Exhibit R-2, RDT&E Budget Item Justification: PB 2024 United States Special Operations Command	Date: March 2023
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	2,197.207	173.209	183.152	216.174	-	216.174	219.497	143.060	155.717	155.673	Continuing	Continuing
SF100: *Aviation Systems Advanced Development*	1,554.646	50.477	56.162	56.295	-	56.295	68.544	31.311	49.091	50.073	Continuing	Continuing
SF200: *CV-22*	76.572	6.655	11.695	21.619	-	21.619	21.289	28.069	23.445	19.834	Continuing	Continuing
SF300: *Armed Overwatch/ Targeting*	23.354	22.034	1.200	2.000	-	2.000	2.000	2.000	4.000	5.000	Continuing	Continuing
S750: *Mission Training and Preparation Systems*	60.540	9.854	13.848	3.453	-	3.453	4.596	3.321	3.387	3.455	Continuing	Continuing
S875: *AC/MC-130J*	143.857	42.963	40.757	65.496	-	65.496	63.116	17.184	17.528	17.879	Continuing	Continuing
D615: *Rotary Wing Aviation*	338.238	41.226	59.490	67.311	-	67.311	59.952	61.175	58.266	59.432	Continuing	Continuing

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 212

A. Mission Description and Budget Item Justification

SF100 Aviation Systems Advanced Development:
This project provides for the development, rapid prototyping, demonstration, and integration of current and maturing technologies for Special Operations Forces-peculiar (SOF-p) aviation and training requirements to transform the foundation of future SOF aviation for the Joint Force in order to support the 2022 National Defense Strategy (NDS). Timely application of SOF-p technology is critical and necessary to meet requirements in areas such as: Aviation Engineering Analysis (AEA); Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM); High Speed Vertical Takeoff and Landing (HSVTOL); High Energy Laser (HEL); MC-130J Amphibious Capability (MAC); MH-47G and MH-60M SOF Common Terrain Following (TF) / Terrain Avoidance (TA) Silent Knight Radar (SKR); and Precision Strike Package (PSP). The AEA provides engineering analysis, market research, and designs to address aircraft survivability needs such as signature management, situational awareness, and versatile mission platform/equipment (payloads, communication, and weapons) to achieve SOF objectives. The EW-RFCM supports development, integration, and test activities to provide EW capability against Radio Frequency (RF) threats for SOF-p AC/MC-130J aircraft. HSVTOL supports development and demonstration of agile and responsive air mobility capabilities to support runway independent operations, increased speed of maneuverability, and provide the ability to penetrate anti-access (A2)/anti-denial (AD) environments. The HEL supports development of an AC-130J laser weapons system for Low Probability of Detection (LPD) use in complex environments to enable joint/coalition SOF operations against targets such as communication nodes, light-to-medium duty vehicles, and power infrastructures. The MAC supports development and demonstration of amphibious capabilities on a C-130J to support runway independent operations and provide the ability to operate in logistically constrained environments. MH-47G and MH-60M SOF Common TF/TA SKR supports development, integration, and testing of SOF Common TF/TA Multi-Mode Radar (MMR) that provides Low Probability of Intercept (LPI) and LPD capabilities for MH-47G and MH-60M aircraft. The PSP supports systems engineering, analysis, development, and enhancement of the baseline PSP for integration, installation, and test on MC-130J aircraft provided by the U.S Air Force for the SOF AC-130J aircraft and other SOF aviation platforms.

Exhibit R-2, RDT&E Budget Item Justification: PB 2024 United States Special Operations Command	Date: March 2023
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The total cost of the RFCM Middle Tier of Acquisition (MTA) effort is $706.242 million (FY 2024 - FY 2028), including RDT&E and procurement of prototype units. The RFCM effort is fully funded across the Future Years Defense Program (FYDP).

The total cost of the SKR MTA effort is $567.495 million (FY 2024 - FY 2028), including RDT&E and procurement of prototype units. The MH-47G/MH-60M SOF Common TF/TA SKR effort is fully funded across the FYDP.

SF200 CV-22 Development/Test and Evaluation:
This project supports integration, design, development, rapid prototyping, and test to provide improved capabilities to include: more robust performance in Situational Awareness (SA); intelligence, surveillance, and reconnaissance (ISR); weapons; avionics; SOF communications; defensive/survivability systems; interoperability; speed and maneuverability; mission deployment and improved reliability and maintainability of the CV-22 platform. The CV-22 Osprey is a SOF variant of the V-22 vertical medium lift, multi-mission aircraft. The CV-22 provides long-range, high speed, all weather, infiltration (infil), exfiltration (exfil), and resupply of SOF teams in hostile, denied, and politically sensitive areas that allows the Joint Force to be more agile and responsive as stated in the 2022 NDS. These capabilities are not currently provided by other existing SOF vertical lift aircraft. Funding supports the following CV-22 requirements: CV-22 SOF Common TF/TA SKR, Block 20 Development, Reliability Improvements, and test aircraft flying hours and maintenance. SOF Common TF/TA SKR supports development of the CV-22 SOF Common TF/TA SKR Operational Flight Program (OFP) software and development of CV-22 platform software and hardware to support integration and testing. Block 20 Development supports design, integration, and testing of CV-22 avionics upgrades and correction of deficiencies to include, but not limited to electronic warfare upgrades; improved crew interface functionality; weapon systems; and Airborne Mission Networking (AbMN). Reliability Improvements supports design, integration, test and validation of system, and sub-system, reliability enhancements to meet required aircraft availability and operational requirements. Realibility Improvements accelerate fielding and retrofitting system design improvements directly increasing CV-22 fleet readiness. Test aircraft flying hours and maintenance supports developmental flight testing and maintenance of the test CV-22 aircraft to ensure integration of the CV-22 SOF Common TF/TA SKR.

The total cost of the SKR MTA effort is $567.495 million (FY 2024 - FY 2028), including RDT&E and procurement of prototype units. The TF/TA SKR program is fully funded across the FYDP.

SF300 Armed Overwatch:
This project supports integration and testing of SOF-unique capabilities and aircraft certification efforts for the Armed Overwatch program. Armed Overwatch provides SOF with crewed deployable, affordable, and sustainable aircraft systems capable of executing Close Air Support (CAS), precision strike, and armed ISR requirements in austere and permissive environments for use in irregular warfare operations in support of the 2022 NDS. Armed Overwatch was initially designated a MTA program which utilized a rapid prototype user assessment for a SOF-p, fixed wing aircraft with specific sensors to detect ground assets. The USSOCOM Acquisition Executive approved the program's transition to the Major Capability Acquisition pathway at Milestone C in 4th QTR of FY22.

S750 Mission Training and Preparation Systems (MTPS):
The MTPS project funds the definition, design, development, rapid prototyping, integration, and testing of Special Operations Mission Planning and Execution (SOMPE) systems to support mission planning, rehearsal, and execution requirements to meet SOF-p mission requirements and correct deficiencies in current mission

planning, rehearsal, and execution capabilities. The MTPS project also includes program management, systems engineering, configuration management, architecture development, risk reduction, and trade study initiatives, as well as initiatives to assure interoperability and commonality between diverse mission planning, rehearsal, and execution systems. Additionally, this project funds the Training Transformation Simulator Block Upgrade Fixed Wing (SBUDF) program that develops and integrates training innovation and transformation solutions across the fixed-wing augmented and virtual reality mission training device portfolio, to include AC-130J, MC-130J, CV-22, U-28, and C-146.

S875 AC/MC-130J:
This project supports the development, rapid prototyping, integration, automation, and testing of the AC-130J and MC-130J aircraft. The AC-130J Ghostrider provides CAS, air interdiction, and armed reconnaissance in support of special operations and conventional forces in contested and degraded environments. The MC-130J Commando II provides clandestine, or low visibility, single or multi-ship, low-level infil, exfil, and resupply of SOF, by airdrop or airland resupply of SOF helicopters and tiltrotor aircraft, intruding politically sensitive or hostile territories. Incremental upgrade and agile software delivery approaches will be used to rapidly prototype, integrate, mature, and continuously improve SOF capabilities for AC-130J and MC 130J aircraft. Efforts like Integrated Tactical Mission Systems (ITMS) provide critical automation and integration of SOF Tactical Mission Systems (TMS), including navigation, communication, precision fire control and aircraft defensive systems required to operate AC-130J and MC-130J aircraft in near-peer conflicts. Requirements include upgrades to integrate and automate SOF TMS's to provide systems interoperability, data fusion and improved situational awareness (SA), improved threat detection and avoidance, integrated TF/TA and SKR improvements, integrated defensive countermeasure (DCM) effects, PSP interoperability, integrated EW, and embedded training. Integrating and automating SOF mission systems that deliver these capabilities is critical to fielding SOF-p AC-130J and MC-130J aircraft to be more lethal, resilient, survivable, agile, and responsive in support of the 2022 NDS.

The total cost of the ITMS MTA effort is $181.203 million (FY 2024 - FY 2028), including RDT&E and procurement of prototype units. The ITMS effort is fully funded across the FYDP.

D615 Rotary Wing Aviation:
This project provides for the development, rapid prototyping, demonstration, and integration of current and maturing technologies for SOF-p rotary wing aviation and training requirements. This project provides next generation mobility to allow SOF-p helicopters to operate in denied environments in support of the 2022 National Defense Strategy. This project includes modifications to Aircraft Survivability Equipment (ASE) avionics and weapons systems to counter rapidly emerging threats, address cyber security, improve lethality and enhance aircraft self-protection in contested environments. Rotary wing aircraft supported by this project include: MH-60M; MH-47G; A/MH-6; and Future Vertical Lift (FVL). These aircraft provide aviation support to SOF in worldwide contingency operations and low-intensity conflicts. These aircraft must be capable of rapidly deploying, penetrating hostile areas undetected, and operating at extended ranges under adverse weather conditions to infiltrate, provide logistics for, reinforce, and extract SOF. The anti-access/area denial (A2/AD) threat is characterized by an extensive and sophisticated ground based air defense system and an upgraded air-to-air capability targeted against helicopters. Mission Processor Upgrades (MPU) provides for non-recurring engineering, systems engineering/testing, and future aircraft architecture studies that support replacement and upgrade of the current mission and video processors for all Army Special Operations Aviation (ARSOA) rotary wing aircraft. Tactical Mission Networking (TMN) focuses on technology development of platform software and hardware systems with capabilities to enable aircraft to effectively adapt and overcome the challenges of a highly contested and congested Radio Frequency (RF) environment.

These technologies will be pursued via rapid prototyping efforts when appropriate.

Exhibit R-2, RDT&E Budget Item Justification: PB 2024 United States Special Operations Command	Date: March 2023
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*

B. Program Change Summary ($ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	173.537	179.499	230.228	-	230.228
Current President's Budget	173.209	183.152	216.174	-	216.174
Total Adjustments	-0.328	3.653	-14.054	-	-14.054
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-6.347			
• Congressional Rescissions	-	-			
• Congressional Adds	-	10.000			
• Congressional Directed Transfers	6.003	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-6.331	-			
• Adjustments to Budget Year	-	-	-14.054	-	-14.054

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2022	FY 2023
Project: SF100: *Aviation Systems Advanced Development*		
Congressional Add: *Development of cyber security and continuous monitoring of serial bus systems*	-	10.000
Congressional Add Subtotals for Project: SF100	-	10.000
Congressional Add Totals for all Projects	-	10.000

Change Summary Explanation

Funding:

FY 2022: Net decrease of $0.328 million is due to a reprogramming of funds to the Congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs (-$6.331 million) and an Aviation Engineering Analysis (AEA) increase for Ukraine supplemental appropriations act 2022 ($6.003 million).

FY 2023: Net increase of $3.653 million is due to the following: a Congressional Add for development of cyber security and continuous monitoring of serial bus systems ($10.000 million); a Congressionally directed reduction for Mission Processor Upgrades unjustified growth (-$1.554 million); and a Congressionally directed reduction, details will be provided under separate cover (-$4.793 million).

FY 2024: Net decrease of $14.054 million is due the following: a decrease to support classified programs, details provided under separate cover (-$0.896 million); a decrease due to a transfer of SOMPE funding from Program Element (PE) 1160403BB, Aviation Systems, Project S750, Mission Training and Preparation Systems to PE 1160431BB, Warrior Systems, Project S710, Tactical Systems Development for FY 2024 and beyond (-$13.977 million); a funding increase to support the accelerated development of the Electronic Warfare-Radio Frequency Countermeasure to improve capability against enhanced threats and

replace the single-board computer which provides an enhanced processing capability which increases defensive capability against pacing threats and reduces security vulnerabilities ($10.000 million); a decrease from Aviation Engineering Analysis for funding transfer to RDT&E, DW, BA07, PE 1160402BB, Project S200 SOF Advanced technology Development for High Speed Vertical Take Off project (-$35.000 million); a funding increase for Precision Strike Package to complete flight test activities and demonstration of the High Energy Laser (HEL) system on the AC-130J ($3.000 million); a funding increase to support CV-22 Airborne Mission Networking (AbMN) capabilities, test aircraft flying hours and maintenance, reliability improvements, and completion of SOF Common Terrain Following/ Terrain Avoidance (TF/TA) Silent Knight Radar integration ($21.619 million); and a funding increase for Armed Overwatch which supports modular capability enhancements and payload integration activities ($1.200 million).

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF100 / *Aviation Systems Advanced Development*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
SF100: *Aviation Systems Advanced Development*	1,554.646	50.477	56.162	56.295	-	56.295	68.544	31.311	49.091	50.073	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the development, rapid prototyping, demonstration, and integration of current and maturing technologies for Special Operations Forces (SOF)-peculiar aviation and training requirements to transform the foundation of future SOF aviation for the Joint Force in order to support the 2022 National Defense Strategy (NDS). Timely application of SOF-peculiar technology is critical and necessary to meet requirements in areas such as: Aviation Engineering Analysis (AEA), Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM), High Speed Vertical Takeoff and Landing (HSVTOL), High Energy Laser (HEL), MC-130J Amphibious Capability (MAC), MH-47G and MH-60M SOF Common Terrain Following (TF) / Terrain Avoidance (TA) Silent Knight Radar (SKR), and Precision Strike Package (PSP). AEA provides engineering analysis, market research, and designs to address aircraft survivability needs such as signature management, situational awareness (SA), and versatile mission platform/equipment (payloads, communication, and weapons) to achieve SOF objectives. The EW-RFCM supports development, integration, and test activities to provide EW capability against Radio Frequency (RF) threats for SOF-peculiar AC/MC-130J aircraft. HSVTOL supports development and demonstration of agile and responsive air mobility capabilities to support runway independent operations, increased speed of maneuverability, and provide the ability to penetrate anti-access (A2)/anti-denial (AD) environments. The HEL supports development of an AC-130J laser weapons system for Low Probability of Detection (LPD) use in complex environments to enable joint/coalition SOF operations against targets such as communication nodes, light-to-medium duty vehicles, and power infrastructures. The MAC supports development and demonstration of amphibious capabilities on a C-130J to support runway independent operations and provide the ability to operate in logistically constrained environments. MH-47G and MH-60M SOF Common TF/TA SKR supports development, integration, and testing of SOF Common TF/TA Multi-Mode Radar (MMR) that provides Low Probability of Intercept (LPI) and LPD capabilities for MH-47G and MH-60M aircraft. PSP supports systems engineering, analysis, development, and enhancement of the baseline PSP for integration, installation, and test on SOF AC-130J aircraft and other SOF aviation platforms.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: EW-RFCM, Program Number 768	20.743	10.075	20.220
Description: The EW-RFCM program supports development, integration, and test activities to provide EW capability against RF threats for SOF-peculiar AC/MC-130J aircraft. The RFCM system is part of the Defensive Countermeasures (DCM) suite that provides situational awareness and threat response processing required for SOF missions.			
FY 2023 Plans: Complete aircraft integration and interoperability activities, system qualification, deficiency resolution, system developmental test and system operational test on the AC-130J and MC-130J aircraft. Continue spiral one activity designed to increase RFCM capabilities to meet emerging threats in near-peer environments.			
FY 2024 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Continues spiral one design, development and operational test activities, to include; completes software program increment qualification test, completes hardware in the loop test, and begins software release. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $10.145 million to support accelerated development and technical refresh of the RFCM system to improve capability against enhanced threats. It will also replace the single-board computer (SBC), a legacy component which limits potential efficacy against pacing threats; the updated next generation SBC will provide enhanced processing while reducing security vulnerabilities.			
Title: Precision Strike Package (PSP) for SOF ***Description:*** The PSP for SOF supports systems engineering, analysis, development, and enhancement of the baseline PSP and integration, installation, and test on SOF AC-130Js and other SOF platforms. The PSP is modular, scalable, and platform agnostic. Missions for the AC-130 aircraft include, but are not limited to: close air support; air interdiction; and armed reconnaissance. ***FY 2024 Plans:*** Initiates engineering analysis and development to remove the aft weapon system (105mm Gun), refit the aft section, and optimize crew workload in support of the United States Special Operations Command (USSOCOM) crew reduction initiatives. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $1.224 million is to support engineering analysis and development to remove the aft weapon system (105mm Gun), refit the aft section, and optimize PSP functionality for reduced crew workload in support of USSOCOM crew reduction initiatives.	-	-	1.224
Title: High Energy Laser (HEL) ***Description:*** The HEL supports development of an AC-130J laser weapons system for LPD use in complex environments to enable joint/coalition SOF operations against targets such as communication nodes, light-to-medium duty vehicles, and power infrastructures. Utilizing a best of breed approach, it integrates laser, beam control, power, and thermal subsystems via a Government lead system integrator. This provides additional flexibility for rapid prototyping and future modifications. ***FY 2023 Plans:*** Initiate HEL flight testing. Continue Government integration and ground testing. Perform aircraft fit check and flight test activities. ***FY 2024 Plans:*** Completes flight test activities and demonstration of the HEL system on the AC-130J. ***FY 2023 to FY 2024 Increase/Decrease Statement:***	11.834	15.970	3.000

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Decrease of $12.970 million is due to the estimated completion of flight test activities and demonstration of the HEL system on the AC-130J in 2nd QTR FY 2024.			
Title: C-130 SOF Common Terrain Following/Terrain Avoidance Radar (TF/TA SKR), Program Number 778 ***Description:*** The C-130 SOF Common TF/TA SKR supports integration and test of a TF/TA radar and on-board processor to provide a multi-mode terrain following capability on MC-130J aircraft. Crew systems integration efforts include modifications to aircraft controls and displays to automate TF/TA flight management and reduce pilot, copilot and Combat Systems Officer workload during missions previously performed by five aircrew members on legacy MC-130 tankers and penetrators.	7.000	-	-
Title: MH-47/MH-60 SOF Common TF/TA SKR, Program Number 778 ***Description:*** The MH-47G and MH-60M SOF Common TF/TA SKR supports development, integration, and testing of SOF Common TF/TA MMR that provides LPI and LPD capabilities to defeat advanced passive detection threats while maintaining safe TF capabilities for MH-47G and MH-60M aircraft. ***FY 2023 Plans:*** Continue software spiral efforts to reduce TF/TA SKR signature, support data fusions initiatives, and increase reliability. ***FY 2024 Plans:*** Continues software spiral efforts to reduce TF/TA SKR signature, support data fusions initiatives, and increase reliability. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $0.050 million supports SKR test engineering costs.	2.011	2.139	2.189
Title: Aviation Engineering Analysis (AEA) ***Description:*** The AEA provides engineering analysis, market research, and develops solutions to address aircraft survivability needs such as signature management, situational awareness (SA), and versatile mission platform/equipment (payloads, communication, and weapons) to achieve SOF objectives. ***FY 2023 Plans:*** Continue to perform engineering analysis and demonstrations to improve aviation mission survivability, mission automation, sensor fusion, targeting enhancement, cyber hardening, navigation in denied environments, and data link enhancements to support Fixed Wing next generation Intelligence, Surveillance, and Reconnaissance (ISR), Mobility and Strike platforms. Activities include: signature management (acoustic, infrared, radio frequency); SA with full spectrum threat warning and countermeasures; and versatile mission equipment (payloads, communications and weapons) to improve SOF survivability in less than permissive operating environments. Other technology advancements for Fixed Wing platforms include improvements for increased range,	7.289	5.396	14.662

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
speed with reduced time to target, improving ability to insert and recover forces in contested environments and technology analysis on advanced mobility platforms (deep penetrating and aquatic landing). Strike enhancements include targeting/ engagement automation, weapons effects and stand-off capability. Begins additional efforts that will focus on early engineering analysis activities for amphibious capability. ***FY 2024 Plans:*** Continues to perform engineering analysis and demonstrations to improve aviation mission survivability, mission automation, sensor fusion, targeting enhancement, cyber hardening, navigation in denied environments, and data link enhancements to support Fixed Wing next generation ISR, Mobility and Strike platforms. Activities include: signature management; SA with full spectrum threat warning and countermeasures; and versatile mission equipment (payloads, communications and weapons) to improve SOF survivability in less than permissive operating environments. Other technology advancements for Fixed Wing platforms include improvements for increased range, speed with reduced time to target, improving ability to insert and recover forces in contested environments and technology analysis on advanced mobility platforms (deep penetrating and aquatic landing). Strike enhancements include targeting/engagement automation, weapons effects and stand-off capability. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $7.866 million is to support increased efforts for AEA efforts to include crewed and uncrewed autonomy and next generation aviation capabilities.			
Title: High Speed Vertical Takeoff and Landing (HSVTOL) ***Description:*** The HSVTOL supports development and demonstration of HSVTOL capabilities to support runway independent operations, increased speed of maneuverability, and provide ability to operate in contested environments. ***FY 2023 Plans:*** Leverages efforts from U.S. Air Force market research/design concepts that will focus on early engineering analysis activities for a HSVTOL demonstrator platform. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Decrease of $2.500 million is due to the transition of initial developmental efforts to properly align with the appropriate technology readiness level. Funding in FY 2024 is transferred to RDT&E, DW, BA-03, PE 1160402BB, Project S200 SOF Advanced technology Development.	-	2.500	-
Title: MC-130J Amphibious Capability (MAC) ***Description:*** The MAC supports development and demonstration of amphibious capabilities on a C-130J to support runway independent operations and provide the ability to operated in logistically constrained environments.	1.600	10.082	15.000

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
FY 2023 Plans: Perform engineering analysis and design activities for incorporating amphibious capabilities on a C-130J. This includes float design optimization for hydrodynamic and aerodynamic performance, aircraft truss design and loads analysis, and continued aircraft performance modeling. ***FY 2024 Plans:*** Continues engineering analysis and design activities for incorporating amphibious capabilities on a C-130J. This includes float design optimization for hydrodynamic and aerodynamic performance, aircraft truss design and loads analysis, and continued aircraft performance modeling. In addition, plans include contract award for fabrication of floats and truss assemblies. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $4.918 million supports engineering analysis activities for amphibious capabilities that include hydro/aerodynamic, aircraft structural loads and fabrication of test articles.			
Accomplishments/Planned Programs Subtotals	50.477	46.162	56.295

	FY 2022	FY 2023
Congressional Add: Development of cyber security and continuous monitoring of serial bus systems	-	10.000
FY 2023 Plans: Perform development of cyber security and continuous monitoring of serial bus systems for various SOF platforms.		
Congressional Adds Subtotals	-	10.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• PROC/5000C13000: *C-130 Modifications*	10.703	16.893	18.796	-	18.796	18.285	22.925	49.963	58.300	Continuing	Continuing
• PROC/2012C130J: *AC/MC-130J*	205.216	222.869	319.754	-	319.754	310.229	341.280	356.057	396.195	Continuing	Continuing
• PROC/1202PSP: *Precision Strike Package*	165.224	57.450	108.497	-	108.497	111.346	107.500	65.473	66.782	Continuing	Continuing
• PROC0201RWUPGR: *Rotary Wing Upgrades and Sustainment*	209.778	223.092	261.012	-	261.012	253.977	228.082	224.184	233.845	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
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D. Acquisition Strategy

• EW – RFCM: Awarded $700 million ceiling acquisition and procurement contract covering Engineering and Manufacturing Development (EMD), Low-Rate Initial Production (LRIP), and Full-Rate Production (FRP) activities. EMD and LRIP are fixed price award fee incentivizing schedule and were awarded in 3rd Qtr FY 2020. FRP and other programmatic support activities (such as data rights and system integration laboratory options) are firm fixed price. The EW – RFCM program has been designated a Middle Tier of Acquisition (MTA) in accordance with Section 804 of Public Law 114-92, the authority in DoD Directive 5143.01, and guidance in DoD Instruction 5000.80.

• PSP: The USSOCOM Program Office with six Combat Acquisition Detachments (CAD) executing program elements to integrate PSP and post-production capability enhancements on AC-130J aircraft. A-kit and integration contracts executed via Special Operations Forces Support Activity (SOFSA) Global Logistics Supply Services Task Orders (10-yr IDIQ awarded in 2017) and B-kit components awarded annually and executed via CAD contracting offices.

• HEL: The HEL effort utilizes Naval Surface Warfare Center (NSWC) Dahlgren Division as the Government lead system integrator of HEL components. HEL system components are either purchased under Defense Ordnance Technology Consortium or developed and assembled by NSWC Dahlgren. Both approaches provide flexibility for rapid prototyping.

C-130 SOF Common TF/TA SKR: Awarded delivery order on cost plus incentive fee contract to integrate and test the SOF Common TF/TA SKR on MC-130J aircraft and develop modifications to aircraft displays and controls. Final Incentive fee and contract closeout to occur in FY 2023. The C-130 SOF Common TF/TA SKR program has been designated a Middle Tier of Acquisition (MTA) in accordance with Section 804 of Public Law 114-92, the authority in DoD Directive 5143.01, and guidance in DoD Instruction 5000.80.

• MH-47/MH-60 SOF Common TF/TA SKR: Sole source to Raytheon to produce the SKR. SKR Logistics and MH-47G and MH-60M A-Kit production and installation proceeding at SOFSA, Lexington, KY. Contract Vehicle: Multi-Year Procurement (MYP) for FY 2021 through FY 2023 procurements. The SKR program plans to award a follow-on 5 year MYP purchasing SKRs in FY 2024 - FY 2028 for the MH-47, MH-60, CV-22 and MC-130J aircraft and a 6-year IDIQ for support and sustainment in FY 2024 - FY 2029. The MH-47/MH-60 SOF Common TF/TA SKR program has been designated a Middle Tier of Acquisition (MTA) in accordance with Section 804 of Public Law 114-92, the authority in DoD Directive 5143.01, and guidance in DoD Instruction 5000.80.

• AEA: Utilize Joint Department of Defense (DOD) programs to advance the technology levels for both the current Fixed Wing platforms and the advanced mobility platforms along with the Joint Aircraft Survivability Program sponsored projects to recommend material solutions for demonstration and potential integration on FW aircraft. Perform engineering analysis on key enabling technologies for amphibious capabilities in conjunction with the Air Force Research Laboratory (AFRL), AFWERX, Defense Advanced Research Projects Agency (DARPA) and other agencies.

HVSTOL: Utilize Joint DoD programs to advance the technology levels for HVSTOL platforms and to recommend material solutions for a technical demonstration. Perform engineering analysis on key enabling technologies in conjunction with the AFRL, AFWERX, DARPA and other agencies.

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

MAC: Utilize Government partners, labs and Industry partners through multiple contract awards to perform engineering analysis in the areas of hydrodynamics, structural loads, and flight performance modeling.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM) Follow-on Development Contract	C/FPAF	Sierra Nevada Corp. : Centennial, CO	70.906	6.838	Nov 2021	-		-		-		-	0.000	77.744	-
EW RFCM Spiral One	C/TBD	Various : Various	-	9.133	Mar 2022	6.500	Mar 2023	16.585	Mar 2024	-		16.585	Continuing	Continuing	-
Precision Strike Package (PSP) for Special Operations Forces (SOF) - Aft Weapon System & Crew Optimization	C/Various	Various : Various	-	-		-		1.224	Jan 2024	-		1.224	Continuing	Continuing	-
High Energy Laser (HEL) - Integration and Ground Testing	C/CPFF	Naval Surface Warfare Center : Dahlgren, VA	12.223	11.774	Dec 2021	-		-		-		-	0.000	23.997	-
HEL - Flight Testing/ Demonstration	C/CPFF	Various : Various	1.418	0.060	Mar 2022	15.970	Nov 2022	3.000	Nov 2023	-		3.000	Continuing	Continuing	-
C-130 SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR)	C/CPIF	Lockheed Martin Aero : Marietta, GA	219.122	7.000	Oct 2022	-		-		-		-	Continuing	Continuing	-
MH-47/MH-60 SOF Common Terrain Following/Terrain Avoidance Silent Knight Radar (TF/TA SKR)	SS/FP	Raytheon : McKinney, TX	19.889	1.383	Apr 2022	1.421	Apr 2023	1.421	Apr 2024	-		1.421	Continuing	Continuing	1.201
Aviation Engineering Analysis (AEA)	C/CPFF	Various : Various	36.877	7.289	Jan 2022	3.396	Nov 2022	11.162	Nov 2023	-		11.162	Continuing	Continuing	-
AEA – Aviation Mission Autonomy	C/CPFF	Various : Various	-	-		2.000	Nov 2022	3.500	Nov 2023	-		3.500	Continuing	Continuing	-
MC-130J Amphibious Capabilities (MAC)	C/CPFF	Various : Various	-	1.600	Aug 2022	10.082	Nov 2022	15.000	Nov 2023	-		15.000	Continuing	Continuing	-
High Speed Vertical Take-Off and Landing (HSVTOL) – Market Research	C/FP	Various : Various	-	-		0.941	Nov 2022	-		-		-	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
HSVTOL – Engineering Analysis and Development	C/Various	Various : Various	-	-		1.559	Jun 2023	-		-		-	Continuing	Continuing	-
Cybersecurity serial bus systems (Congressional Add)	C/CPFF	Various : Various	-	-		10.000	Jun 2023	-		-		-	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	803.977	-		-		-		-		-	0.000	803.977	-
Prior Year Funding - Classified Project Congressional Add	C/Various	Under Separate Cover : Under Separate Cover	8.000	-		-		-		-		-	0.000	8.000	-
		Subtotal	1,172.412	45.077		51.869		51.892		-		51.892	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EW-RFCM	C/Various	Various : Various	33.658	1.171	Jan 2022	1.030	Jan 2023	1.040	Jan 2024	-		1.040	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	69.455	-		-		-		-		-	0.000	69.455	-
		Subtotal	103.113	1.171		1.030		1.040		-		1.040	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EW-RFCM Developmental Test & Evaluation	C/Various	Various : Various	13.502	3.601	Jan 2022	1.909	Jan 2023	-		-		-	Continuing	Continuing	-
EW-RFCM Operational Test & Evaluation	C/Various	Various : Various	-	-		0.636	Jan 2023	2.595	Jan 2024	-		2.595	Continuing	Continuing	-
MH-47/MH-60 SOF Common TF/TA SKR	SS/FP	Various : Various	128.015	0.628	Jan 2022	0.718	Nov 2022	0.768	Nov 2023	-		0.768	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF100 / *Aviation Systems Advanced Development*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation															
Prior Year Funding - Completed Efforts	Various	Various : Various	85.435	-		-		-		-		-	0.000	85.435	-
		Subtotal	226.952	4.229		3.263		3.363		-		3.363	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Funding - Completed Efforts	Various	Various : Various	52.169	-		-		-		-		-	0.000	52.169	-
		Subtotal	52.169	-		-		-		-		-	0.000	52.169	N/A

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,554.646	50.477		56.162		56.295		-		56.295	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

AC/MC-130J Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM) Schedule

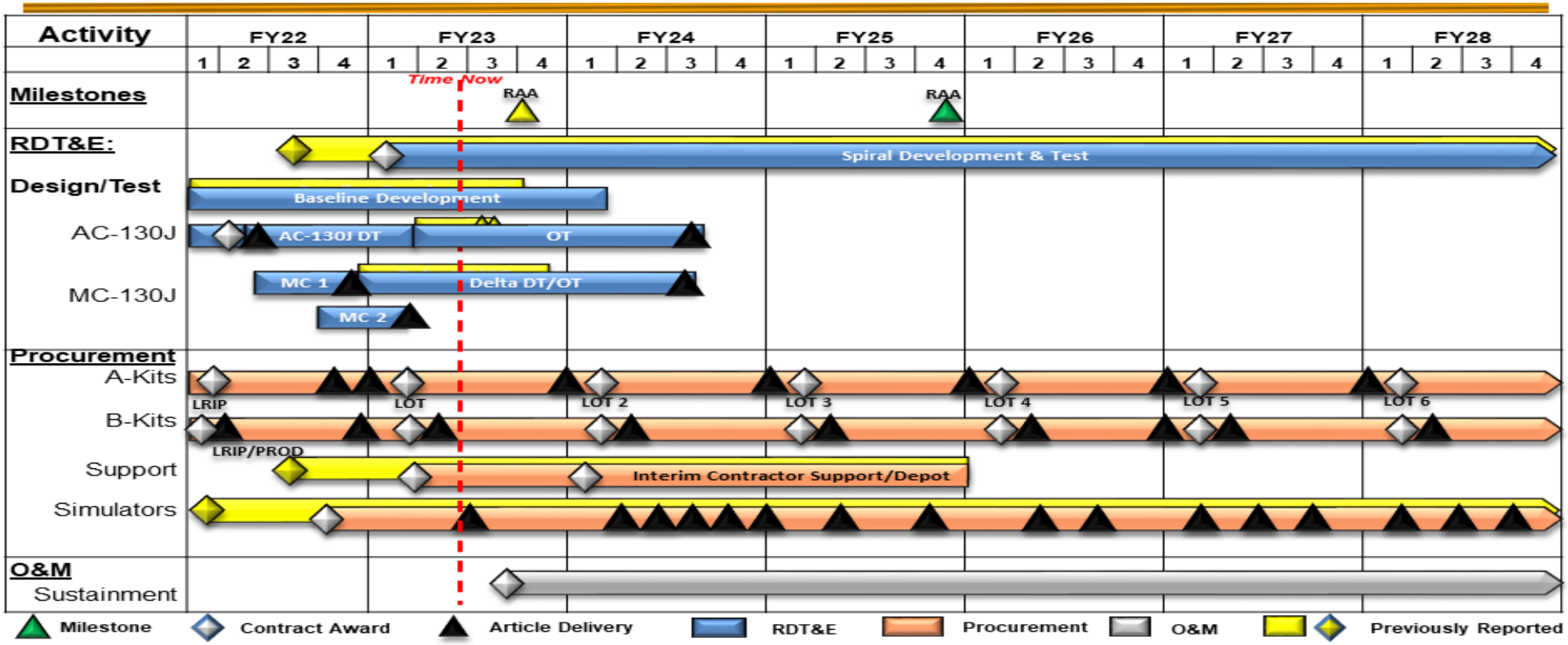


Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

AC-130J/Precision Strike Package (PSP) for Special Operations Forces (SOF) Schedule

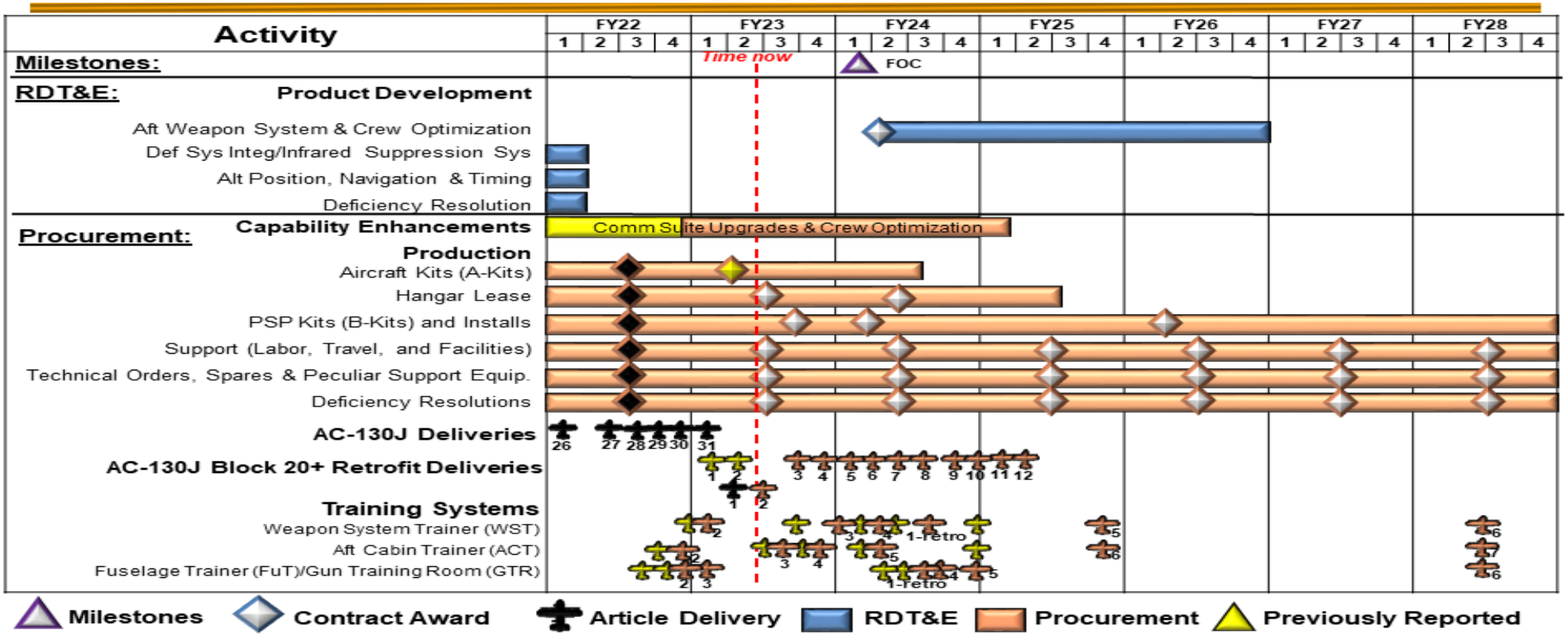


Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

AC-130 High Energy Laser (HEL) Schedule

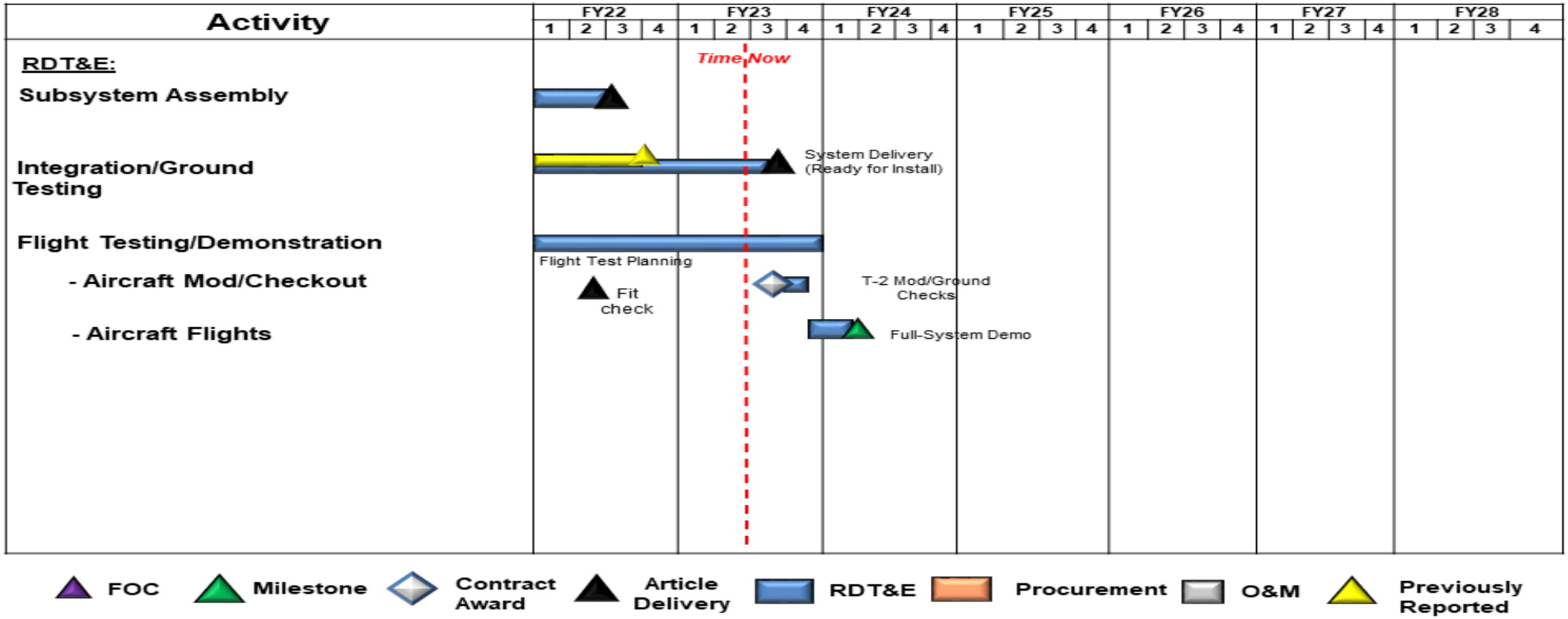


Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

C-130 SOF Common Terrain Following/Terrain Avoidance Radar (TF/TA SKR) Schedule

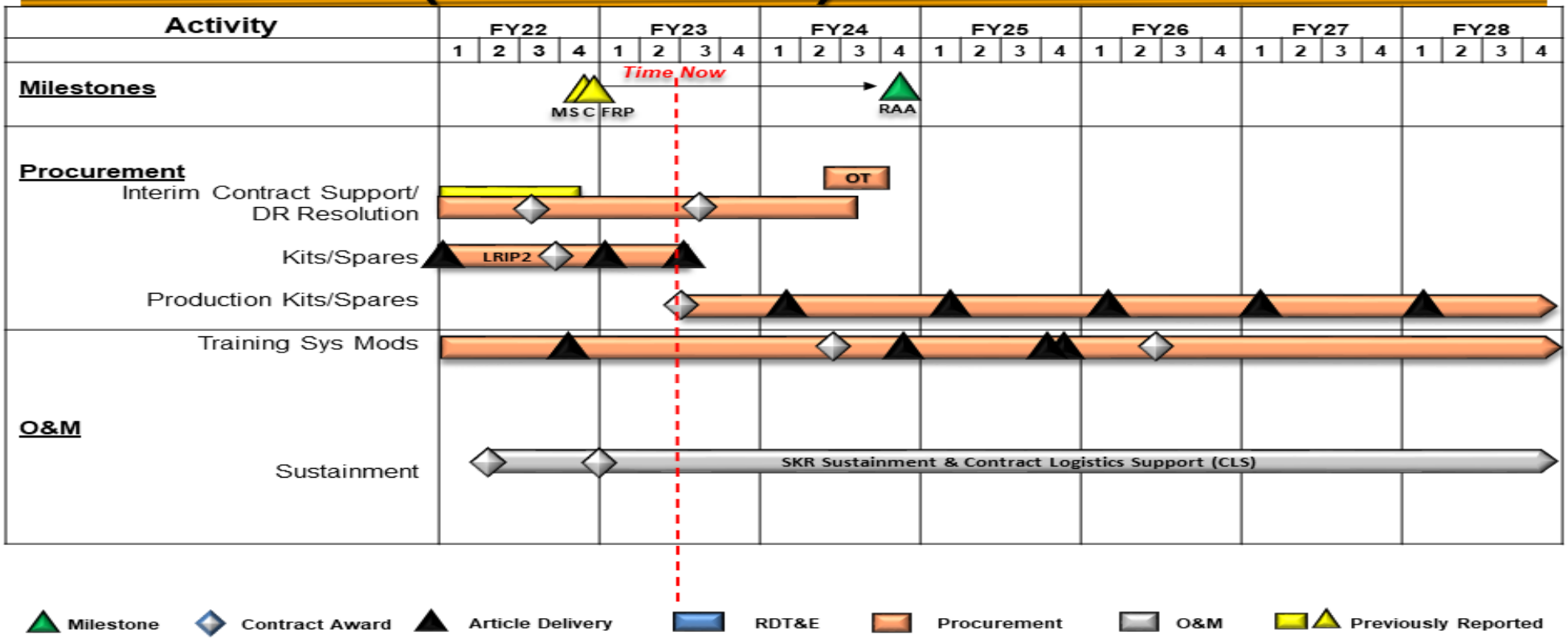


Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

MH-47/MH-60 SOF Common TF/TA SKR Schedule

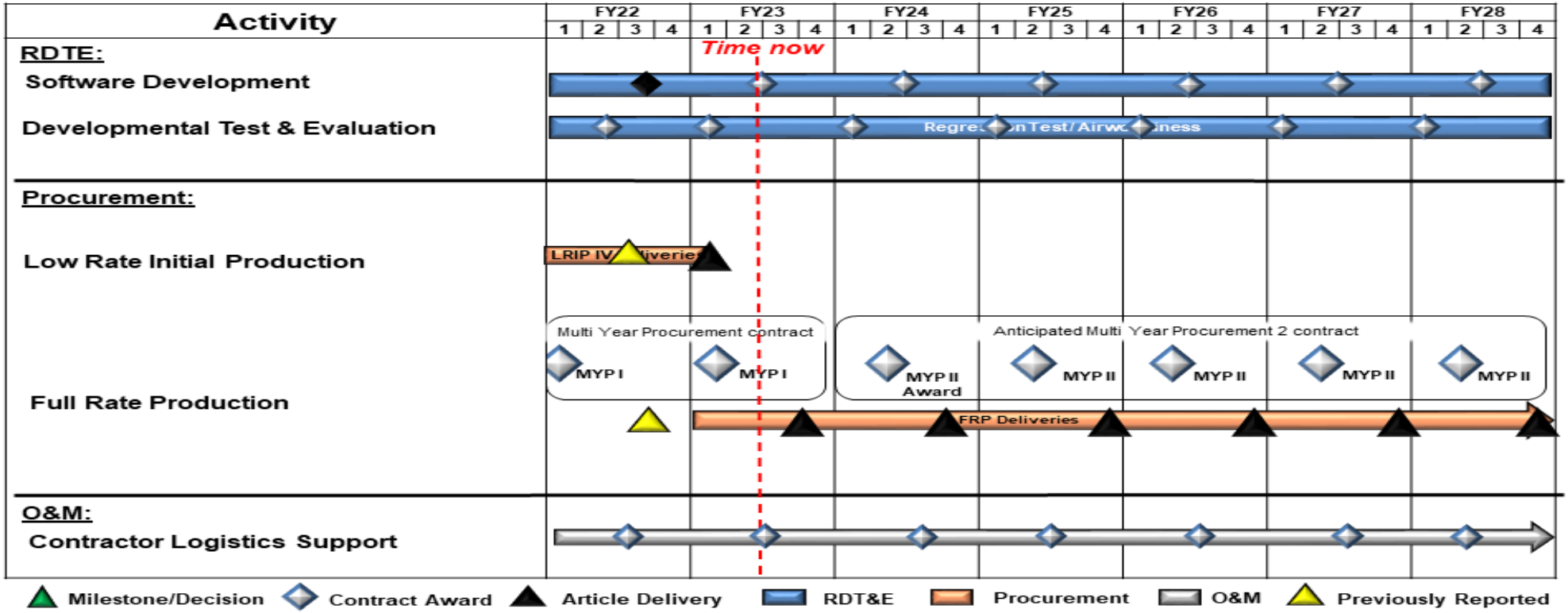


Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

Aviation Engineering Analysis (AEA) Schedule

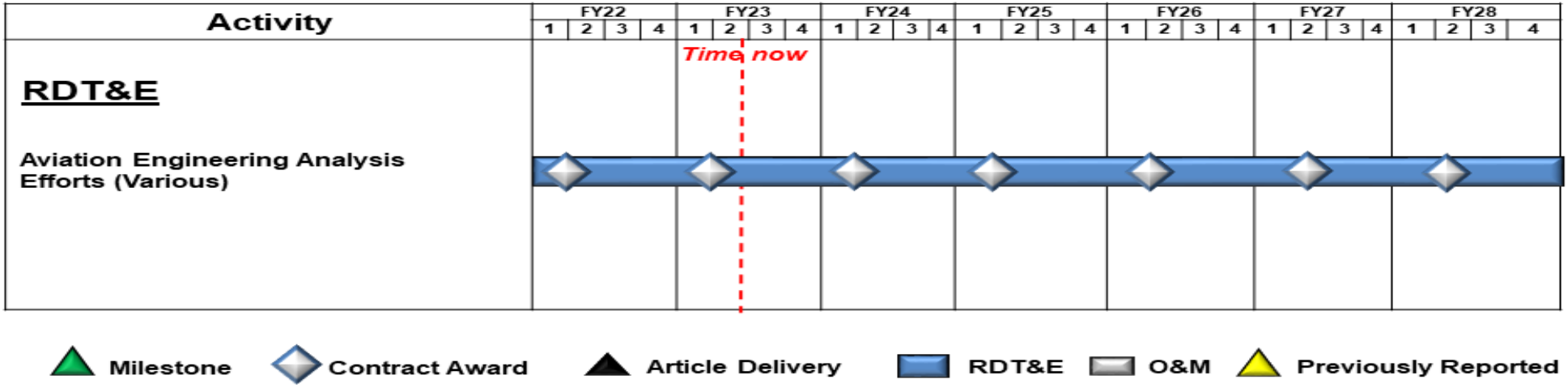
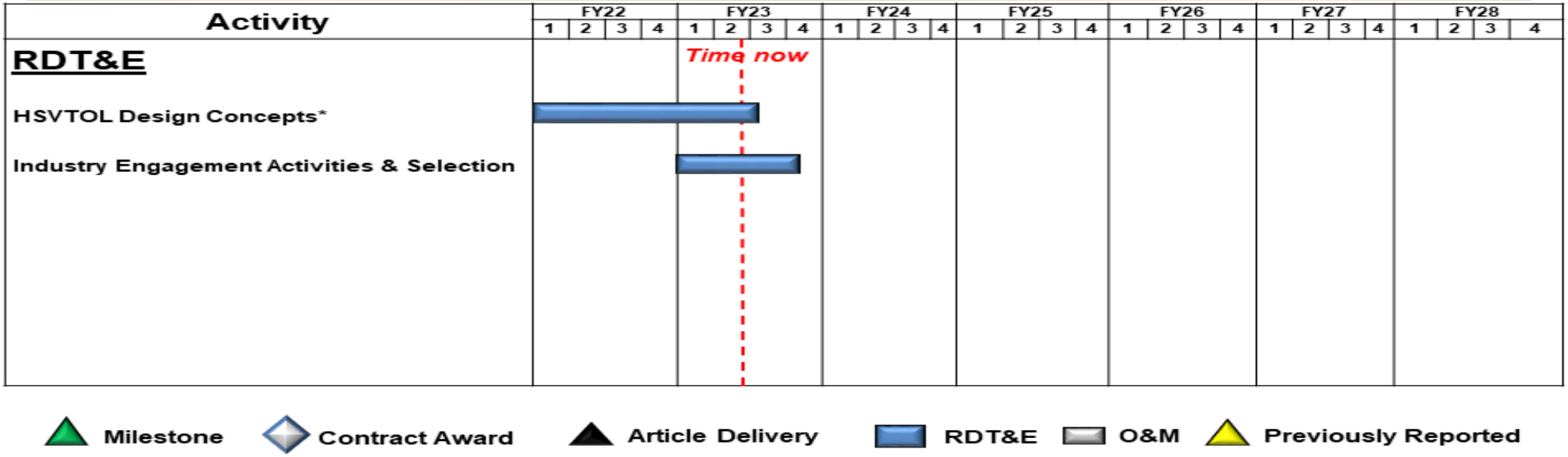


Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

High Speed Vertical Takeoff and Landing (HSVTOL) Schedule



* FY 2022 RDT&E Funding was provided via U.S. Air Force

Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

MC-130J Amphibious Capability (MAC) Schedule

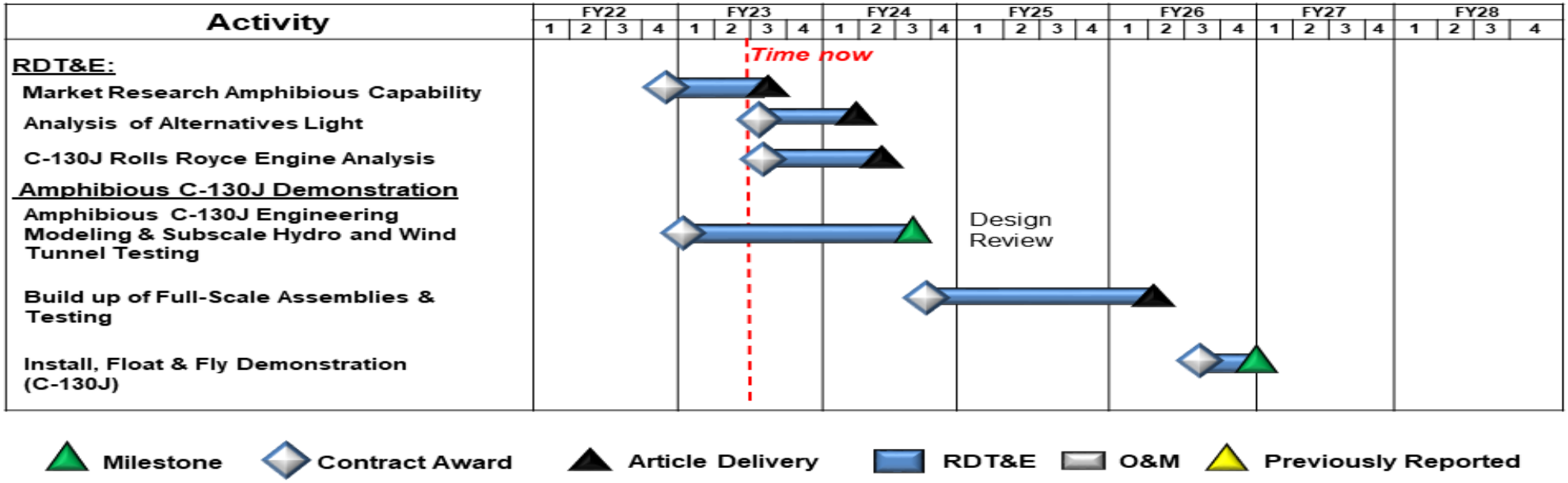


Exhibit R-4A, RDT&E Schedule Details: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Electronic Warfare - Radio Frequency Countermeasures (EW-RFCM)				
Spiral 1 Development and Test	1	2023	4	2028
Baseline Development, Design, and Test	1	2022	1	2024
Developmental Test and Operational Test (DT/OT) AC-130J	1	2022	3	2024
DT/OT #1 MC-130J	2	2022	3	2024
Precision Strike Package (PSP) for Special Operations Forces (SOF)				
Aft Weapon System and Crew Optimization Product Development	2	2024	4	2026
Defensive Systems Integration / Infrared Product Development	1	2022	2	2022
Alternate Position, Navigation, and Timing Product Development	1	2022	2	2022
Deficiency Resolution Product Development	1	2022	2	2022
High Energy Laser (HEL)				
Subsystem Assembly	1	2022	3	2022
Integration / Ground Testing	1	2022	3	2023
Flight Testing / Demonstration	1	2022	4	2023
Aircraft Modification / Checkout	3	2023	4	2023
Aircraft Flights	4	2023	2	2024
C-130 SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR)				
Software Development	1	2022	3	2023
Development/Flight Testing	1	2022	4	2023
MH-47G and MH-60M SOF Common Terrain Following (TF) / Terrain Avoidance (TA) Silent Knight Radar (SKR)				
Software Development	1	2022	4	2028

Exhibit R-4A, RDT&E Schedule Details: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Developmental Test and Evaluation	1	2022	4	2028
Next Generation Aviation Engineering Analysis (AEA)				
AEA Efforts (Various)	1	2022	4	2028
High Speed Vertical Take Off and Landing (HSVTOL)				
HSVTOL Design Concepts (U.S. Air Force Funded)	1	2022	4	2022
HSVTOL Design Concepts	1	2023	3	2023
Industry Engagement Activities and Selection	1	2023	4	2023
MC-130J Amphibious Capability (MAC)				
Market Research Amphibious Capability	4	2022	3	2023
Analysis of Alternative Light	3	2023	2	2024
C-130J Rolls Royce Engine Analysis	3	2023	2	2024
Amphibious C-130J Engineering Modeling and Subscale Hydro and Wind Tunnel Testing	1	2023	3	2024
Build up of Full-Scale Assemblies and Testing	3	2024	1	2026
Install Float and Fly Demonstration (C-130J)	3	2026	4	2026

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF200 / *CV-22*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
SF200: *CV-22*	76.572	6.655	11.695	21.619	-	21.619	21.289	28.069	23.445	19.834	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 212

A. Mission Description and Budget Item Justification

This project supports integration, design, development, rapid prototyping, and test to provide improved capabilities to include, but not limited to: more robust performance in situational awareness (SA); intelligence, surveillance, and reconnaissance (ISR), weapons, avionics; Special Operations Forces (SOF) communications; defensive/ survivability systems; interoperability; speed and maneuverability; mission deployment and improved reliability and maintainability of the CV-22 platform. The CV-22 Osprey is a SOF variant of the V-22 vertical medium lift, multi-mission aircraft. The CV-22 provides long-range, high speed, all weather, infiltration (infil), exfiltration (exfil), and resupply of SOF teams in hostile, denied, and politically sensitive areas that allows the Joint Force to be more agile and responsive as stated in the 2022 National Defense Strategy (NDS). These capabilities are not currently provided by other existing SOF vertical lift aircraft. Funding supports the following CV-22 requirements: CV-22 SOF Common Terrain Following (TF) / Terrain Avoidance (TA) Silent Knight Radar (SKR), Block 20 Development, Reliability Improvements, and Test Aircraft Flying Hours and Maintenance.

SOF Common TF/TA SKR supports development of the CV-22 SOF Common TF/TA SKR Operational Flight Program (OFP) software, and development of CV-22 platform software and hardware to support integration and testing. This effort provides radar improvements for long range, night/adverse weather, clandestine penetration of medium-to-high threat areas for infl, exfil, and resupply of SOF forces. The more sustainable and capable radar, the APQ-187, replaces the obsolete APQ-186 TF/TA radar currently integrated on CV-22 aircraft.

Block 20 Development supports design, integration, and testing of CV-22 avionics upgrades and correction of deficiencies to include, but not limited to electronic warfare upgrades, improved crew interface functionality, weapon systems, and Airborne Mission Networking (AbMN). Efforts include incremental development to improve capabilities to include, but not limited to situational awareness, intelligence, surveillance, and reconnaissance, weapons, SOF communications, avionics, interoperability and defensive/survivability systems.

Reliability Improvements supports design, integration, test and validation of system, and sub-system, reliability enhancements to meet required aircraft availability and operational requirements. Reliability Improvements accelerate fielding and retrofitting system design improvements directly increasing CV-22 fleet readiness.

Test Aircraft Flying Hours and Maintenance supports developmental flight testing and maintenance of the test CV-22 aircraft to ensure integration of the CV-22 SOF Common TF/TA SKR. Efforts include conducting developmental test flights and maintenance required to generate the aircraft for test sorties.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: SOF Common TF/TA SKR, Program Number 778	6.655	11.695	2.500

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF200 / *CV-22*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Description: Supports development of the CV-22 SOF Common TF/TA SKR Operational Flight Program (OFP) software, and development of CV-22 platform software and hardware to support integration and testing. This effort provides radar improvements for long range, night/adverse weather, clandestine penetration of medium-to-high threat areas for infl, exfil, and resupply of SOF forces. The more sustainable and capable radar, the APQ-187, replaces the obsolete APQ-186 TF/TA radar currently integrated on CV-22 aircraft. ***FY 2023 Plans:*** Continue integration/developmental testing of CV-22 SOF Common TF/TAR SKR OFP. ***FY 2024 Plans:*** Completes developmental test and evaluation of SOF Common TF/TA SKR OFP integration. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Decrease of $9.195 million is due to completing developing, integrating and testing of CV-22 SOF Common TF/TAR SKR OFP.			
Title: Block 20 Development ***Description:*** Supports design, integration, and testing of CV-22 avionics upgrades and correction of deficiencies to include, but not limited to electronic warfare upgrades, improved crew interface functionality, weapon systems, and Airborne Mission Networking (AbMN). Efforts include incremental development to improve capabilities to, but not limited to situational awareness, intelligence, surveillance, and reconnaissance, weapons, SOF communications, avionics, interoperability and defensive survivability systems. ***FY 2024 Plans:*** Begins developing AbMN capabilities including, but not limited to, designing the aircraft information architecture and creating an environment to develop a fully integrated AbMN capability suite. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $8.069 million begins the development of the AbMN information architecture and acquiring assets for a systems integration laboratory.	-	-	8.069
Title: CV-22 Reliability Improvements ***Description:*** Supports design, integration, test and validation of system, and sub-system, reliability enhancements to meet required aircraft availability and operational requirements. Reliability Improvements accelerate fielding and retrofitting system design improvements directly increasing CV-22 fleet readiness. Efforts include design and re-design enhancements of components that impact aircraft reliability. ***FY 2024 Plans:***	-	-	4.780

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF200 / *CV-22*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Investigates and identifies CV-22 Hard Clutch Engagement (HEC) root cause. Other efforts include, but not limited to, alternative clutch designs, developing a gearbox vibration monitoring system, and expanding on-board maintenance data collection ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $4.780 million is due to initiating the development of solutions to the Hard Clutch Engagement problem and expanding CV-22 system safety and health instrumentation deeper into the aircraft to feed predictive maintenance analysis.			
Title: Test Aircraft Flying Hours and Maintenance ***Description:*** Supports development flight testing and maintenance of the test CV-22 aircraft to ensure integration of the CV-22 SOF Common TF/TA SKR. Efforts include conducting developmental test flights and maintenance required to execute the aircraft for test sorties. ***FY 2024 Plans:*** Supports flying and maintaining the test CV-22 aircraft to conduct SOF Common TF/TAR SKR and other developmental tests as required. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $6.270 million is due to developmental Flying Hours and for developmental test aircraft maintenance to conduct CV-22 SOF common TF/TA SKR and other developmental flight tests as required.	-	-	6.270
Accomplishments/Planned Programs Subtotals	6.655	11.695	21.619

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• PROC/1000CV22: *CV-22 SOF Modification*	49.242	79.215	75.981	-	75.981	77.313	33.740	39.370	88.670	Continuing	Continuing

Remarks

D. Acquisition Strategy

When possible, rapid prototyping will be incorporated in the acquisition strategies below to develop, demonstrate, and evaluate residual operational capabilities. The SKR was developed by the United States Special Operations Command (USSOCOM) to provide a SOF Common TF/TA capability for SOF aircraft. The SKR replaces the obsolete APQ-186 TF/TA multimode radar on the CV-22. The acquisition strategy for the CV-22 SOF Common TF/TA SKR program is to procure radar units and radar software modifications through the USSOCOM SKR program management office, buy aircraft modification kits, and integrate SKR into CV-22 aircraft using a mixture of both sole source and competitive contracts. The CV-22 AbMN acquisition strategy is in development. The CV-22 Reliability Improvement effort consists of a mix of competitive and sole-source awards.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF200 / *CV-22*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR) - Operational Flight Program (OFP) Development	C/CPFF	Various : Various	39.082	0.821	Nov 2022	1.000	Feb 2023	-		-		-	0.000	40.903	-
SOF Common TF/TA SKR- Integration	C/CPFF	Various : Various	29.424	2.391	Oct 2022	1.685	Feb 2023	-		-		-	0.000	33.500	-
Block 20 Development Airborne Mission Networking (AbMN)	Various	Various : Various	0.337	-		-		8.069	Apr 2024	-		8.069	Continuing	Continuing	-
Reliability Improvements	C/Various	Various : Various	-	-		-		4.780	Apr 2024	-		4.780	Continuing	Continuing	-
		Subtotal	68.843	3.212		2.685		12.849		-		12.849	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Aircraft Flying Hours and Maintenance Developmental	C/Various	Various : Various	-	-		-		6.270	Feb 2024	-		6.270	Continuing	Continuing	-
SOF Common TF/TA SKR - OFP Developmental	C/CPFF	Various : Various	4.994	1.700	Sep 2022	1.200	Feb 2023	1.000	Nov 2023	-		1.000	0.000	8.894	-
SOF Common TF/ TA SKR- Integration Developmental	C/CPFF	Various : Various	2.735	1.743	Dec 2022	7.810	Feb 2023	1.500	Nov 2023	-		1.500	0.000	13.788	-
		Subtotal	7.729	3.443		9.010		8.770		-		8.770	Continuing	Continuing	N/A

Remarks

Test Aircraft Flying Hours and Maintenance costs were previously captured under Test and Evaluation / CV-22 SOF Common TF/TA SKR-Integration.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF200 / *CV-22*	

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	76.572	6.655		11.695		21.619		-		21.619	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF200 / *CV-22*

CV-22 Schedule

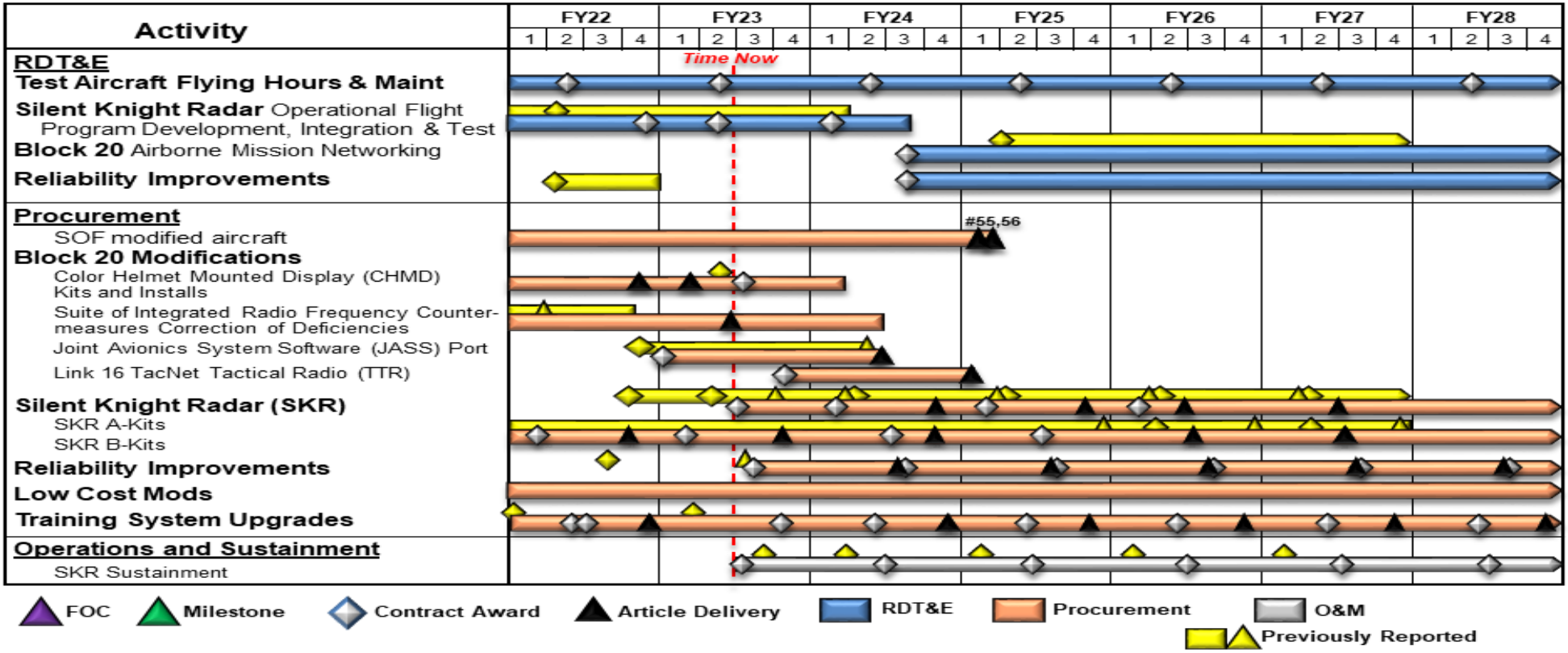


Exhibit R-4A, RDT&E Schedule Details: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF200 / *CV-22*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
CV-22				
Test Aircraft Flight Hours and Maintenance	1	2022	4	2028
Special Operations Forces (SOF) Common Terrain Following (TF) / Terrain Avoidance (TA) Silent Knight Radar (SKR)	1	2022	3	2024
Block 20 Development - Airborne Mission Networking (formerly Survivability and Situational Awareness)	3	2024	4	2028
Reliability Improvements	3	2024	4	2028

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF300 / *Armed Overwatch/Targeting*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
SF300: *Armed Overwatch/ Targeting*	23.354	22.034	1.200	2.000	-	2.000	2.000	2.000	4.000	5.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project supports integration and testing of SOF-peculiar capabilities and aircraft certification efforts for the Armed Overwatch program. Armed Overwatch provides Special Operations Forces (SOF) with crewed deployable, affordable, and sustainable aircraft systems capable of executing close air support (CAS), precision strike, and armed intelligence, surveillance, and reconnaissance (ISR) requirements in austere and permissive environments for use in Irregular Warfare operations that are in support of the 2022 National Defense Strategy (NDS).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: Armed Overwatch/Targeting, Program Number 814	22.034	1.200	2.000
Description: The funding in this project supports integration and testing of SOF-peculiar capabilities and aircraft certification efforts. ***FY 2023 Plans:*** Continue integration, testing, and aircraft certification efforts and conduct Operational Test and Evaluation (OT&E) prior to Full Rate Production award. ***FY 2024 Plans:*** Continues SOF integration, testing, and aircraft certification efforts. Continues modular capability enhancements and payload integration activities for SOF secure communications and Force Situational Awareness Systems. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $0.800 million is to support modular capability enhancements and payload integration activities and operational test.			
Accomplishments/Planned Programs Subtotals	22.034	1.200	2.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• PROC/0201ARMOWT: *Armed Overwatch/Targeting*	166.000	246.000	266.846	-	266.846	421.280	368.631	317.847	4.348	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF300 / *Armed Overwatch/Targeting*

D. Acquisition Strategy

Armed Overwatch: These technologies were pursued through industry partners via rapid prototyping. The USSOCOM Acquisition Executive approved the program's transition to the Major Capability Acquisition pathway at Milestone C and award of the follow-on production contract in 4th QTR FY 2022. The production contract was awarded 31 July 2022; certification and verification testing began immediately following award.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF300 / *Armed Overwatch/Targeting*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Armed Overwatch/ Targeting: Special Operations Forces Integration, Testing and Aircraft Certification	C/FFP	Various : Various	23.354	6.942	Jul 2022	1.200	Mar 2023	-		-		-	0.000	31.496	-
Modular Payload Integration and Certification	C/FFP	Various : Various	-	-		-		1.500	Mar 2024	-		1.500	Continuing	Continuing	-
		Subtotal	23.354	6.942		1.200		1.500		-		1.500	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Armed Overwatch Integration, Testing, and Aircraft Certification	Various	Various : Various	-	7.550	Oct 2022	-		-		-		-	Continuing	Continuing	-
		Subtotal	-	7.550		-		-		-		-	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Armed Overwatch Verification Developmental Testing	C/FFP	Various : Various	-	1.029	Dec 2022	-		-		-		-	Continuing	Continuing	-
Armed Overwatch Live Fire Test & Evaluation	C/FFP	Various : Various	-	6.200	Jan 2023	-		-		-		-	Continuing	Continuing	-
Armed Overwatch Operational Test	C/FFP	Various : Various	-	0.313	Dec 2022	-		0.500	Mar 2024	-		0.500	Continuing	Continuing	-
		Subtotal	-	7.542		-		0.500		-		0.500	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF300 / *Armed Overwatch/Targeting*	

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	23.354	22.034		1.200		2.000		-		2.000	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF300 / *Armed Overwatch/Targeting*

Armed Overwatch Schedule

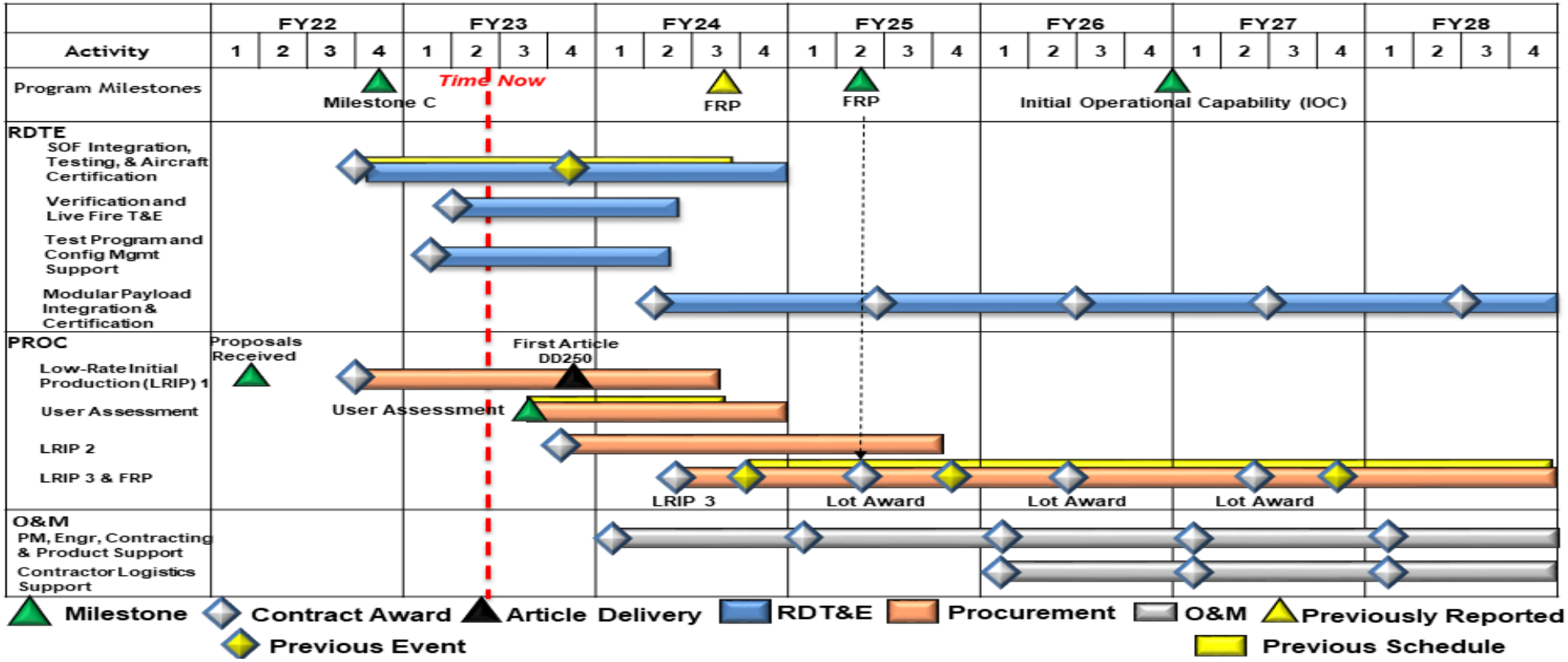


Exhibit R-4A, RDT&E Schedule Details: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF300 / *Armed Overwatch/Targeting*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Armed Overwatch/Targeting				
Special Operations Forces Integration, Testing, and Aircraft Certification	4	2022	4	2024
Verification and Live Fire T&E	1	2023	2	2024
Test Program and Configuration Management Support	1	2023	2	2024
Modular Payload Integration & Certification	2	2024	4	2028

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
S750: *Mission Training and Preparation Systems*	60.540	9.854	13.848	3.453	-	3.453	4.596	3.321	3.387	3.455	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project funds the definition, design, development, prototyping, integration, and testing of Mission Training and Preparation Systems (MTPS) to support training, avoid obsolescence, and maintain simulator concurrency with weapon system configurations; support mission planning and rehearsal systems enhancements required to meet Special Operations Forces-peculiar (SOF-p) mission requirements and correct deficiencies identified in previous testing; and support mission planning and rehearsal capabilities in current MTPS. The MTPS project also includes program management, systems engineering, configuration management, architecture development, risk reduction, and trade study initiatives, as well as initiatives to assure interoperability and commonality between diverse SOF training systems. Additionally, this project funds the Training Transformation Simulator Block Upgrade Fixed Wing (SBUDF) program that develops and integrates training innovation and transformation solutions across the United States Special Operations Command (USSOCOM) fixed wing augmented and virtual reality (AR/VR) mission training device portfolio, to include AC-130J, MC-130J, CV-22, U-28, and C-146.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: Special Operations Mission Planning and Execution (SOMPE), Program Number 838	9.854	10.941	-
Description: The SOMPE program develops, integrates, tests, and validates software enhancements required to meet SOF-p requirements for, and correct deficiencies to, mission planning, preview, and execution software tools to support all phases of SOF operations from deliberate to time-critical. The SOMPE automates time-sensitive planning activities and provides enhanced situational awareness during mission execution. The SOMPE provides the interoperable environment for SOF adaptive planning to integrate global operations including, but not limited to, precision strike software, digital navigation, and Unmanned Aerial Systems (UAS) command and control. This program also provides the integration of SOMPE with multi-dimensional visualization systems, providing immersive mission rehearsal in minimal timeframes from the SOMPE mission plan. The SOMPE is embedded in the United States Special Operations Command (USSOCOM) Headquarters, Theater Special Operations Commands (TSOC), Joint Special Operations Task Forces, Joint Special Operations Aviation Components, SOF warfighters, and SOF warfighter platforms directly supporting the 2022 National Defense Strategy focus on integrated deterrence, crisis and conflict.			
FY 2023 Plans: The SOMPE program is transitioning to the Software Acquisition Pathway, defined in DoDI 5000.87 and will converge independently developed products by leveraging the agile ecosystem and environment of the Tactical Assault Kit (TAK) Product Center to accelerate development of incremental releases of software with direct user input.			
FY 2023 to FY 2024 Increase/Decrease Statement:			

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Decrease of $10.941 million is due to a transfer of SOMPE funding to PE 1160431BB, Warrior Systems; Project S710, Tactical Systems Development for FY 2024 and beyond to better support all-domain mission planning and execution requirements.			
Title: Training Transformation Simulator Block Upgrades (SBUDF) ***Description:*** Develops and integrates training innovation and transformation solutions across the USSOCOM fixed wing training device portfolio, to include AC 130J, MC-130J, CV-22, U-28, and C-146. These efforts include further developing and integrating augmented reality (AR), virtual reality (VR), and mixed reality technology and applying the technology to SOF-unique missions and platforms in support of combat readiness and SOF operator mission qualification. These initiatives are not intended to replace existing traditional USSOCOM training devices and full motion simulators, but will rather mitigate current training limitations as well as enhance and complement existing training capabilities. The SBUDF will also support the development of advanced instructor and student feedback systems and artificial intelligence capabilities to increase the fidelity, quality, and efficiency of the USSOCOM training pipeline. ***FY 2023 Plans:*** Initiate the training innovation and transformation SBUDF program with the development of AC-130J aircrew and CV-22 aircrew and maintenance AR/VR mission training devices. ***FY 2024 Plans:*** Continues spiral development of AC-130J and CV-22 aircrew/maintenance AR/VR reality mission training devices and modules, while initiating development for MC-130J aircrew/maintenance applications and incorporating emerging technology into existing solutions. Additionally, funds development and incorporation of artificial intelligence feedback systems into existing training platforms. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $0.546 million is to support expansion of AR/VR reality efforts to include the MC-130J as well as to initiate artificial capability development efforts.	-	2.907	3.453
Accomplishments/Planned Programs Subtotals	9.854	13.848	3.453

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• PROC/5000C13000: *C-130 Modifications*	10.703	16.893	18.796	-	18.796	18.285	22.925	49.963	58.300	Continuing	Continuing
• PROC/0207NSAV: *Non-Standard Aviation*	3.282	5.026	25.782	-	25.782	10.293	3.729	1.968	5.807	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• PROC/1000CV2200: *CV-22 Modification*	49.242	79.215	75.981	-	75.981	77.313	33.740	39.370	88.670	Continuing	Continuing
• PROC/0204OTHER: *Other Items <$5M*	50.431	94.922	108.816	-	108.816	107.720	98.068	91.555	112.438	Continuing	Continuing
• PROC/0607U28: *U-28*	4.176	4.589	7.198	-	7.198	7.252	2.031	2.072	7.584	Continuing	Continuing
• PROC/0201RWUPGR: *Rotary Wing Upgrades and Sustainment*	209.778	223.092	261.012	-	261.012	253.977	228.082	224.184	233.845	Continuing	Continuing

Remarks

D. Acquisition Strategy

The SOMPE program employs the software acquistion pathway, leveraging commercial government sources, to facilitate rapid product development and delivery of software solutions using modern software development practices such as agile software development, Development Security and Operations (DevSecOps), and lean practices. SOMPE implements a modular open system approach that leverages commercial and government sources, including Science and Technology and Small Business Innovative Research programs within and outside of the United States Special Operations Command (USSOCOM), to quickly prototype, integrate, test, and deploy emerging technologies for decision support in all domains. This development strategy enables the program to design, develop, operationally test and deliver software quickly based on dynamic and emergent SOF peculiar operational requirements to achieve the USSOCOM's vision of obtaining strategic, asymmetric advantages for the nation in integrated deterrence, crisis, and conflict.

The Training Transformation SBUDF program will utilize Naval Surface Warfare Center (NSWC) Dahlgren Division as the Government lead system integrator, while incorporating commercial off-the-shelf hardware/software solutions and competitive as well as sole source contracts to support spiral development of training transformation initiatives.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Special Operations Mission Planning and Execution (SOMPE) Software Development, Security, Operations (DevSecOps)	Various	Various : Various	48.873	7.831	Jan 2022	8.971	Jan 2023	-		-		-	Continuing	Continuing	-
Training Transformation Simulator Block Upgrades Fixed Wing Augmented Reality/ Virtual Reality Device Spiral Development	Various	Various : Various	-	-		2.907	Jan 2023	3.453	Jan 2024	-		3.453	Continuing	Continuing	-
		Subtotal	48.873	7.831		11.878		3.453		-		3.453	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMPE Software	MIPR	Special Operations Mission Planning Office : Various	3.486	0.386	Feb 2022	-		-		-		-	Continuing	Continuing	-
		Subtotal	3.486	0.386		-		-		-		-	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMPE Exercise & Limited Objective Test Events (Developmental and Operational)	Various	Various : Various	8.181	1.637	Jan 2022	1.970	Nov 2022	-		-		-	Continuing	Continuing	-
		Subtotal	8.181	1.637		1.970		-		-		-	Continuing	Continuing	N/A

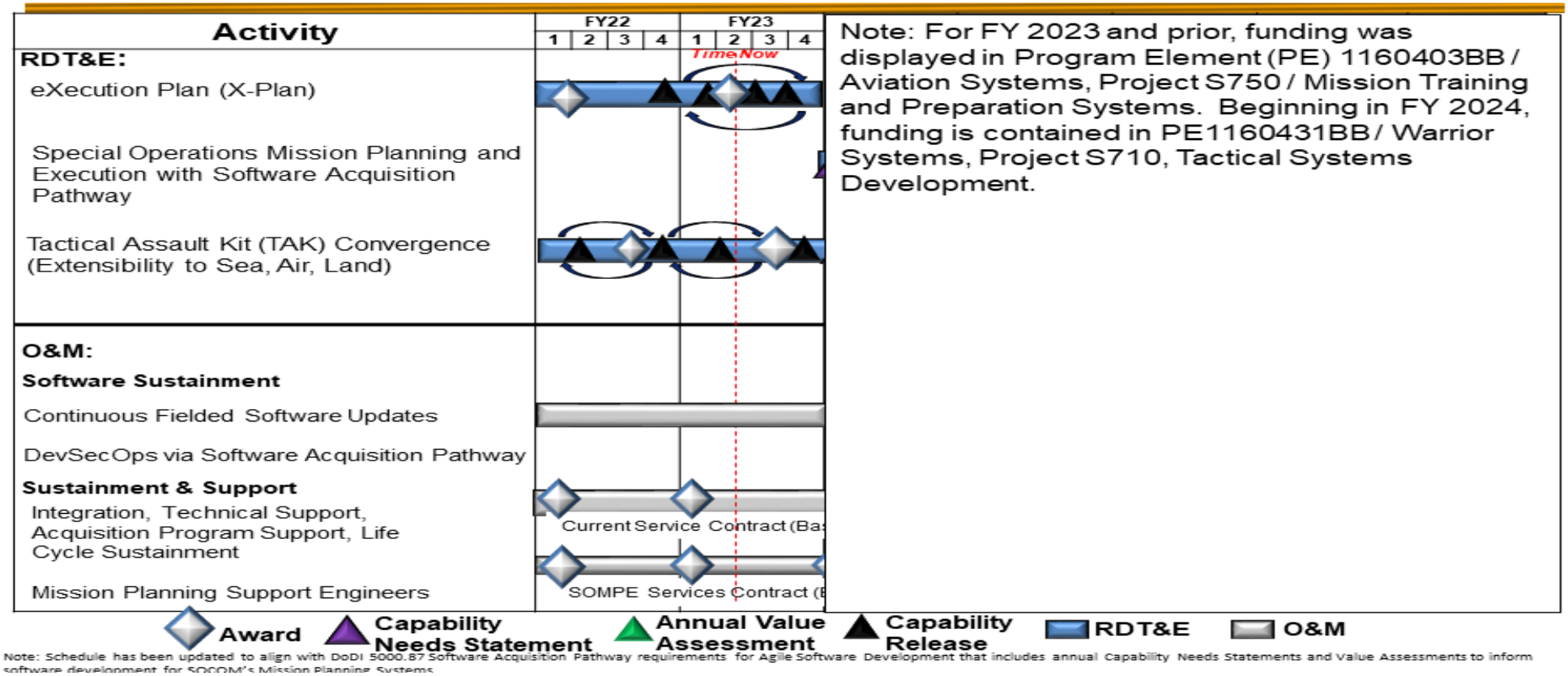
Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) S750 / *Mission Training and Preparation Systems*	

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	60.540	9.854		13.848		3.453		-		3.453	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*

Special Operations Mission Planning and Execution (SOMPE) Schedule



Note: Schedule has been updated to align with DoDI 5000.87 Software Acquisition Pathway requirements for Agile Software Development that includes annual Capability Needs Statements and Value Assessments to inform software development for SOCOM's Mission Planning Systems

Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*

Training Transformation SBUDF Schedule

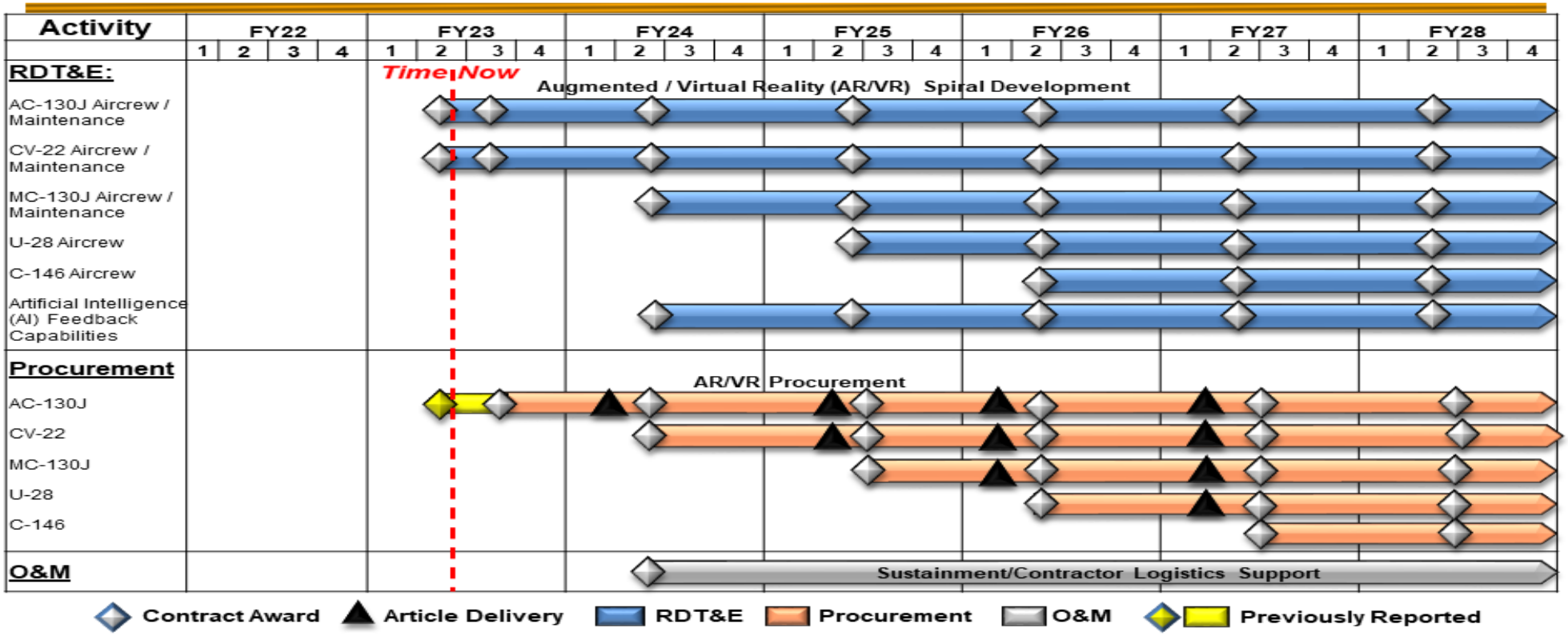


Exhibit R-4A, RDT&E Schedule Details: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Special Operations Mission Planning and Execution (SOMPE)				
eXecution Plan (XPlan)	1	2022	4	2023
SOMPE with Software Acquisition Pathway	4	2023	4	2023
Tactical Assault Kit (TAK) Convergence (Extensibility to Sea, Air, Land)	1	2022	4	2023
Training Transformation Simulator Block Upgrades Fixed Wing				
Augmented Reality/Virtual Reality (AR/VR) Device Spiral Development AC-130J Aircrew / Maintenance	2	2023	4	2028
AR/VR Device Spiral Development CV-22 Aircrew / Maintenance	2	2023	4	2028
AR/VR Device Spiral Development MC-130J Aircrew / Maintenance	2	2024	4	2028
AR/VR Device Spiral Development U-28 Aircrew	2	2025	4	2028
AR/VR Device Spiral Development C-146 Aircrew	2	2026	4	2028
Artificial Intelligence Feedback Capabilities	2	2024	4	2028

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) S875 / *AC/MC-130J*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
S875: *AC/MC-130J*	143.857	42.963	40.757	65.496	-	65.496	63.116	17.184	17.528	17.879	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project supports the development, rapid prototyping, integration, automation, and testing of the AC-130J and MC-130J aircraft. The AC-130J Ghostrider provides close air support (CAS), air interdiction, and armed reconnaissance in support of special operations and conventional forces in contested and degraded environments. The MC-130J Commando II provides clandestine, or low visibility, single or multiship, low-level infiltration (infil), exfiltration (exfil), and resupply of Special Operations Forces (SOF), by airdrop or airland and air refueling missions for special operations helicopters and tiltrotor aircraft, intruding politically sensitive or hostile territories. Incremental upgrade and agile software delivery approaches will be used to rapidly prototype, integrate and mature SOF capabilities onto the AC-130J and MC-130J aircraft. Efforts like Integrated Tactical Mission Systems (ITMS) provide critical automation and integration of SOF Tactical Mission Systems (TMS), including navigation, communication, precision fire control and aircraft defensive systems required for safe flight in AC-130J and MC-130J aircraft. Requirements include upgrades to integrate and automate SOF TMS such as Airborne Mission Networking (AbMN) interoperability, data fusion and improved situational awareness (SA), improved threat detection and avoidance, integrated terrain following (TF) / terrain avoidance (TA) and Silent Knight Radar (SKR) improvements, defensive countermeasures (DCM) suite, Precision Strike Package (PSP) interoperability, integrated electronic warfare (EW), and embedded training. Integrating and automating SOF mission systems that deliver these capabilities is critical to fielding SOF-capable AC-130J and MC-130J aircraft to be more lethal, resilient, survivable, agile, and responsive in support of the 2022 National Defense Strategy (NDS).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: Integrated Tactical Mission Systems (ITMS), Program Number 789	42.963	40.757	65.496
Description: Provides critical automation and integration of SOF TMS, including navigation, communication, precision fire control and aircraft defensive systems required for safe flight in AC-130J and MC-130J aircraft. The ITMS program increases operational crew performance and aircraft survivability by integrating the AC/MC-130J green aircraft and multiple SOF mission systems as an interoperable system-of-systems. Automated software capabilities will be developed, integrated, and tested with SOF-peculiar and green aircraft flight information, displays, and controls through the Special Mission Systems (SMS) suite. By increasing system-of-systems data interoperability through an Open Mission Systems (OMS) compliant Modular Open System Architecture (MOSA), an agile software development infrastructure will be employed to integrate multiple subsystems and continuously deliver automated software capabilities. Capabilities include, but are not limited to: automated route replanning; tactical flight management; integrated aircraft defensive systems; defensive countermeasures (DCM); and embedded training. The Next Generation Special Mission Processor (SMP) resolves current diminishing manufacturing sources issues with a MOSA compliant design to perform central processing for ITMS software. The ITMS enables dynamic operations with integrated real-time information, automation, and decision making data for safe TF/TA flight and mission execution on MC-130J aircraft and seamless employment of the PSP on AC-130J aircraft.			

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
FY 2023 Plans: Continue to identify, prototype, demonstrate, and enhance modern OMS capabilities of: Pre-mission software; common payload interfaces; enhanced cybersecurity management software; and AC-130J weapons planning and management system. Continue capability maturation of production and fielded software services through development, security, and operations (DevSecOps) supported by a cloud-hosted software integration and test environment. Continue development, demonstration, and test of common interfaces to integrate legacy, current, and future mission systems into an inter-operable systems architecture. Continue development of the MC-130J Tactical Map, Tactical Flight Management System (TFMS) and Automated Route Replanner (ARR) minimum viable products and continues software enhancements. Continue TFMS and DCM capability development, integration, and demonstration for MC-130J with common attributes with AC-130J. Continue capability demonstration, and DevSecOps software enhancements for MC-130J avionics and common applications of Battle Management System (BMS) in support of multi-role aircraft capabilities. Begin integration, rapid prototyping, and test utilizing agile framework in the Government cloud. ***FY 2024 Plans:*** Continues development, demonstration, and test of common interfaces to integrate legacy, current, and future mission systems into an interoperable systems architecture for both MC-130J and AC-130J aircraft. Continues to identify, prototype, demonstrate, and enhance modern OMS compliant capabilities of: pre-mission software; common payload interfaces; automated sensor tip/cue; enhanced cybersecurity management software; automated weapons planning and management; and applications of BMS software in support of multi-role aircraft capabilities and roll-on/roll-off systems. Completes MC-130J TFMS minimum viable product integration and test, and continues software DevSecOps to improve avionics interoperability with mission systems. Begins MC-130J integration and test of minimum viable products for onboard ARR and DCM capabilities on Next Gen SMP hardware. Continues capability maturation of software services for TFMS and ARR products to improve operations-based software performance. Continues development of DCM capabilities for both the MC-130J and AC-130J aircraft. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $24.739 million is due to continued development integration and increased flight test of TFMS and ARR capabilities on the MC-130J. Reinitiate software development, integration and test to improve PSP interoperability and introduce common TFMS, ARR, and DCM software to the AC-130J fleet based on FY 2023 OMS prototype demonstrations.			
Accomplishments/Planned Programs Subtotals	42.963	40.757	65.496

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• PROC/2012C130J: *AC/MC-130J*	205.216	222.869	319.754	-	319.754	310.229	341.280	356.057	396.195	Continuing	Continuing
• PROC/1202PSP: *Precision Strike Package*	165.224	57.450	108.497	-	108.497	111.346	107.500	65.473	66.782	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

ITMS: Award two sole source contracts to key prime integrators to develop and maintain an open mission system compliant MOSA, integrate legacy subsystems into the common architecture, support government on-boarding of 3rd party capabilities, and modernize software services through DevSecOps. Perform operationally driven rapid prototyping and demonstrations to evaluate new technology for system integration while informing changes to tactics, techniques, and procedures. Government lead development of virtual environment to enable collaborative integration of modular software services procured through competitive, sole source contracts, and use of open mission system compliant standards for hardware and software architecture, software, services, and future subsystems. Perform combined government and contractor integration, lab, and flight development/operational testing.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Tactical Mission System (ITMS) - AC/MC-130J Systems Interoperability & Tactical Map Enhancements	C/Various	Sierra Nevada Corporation : Nevada	48.014	5.374	Dec 2021	5.257	Dec 2022	8.867	Dec 2023	-		8.867	Continuing	Continuing	-
ITMS - Open Mission System (OMS) Capabilities	C/Various	Various : Various	11.526	3.762	Dec 2021	5.750	Dec 2022	9.805	Dec 2023	-		9.805	Continuing	Continuing	-
ITMS - MC-130J Software Capability Development	C/CPFF	Lockheed Martin Aeronautics : Marietta	16.072	11.150	Nov 2021	10.566	Dec 2022	21.703	Dec 2023	-		21.703	Continuing	Continuing	-
ITMS - AC-130J Software Capability Development	C/Various	Various : Various	4.800	1.353	Mar 2022	-		1.826	Dec 2023	-		1.826	Continuing	Continuing	-
ITMS - Agile Software Framework Dev & Test	C/Various	Various : Various	4.965	6.986	Mar 2022	6.830	Mar 2023	7.850	Mar 2024	-		7.850	Continuing	Continuing	-
ITMS - NextGen Special Mission Processor (SMP) Development, Integration & Test	C/Various	Various : Various	17.107	1.075	Dec 2021	-		-		-		-	0.000	18.182	-
MC-130J Airborne Mission Networking (AbMN)	C/CPFF	Sierra Nevada Corporation : Centennial, CO	19.712	-		-		-		-		-	0.000	19.712	-
		Subtotal	122.196	29.700		28.403		50.051		-		50.051	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ITMS - Support	C/Various	Various : Various	5.391	3.494	Mar 2022	3.650	Mar 2023	4.375	Mar 2024	-		4.375	Continuing	Continuing	-
		Subtotal	5.391	3.494		3.650		4.375		-		4.375	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) S875 / *AC/MC-130J*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ITMS - Integration & Developmental Test	Sub Allot	USSOCOM Detachment 1 : Eglin AFB, FL	12.508	9.769	Jan 2022	8.704	Mar 2023	11.070	Mar 2024	-		11.070	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	C/Various	Lockheed Martin : Atlanta, GA	3.762	-		-		-		-		-	0.000	3.762	-
		Subtotal	16.270	9.769		8.704		11.070		-		11.070	Continuing	Continuing	N/A

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	143.857	42.963		40.757		65.496		-		65.496	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

SOF MC-130J Capability Release Schedule

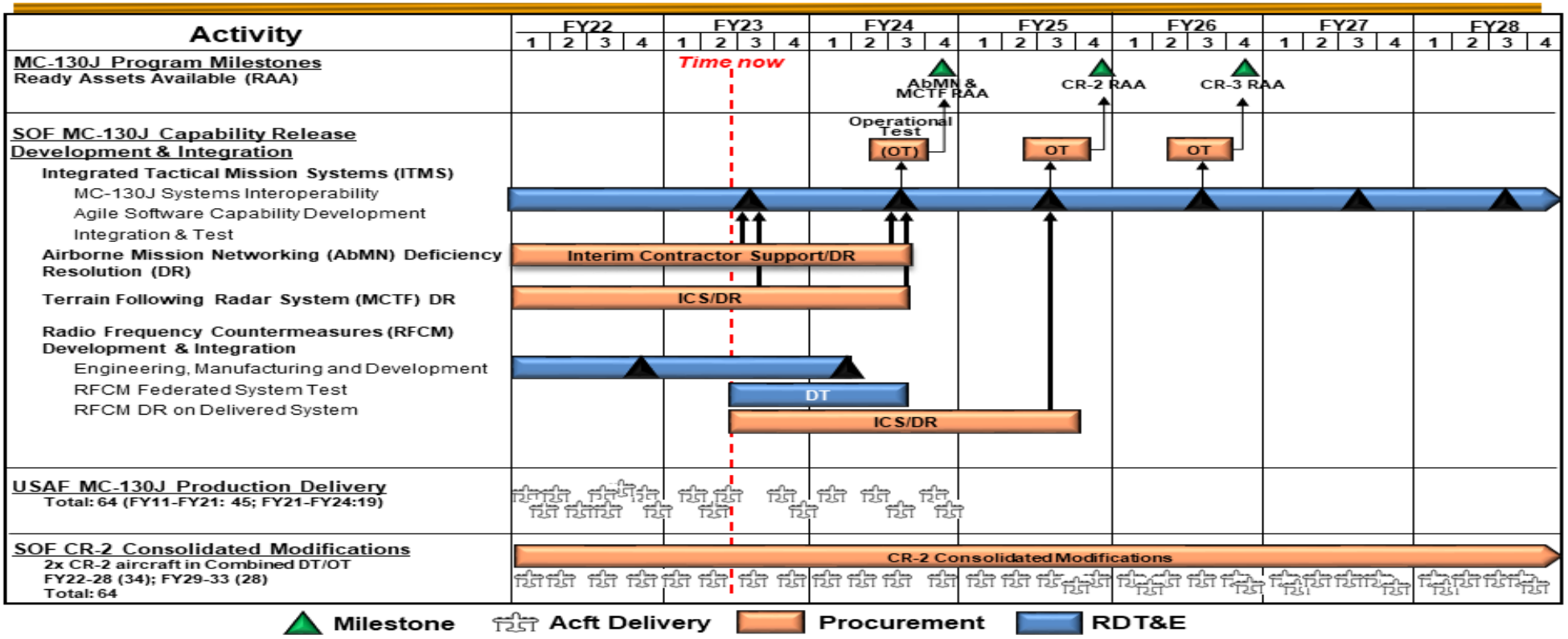


Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

Common AC/MC-130J Mission Systems Schedule

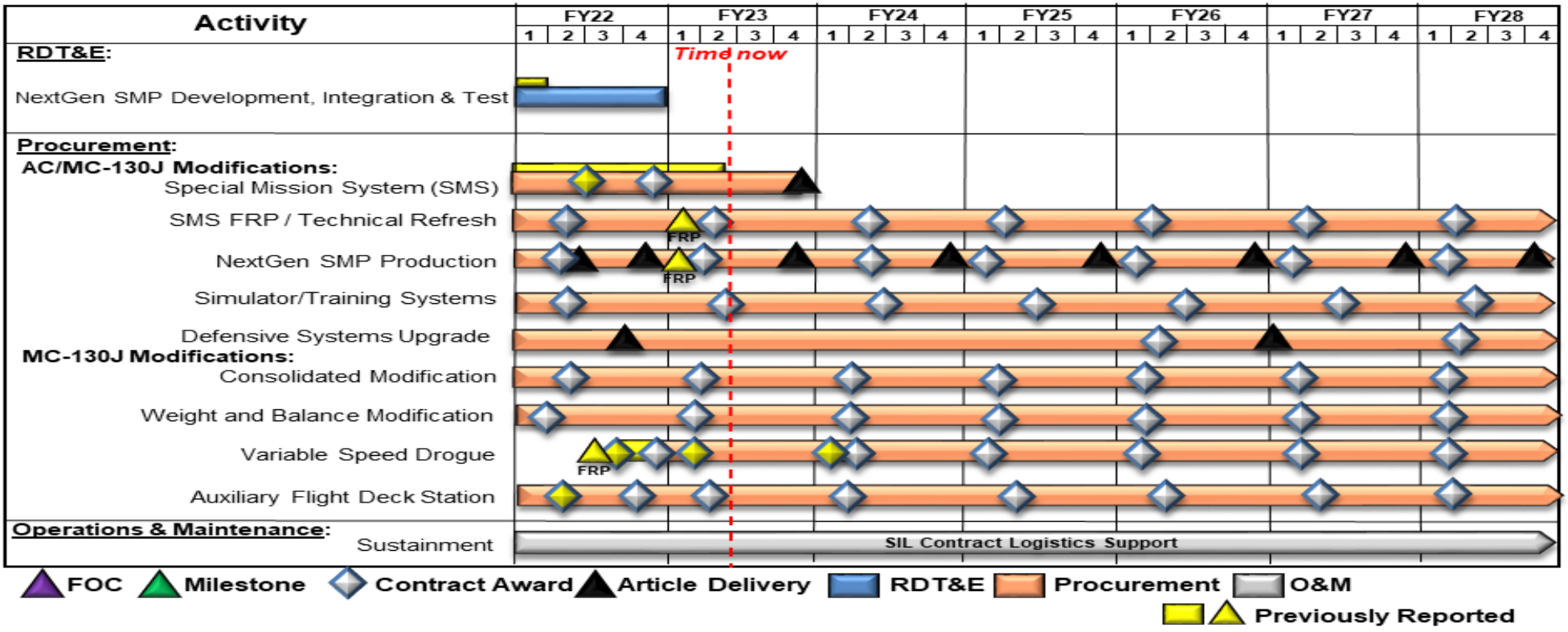


Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

Integrated Tactical Mission Systems (ITMS) Schedule

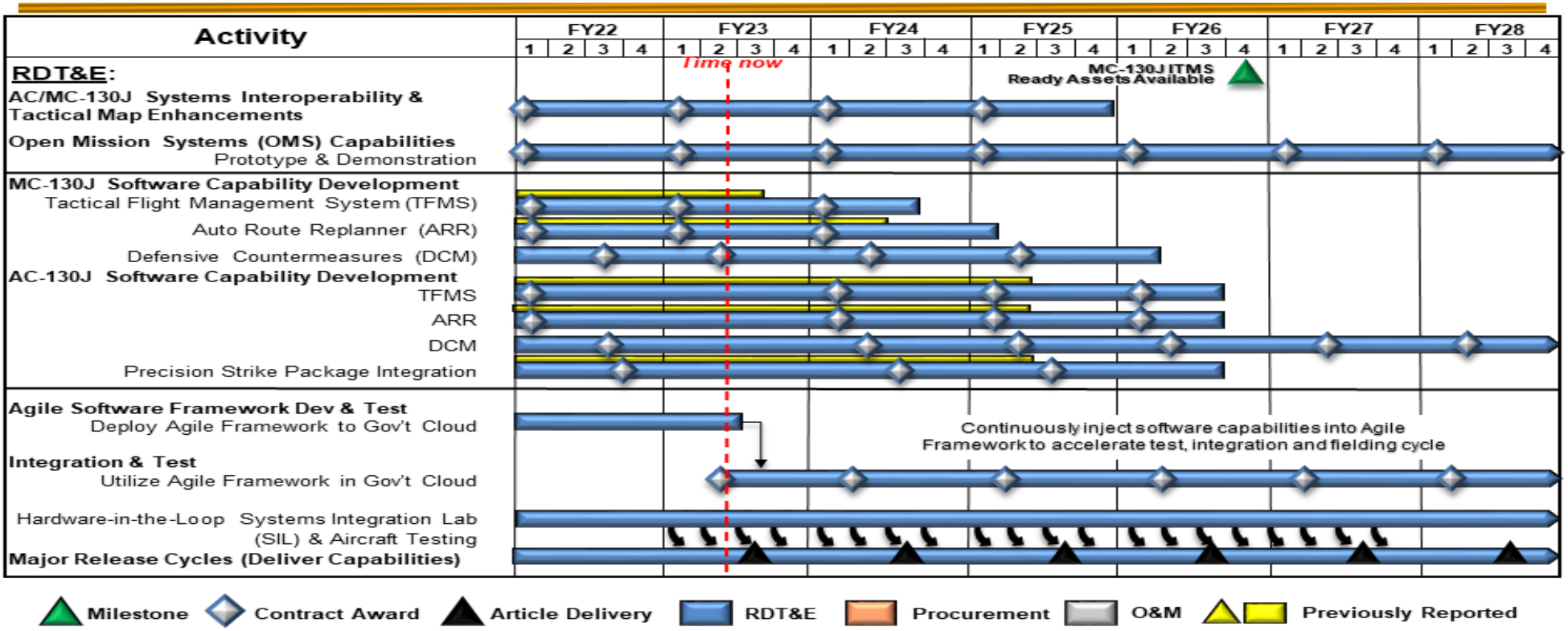


Exhibit R-4A, RDT&E Schedule Details: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Integrated Tactical Mission Systems (ITMS)				
AC/MC-130J Systems Interoperability & Tactical Map Enhancements	1	2022	4	2025
Open Mission System (OMS) Capabilities- Prototype and Demonstration	1	2022	4	2028
MC-130J Software Capability Development - Tactical Flight Management System (TFMS)	1	2022	3	2024
MC-130J Software Capability Development - Auto Route Replanner (ARR)	1	2022	1	2025
MC-130J Software Capability Development - Defensive Countermeasures (DCM)	1	2022	2	2026
AC-130J Software Development - TFMS	1	2022	3	2026
AC-130J Software Development - ARR	1	2022	3	2026
AC-130J Software Development - DCM	1	2022	4	2028
AC-130J Software Development - Precision Strike Package Integration	1	2022	3	2026
Agile Software Framework Development & Test - Deploy Agile Framework to Government Cloud	1	2022	3	2023
Integration &Test - Utilize Agile Framework in Government Cloud	2	2023	4	2028
Integration &Test - Hardware-in-the-Loop Systems Integration Lab (SIL) & Aircraft Testing	1	2022	4	2028
Integration &Test - Major Release Cycles (Delivery Capabilities)	1	2022	4	2028

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) D615 / *Rotary Wing Aviation*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
D615: *Rotary Wing Aviation*	338.238	41.226	59.490	67.311	-	67.311	59.952	61.175	58.266	59.432	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the development, rapid prototyping, demonstration, and integration of current and maturing technologies for Special Operations Forces-peculiar (SOF-p) rotary wing aviation and training requirements. This project provides next generation mobility to allow SOF-p helicopters to operate in denied environments in support of the 2022 National Defense Strategy. Rotary wing aircraft supported by this project include currently fielded: MH-60M; MH-47G; A/MH-6; and future planned Future Vertical Lift (FVL) Future Attack Reconnaissance Aircraft (FARA) and Future Long-Range Assault Aircraft (FLRAA). The currently fielded aircraft provide aviation support to SOF in worldwide contingency operations and low-intensity conflicts. These aircraft must be capable of rapidly deploying, penetrating hostile areas undetected, and operations at extended ranges under adverse weather conditions to infiltrate, provide logistics for, reinforce, and extract SOF. The anti-access/area denial (A2/AD) threat is characterized by an extensive and sophisticated ground based air defense system and an upgraded air-to-air capability targeted against helicopters. Mission Processor Upgrades (MPU) provides for non-recurring engineering, systems engineering/testing, and future aircraft architecture studies that support replacement and upgrade of the current mission and video processors for all Army Special Operations Aviation (ARSOA) rotary wing aircraft. Tactical Mission Networking (TMN) focuses on technology development of platform software and hardware systems with capabilities to enable aircraft to effectively adapt and overcome the challenges of a highly contested and congested Radio Frequency (RF) environment.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: A/MH-6M Block 3.0 Upgrade, Program Number 828	2.624	2.793	2.940
Description: This specialized aircraft for these missions must be capable of worldwide rapid deployment and operations in contested or anti-access/area denial (A2/AD) environments in support of Multi-Domain Operations. Funds the development and testing of SOF-p equipment and modifications for the A/MH-6M. It will include software development and testing to integrate new capability, development and qualification of new hardware, and test and evaluation of new weapons, sensors, communications systems, or aircraft modifications that increase system performance. The A/MH-6 aircraft is the USSOCOM's only urban attack and assault platform and provides reconnaissance, close air support (CAS), precision strike, infiltration (infil), exfiltration (exfil), and resupply of SOF teams in hostile, denied, and politically sensitive areas that allows the Joint Force to be more agile and responsive to combat missions, Irregular Warfare and Military Operations Other than War (MOOTW) as stated in the 2022 National Defense Strategy (NDS).			
FY 2023 Plans: Continue software updates to incorporate communications upgrades and crypto modernization for enhanced situational awareness incorporating Tactical Assault Kit, continue Light Weight Auxiliary Fuel Tanks testing and initial articles build. Initiate			

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
improved main rotor transmission study and pursues improvement to the Full Authority Digital Engine Control (FADEC), and lightweight engine doors exhaust study and testing. ***FY 2024 Plans:*** Continues software updates to incorporate communications data upgrades and crypto modernization for enhanced situational awareness incorporating Tactical Assault Kit, and additional software applications in the Tactical Assault Kit. Continues improved main rotor transmission study and improvements to the FADEC, and lightweight engine doors exhaust study flight testing. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $0.147 million in support of the lightweight engine doors exhaust study and Advanced Airborne Tactical Mission Suite (AATMS) testing growth. The study is expected to enter flight testing in FY 2024 which requires additional funding to accommodate the complexities and logistics of data measurement in flight test.			
Title: MH-60M Modifications and Upgrades, Program Number 827	2.716	4.139	11.910
Description: Funds the development and integration of critical technologies for the MH-60 helicopter to include flight test support, engineering analysis, documentation, and airworthiness substantiation. The Block 2.0 effort integrates the Army-common T901 Improved Turbine Engine (ITE) into the MH-60M, replacing the current SOF-p engine. Block 2.0 initiatives include, but are not limited to, safety, performance restoration, MH-60 engineering changes and product improvements to SOF-p equipment, munitions utilized for testing, modifications to Aircraft Survivability Equipment (ASE) and weapons systems designed to counter rapidly emerging threats, improved lethality, and enhanced aircraft self-protection in the Multi-Domain Operations (MDO) environment and against near peer threats. The MH-60M aircraft provides long-range, high speed, all weather, close air support (CAS), precision strike, infiltration (infil), exfiltration (exfil), and resupply of SOF teams in hostile, denied, and politically sensitive areas that allows the Joint Force to be more agile and responsive to combat missions Irregular Warfare and Military Operations Other than War (MOOTW) as stated in the 2022 National Defense Strategy (NDS). ***FY 2023 Plans:*** Continue payload restoration efforts through weight reduction studies and other technologies to improve safety and decrease operational costs to ASE, weapons systems improvement, munitions and supports MH-60 Improved Turbine Engine (ITE) integration designs. ***FY 2024 Plans:*** Continues Payload Restoration efforts and other technologies to improve safety and decrease operational costs to ASE, weapons systems improvements and munitions. Initiates T901 Engine integration efforts on the MH-60M based on an established UH-60M baseline. Begins development of MH-60M T901 software in support of future flight test. ***FY 2023 to FY 2024 Increase/Decrease Statement:***			

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Increase of $7.771 million is to support the development of MH-60M-specific T901 software for the aircraft, installation of the engine and instrumentation, and development of analyses / flight test planning in support of flight test in FY 2025.			
Title: Future Vertical Lift (FVL)	8.853	10.086	11.668
Description: Provides for development of the United States Special Operations Command (USSOCOM) platform capabilities that address SOF-p FVL requirements. This FVL family of systems significantly increases range, speed, payload, survivability, reliability, and maintainability of vertical lift aircraft to meet emerging mission requirements. The USSOCOM will participate in the service-common development of a joint FVL aircraft by injecting SOF-p requirements and equities into the initial development and design efforts to minimize SOF-p modifications to the common aircraft. Additionally, SOF development will maximize the interoperability of the future and enduring fleet's Mission Equipment Packages (MEP) and integration. The FVL aircraft provides long-range, high speed, all weather, close air support (CAS), precision strike, infiltration (infil), exfiltration (exfil), and resupply of SOF teams in hostile, denied, and politically sensitive areas that allows the Joint Force to be more agile and responsive to combat missions Irregular Warfare and Military Operations Other than War (MOOTW) as stated in the 2022 National Defense Strategy (NDS). ***FY 2023 Plans:*** Provide for SOF-p mission equipment package engineering, integration, and demonstration necessary to support advanced avionics, advanced mission equipment, Radio Frequency Countermeasures (RFCM), Terrain Following/Terrain Avoidance (TF/TA) Sensor, Electro-Optical/IR Sensor, Air Launched Effects and Degraded Visual Environment (DVE) into the Army baseline. Maintain and update Future Attack Reconnaissance Aircraft (FARA) engineering analysis as Army baseline designs and requirements mature; continue integrating SOF-p requirements during development. Continue Modular Open System Architecture (MOSA) analysis into a common cockpit with Digital Backbone integrating SOF-p mission equipment. ***FY 2024 Plans:*** Continues Future Long-Range Assault Aircraft (FLRAA) SOF-p mission equipment package engineering, integration, and demonstration necessary to support advanced avionics, advanced mission equipment, RFCM, TF/TA Sensor, Electro-Optical/IR Sensor, Air Launched Effects (ALE) and DVE into the Army single-vendor baseline. Maintains and updates FARA engineering analysis as Army baseline designs and requirements mature; continues integrating SOF-p requirements during development and initiates SOF pre-Engineering and Manufacturing Development (EMD) engineering activities. Continues MOSA analysis into a common cockpit with Digital Backbone integrating SOF-p mission equipment and initiates software development for select SOF-p sensors and weapons. Develops interoperability of MOSA based capabilities to enduring fleet for testing of SOF-p mission equipment packages. ***FY 2023 to FY 2024 Increase/Decrease Statement:***			

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Increase of $1.582 million is to support initiation of the SOF FARA pre-EMD Engineering activities that will continue to drive down engineering risk and initiation of software development for select SOF-p sensors and weapons.			
Title: MH-47 Modifications and Upgrades, Program Number 830 ***Description:*** This specialized aircraft for these missions must be capable of worldwide rapid deployment and operations in contested or anti-access/area denial (A2/AD) environments in support of Multi-Domain Operations. Develops technologies to improve the performance and safety of the MH-47G and decrease operational costs. Efforts include the Active Parallel Actuator Subsystem (APAS), weight reduction, and performance improvement developments. This program also includes modifications to Aircraft Survivability Equipment (ASE) and weapons systems to counter rapidly emerging threats and enhance aircraft self-protection. The MH-47G aircraft is USSOCOM's only heavy assault platform and provides long-range, high speed, all weather, and resupply of SOF teams in hostile, denied, and politically sensitive areas that allows the Joint Force to be more agile and responsive to combat missions, Irregular Warfare and Military Operations Other than War (MOOTW) as stated in the 2022 National Defense Strategy (NDS). ***FY 2023 Plans:*** Continue developing technologies, weight reduction, and performance improvements; includes modifications to ASE and weapons systems to counter rapidly emerging threats and enhance aircraft self-protection integration with MH-47G subsystems, such as Common Avionics Architecture System (CAAS), and execution of a configuration study of performance related improvements. Incorporate performance enhancing and weight reduction technologies targeting increased payloads, improved fuel economy, and expanded airspeed and environmental operating envelopes. Complete APAS testing. ***FY 2024 Plans:*** Continues developing technologies, weight reduction, and performance improvements; includes modifications to ASE and weapons systems to counter rapidly emerging threats and enhance aircraft self-protection integration with MH-47G subsystems, such as CAAS, and continue execution of a configuration study of performance related improvements. Incorporates performance enhancing and weight reduction technologies targeting increased payloads, improved fuel economy, and expanded airspeed and environmental operating envelopes. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Decrease of $2.893 million is due to the anticipated completion of APAS development in FY 2023.	9.625	7.048	4.155
Title: Mission Processor Upgrade (MPU), Program Number 846 ***Description:*** The specialized equipment for these missions must be capable of worldwide rapid deployment and operations in contested or anti-access/area denial (A2/AD) environments in support of Multi-Domain Operations. Provides for non-recurring engineering, systems engineering/testing, and future aircraft architecture studies that support replacement and upgrade of the current mission and video processors for all Army Special Operations Aviation (ARSOA) rotary wing aircraft. Upgrading all internal	-	-	1.590

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
processors increases the processing power to support critical functionality and emerging technologies that will be integrated into the aircraft operational flight program. MPU enables the enhancement in processing and memory resources required to incorporate future functionality within the aircraft. This includes replacement of ground-based navigation aids, advanced large area displays, processors with greater computing power, secured & removable storage, machine learning capabilities, precision timing devices in Global Positioning System (GPS)-denied environment, further advancement of cognitive decision aiding system that fuses information on threat, route, weather, terrain, and friendly forces, instantaneously adjusting an aircraft's route to protect the flight crew in hazardous weather, low level conditions, night conditions, and the next generation ARSOA cockpit. Furnishes the progression to protect aircraft and aircrew from cyber security threats from real-time flight monitoring and prevention capabilities.o This Special Operations Aviation Mission Equipment is a commodities product shared across the Special Operations Rotary Wing aircraft to provide navigation, communication and aircraft protection. These products ensure the Special Operations Rotary Wing aircraft are safely able to provide long-range, high speed, all weather, close air support (CAS), precision strike, reconnaissance, infiltration (infil), exfiltration (exfil), and resupply of SOF teams in hostile, denied, and politically sensitive areas that allows the Joint Force to be more agile and responsive to combat missions, Irregular Warfare and Military Operations Other than War (MOOTW) as stated in the 2022 National Defense Strategy (NDS). ***FY 2024 Plans:*** Begins avionics upgrades and cybersecurity efforts in support of the cockpit modernization roadmap. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $1.590 million is to support the development of a more secured, upgraded cockpit that enhances cyber and processing capabilities.			
Title: Tactical Mission Networking (TMN), Program Number 846 ***Description:*** Focuses on the technology development of platform software and hardware systems with capabilities to enable aircraft to effectively adapt and overcome the challenges of a highly contested and congested Radio Frequency (RF) environment. This effort facilitates advanced radio waveforms and communications equipment to ensure interoperability with ground forces and multi-domain operations. Upgrading antennas, processors, radios and other enabling communications equipment will be a persistent requirement as the RF environment becomes increasingly more complex. Additionally, the Army intends to upgrade its networks every two years – this funding will ensure Special Operations Aircraft can adapt and keep pace with both SOF and conventional forces' communications and networking improvements/upgrades. Tactical Mission Networking equipment ensure the Special Operations Rotary Wing aircraft are safely able to provide long-range, high speed, all weather, close air support (CAS), precision strike, reconnaissance, infiltration (infil), exfiltration (exfil), and resupply of SOF teams in hostile, denied, and politically sensitive areas that allows the Joint Force to be more agile and responsive to combat missions, Irregular Warfare and Military Operations Other than War (MOOTW) as stated in the 2022 National Defense Strategy (NDS). ***FY 2023 Plans:***	-	3.121	3.184

Exhibit R-2A, RDT&E Project Justification: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Begin development of software and hardware to rapidly incorporate advanced waveforms, advanced communications, and networking hardware onto ARSOA aircraft. ***FY 2024 Plans:*** Continues development of software and hardware to rapidly incorporate advanced waveforms, advanced communications, and networking hardware onto ARSOA aircraft. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase of $0.063 million is to support the secured and interoperable communication requirements for the next generation communications suite. This supports the continued development of more secured communications to support resilient communications in denied environments.			
Title: Classified Programs ***Description:*** Details provided under separate cover. ***FY 2023 Plans:*** Details provided under separate cover. ***FY 2024 Plans:*** Details provided under separate cover. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Decrease of $0.439 million will be provided under separate cover.	17.408	32.303	31.864
Accomplishments/Planned Programs Subtotals	41.226	59.490	67.311

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• PROC/0201RWUPGR: *Rotary Wing Upgrades and Sustainment*	209.778	223.092	261.012	-	261.012	253.977	228.082	224.184	233.845	Continuing	Continuing
• 0201MH60: *MH-60 Blackhawk*	58.976	-	-	-	-	-	-	-	-	1,127.640	1,127.640
• 0601MH47: *MH-47 Chinook*	130.485	146.444	149.883	-	149.883	157.413	162.816	131.914	136.982	Continuing	Continuing

Remarks

D. Acquisition Strategy

• A/MH-6M Block 3.0 Upgrade comprises three distinct efforts: integrated airframe, Block 3 performance kits and avionics upgrades. The airframe efforts (new rotor blades/performance components and new fuselage shells) will be a sole-source contract to Boeing, owner of the technical data associated with the performance

modification to the A/MH-6 airframes. The cockpit avionics architecture will be developed by Collins Aerospace. Any new hardware components will be Non Developmental Item/Commercial-Off-The-Shelf (COTS) to the extent possible and will be competitively selected. Airframe modification and integration work will be conducted via IDIQ contract with Special Operations Forces Support Activity (SOFSA). A/MH-6M Block 3.0 Upgrade is a Major Capability Acquisition (MCA) program.

• MH-60M Modifications and Upgrades supports systems integration and qualification efforts on 72 SOF configured MH-60M helicopters. The Modifications and Upgrades are executed via various acquisition vehicles and include, but are not limited to, government and contractor flight test support, engineering analysis, documentation, and airworthiness substantiation. Airframe modification and integration work will be conducted via a contract with SOFSA. MH-60M Modifications and Upgrades is a MCA program.

• The FVL is the SOF aviation participation in the Joint FVL effort to develop the next generation of vertical takeoff and landing aircraft and establishes the foundation for the transformation of the Department of Defense (DoD) vertical lift aviation capabilities over the next forty years. The USSOCOM is not the Milestone Decision Authority (MDA) for FVL. The Army manages the FLRAA program via the Middle Tier of Acquisition (MTA) through Milestone B, followed by an MCA. The Army manages FARA via MTA until downselect to one platform followed by a MCA.

• MH-47 Modifications and Upgrades will develop technologies to improve performance and safety of the MH-47G and decrease operational costs. Efforts include the APAS, weight reduction, and performance improvement developments. The Modifications and Upgrades are executed via various acquisition vehicles and consist mostly of government and contractor executed integration, testing, and qualification efforts with some analytical engineering services to be completed. Post-production block modifications are accomplished via contract with SOFSA. MH-47 Modifications and Upgrades is a MCA program.

• MPU provides for future cockpit architecture studies that will help define the replacement of current mission and video processors for all ARSOA platforms. Additionally, it will address near term required upgrades to existing components. Potential upgrades will be through existing Original Equipment Manufacturers (OEM), while the future cockpit architecture studies will be competitively awarded. MPU is a MCA program.

• TMN provides for future communications and networking capability exploration and solution development that will ensure ARSOA platforms can communicate through voice and data in a highly contested and congested RF environment. Additionally, it will ensure ARSOA aircraft can maintain interoperability with the SOF and conventional ground forces' plan of rapidly and continually updating their communications and networking infrastructure. Non-developmental communications equipment will be procured through existing DoD contracts. Aircraft integration will be through existing aircraft modification contracts. TMN is a MCA program.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command			Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) D615 / *Rotary Wing Aviation*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MH-60M Modifications and Upgrades	C/Various	TAPO : Ft. Eustis, VA	-	0.770	Mar 2022	2.942	Mar 2023	9.043	Mar 2024	-		9.043	Continuing	Continuing	-
Future Vertical Lift (FVL)	C/Various	PM TAPO : Ft. Eustis, VA	8.781	7.778	Dec 2021	8.880	Apr 2023	9.157	Mar 2024	-		9.157	Continuing	Continuing	-
FVL Congressional Add (Cong Add)	C/Various	PM TAPO : Ft. Eustis, VA	7.356	-		-		-		-		-	0.000	7.356	-
MH-47 Modifications and Upgrades	C/Various	PM TAPO : Fort Eustis, VA	58.842	0.730	Nov 2021	6.085	Nov 2022	4.155	Nov 2023	-		4.155	Continuing	Continuing	-
MH-47 Active Parallel Actuator Sub-System Design/Qualification	C/Various	PM TAPO : Fort Eustis, VA	-	8.895	Nov 2021	0.963	Jun 2023	-		-		-	Continuing	Continuing	-
Tactical Mission Networking (TMN)	C/Various	PM TAPO : Fort Eustis, VA	3.000	-		3.121	Mar 2023	3.184	Mar 2024	-		3.184	Continuing	Continuing	-
Classified Program(s)	C/TBD	TBD : TBD	114.069	10.289		25.089		29.108		-		29.108	Continuing	Continuing	-
Prior Years Funding	C/Various	PM MELB : Fort Eustis, VA	49.820	-		-		-		-		-	0.000	49.820	-
		Subtotal	241.868	28.462		47.080		54.647		-		54.647	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MH-60M Modification and Upgrades	C/Various	PM TAPO : Fort Eustis, VA	-	1.194	Mar 2022	0.923	Mar 2023	1.180	Mar 2024	-		1.180	Continuing	Continuing	-
FVL	C/Various	PM TAPO : Fort Eustis, VA	5.546	0.320	Nov 2021	0.732	Feb 2023	1.146	Mar 2024	-		1.146	Continuing	Continuing	-
FVL (Cong Add)	C/Various	PM TAPO : Fort Eustis, VA	0.359	-		-		-		-		-	0.000	0.359	-
		Subtotal	5.905	1.514		1.655		2.326		-		2.326	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
A/MH-6M Block 3.0 Upgrade Operational Test and Evaluation	C/Various	PM MELB : Fort Eustis, VA	37.399	2.624	Mar 2022	2.793	Feb 2023	2.940	Feb 2024	-		2.940	Continuing	Continuing	-
MH-60M Modification and Upgrades Developmental Test & Evaluation	C/Various	PM TAPO : Fort Eustis, VA	17.277	0.499	Mar 2022	0.024	Mar 2023	1.432	Mar 2024	-		1.432	Continuing	Continuing	-
Mission Processor Upgrade (MPU) Upgrades Developmental Test and Evaluation	C/Various	PM TAPO : Fort Eustis, VA	1.590	-		-		1.590	Apr 2024	-		1.590	Continuing	Continuing	-
FVL Developmental Test & Evaluation	C/Various	PM TAPO : Fort Eustis, VA	-	0.289	Dec 2022	-		0.877	Mar 2024	-		0.877	Continuing	Continuing	-
Classified Program (s)	C/TBD	TBD : TBD	-	7.119		7.214		2.756		-		2.756	Continuing	Continuing	-
Prior Years Funding	C/Various	Various : Various	34.199	-		-		-		-		-	0.000	34.199	-
		Subtotal	90.465	10.531		10.031		9.595		-		9.595	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MH-60M Modification and Upgrades	C/Various	PM TAPO : Ft. Eustis, VA	-	0.253	Mar 2022	0.250	Mar 2023	0.255	Mar 2024	-		0.255	Continuing	Continuing	-
Future Vertical Lift	C/Various	PM TAPO : Ft. Eustis, VA	-	0.466	Nov 2021	0.474	Feb 2023	0.488	Mar 2024	-		0.488	Continuing	Continuing	-
		Subtotal	-	0.719		0.724		0.743		-		0.743	Continuing	Continuing	N/A

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	338.238	41.226		59.490		67.311		-		67.311	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

A/MH-6 Program Schedule

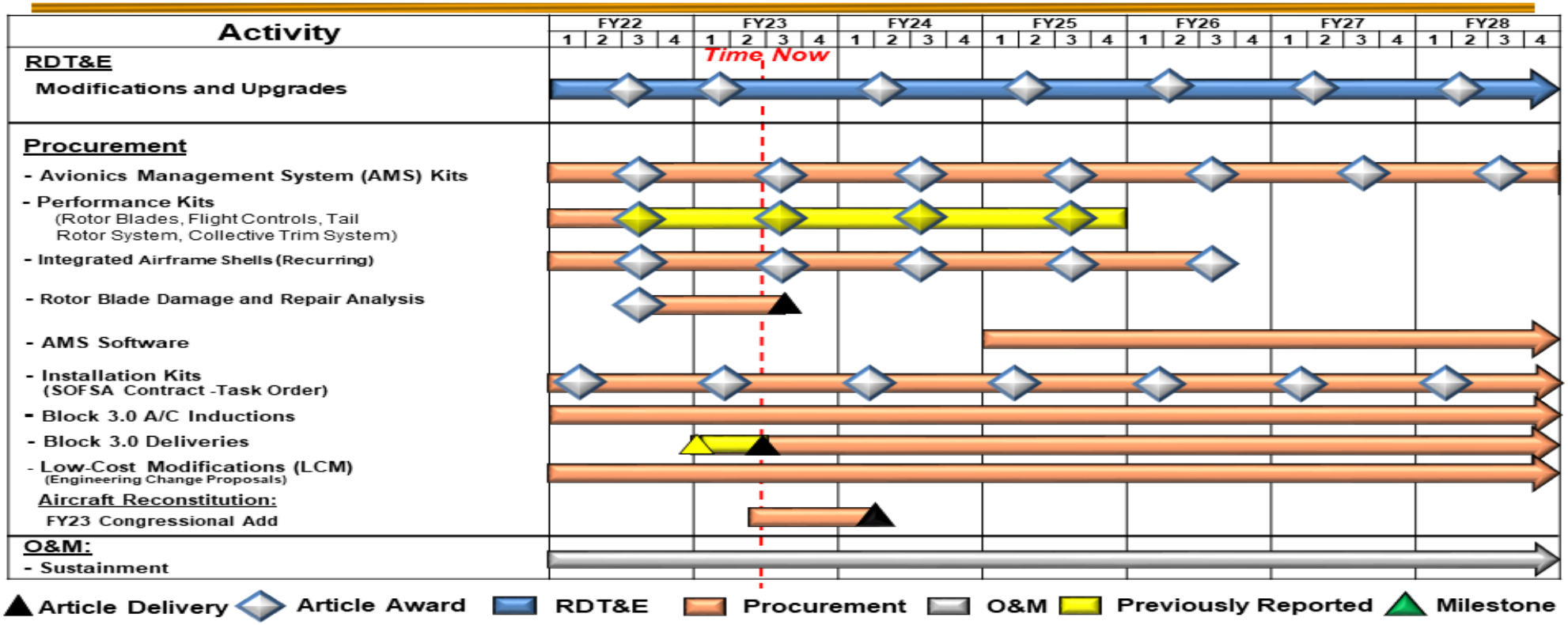


Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

MH-60 Program Schedule

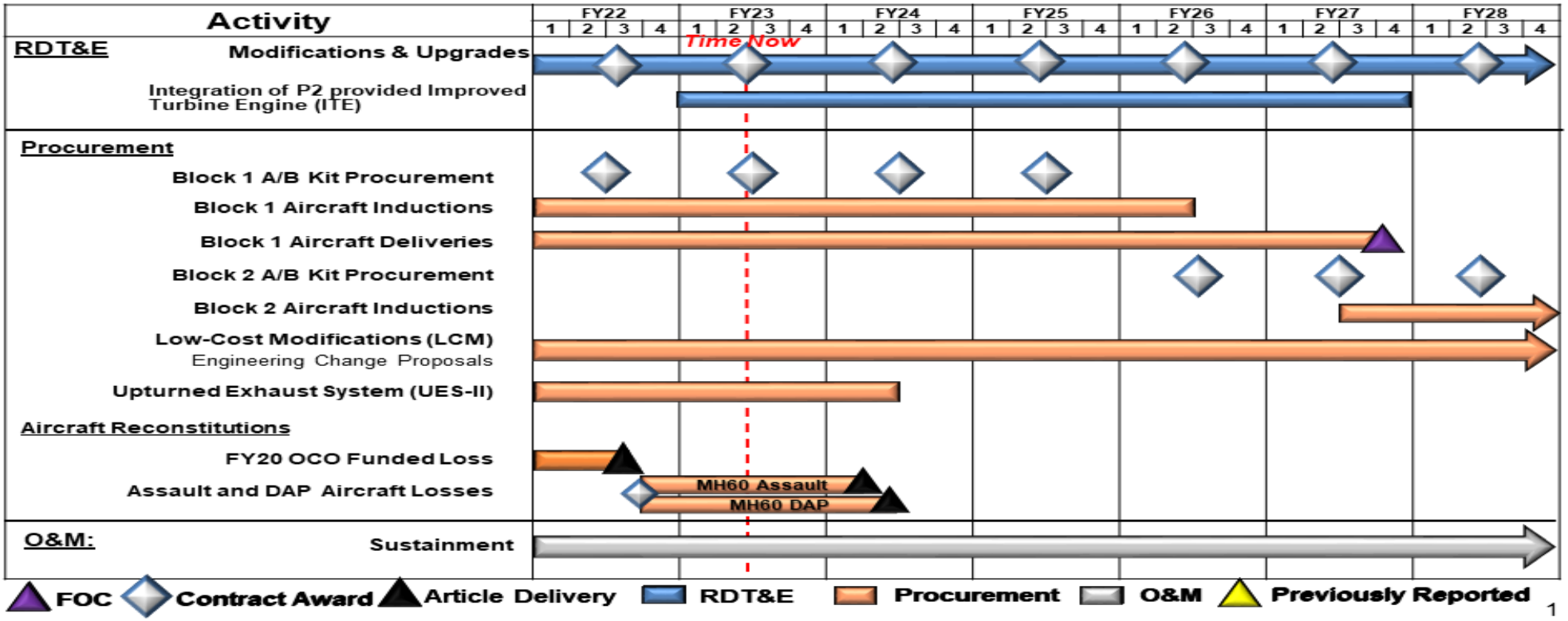


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Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

Future Vertical Lift Schedule

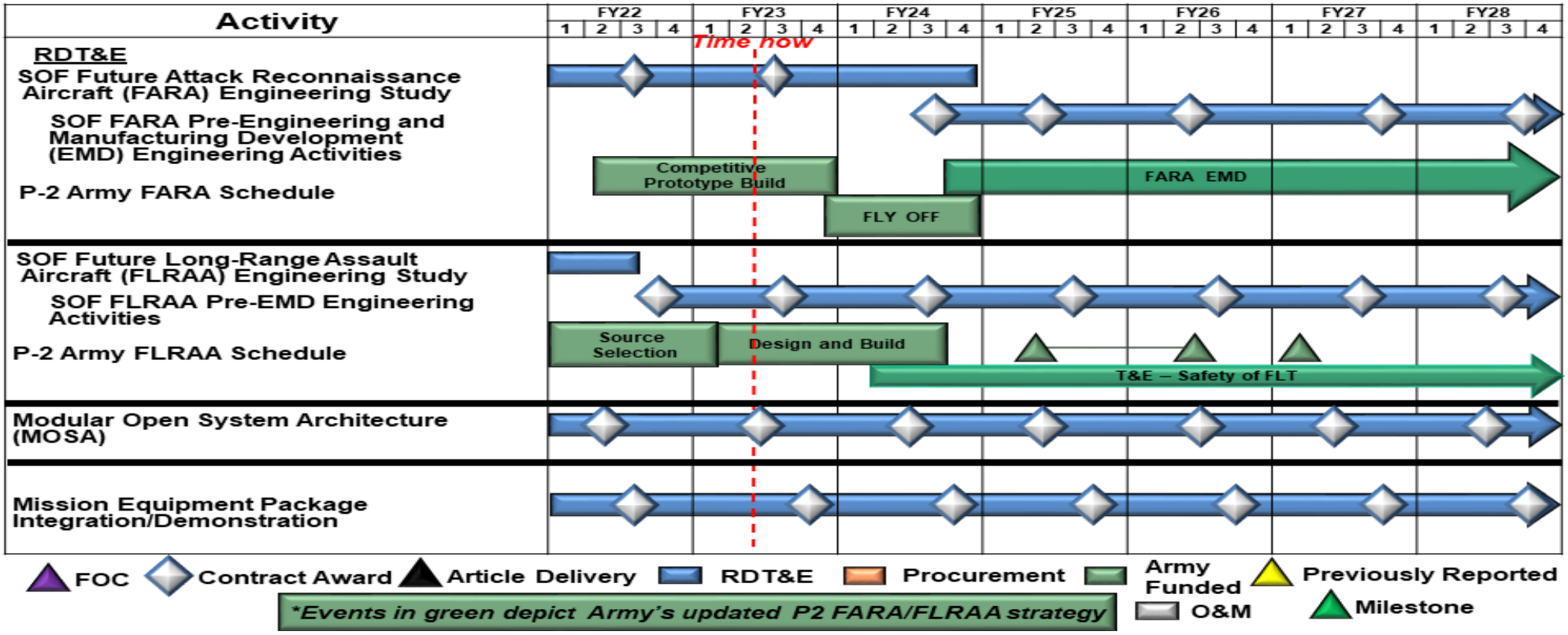

Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

MH-47 Program Schedule

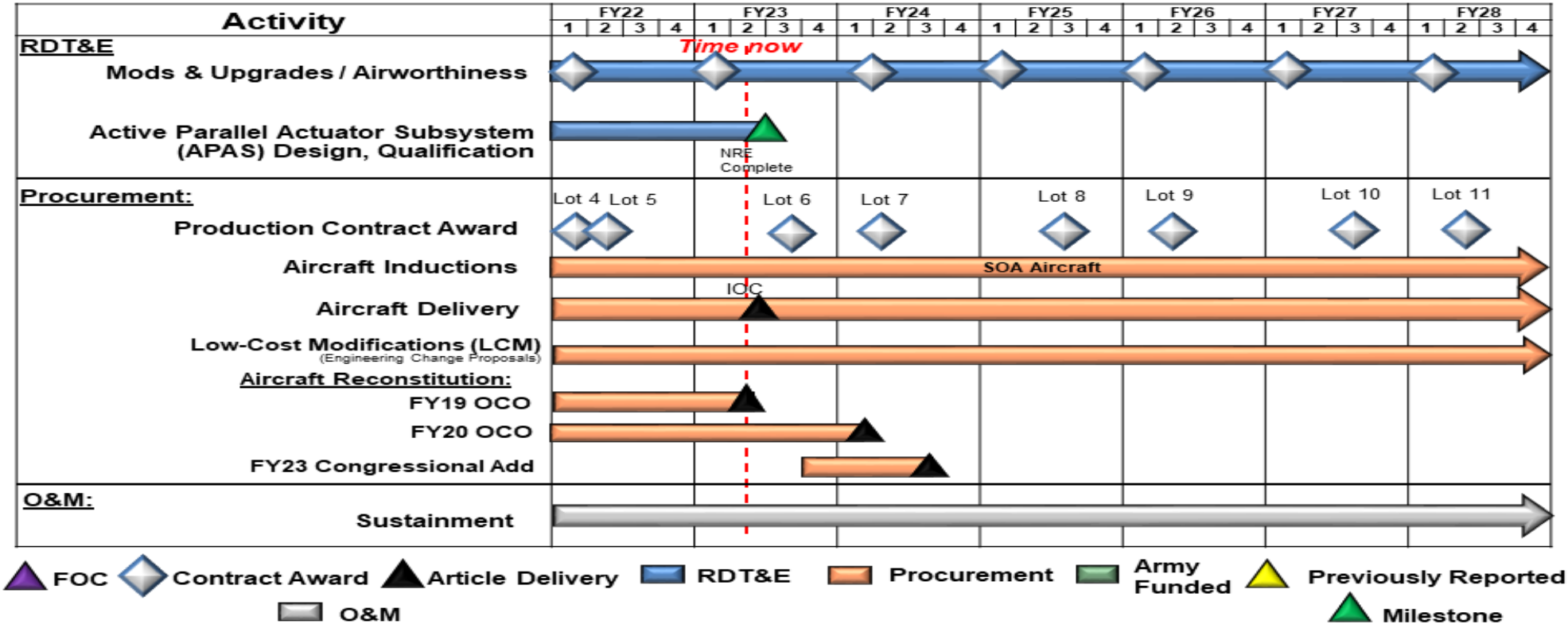

Exhibit R-4, RDT&E Schedule Profile: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

Mission Processor Upgrade (MPU) Schedule

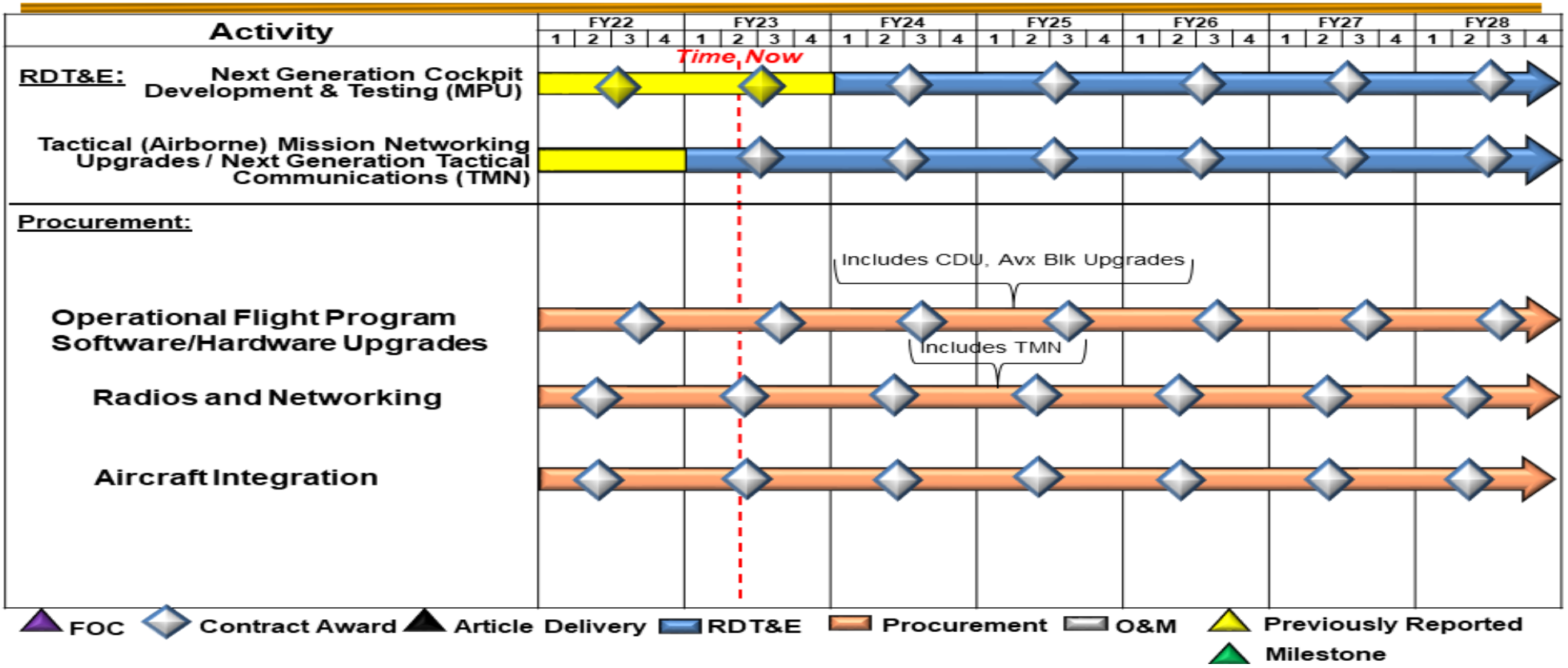

Exhibit R-4A, RDT&E Schedule Details: PB 2024 United States Special Operations Command		Date: March 2023
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
A/MH-6M Block 3.0 and Modifications				
Modifications and Upgrades	1	2022	4	2028
MH-60M Modifications and Block Upgrades				
Modifications and Upgrades	1	2022	4	2028
Improved Turbine Engine Program (ITEP)	1	2023	4	2027
Future Vertical Lift (FVL)				
SOF Future Attack Reconnaissance Aircraft (FARA) Engineering Study and Activities	1	2022	4	2028
SOF Future Long-Range Assault Aircraft (FLRAA) Engineering Study and Activities	1	2022	4	2028
Modular Open Systems Architecture (MOSA)	1	2022	4	2028
Mission Equipment Package (MEP)	1	2022	4	2028
MH-47 Program				
Modifications and Upgrades	1	2022	4	2028
Active Parallel Actuator Subsystem (APAS) Design, Qualification	1	2022	2	2023
Mission Processor Upgrade (MPU)				
Next Generation Cockpit Development and Testing	1	2024	4	2028
Tactical Mission Networking Upgrades / Next Generation Tactical Communications	1	2023	4	2028