Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Navy												Date: May 2021
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy* / BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0305232M / *RQ-11 UAV*							
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	5.968	0.509	0.537	0.533	-	0.533	-	-	-	-	-	-
2292: *Unmanned Air Systems (Intel)*	5.968	0.509	0.537	0.533	-	0.533	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

Family of Small Unmanned Aircraft Systems (FoSUAS) [formerly Small Unit Remote Scouting System (SURSS)] - The FoSUAS program provides small unmanned aircraft systems (SUAS) for battalion/company/detachment level units with scalable airborne Reconnaissance, Surveillance and Target Acquisition (RSTA) capabilities to aid in detecting, identifying, engaging, and/or avoiding enemy units. SUAS meet validated operational requirements delineated in the Operational Requirements Document (ORD), Vertical Take Off and Landing (VTOL) Rapid Acquisition Top Level Requirements (TLR), and Long Range/Long Endurance (LR/LE) TLR.

The ORD and TLRs are transitioning to a new Capability Development Document (CDD) that will incorporate unique mission kits, mission payloads, air vehicle enhancements, and modifications of UAS and related Ground Control Stations (GCS) for tactical FoSUAS systems. FoSUAS will consist of Short Range/Short Endurance (SR/SE), Medium Range/Medium endurance (MR/ME), and LR/LE systems. In addition to supporting the requirements in the ORD and TLR documents, the FoSUAS program also conducts Field User Evaluations (FUEs) to support Urgent Universal Needs Statements (UUNS). SUAS Reusable Architecture (SRA) capability will reduce the size, weight, and manpower required to operate a FoSUAS GCS, increases the mobility of the operator, and improves digital interoperability.

B. Program Change Summary ($ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	0.509	0.537	0.540	-	0.540
Current President's Budget	0.509	0.537	0.533	-	0.533
Total Adjustments	0.000	0.000	-0.007	-	-0.007
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rate/Misc Adjustments	0.000	0.000	-0.007	-	-0.007

Change Summary Explanation

No significant changes.

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy			Date: May 2021
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305232M / *RQ-11 UAV*	Project (Number/Name) 2292 / *Unmanned Air Systems (Intel)*	

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
2292: *Unmanned Air Systems (Intel)*	5.968	0.509	0.537	0.533	-	0.533	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Family of Small Unmanned Aircraft Systems (FoSUAS) [formerly Small Unit Remote Scouting System (SURSS)] - In support of the Commandant of the Marine Corps (CMC) 2019 Planning Guidance and service Force Design 2030 requirements, the FoSUAS program provides small unmanned aircraft systems (SUAS) for battalion/ company/detachment level units with scalable airborne Reconnaissance, Surveillance and Target Acquisition (RSTA) capabilities to aid in detecting, identifying, engaging, and/or avoiding enemy units. SUAS meet validated operational requirements delineated in the Operational Requirements Document (ORD), Vertical Take Off and Landing (VTOL) Rapid Acquisition Top Level Requirements (TLR), and Long Range/Long Endurance (LR/LE) TLR.

The ORD and TLRs are transitioning to a new Capability Development Document (CDD) that will incorporate unique mission kits, mission payloads, air vehicle enhancements, and modifications of UAS and related Ground Control Stations (GCS) for tactical FoSUAS systems. FoSUAS will consist of Short Range/Short Endurance (SR/SE), Medium Range/Medium endurance (MR/ME), and LR/LE systems. In addition to supporting the requirements in the ORD and TLR documents, the FoSUAS program also conducts Field User Evaluations (FUEs) to support Urgent Universal Needs Statements (UUNS). SUAS Reusable Architecture (SRA) capability will reduce the size, weight, and manpower required to operate a FoSUAS GCS, increases the mobility of the operator, and improves digital interoperability.

The SUAS Reusable Architecture (SRA) project, a technology improvement effort, will increase interoperability, protect cyber security and reduce cyber security risk, decrease maintenance and sustainment costs, minimize risk and cost associated with technology insertion and improvement, and to reduce manpower required to operate a FoSUAS. Development efforts for FoSUAS are ongoing in order to keep SUAS capabilities aligned with emerging technologies and threats. FoSUAS is developing SRA to establish reference implementations and industry guidance for all key SUAS interfaces, drastically improving interoperability by permitting industry, government, and academia to design-to-field hardware and software capabilities with well-defined integration and cybersecurity requirements up front. In addition to accelerating payload integration, SRA will allow portability of both software and hardware-based functionality across disparate platforms and control segments, as well as enable rapid integration of both open and closed-source artificial intelligence (AI)/machine learning (AI/ML) tools to inject autonomy and target recognition capabilities into FoSUAS. This effort will reduce duplicative engineering, training, integration, and sustainment efforts associated with closed, proprietary systems. SRA also seeks to authorize all SRA-compliance systems under a single service accreditation and COTS waiver in order to define, address, and mitigate security vulnerabilities at the enterprise-level in current and future platforms. Software updates, improved batteries, and alternative repair components are also being explored to increase effectiveness and reliability. In addition, required initial and recurring cyber assessments are conducted in order to meet OSD-mandated waivers for both CONUS and OCONUS FoSUAS operations.

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 and Support	0.259	0.401	0.401	0.000	0.401
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305232M / *RQ-11 UAV*	**Project (Number/Name)** 2292 / *Unmanned Air Systems (Intel)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
FY 2021 Plans: -Integrate SUAS Reusable Architecture (SRA) -Complete initial and recurring Cyber Assessments of FoSUAS IAW OSD direction ***FY 2022 Base Plans:*** -Continue development and integration of SRA -Complete initial (on new components) and mandatory recurring cyber assessments of FoSUAS as required ***FY 2022 OCO Plans:*** N/A					
Title: Test and Evaluation (Operational Assessment)	0.250	0.136	0.132	0.000	0.132
Articles:	-	-	-	-	-
FY 2021 Plans: - Perform operational assessment of SUAS Reusable Architecture (SRA) for FoSUAS platforms. - Continue assessment of low cost, commercial available Unmanned Aerial Systems to inform future procurements, and determine potential adversary capabilities. ***FY 2022 Base Plans:*** - Continue operational assessment of SUAS Reusable Architecture (SRA) for FoSUAS platforms. - Continue assessment of low cost, commercial available Unmanned Aerial Systems to inform future procurements, and determine potential adversary capabilities. ***FY 2022 OCO Plans:*** N/A ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Funding decrease of $0.004M is due to rate adjustments.					
Accomplishments/Planned Programs Subtotals	0.509	0.537	0.533	0.000	0.533

C. Other Program Funding Summary ($ in Millions)

Line Item	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
• PMC/4757: *RQ-11 UAV*	28.036	20.889	24.299	-	24.299	-	-	-	-	-	-

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305232M / *RQ-11 UAV*	**Project (Number/Name)** 2292 / *Unmanned Air Systems (Intel)*

D. Acquisition Strategy

The program office is pursuing a rapid acquisition approach to quickly field new technology and capabilities to the warfighter.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy			Date: May 2021
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305232M / *RQ-11 UAV*	Project (Number/Name) 2292 / *Unmanned Air Systems (Intel)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMGCS/THS Software Integration	WR	NAWCWD : China Lake, CA	0.659	0.075	Jan 2020	0.000		0.000		-		0.000	-	-	-
MANET Integration	WR	NAWCAD : Pax River, MD	0.811	0.089	Jan 2020	0.000		0.000		-		0.000	-	-	-
SIGNIT, Laser Marker, and SRA Integration	WR	NAWCAD : Pax River, MD	0.618	0.095	Jan 2020	0.261	Dec 2020	0.261	Dec 2021	-		0.261	-	-	-
Prior Years Cumulative Funding	Various	Various : Various	1.342	0.000		0.000		0.000		-		0.000	-	-	-
		Subtotal	3.430	0.259		0.261		0.261		-		0.261	-	-	N/A

Remarks

SOMGCS/THS software integration has transitioned to SRA.
SIGINT and Laser Marker efforts have proven to be ineffective and are no longer being integrated. The only integration effort FY 2021 and out is for SRA.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
COTS UAS Analysis/Cyber Security	WR	NAWCAD : Pax River, MD	0.375	0.000		0.140	Mar 2021	0.140	Mar 2022	-		0.140	-	-	-
Engineering Analysis	WR	NAWCAD : Pax River, MD	1.354	0.000		0.000		0.000		-		0.000	-	-	-
		Subtotal	1.729	0.000		0.140		0.140		-		0.140	-	-	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMGCS/THS	WR	NAWCAD : Pax River, MD	0.225	0.080	Jan 2020	0.000		0.000		-		0.000	-	-	-
SIGNIT, Laser Marker, Operational Assessment and SRA	WR	NAWCAD : Pax River, MD	0.426	0.085	Jan 2020	0.136	Jan 2021	0.132	Jan 2022	-		0.132	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy			Date: May 2021
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305232M / *RQ-11 UAV*	Project (Number/Name) 2292 / *Unmanned Air Systems (Intel)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MANET Operational Assessment	WR	NACWAD : Pax River, MD	0.158	0.085	Jan 2020	0.000		0.000		-		0.000	-	-	-
		Subtotal	0.809	0.250		0.136		0.132		-		0.132	-	-	N/A

Remarks

SOMGCS/THS software integration has transitioned to SRA.
SIGINT and Laser Marker efforts have proven to be ineffective and are no longer being integrated. The only integration effort FY 2021 and out is for SRA.

	Prior Years	FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	5.968	0.509		0.537		0.533		-		0.533	-	-	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305232M / *RQ-11 UAV*	**Project (Number/Name)** 2292 / *Unmanned Air Systems (Intel)*

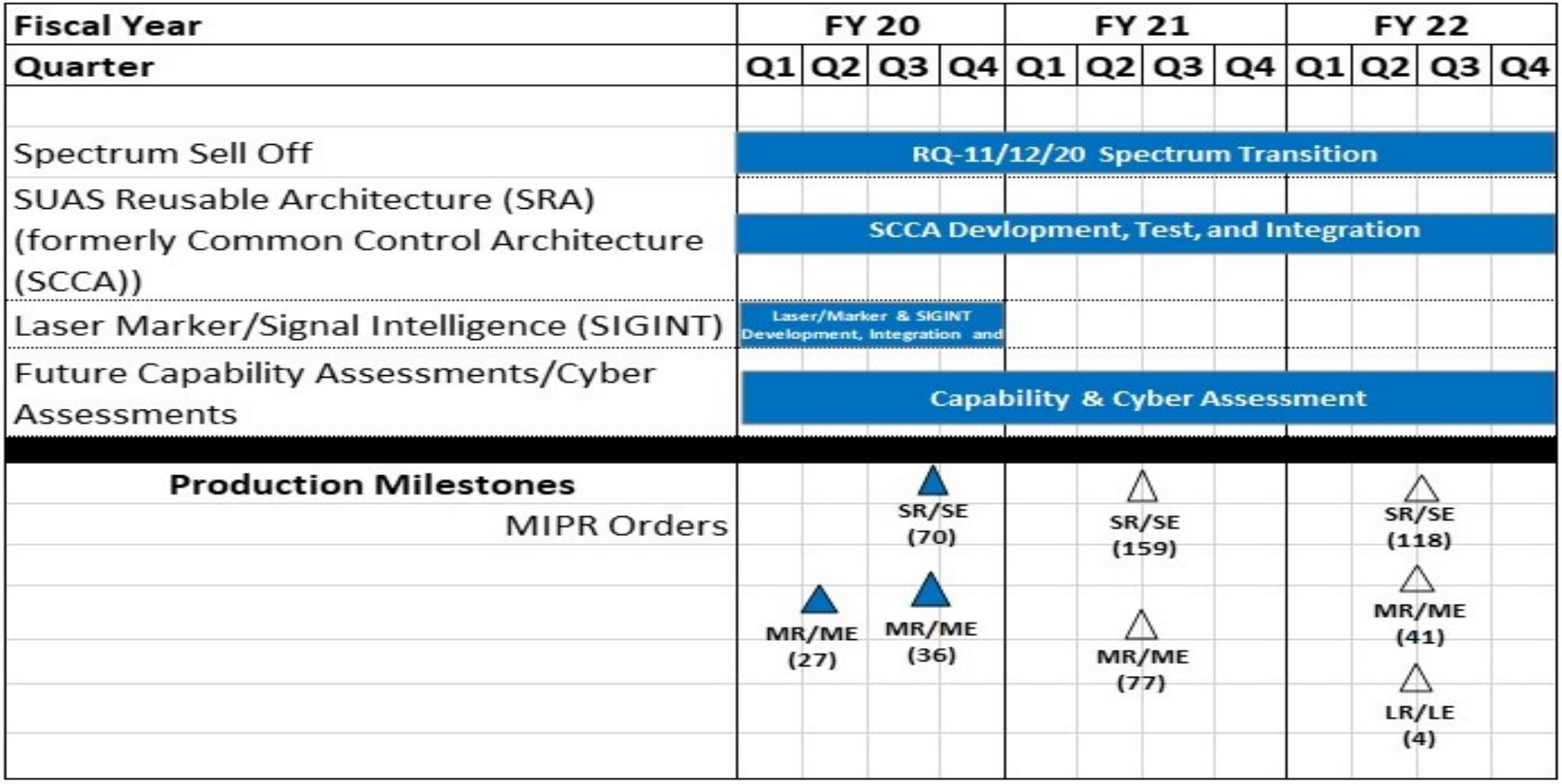

Exhibit R-4A, RDT&E Schedule Details: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0305232M / *RQ-11 UAV*	**Project (Number/Name)** 2292 / *Unmanned Air Systems (Intel)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2292				
Spectrum Selloff: RQ-11/12/20 Spectrum Transition	1	2020	4	2022
SUAS Reusable Architecture (SRA) (formerly Common Control Architecture (SCCA)): SRA Development and Integration Verification	1	2020	4	2022
Laser Marker/Signal Intelligence (SIGINT): Laser/Marker & SIGINT Development, Integration and Fielding	1	2020	4	2020
Future Capability Assessments/Cyber Assessments: Cabability & Cybyer Assessment	1	2020	4	2022
Production Milestones: MIPR Orders: FY20 MR/ME	3	2020	3	2020
Production Milestones: MIPR Orders: FY20 MR/ME	2	2020	2	2020
Production Milestones: MIPR Orders: FY20 SR/SE	3	2020	3	2020
Production Milestones: MIPR Orders: FY20 VTOL	3	2020	3	2020
Production Milestones: MIPR Orders: FY21 MR/ME	2	2021	2	2021
Production Milestones: MIPR Orders: FY21 SR/SE	2	2021	2	2021
Production Milestones: MIPR Orders: FY22 MR/ME	2	2022	2	2022
Production Milestones: MIPR Orders: FY22 SR/SE	2	2022	2	2022
Production Milestones: MIPR Orders: FY22 LR/LE	2	2022	2	2022