Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Navy	Date: March 2019
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305239M *I (U)RQ-21A*

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	80.659	10.500	6.000	10.914	-	10.914	10.908	11.303	10.527	10.737	Continuing	Continuing
2298: *SMALL (LEVEL 0) TACTICAL UAS (STUAL0)*	80.659	8.810	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	89.469
3192: *RQ-21 BLACKJACK*	0.000	0.000	6.000	10.914	-	10.914	10.908	11.303	10.527	10.737	Continuing	Continuing
9999: *Congressional Adds*	0.000	1.690	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.690

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. 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)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	8.899	10.914	10.914	-	10.914
Current President's Budget	10.500	6.000	10.914	-	10.914
Total Adjustments	1.601	-4.914	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-4.914			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.089	0.000			
• SBIR/STTR Transfer	-0.060	0.000			
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000
• Congressional Add Adjustments	1.750	-	-	-	-

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2018	FY 2019
Project: 9999: *Congressional Adds*		
Congressional Add: *Spectral and Reconnaissance Imagery for Tactical Exploitation*	1.690	0.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Navy	Date: March 2019
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305239M *I (U)RQ-21A*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2018	FY 2019
Congressional Add Subtotals for Project: 9999	1.690	0.000
Congressional Add Totals for all Projects	1.690	0.000

Change Summary Explanation

FY 2020 funding increase test and evaluation and product development due to investigations, studies, and prototype efforts for the VTOL capability for the RQ-21A platform.

Project 2298:
Note 1: FOT&E period updated with additional details.
Note 2: Capability Upgrade Development added to the schedule.

Project 3192:
Note 1: FOT&E periods updated with additional details and events added in FY 2023 and FY 2024.
Note 2: Production Milestones added to the schedule.
Note 3: Capability Upgrade Development added to the schedule.

Project 9999 - Congressional Add
Note 1: C415 - Spectral and Reconnaissance Imagery for Tactical Exploitation schedule and cost details added.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305239M / *(U)RQ-21A*	Project (Number/Name) 2298 / *SMALL (LEVEL 0) TACTICAL UAS (STUAL0)*	

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
2298: *SMALL (LEVEL 0) TACTICAL UAS (STUAL0)*	80.659	8.810	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	89.469
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

In FY19, this effort moved to PE 0305239M PU 3192 (RQ-21 Blackjack).

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 Warfighter. 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. This submission is the Marine Corps portion of the program and has been coordinated with the Navy budget submission PE 0305234N RQ-21A BLACKJACK.

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, Weapons Integration, Heavy Fuel Engine, Short Wave Infrared, Laser Designator, Frequency Agile Communications Relay, Digital Common Data link, new launch and recovery methods, parts durability, reparability, and manufacturability, and cyclic refresh of the Electro-optical/Infrared (EO/IR) camera.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Product Development	7.674	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2019 Plans: N/A					
FY 2020 Base Plans: N/A					
FY 2020 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305239M / *(U)RQ-21A*	**Project (Number/Name)** 2298 / *SMALL (LEVEL 0) TACTICAL UAS (STUAL0)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
N/A					
Title: Support	0.629	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2019 Plans: N/A					
FY 2020 Base Plans: N/A					
FY 2020 OCO Plans: N/A					
Title: Test and Evaluation	0.507	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2019 Plans: N/A					
FY 2020 Base Plans: N/A					
FY 2020 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	8.810	0.000	0.000	0.000	0.000

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
• RDTEN/0305234N: *(U)SMALL (LEVEL 0) TACTICAL UAS (STUASL0)*	4.827	5.265	11.545	-	11.545	8.895	6.126	6.083	6.203	Continuing	Continuing
• PMC/4737: *RQ-21 UAS*	82.641	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	397.038
• PMC/7000: *Spares and Repair Parts*	11.027	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	37.400
• APN/0444: *STUASLO*	9.980	46.931	43.819	7.921	51.740	33.939	31.350	30.421	29.107	0.000	426.922

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305239M / *(U)RQ-21A*	**Project (Number/Name)** 2298 / *SMALL (LEVEL 0) TACTICAL UAS (STUAL0)*

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

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. The Low Rate Initial Production (LRIP) test article was utilized to successfully complete Initial Operational Test and Evaluation. LRIP production continues through FY16 to demonstrate production line maturity. Marine Corps Initial Operational Capability was achieved in 2Q FY16 with entry into full rate production decision occurring in 4Q FY16. 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 (FRP), correction of Deficiencies from the Initial Operation Test & Evaluation (IOT&E) Report, and attainment of USMC Initial Operational Capability (IOC) and Full Operational Capability (FOC) in accordance with the approved schedule.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305239M / *(U)RQ-21A*	Project (Number/Name) 2298 / *SMALL (LEVEL 0) TACTICAL UAS (STUAL0)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development/ Upgrades	C/BOA	Insitu, Inc : Bingen, WA	20.930	7.674	Feb 2018	0.000		0.000		-		0.000	0.000	28.604	28.693
Product Development/ Upgrades	WR	NAWCAD : Patuxent River, MD	0.765	0.000		0.000		0.000		-		0.000	0.000	0.765	-
Prior Years Cumulative Total	Various	Various : Various	29.062	0.000		0.000		0.000		-		0.000	0.000	29.062	-
		Subtotal	50.757	7.674		0.000		0.000		-		0.000	0.000	58.431	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWCAD : Patuxent River, MD	3.248	0.629	Dec 2017	0.000		0.000		-		0.000	0.000	3.877	-
		Subtotal	3.248	0.629		0.000		0.000		-		0.000	0.000	3.877	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Test and Evaluation	WR	NAWCAD : Patuxent River, MD	1.311	0.507	Dec 2017	0.000		0.000		-		0.000	0.000	1.818	-
Contractor Test System Support	C/FFP	Insitu, Inc : Bingen, WA	1.788	0.000		0.000		0.000		-		0.000	0.000	1.788	1.788
		Subtotal	3.099	0.507		0.000		0.000		-		0.000	0.000	3.606	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Years Cumulative	Various	Various : Various	23.555	0.000		0.000		0.000		-		0.000	0.000	23.555	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305239M / *(U)RQ-21A*	**Project (Number/Name)** 2298 / *SMALL (LEVEL 0) TACTICAL UAS (STUAL0)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	23.555	0.000		0.000		0.000		-		0.000	0.000	23.555	N/A

	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	80.659	8.810		0.000		0.000		-		0.000	0.000	89.469	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305239M / *(U)RQ-21A*	**Project (Number/Name)** 2298 / *SMALL (LEVEL 0) TACTICAL UAS (STUAL0)*

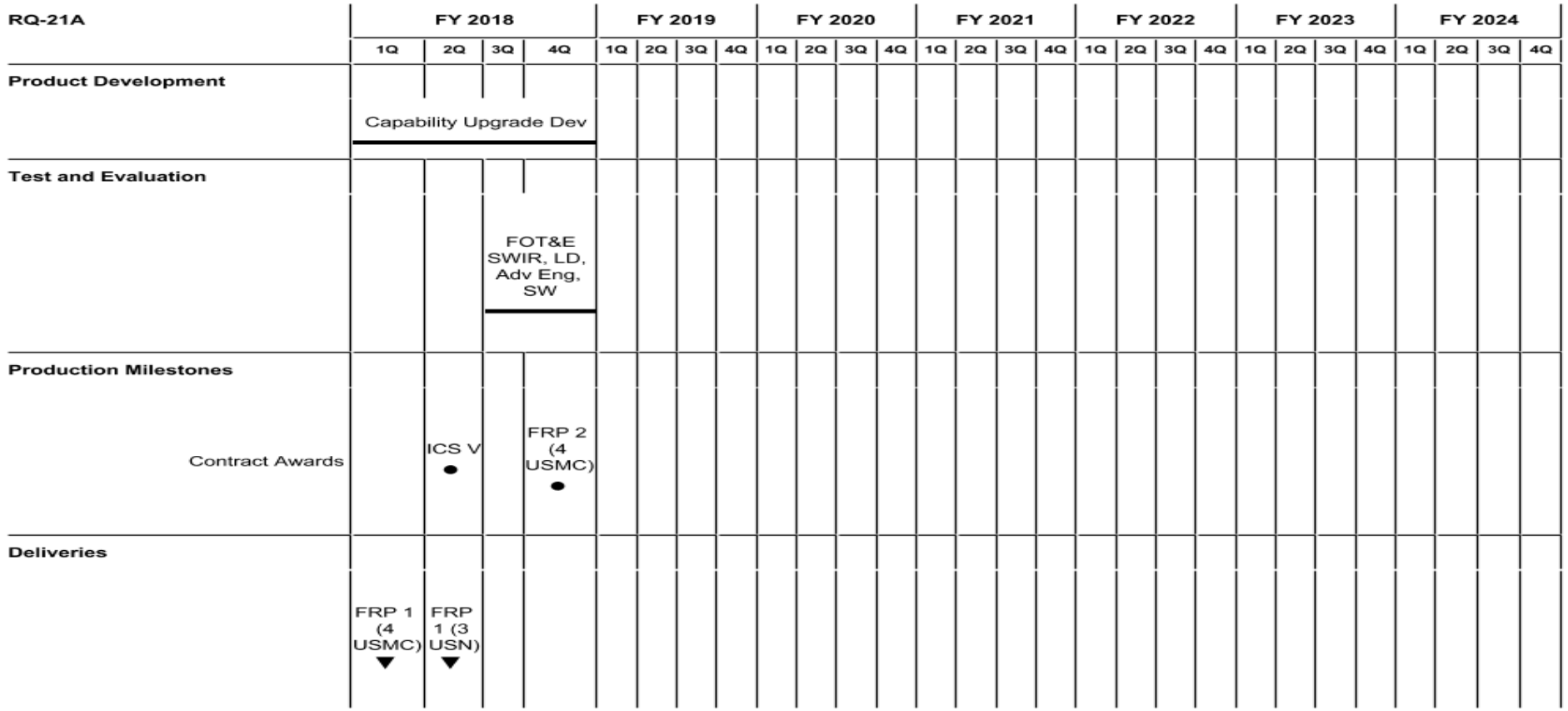

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305239M / *(U)RQ-21A*	**Project (Number/Name)** 2298 / *SMALL (LEVEL 0) TACTICAL UAS (STUAL0)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
RQ-21A				
Product Development: Capability Upgrade Development	1	2018	4	2018
Test and Evaluation: Follow-On Test and Evaluation - SWIR, LD, Adv Engine, Software upgrades	3	2018	4	2018
Production Milestones: Contract Awards: Full-Rate Production Contract Award 2	4	2018	4	2018
Production Milestones: Contract Awards: ICS Contract Award 5	2	2018	2	2018
Deliveries: FRP Lot 1 (4 USMC)	1	2018	1	2018
Deliveries: FRP Lot 1 (3 USN)	2	2018	2	2018

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy			Date: March 2019
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 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
3192: *RQ-21 BLACKJACK*	0.000	0.000	6.000	10.914	-	10.914	10.908	11.303	10.527	10.737	Continuing	Continuing
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

The RQ-21A program provides persistent maritime and land-based tactical Reconnaissance, Surveillance and Target Acquisition (RSTA) data collection and dissemination capability to the Warfighter. 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. This submission is the Marine Corps portion of the program and has been coordinated with the Navy budget submission PE 0305234N RQ-21A BLACKJACK.

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, 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Product Development	0.000	4.597	8.012	0.000	8.012
Articles:	-	-	-	-	-
FY 2019 Plans: RQ-21A Blackjack Corrective Action Program will continue the correction of deficiencies from the Initial Operation Test & Evaluation (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, parts durability and manufacturability, avionics module, and other components. Initiate assessment of block upgrade plan for the RQ-21A system.					
FY 2020 Base Plans: The program will perform investigations, studies, and 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					

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305239M / *(U)RQ-21A*	**Project (Number/Name)** 3192 / *RQ-21 BLACKJACK*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Unit performance and reliability, and improved turret optics. The program will perform software development to correct deficiencies from test as well as enable additional capabilities such as VTOL and enable a block upgrade of multiple system components at a time. ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The FY 2020 funding increase is due to investigations, studies, and prototype efforts for the VTOL capability for the RQ-21A platform.					
Title: Support ***Articles:*** ***FY 2019 Plans:*** 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. ***FY 2020 Base Plans:*** 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. ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The FY 2020 funding request was decreased by $.026 million due to a reduction of support required for correction of deficiencies and upgrade efforts.	0.000 -	0.778 -	0.752 -	0.000 -	0.752 -
Title: Test and Evaluation ***Articles:*** ***FY 2019 Plans:*** Initiate follow-on test and evaluation for Propulsion Module Unit Initiate follow-on test and evaluation for SAR/GMTI payload Initiate follow-on test and evaluation for Laser Designator	0.000 -	0.625 -	2.150 -	0.000 -	2.150 -

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305239M / *(U)RQ-21A*	**Project (Number/Name)** 3192 / *RQ-21 BLACKJACK*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Initiate follow-on cyber security test and evaluation ***FY 2020 Base Plans:*** Continue follow-on cybersecurity test and evaluation Initiate 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 on special intel payloads ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The FY 2020 funding increase in Test and Evaluation is due to the addition of more complex reliability improvements test and evaluation efforts.					
Accomplishments/Planned Programs Subtotals	0.000	6.000	10.914	0.000	10.914

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
• APN/0444: *STUASLO*	9.980	46.931	43.819	7.921	51.740	33.939	31.350	30.421	29.107	0.000	426.922
• RDTE/0305234N: *(U)Small (Level 0) Tactical UAS (STUASL0)*	4.827	5.265	11.545	-	11.545	8.895	6.126	6.083	6.203	Continuing	Continuing

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.

E. Performance Metrics

Attainment of Full Rate Production (FRP), correction of Deficiencies from the IOT&E Report, and attainment of USMC Initial Operational Capability (IOC) and Full Operational Capability (FOC) in accordance with the approved schedule.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305239M / *(U)RQ-21A*	Project (Number/Name) 3192 / *RQ-21 BLACKJACK*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Upgrade Efforts/Correction of Deficiencies	C/BOA	Insitu, Inc : Bingen, WA	0.000	0.000		4.597	Jul 2019	5.000	Apr 2020	-		5.000	Continuing	Continuing	Continuing
Alternative recovery and landing	WR	NAWC-AD : Patuxent River, MD	0.000	0.000		0.000		3.012	Apr 2020	-		3.012	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		4.597		8.012		-		8.012	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWC-AD : Patuxent River, MD	0.000	0.000		0.556	Dec 2018	0.752	Dec 2019	-		0.752	Continuing	Continuing	Continuing
Software Engineering Support	WR	NAWC-WD : China Lake, Ca	0.000	0.000		0.222	Dec 2018	0.000		-		0.000	0.000	0.222	-
		Subtotal	0.000	0.000		0.778		0.752		-		0.752	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation	TBD	OPTEVFOR : Norfolk, VA	0.000	0.000		0.226	Jul 2019	0.400	Jul 2020	-		0.400	Continuing	Continuing	Continuing
Operational Test & Evaluation	WR	OPTEVFOR : Norfolk, VA	0.000	0.000		0.399	Dec 2018	0.000		-		0.000	0.000	0.399	-
Development Test & Evaluation	WR	NAWC_AD : Patuxent River, MD	0.000	0.000		0.000		1.200	Jul 2020	-		1.200	Continuing	Continuing	Continuing
Operational Test & Evaluation	C/BA	VMX-1 : Yuma, AZ	0.000	0.000		0.000		0.550	Jul 2020	-		0.550	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.625		2.150		-		2.150	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305239M / *(U)RQ-21A*	Project (Number/Name) 3192 / *RQ-21 BLACKJACK*	

	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	0.000	0.000		6.000		10.914		-		10.914	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305239M / *(U)RQ-21A*	**Project (Number/Name)** 3192 / *RQ-21 BLACKJACK*

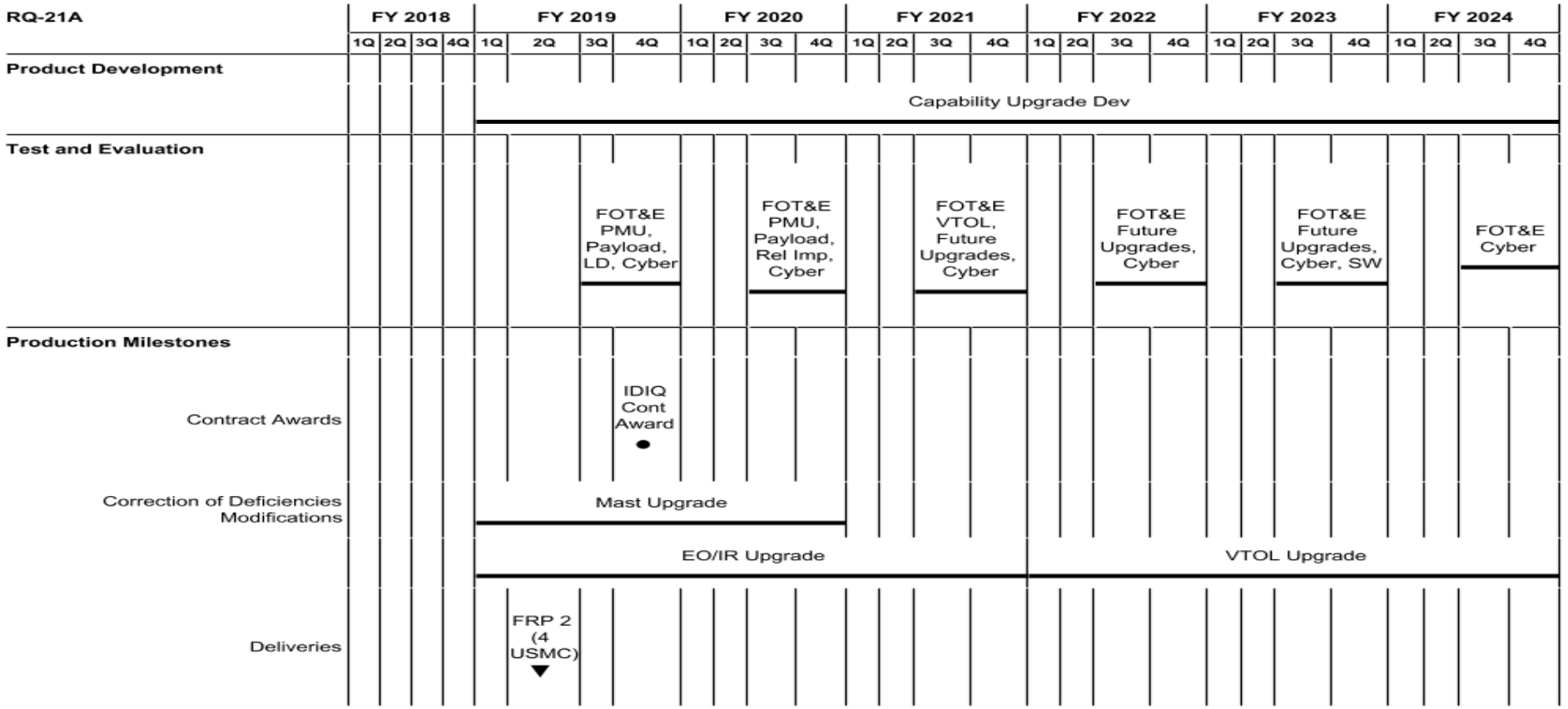

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305239M / *(U)RQ-21A*	**Project (Number/Name)** 3192 / *RQ-21 BLACKJACK*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
RQ-21A				
Product Development: Capability Upgrade Development	1	2019	4	2024
Test and Evaluation: Follow-On Test and Evaluation - Propulsion Module Unit, Payload, LD, Cybersecurity	3	2019	4	2019
Test and Evaluation: Follow-On Test and Evaluation - Propulsion Module Unit, Payload, Reliability Improvements, Cybersecurity	3	2020	4	2020
Test and Evaluation: Follow-On Test and Evaluation -- VTOL, Future Upgrades, Cybersecurity	3	2021	4	2021
Test and Evaluation: Follow-On Test and Evaluation - Future Upgrades, Cybersecurity	3	2022	4	2022
Test and Evaluation: Follow-On Test and Evaluation - Future Upgrades, Cybersecurity, Software Upgrades	3	2023	4	2023
Test and Evaluation: Follow-On Test and Evaluation - Cybersecurity	3	2024	4	2024
Production Milestones: Contract Awards: IDIQ Contract Award	4	2019	4	2019
Production Milestones: Correction of Deficiencies Modifications: Mast Upgrade	1	2019	4	2020
Production Milestones: Correction of Deficiencies Modifications: EO/IR Upgrade	1	2019	4	2021
Production Milestones: Correction of Deficiencies Modifications: VTOL Upgrade	1	2022	4	2024
Production Milestones: Deliveries: FRP Lot 2 USMC	2	2019	2	2019

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy			Date: March 2019
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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
9999: *Congressional Adds*	0.000	1.690	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.690
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Office of Naval Research Future Naval Capability (FNC) program, Spectral and Reconnaissance Imagery for Tactical Exploitation (SPRITE), is a science and technology research development project to achieve a multi-sensor payload for Group 3 Small Tactical UAS that incorporates a daytime wide area motion imagery (WAMI) sensor, a Hyper-, Mulit-spectral sensor and a high resolution, narrow field of view (FOV) inspection sensor. The SPRITE FNC research effort maintains an active Technology Transition Agreement (TTA) that is scoped to result in a demonstration event on a target or surrogate Group 3 TUAS in FY20. Pending successful achievement of the development performance criteria, subsequent maturing of the prototype is needed to achieve integration and transition to a Program of Record (POR). The USMC has a standing urgent needs based requirement for a SPRITE capability to provide the Marine Air-Ground Task Force (MAGTF) a flexible, real-time Intelligence, Surveillance, and Reconnaissance (ISR)/situational awareness asset that supports Find/Fix/Finish/Exploit/Analyze (F3EA), Counter-Weapons of Mass Destruction, operational over watch, pattern of life analysis, target development, mapping, event reconstruction efforts and force protection missions over city-sized areas. Recognizing that subsets of these advanced EO capabilities are currently mature enough for integration and testing on the USMC RQ-21A Blackjack unmanned aircraft before the complete SPRITE capability is available, the congressional add will contribute to the cost required to mature these spinout subsystems into a Wide Area Surveillance payload functional for user evaluation and testing on the RQ-21A within the Unmanned Aerial Systems Payloads program. It is anticipated that this will effectively accelerate this capability transition by 3-5 years, contributing significantly towards the systems engineering, and light weighting redesign of a proof-of-concept prototype.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019
Congressional Add: Spectral and Reconnaissance Imagery for Tactical Exploitation	1.690	0.000
FY 2018 Accomplishments: N/A		
FY 2019 Plans: N/A		
Congressional Adds Subtotals	1.690	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The UAS Payload program utilizes a hybrid acquisition model. Development is a mixture of evolutionary and single step to full capability processes, but typically follows an incremental or spiral approach. The UAS payloads portfolio consists of a family of mission kits and spans a broad spectrum of capability areas. Capabilities are transitioned from variously sourced, high (5-7) Technology Readiness Level (TRL) science and technology (S&T) projects to the UAS Payloads portfolio for completion

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
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of research, development, test, and evaluation (RDTE) of the capability, systems engineering development into mission kits, and entrance into the Engineering Change Proposal (ECP) process for integration into Small Tactical Unmanned Aircraft Systems (STUAS). Mission kits field capabilities that meet threshold or objective requirements, and facilitate the six functions of Marine Corps Aviation and the Marine Corps Intelligence Surveillance, and Reconnaissance Enterprise across the range of military operations.

E. Performance Metrics

Validation of funding, derived requirements, project risks, cost and schedule estimates, contracting strategy, achievement of a technology readiness level of TRL 7 or higher for Program of Record (PoR) transition and attainment of USMC Initial Operational Capability (IOC) in accordance with the approved schedule.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305239M / *(U)RQ-21A*	Project (Number/Name) 9999 / *Congressional Adds*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SPRITE Development	C/CPFF	TBD : Lakehurst, NJ	0.000	1.690	Aug 2018	0.000		0.000		-		0.000	0.000	1.690	1.690
		Subtotal	0.000	1.690		0.000		0.000		-		0.000	0.000	1.690	N/A

	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	0.000	1.690		0.000		0.000		-		0.000	0.000	1.690	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305239M / *(U)RQ-21A*	**Project (Number/Name)** 9999 / *Congressional Adds*

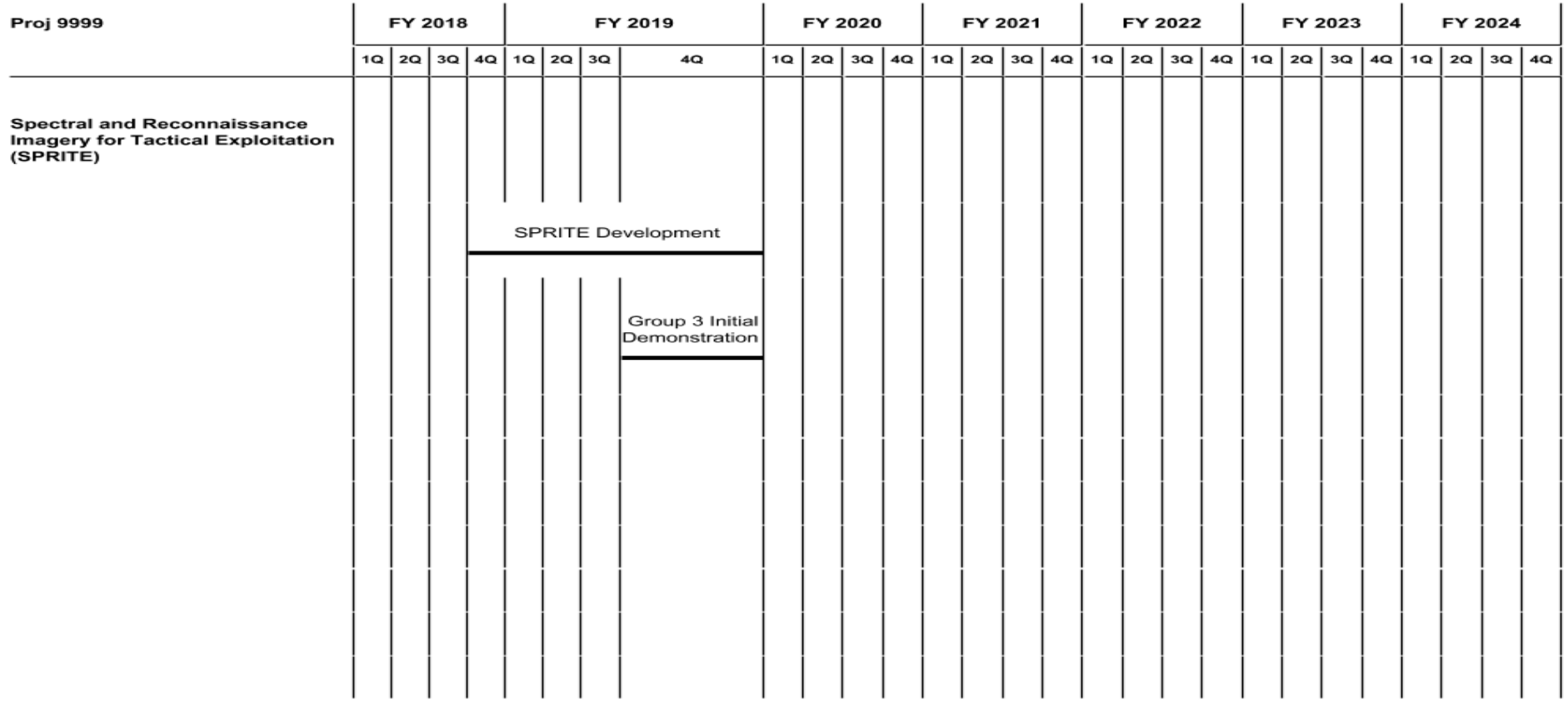

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy		Date: March 2019
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305239M / *(U)RQ-21A*	**Project (Number/Name)** 9999 / *Congressional Adds*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9999				
Spectral and Reconnaissance Imagery for Tactical Exploitation (SPRITE): SPRITE Development	4	2018	4	2019
Spectral and Reconnaissance Imagery for Tactical Exploitation (SPRITE): SPRITE Group 3 Initial Demonstration	4	2019	4	2019