305234N / (U)SMALL (LEVEL 0) TACTICAL UAS (STUASLO)	Project (Number/Name) 3192 / RQ-21 BLACKJACK	

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• APN/0444: STUASLO	62.956	4.780	14.866	35.065	49.931	17.790	24.629	18.775	18.792	0.000	328.151
• RDTEN/0305239M: (U)RQ-21A	8.379	8.899	10.914	-	10.914	10.914	10.913	11.306	10.532	Continuing	Continuing
• PMC/4737: STUAS/RQ-21A	87.177	86.241	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	400.638
• PMC/7000: Spares and Repair Parts	5.812	11.027	0.000	-	0.000	34.219	0.000	0.000	0.000	0.000	71.620

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.

E. Performance Metrics

Attainment of Full Rate Production, correction of deficiencies from the IOT&E Report, and attainment of United States Marine Corps and United States Navy Full Operational Capability in accordance with the approved schedule.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 7				R-1 Program Element (Number/Name) PE 0305234N / (U)SMALL (LEVEL 0) TACTICAL UAS (STUASL0)						Project (Number/Name) 3192 / RQ-21 BLACKJACK					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Upgrade Efforts/Correction of Deficiencies	C/BOA	Insitu, Inc : Bingen, WA	4.701	1.833	Jul 2017	1.523	Jul 2018	2.157	Jul 2019	-		2.157	Continuing	Continuing	Continuing
Mission Training Device	MIPR	JTC/SIL : Redstone Arsenal, AL	2.136	0.000		0.000		0.000		-		0.000	0.000	2.136	2.716
Prior year Prod Devt no longer funded in the FYDP	Various	Various : Various	26.989	0.000		0.000		0.000		-		0.000	0.000	26.989	26.989
Subtotal			33.826	1.833		1.523		2.157		-		2.157	Continuing	Continuing	N/A
Remarks Product development corresponds to R-2A Upgrade Efforts.															
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Integrated Logistics Support	WR	NAWC-AD : Patuxent River, MD	4.621	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Training Support	WR	NAWC-TSD : Orlando, FL	3.861	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Software Engineering Support	WR	NAWC-WD : China Lake, CA	9.940	1.576	Dec 2016	1.608	Dec 2017	1.470	Dec 2018	-		1.470	Continuing	Continuing	Continuing
Government Engineering Support	WR	NAWC-AD : Patuxent River, MD	12.658	0.525	Dec 2016	0.545	Dec 2017	0.554	Dec 2018	-		0.554	Continuing	Continuing	Continuing
Subtotal			31.080	2.101		2.153		2.024		-		2.024	Continuing	Continuing	N/A
Remarks Support is included within R-2A Engineering and Technical Services.															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 7						R-1 Program Element (Number/Name) PE 0305234N / (U)SMALL (LEVEL 0) TACTICAL UAS (STUASL0)				Project (Number/Name) 3192 / RQ-21 BLACKJACK					

Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 Test & Evaluation	TBD	OPTEVFOR : Norfolk, VA	2.528	0.384	Jul 2017	0.391	Jul 2018	0.400	Jul 2019	-		0.400	Continuing	Continuing	Continuing
Operational Test & Evaluation	WR	OPTEVFOR : Norfolk, VA	0.227	0.040	Dec 2016	0.040	Dec 2017	0.040	Dec 2018	-		0.040	Continuing	Continuing	Continuing
Subtotal			2.755	0.424		0.431		0.440		-		0.440	Continuing	Continuing	N/A

Remarks
Test and Evaluation is included within R-2A Engineering and Technical Services.

Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Contractor Engineering Support	MIPR	DTIC : FT. Belvoir, VA	2.672	0.230	Mar 2017	0.235	Mar 2018	0.240	Mar 2019	-		0.240	Continuing	Continuing	Continuing
Program Management Support	C/CPFF	Bowhead : Patuxent River, MD	0.936	0.435	Jan 2017	0.443	Jan 2018	0.451	Jan 2019	-		0.451	Continuing	Continuing	Continuing
Travel	WR	Various : Various	0.351	0.048	Oct 2016	0.050	Oct 2017	0.048	Oct 2018	-		0.048	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	Continuing	Continuing	Continuing
Subtotal			6.308	0.713		0.728		0.739		-		0.739	Continuing	Continuing	N/A

Remarks
Management Services is included within R-2A Engineering and Technical Services.

	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	73.969	5.071	4.835	5.360	-	5.360	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy

Date: February 2018

Appropriation/Budget Activity

1319 / 7

R-1 Program Element (Number/Name)

PE 0305234N / (U)SMALL (LEVEL 0)
TACTICAL UAS (STUASL0)

Project (Number/Name)

3192 / RQ-21 BLACKJACK

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
RQ-21A																												
Acquisition Milestones: Milestones: USMC Initial Operational Capability (IOC)																												
Acquisition Milestones: Milestones: Physical Configuration Audit																												
Acquisition Milestones: Milestones: Full-Rate Production Decision																												
Test and Evaluation: Follow-on Test and Evaluation 1																												
Test and Evaluation: Follow-on Test and Evaluation 2																												
Test and Evaluation: Follow-on Test and Evaluation 3																												
Test and Evaluation: Follow-on Test and Evaluation 4																												
Test and Evaluation: Follow-on Test and Evaluation 5																												
Test and Evaluation: Follow-on Test and Evaluation 6																												
Test and Evaluation: Follow-on Test and Evaluation 7																												
Test and Evaluation: Follow-on Test and Evaluation 8																												
Production Milestones: Contract Awards: LRIP Lot 5																												
Production Milestones: Contract Awards: Full-Rate Production Contract Award 1																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy																			Date: February 2018									
Appropriation/Budget Activity 1319 / 7									R-1 Program Element (Number/Name) PE 0305234N / (U)SMALL (LEVEL 0) TACTICAL UAS (STUASL0)									Project (Number/Name) 3192 / RQ-21 BLACKJACK										
	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
Production Milestones: Contract Awards: Full-Rate Production Contract Award 2																												
Production Milestones: Contract Awards: ICS Option Award 1																												
Production Milestones: Contract Awards: ICS Option Award 2																												
Production Milestones: Contract Awards: ICS Option Award 3																												
Deliveries: LRIP Lot 4 USMC																												
Deliveries: LRIP Lot 4 USN																												
Deliveries: LRIP Lot 5 USMC																												
Deliveries: LRIP Lot 5 USN																												
Deliveries: FRP Lot 1 USMC																												
Deliveries: FRP Lot 1 USN																												
Deliveries: FRP Lot 2																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305234N / (U)SMALL (LEVEL 0) TACTICAL UAS (STUASL0)	Project (Number/Name) 3192 / RQ-21 BLACKJACK	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
RQ-21A				
Acquisition Milestones: Milestones: USMC Initial Operational Capability (IOC)	1	2017	1	2017
Acquisition Milestones: Milestones: Physical Configuration Audit	1	2017	1	2017
Acquisition Milestones: Milestones: Full-Rate Production Decision	1	2017	1	2017
Test and Evaluation: Follow-on Test and Evaluation 1	1	2017	1	2017
Test and Evaluation: Follow-on Test and Evaluation 2	1	2017	1	2017
Test and Evaluation: Follow-on Test and Evaluation 3	3	2017	4	2017
Test and Evaluation: Follow-on Test and Evaluation 4	3	2018	4	2018
Test and Evaluation: Follow-on Test and Evaluation 5	3	2019	4	2019
Test and Evaluation: Follow-on Test and Evaluation 6	3	2020	4	2020
Test and Evaluation: Follow-on Test and Evaluation 7	3	2021	4	2021
Test and Evaluation: Follow-on Test and Evaluation 8	3	2022	4	2022
Production Milestones: Contract Awards: LRIP Lot 5	1	2017	1	2017
Production Milestones: Contract Awards: Full-Rate Production Contract Award 1	2	2017	2	2017
Production Milestones: Contract Awards: Full-Rate Production Contract Award 2	2	2018	2	2018
Production Milestones: Contract Awards: ICS Option Award 1	1	2017	1	2017
Production Milestones: Contract Awards: ICS Option Award 2	2	2017	2	2017
Production Milestones: Contract Awards: ICS Option Award 3	2	2018	2	2018
Deliveries: LRIP Lot 4 USMC	1	2017	1	2017
Deliveries: LRIP Lot 4 USN	1	2017	1	2017
Deliveries: LRIP Lot 5 USMC	1	2017	1	2017
Deliveries: LRIP Lot 5 USN	4	2017	4	2017

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018		
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		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
Deliveries: FRP Lot 1 USMC		4	2017	4	2017
Deliveries: FRP Lot 1 USN		1	2018	1	2018
Deliveries: FRP Lot 2		4	2018	4	2018