Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	618.675	26.519	30.399	75.136	-	75.136	77.607	77.702	73.450	76.347	Continuing	Continuing
S400: *SO Intelligence Systems*	618.675	26.519	30.399	75.136	-	75.136	77.607	77.702	73.450	76.347	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program (MIP) that provides for the identification, development, rapid prototyping and testing of Special Operations Forces (SOF) intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. Sub-projects address the primary areas: intelligence dissemination; sensor systems; tagging, tracking, and locating devices; integrated threat warning to SOF mission platforms; biometrics and forensic site exploitation; Tactical Exploitation of National Capabilities (TENCAP) system; space-based payload development; and tactical unmanned systems. The United States Special Operations Command (USSOCOM) has developed an overall strategy to ensure that Command, Control, Communications, Computers, and Intelligence (C4I) systems and tactical unmanned systems continue to provide SOF with the required capabilities into the 21st century. The USSOCOM tactical unmanned and C4I systems comprise an integrated network of systems providing positive command and control and timely exchange of intelligence and threat warning to all organizational echelons. The C4I systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration with the Global Information Grid (GIG). The GIG allows SOF elements to operate with any force combination in multiple environments. These technologies will be pursued via rapid prototyping efforts when appropriate.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	26.519	32.766	0.000	-	0.000
Current President's Budget	26.519	30.399	75.136	-	75.136
Total Adjustments	0.000	-2.367	75.136	-	75.136
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-2.367			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	75.136	-	75.136

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Project: S400: *SO Intelligence Systems*		
Congressional Add: *Sensitive Site Exploitation - Document and Media Exploitation Program*	7.000	-

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Congressional Add Subtotals for Project: S400	7.000	-
Congressional Add Totals for all Projects	7.000	-

Change Summary Explanation

Funding:

FY 2021: None.

FY 2022: Decrease of -$2.637 million is due to a Congressional directed program reduction to MMP (TENCAP).

FY 2023: Funding increase of $75.136 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command			Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160405BB / *Intelligence Systems Development*	Project (Number/Name) S400 / *SO Intelligence Systems*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
S400: *SO Intelligence Systems*	618.675	26.519	30.399	75.136	-	75.136	77.607	77.702	73.450	76.347	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This sub-project is part of the Military Intelligence Program (MIP). Provides for the identification, development, testing, and rapid prototyping of Special Operations Forces (SOF) intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. Programs address the primary areas of intelligence dissemination, sensor systems, tagging, tracking, and locating devices, integrated threat warning to SOF mission platforms, SOF-unique support from space systems including Tactical Exploitation of National Capabilities (TENCAP) system, space-based payload development, and tactical unmanned systems. The systems developed and tested in this line item are National Systems Support to SOF (NSSS); Joint Threat Warning System (JTWS); Hostile Forces - Tagging, Tracking, and Locating (HF-TTL); Special Operations Tactical Video System/Reconnaissance, Surveillance, and Target Acquisition (TVS/RSTA); SOF Planning, Rehearsal and Execution Preparation (SOFPREP); Integrated Survey Program (ISP); Sensitive Site Exploitation (SSE); SOF Signals Intelligence (SIGINT), Processing, Exploitation, Dissemination (PED), Silent Dagger (SD); Expeditionary Organic Tactical Airborne - Intelligence, Surveillance, Reconnaissance (ISR) Capability Sets (EOTACS) and Multi-Mission Tactical Unmanned Aerial Systems (MTUAS). The intelligence programs funded in this project will meet annual emergent requirements.

The United States Special Operations Command (USSOCOM) has developed an overall strategy to ensure that Command, Control, Communications, Computers, and Intelligence (C4I) systems and tactical uncrewed systems continue to provide SOF with the required capabilities throughout the 21st century. USSOCOM's tactical uncrewed and C4I systems comprise an integrated network of systems providing positive command and control and timely exchange of intelligence and threat warning to all organizational echelons. The C4I systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration with the Global Information Grid (GIG). The GIG allows SOF elements to operate with any force combination in multiple environments.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: NSSS	0.879	3.345	9.372
Description: NSSS provides research and development and rapid prototyping to support the USSOCOM space-based payload and TENCAP programs and supporting capabilities. NSSS improves the combat effectiveness of USSOCOM, its components, and the Theater Special Operations Commands (TSOCs) by providing innovative space - based ISR technologies and system enhancements, products, and special communications capabilities to tactical SOF units. NSSS leverages current and developmental national and commercial systems to tailor payloads able to be integrated onto commercial and US Government satellites and integrates and augments SOCOM systems to directly support SOF tactical mission requirements and timelines. Focus areas include: Geo-spatial Intelligence (GEOINT); Signals Intelligence (SIGINT); Special Communications (SPCOM); and intelligence fusion, reporting, and dissemination. NSSS efforts are characterized by rapid prototype development to transition to SOCOM Programs of Record (POR).			

Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
FY 2022 Plans: Continue development of SOF-required prototype capabilities, primarily through leveraging current or developing technologies and assets, while coordinating with SOCOM operators and POR for production and operational fielding of successful capabilities. Emphasis areas include development of the Combined Intelligence Picture-All Source transceiver capability that leverages existing national space assets and long-range precision fires integration with space based systems. ***FY 2023 Plans:*** Continues development of SOF-required prototype capabilities, leveraging current or developing technologies and assets, while coordinating with SOCOM operators and POR for production and operational fielding of successful capabilities. Emphasis areas include the Combined Intelligence Picture-All Source transceiver capability that leverages existing national space assets and integration of SOF-required satellite payloads with integration with the National Defense Space Architecture (NDSA). ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Increase of $6.027 million is to support software improvements, space-based payload development, and national system integration for SOF tactical targeting in near peer threat environments. This program received a Congressional directed reduction to MMP (TENCAP) in FY 2022 (-$2.637 million).			
Title: JTWS ***Description:*** The JTWS System of Systems (SoS) enables SOF cryptologic operators to collect, process, locate, and exploit threat communications signals of interest (SOI) in order to provide timely, relevant, and responsive intelligence, enhanced target acquisition, and threat warning information directly to SOF commanders. Intelligence gathered is then transposed to national databases in the Intelligence Community. JTWS capabilities are focused on multiple domains: Ground; Maritime; Air; Unmanned Aerial Systems (UAS); Unmanned Surface Systems (USS); Space; and Cyber Enabling. Each area has specific requirements for Communications Intelligence, Electronic Intelligence, and Precision Geo-location (PGL). ***FY 2022 Plans:*** Continue Development and Test (D&T) of modular/scalable, open architecture, and software defined solutions. Continue efforts directed towards the modularity of technologies. Begin the development of software defined, cyber hardened technologies. Continue technical evaluation of machine learning and human language translation technologies for all variants in order to reduce SOF operator workload. Continue improvement of technology for near peer SOI. ***FY 2023 Plans:*** Continues D&T of modular/scalable, open architecture, and software defined solutions. Continues efforts directed towards the modularity of technologies. Continues the development of software defined, cyber hardened technologies. Continues technical evaluation of machine learning and human language translation technologies for all variants to reduce SOF operator workload.	14.200	11.661	21.805

Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Continues improvement of technology for near peer SOI. Begins the development of space-based payloads and payloads for UAS, USS, and UUS. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Increase of $10.144 million is for the research and development of payloads for uncrewed air, surface, and undersea platforms; space payloads; tools in support of cyber enablement operations, near peer, and hard targets; cyber enabled sensors; cyber hardening; and modular payload expansion.			
Title: HF-TTL ***Description:*** This program provides SOF with the necessary tools to find, fix, and finish target assets through the emplacement of sophisticated tags and devices that feed into an integrated architecture. HF-TTL provides Geographic Combatant Commanders (GCC) and SOF operators with an immediate capability to tag, track, and locate people, things, and activities. The HF-TTL program provides actionable intelligence for SOF mission planners. The mission sets comprise a mix of different classes of tags and their associated detection, interrogation, viewing, tracking, and communications systems that are fielded annually to SOF Components and TSOCs based upon dynamic and emergent SOF operational requirements. ***FY 2022 Plans:*** Continue integration, operational testing, and evaluation in support of UAS payload integration low probability of intercept (LPI) / low probability of detection (LPD) waveform refinement, and small satellite payload development efforts. ***FY 2023 Plans:*** Continues integration, operational testing, and evaluation in support of UAS payload integration LPI/LPD waveform refinement, and small satellite payload development efforts. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Decrease of $0.378 million is due to a reduction of payload integration and test efforts.	1.440	6.400	6.022
Title: TVS/RSTA ***Description:*** This program provides SOF with critical Special Reconnaissance (SR) equipment that directly supports the planning and execution of SOF missions. This capability allows the SOF warfighter to meet SOF SR mission requirements to find, fix, finish, exploit, analyze, and disseminate information of an adversary's movement, construct, identification, location, and associated activities. TVS/RSTA provides GCC and SOF operators with an immediate capability to visually and electronically acquire people, things, and activities and provides actionable intelligence for SOF planners and Commanders. The Family of Systems (FoS) consists of interoperable equipment to capture and transfer near-real-time ground-based, tactical day/night/ reduced visibility, imagery, video, and electronic proximity and movement sensing, all capable of dissemination through SOF organic, global C4I, and commercial communications infrastructures.	1.263	3.117	8.720

Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
FY 2022 Plans: Continue specialized device modifications for Unattended Ground Sensors (UGS) and Unattended Maritime Sensors (UMS), integration with small satellite receiver payloads and operational testing and evaluation. ***FY 2023 Plans:*** Continues specialized device modifications for UGS/UMS, integration with small satellite receiver payloads, operational testing and evaluation, and begins development of advanced sensor emplacement capabilities. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Increase of $5.603 million supports the development of advanced sensor emplacement capabilities.			
Title: SOFPREP ***Description:*** This program serves as the intelligence focal point for production of SOF enhanced GEOINT (maps, imagery, and terrain data) and three-dimensional (3D) scene visualization databases. SOFPREP gathers, processes, exploits, disseminates, and manages classified high resolution 3D databases and GEOINT data in support of SOF training, mission rehearsal, and execution preparation systems. The program builds the SOF common geospatial environment and manages the authoritative database of SOF-specific GEOINT terrain data. SOFPREP is a National Geospatial-Intelligence Agency (NGA) certified co-producer in support of time-sensitive SOF specific requirements. ***FY 2022 Plans:*** Complete testing and evaluation of operational prototype systems and Artificial Intelligence (AI)/Machine Learning (ML) tools to speed production of correlated high resolution 3D geospatial databases. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Decrease of $0.281 million is due to the SOFPREP program transitioning into an operations and sustainment effort beginning in FY 2023.	0.287	0.281	-
Title: ISP ***Description:*** This program collects and produces current, detailed, tactical planning data to support military operations to counter threats against U.S. citizens, interests, and property located both domestically and overseas. ISP products are specifically tailored packages that provide operational information and intelligence data for use by DOD and the U.S. Department of State to support operational planners for counter-terrorism operations, evacuations, and other rescue missions. ***FY 2022 Plans:***	0.803	0.797	0.869

Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Continue development and rapid fielding of ISP system and products to integrate with enterprise architecture and support the latest standards and technology. ***FY 2023 Plans:*** Continues development and rapid fielding of ISP system and products to integrate with enterprise architecture and supports rapid and iterative delivery of digital products to meet emerging SOF requirements. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Increase of $0.072 million supports rapid and iterative delivery of digital products to meet emerging SOF requirements.			
Title: SSE ***Description:*** This program uses rapid test and evaluation of emerging biometric and forensic technology to provide state-of-the-art capabilities to the warfighter for the exploitation of documents, electronic data, materiel, and forensic evidence on sensitive sites/objectives. Biometric kits collect and transmit unique, measurable biometric signatures from personnel, including live/latent fingerprints, iris patterns, and facial features. It also provides a means to verify against and enroll subjects into the DOD authoritative database, and to query that database to support, hold or release decisions. Forensic kits enable on-objective linking of events to specific persons through chemical analysis, latent fingerprints, cell phones and computer data analysis, and deoxyribonucleic acid (DNA) collection. Exploitation Analysis Centers provide theater-level mobile forensic capabilities for more in-depth exploitation of collected exploitable material. ***FY 2022 Plans:*** Continue development of software applications to enable biometric signature collection, increased volumes of collectible exploitable material (CEM) to include documents, cell phones, and electronic media, and to counter advancements in encryption and countermeasures which makes access to collectible material more difficult. Continue new touchless development of hardware and software applications to collect biometric signatures and CEM on small mobile computer devices (tablets, smart phones, etc.) and to rapidly advise SOF operators of matches to authoritative biometric databases and relevancy of CEM in order to facilitate subsequent operations and answer priority intelligence requirements. ***FY 2023 Plans:*** Continues touchless fingerprint and mobile biometric device objectives, as well as integration of a low visibility, small form factor, hazardous chemical detection capability with the ability to identify chemicals through containers and windows reducing risk to the operator. A hand held device will save time, improve on-site analysis, and prevent exposure to dangerous substances while reducing the risk of igniting explosive chemicals. Continues equipment modernization persistently required for hardware and software applications that support CEM on mobile computing devices. ***FY 2022 to FY 2023 Increase/Decrease Statement:***	0.647	1.752	1.955

Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Increase of $0.203 million continues equipment modernization persistently required for hardware and software applications that support CEM on mobile computing devices.			
Title: SIGINT PED SD ***Description:*** SOF SIGINT PED SD is family of products and services providing ISR, and analytical capabilities at the Joint Task Force level and below through a combination of reachback, forward support and collaboration. The program supports all Components and TSOCs with capability that interconnects warfighters, sensors, and analytic tools to find and fix enemy combatants and/or terrorists, as well as information sharing across the SOCOM Enterprise and DOD. SIGINT PED provides SIGINT exploitation capability in both garrison and deployed environments. These capabilities will be pursued via rapid fielding techniques when appropriate. For FY 2021 and prior SIGINT PED SD funding is displayed in Program Element (PE) 0305208BB; Project S400A, Distributed Common Ground Surface Systems. ***FY 2022 Plans:*** Continue development and integration of emerging technologies and capabilities enhancements for requirements including: advanced analytics; User Interfaces (UI), cloud computing, machine learning, and disconnected operations. Continue limited Objective Events and exercise participation to test integration of emerging technologies and obtain user feedback of items in development. ***FY 2023 Plans:*** Continues development and integration of emerging technologies and capability enhancements for requirements including: advanced analytics; UI, cloud computing; machine learning; and disconnected operations. Continues limited Objective Events and exercise participation in support of outside declared theater of active armed conflict preparation to include testing and integration of advanced technologies and obtaining operational feedback of upgraded capabilities in development. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Increase of $0.555 million develops non-attribution/managed attribution technology.	-	0.565	1.120
Title: EOTACS ***Description:*** Small Unmanned Airborne Systems (SUAS) categorized by airborne platform weight, range, and endurance in seven capability sets meeting the ISR requirements of SOF individuals, teams, and units. EOTACS airborne platforms are up to 55 pounds in weight, range up to 30 miles from the launch area and can fly up to eight hours before having to land. EOTACS systems include fixed-wing and Vertical Take-Off and Landing (VTOL) airborne platforms that free-fly and/or operate on a tether. SUAS ISR payloads and ancillary equipment supporting EOTACS are also included. ***FY 2023 Plans:***	-	-	14.338

Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Begins development, test, rapid prototyping, and integration of AI/ML advances into SUAS toward collaborative autonomy, including autonomous navigation and obstacle avoidance, automated target recognition, and multi-system operations by a single user (person-on-the-loop) while continuing test, rapid prototyping and integration of SUAS, ISR payloads, and ancillary equipment. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Increase of $14.338 million is due to a transfer of EOTACS funding from PE 1160434BB; Project S855, Unmanned ISR to PE 1160405BB; Project S400, SO Intelligence Systems Development beginning in FY 2023. Increase supports investment in SOF SUAS collaborative autonomy capabilities including autonomous navigation and obstacle avoidance, automated target recognition, and multi-system operations by a single user (person-on-the-loop).			
Title: MTUAS ***Description:*** MTUAS are multi-mission tactical uncrewed aircraft systems acquired, tested, trained, fielded, and supported for use by Naval Special Warfare units. The unmanned aircraft systems are comprised of Group 2 and Group 3 light air vehicles between 21 and 1320 pounds, modular ground control stations, full motion video payloads, peripherals, and SOF-unique mission kits, payloads, modifications and technology improvements. ***FY 2023 Plans:*** Begins to develop, test, and integrate emerging technologies and performance enhancements for SOF-peculiar requirements to include but not limited to the following capabilities: maritime launch and recovery; tactical mobility; communications relay; target designation; common ground control stations; alternative navigation/assured position navigation and timing; beyond line of site operations; machine learning and edge computing; cooperative and collaborative autonomy; man/machine interface improvements; survivability improvements; alternative propulsion and power solutions; resilient communications and data links; and battle network integration. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Increase of $10.935 million is due to transfer of MTUAS funding from PE 1160434BB; Project S855, Unmanned ISR to PE 1160405BB; Project S400, SO Intelligence Systems Development. Increase supports development of V-BAT 128 system and payload upgrades, integration, and test.	-	-	10.935
Title: Classified Sub-Project ***Description:*** Classified Sub-Project (provided under separate cover). ***FY 2022 Plans:*** Details provided under separate cover. ***FY 2022 to FY 2023 Increase/Decrease Statement:***	-	2.481	-

Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Decrease of $2.481 million will be provided under separate cover.			
Accomplishments/Planned Programs Subtotals	19.519	30.399	75.136

	FY 2021	FY 2022
Congressional Add: Sensitive Site Exploitation - Document and Media Exploitation Program	7.000	-
FY 2021 Accomplishments: Identified and acquired next generation equipment with a focus on touchless/ cableless systems to extract and exploit data resident on digital media. Explored emerging capabilities to collect and process DNA samples from live and latent sources under ambient conditions. Conducted technical evaluation of new technologies with test and demonstration events.		
Congressional Adds Subtotals	7.000	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• PROC/020400INTL: *Intelligence Systems*	111.487	131.889	175.616	-	175.616	193.916	202.916	208.525	222.560	Continuing	Continuing

Remarks

D. Acquisition Strategy

• NSSS leverages internal/external contracts, Other Transaction Authorities (OTA), and MIPRs to introduce and integrate national systems capabilities into the SOF force structure and operations. This approach rapidly develops TRL 3/4 to TRL 6/7 capabilities for SOF operational deficiencies identified by the national intelligence community competitive technology selection process. By partnering with existing Intelligence Community and SOCOM POR, NSSS incorporates SOF mission requirements into current and developing technologies and assets. This leveraging of funds increases national and commercial space-based systems awareness, demonstrates the tactical utility of national systems and commercial data, test technologies and evaluates operational concepts and allows for the transition of promising concepts and technologies to other SOF program offices for execution.

• JTWS is a SoS leveraging Commercial Off The Shelf (COTS)/Government Off The Shelf (GOTS) systems, as well as partnerships with Other Government Agencies (OGA). The POR will leverage capabilities requiring minimal modifications wherever possible. JTWS is making deliberate investments to evolve the program into modular/scalable systems with a framework supporting open architecture, software reuse, and cyber hardened solutions. JTWS will address requirements emerging from integrated deterrence on Ground, Air, Maritime, Space, and Unmanned platforms, will leverage existing partnerships with other OGA to modernize JTWS against emerging threats requiring advanced technology. The contracting strategy is a mixture of full and open competition for prime integrators, broad area announcements, and existing Indefinite Delivery/Indefinite Quantity (IDIQ) contracts.

Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022
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• HF-TTL utilizes an evolutionary acquisition strategy to provide highly sophisticated TTL and close target audio/video devices capable of operating in various environments as needed to meet SOF operational requirements. Commercial and government agency sources will be leveraged for required certifications, device level modifications, integration, functional, and operational testing and evaluations.

• TVS/RSTA employs an evolutionary strategy to incorporate the latest state of technology within its product line to provide upgraded next-generation technology insertion of COTS systems and address the changing threat environment to meet SOF reconnaissance and surveillance mission requirements. Commercial and government agency sources will be leveraged for required certifications, system level integration, functional, and operational testing and evaluations.

• SOFPREP uses a rapid acquisition strategy to facilitate rapid and iterative delivery of digital products to meet emerging SOF requirements. Commercial, open and government sources are leveraged for required certifications, system level integration, functional, and operational testing and evaluations.

• ISP uses a rapid acquisition strategy to facilitate rapid and iterative delivery of digital products to meet emerging SOF requirements. Commercial, open and government sources are leveraged for required certifications, system level integration, functional, and operational testing and evaluations.

• SSE uses a rapid acquisition strategy to provide next-generation technologies for collection, processing, exploitation and dissemination capabilities supporting SOF exploitation mission requirements. Commercial and government agency sources are leveraged for required certifications, system level integration, functional, and operational testing and evaluations.

• SOF SIGINT PED SD is a system leveraging National services, controlled commercial hardware, and SOF specific capabilities, acquired through contracts and partnerships with OGA. The program represents SOF equities to OGAs, programs, and National capabilities sponsors to innovate capability for SOF SIGINT PED. The acquisition strategy is a mixture of agency partnerships and government capability providers leveraging open competition with controlled supply chains.

• EOTACS uses a rapid prototyping and rapid fielding acquisition strategy to leverage COTS, GOTS, OGA, SUAS, SUAS payloads, and ancillary equipment for SOF - unique SUAS FoS requirements. Market research identifies advances in SUAS flight performance, ISR payload performance and modularity, improved ground control station user interface, and collaborative autonomy effects for rapid prototyping and integration. Commercial and government sources are leveraged for required flight and cybersecurity certifications. Existing IDIQ contracts are utilized for procurement of systems and equipment.

• MTUAS uses evolutionary acquisition solutions that deliver, integrate, and qualify SOF- unique unmanned aircraft systems and modular mission kits that may include payloads, air vehicle performance enhancements, training systems, and ground control station upgrades. These capabilities are obtained using available acquisition strategies that include a thorough stakeholder's analysis to provide well and broadly defined capabilities. Contracting methods depend on the type of development effort. Competitive source selection will be conducted as much as possible but may also leverage Other Transactional Authorities (OTAs) when sensible. Proprietary considerations may direct some effort to the Original Equipment Manufacturer on a sole source basis.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command			Date: April 2022
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
National Systems Support to SOF (NSSS)	MIPR	Various : Various	56.122	0.879	Feb 2021	3.345	Feb 2022	9.372	Feb 2023	-		9.372	Continuing	Continuing	-
Joint Threat Warning System (JTWS) - All Variants (Air, Ground, Maritime, and Unmanned)	MIPR	Various : Various	118.488	8.600	Feb 2021	9.798	Feb 2022	19.725	Feb 2023	-		19.725	Continuing	Continuing	-
Hostile Forces-Tagging Tracking, and Locating (HF-TTL)	C/CPFF	Various : Various	5.738	1.319	Feb 2021	4.759	Mar 2022	5.744	Mar 2023	-		5.744	Continuing	Continuing	-
Tactical Video System/ Reconnaissance, Surveillance, & Target Acquisition (TVS/RSTA)	MIPR	Various : Various	1.359	0.851	Jan 2021	1.839	Mar 2022	7.248	Mar 2023	-		7.248	Continuing	Continuing	-
Integrated Survey Program (ISP) - Development, Test and Evaluation	C/FFP	Various : Various	2.715	0.803	Jan 2021	0.797	Jan 2022	0.869	Jan 2023	-		0.869	Continuing	Continuing	-
Sensitive Site Exploitation-Development (SSE)(Cong Add)	Various	Various : Various	-	4.200	May 2021	-		-		-		-	0.000	4.200	-
Independent Verification and Validation - SOF Signals Intelligence (SIGINT), Processing, Exploitation, Dissemination (PED), Silent Dagger (SD)	MIPR	Various : Various	-	-		0.565	Feb 2022	1.120	Mar 2023	-		1.120	Continuing	Continuing	-
Expeditionary Organic Tactical Airborne ISR Capability Set (EOTACS)	MIPR	Various : Various	-	-		-		10.500	Dec 2022	-		10.500	Continuing	Continuing	-
Multi-Mission Tactical Unmanned Aerial System (MTUAS)	MIPR	Various : Various	-	-		-		1.327	Dec 2022	-		1.327	Continuing	Continuing	-
Classified Sub-Project	C/TBD	TBD : TBD	-	-		2.481		-		-		-	0.000	2.481	-
Prior Year Funding - Completed Efforts	Various	Various : Various	164.418	-		-		-		-		-	0.000	164.418	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	348.840	16.652		23.584		55.905		-		55.905	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTWS Chamber Access/ Signals of Interest Emitters	MIPR	Various : Various	60.123	4.800	May 2021	0.800	May 2022	1.001	May 2023	-		1.001	Continuing	Continuing	-
EOTACS - Test Range	MIPR	Various : Various	-	-		-		0.338	Dec 2022	-		0.338	Continuing	Continuing	-
MTUAS	Various	Various : Various	-	-		-		3.154	Nov 2022	-		3.154	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	116.844	-		-		-		-		-	0.000	116.844	-
		Subtotal	176.967	4.800		0.800		4.493		-		4.493	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTWS Integration/Test/ Test Support	Various	Various : Various	22.099	0.800	Nov 2020	1.063	Nov 2021	1.079	Nov 2022	-		1.079	Continuing	Continuing	-
HF-TTL	MIPR	ATEC : FT Huachuca, AZ	1.744	0.121	May 2021	1.641	May 2022	0.278	May 2023	-		0.278	Continuing	Continuing	-
TVS/RSTA - User Assessments	MIPR	ATEC : FT Huachuca, AZ	6.986	0.412	Jan 2021	1.278	Mar 2022	1.472	Feb 2023	-		1.472	Continuing	Continuing	-
SOF Planning, Rehearsal and Execution Preparation (SOFPREP) - Prototype Systems	C/FFP	Various : Various	4.719	0.287	Mar 2021	0.281	Mar 2022	-		-		-	0.000	5.287	-
SSE	MIPR	Various : Various	6.809	0.647	May 2021	1.752	Jan 2022	1.955	Apr 2023	-		1.955	Continuing	Continuing	-
SSE (Cong Add)	Various	Various : Various	-	2.800	May 2021	-		-		-		-	0.000	2.800	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command			Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160405BB / *Intelligence Systems Development*	Project (Number/Name) S400 / *SO Intelligence Systems*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EOTACS - Payload Integration	MIPR	Various : Various	-	-		-		3.500	Nov 2022	-		3.500	Continuing	Continuing	-
MTUAS	Various	Various : Various	-	-		-		6.454	Nov 2022	-		6.454	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	50.511	-		-		-		-		-	0.000	50.511	-
		Subtotal	92.868	5.067		6.015		14.738		-		14.738	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	618.675	26.519		30.399		75.136		-		75.136	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

National Systems Support to SOF (NSSS) Schedule

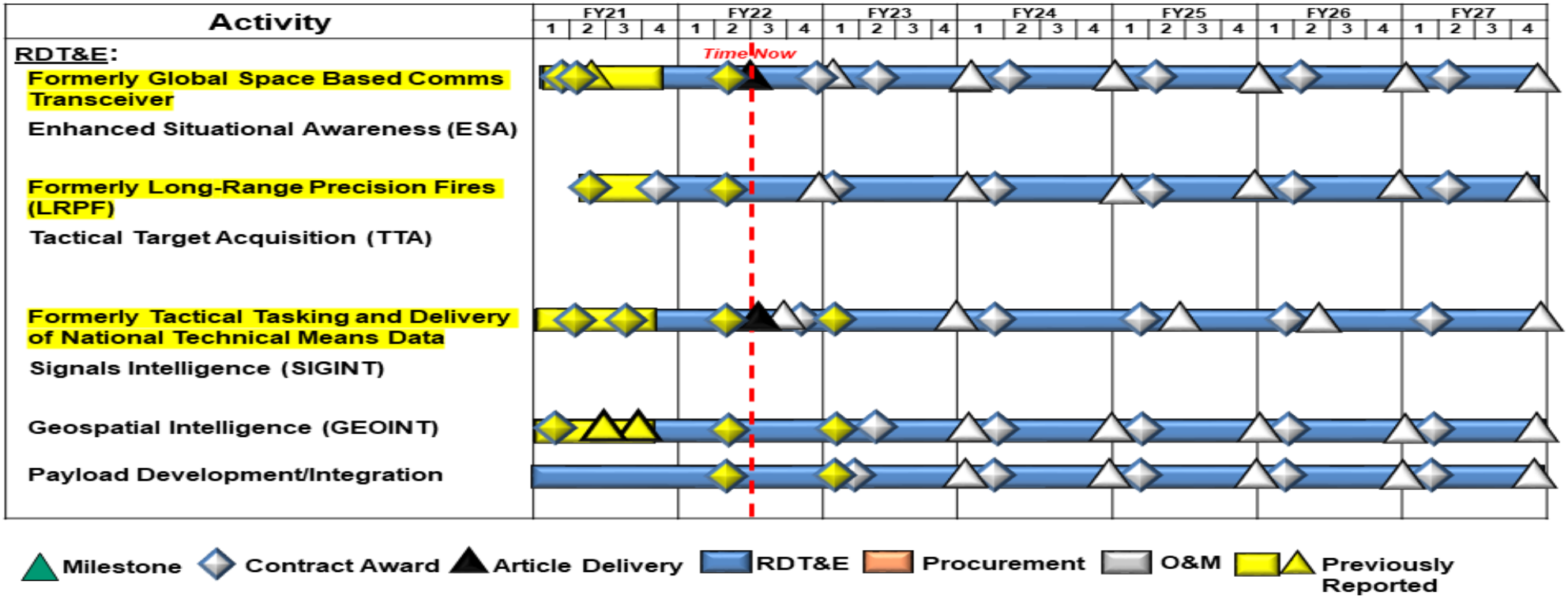

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Joint Threat Warning System (JTWS) Schedule

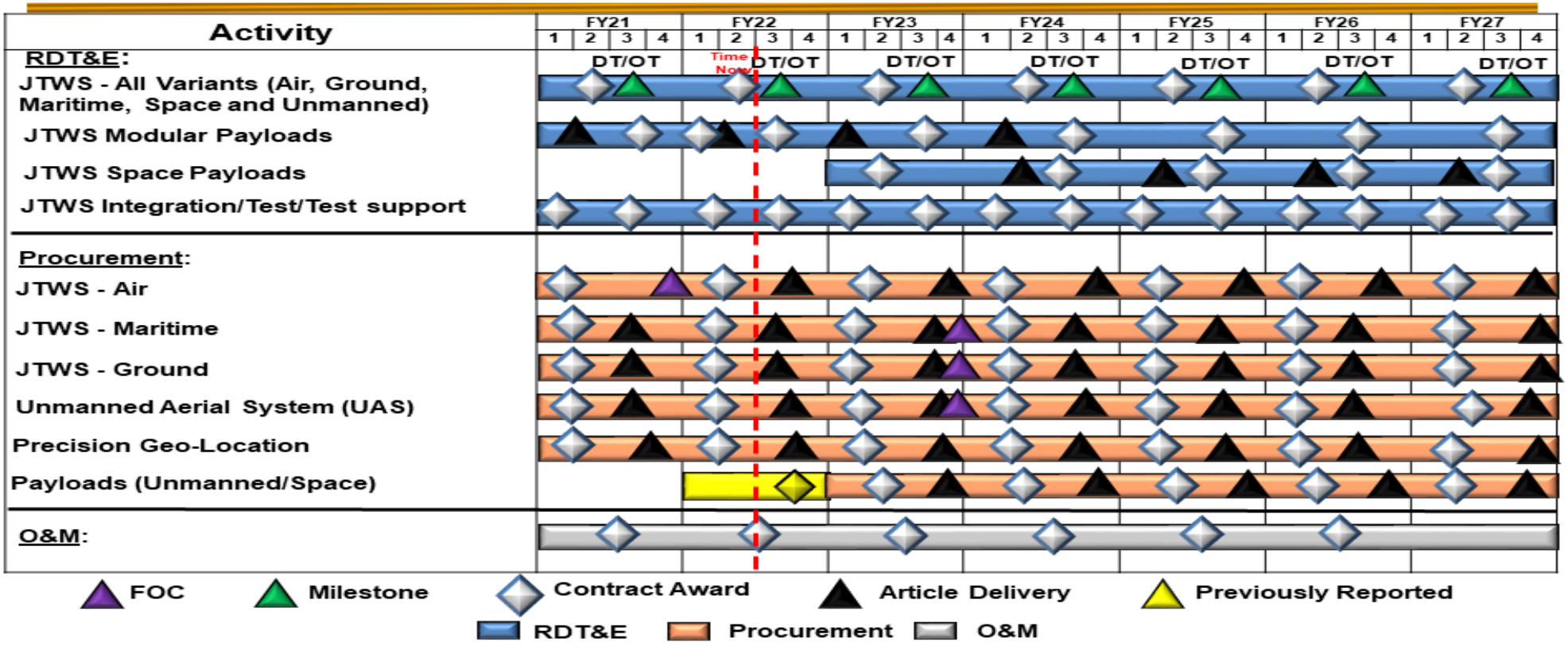

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

HF-TTL Schedule

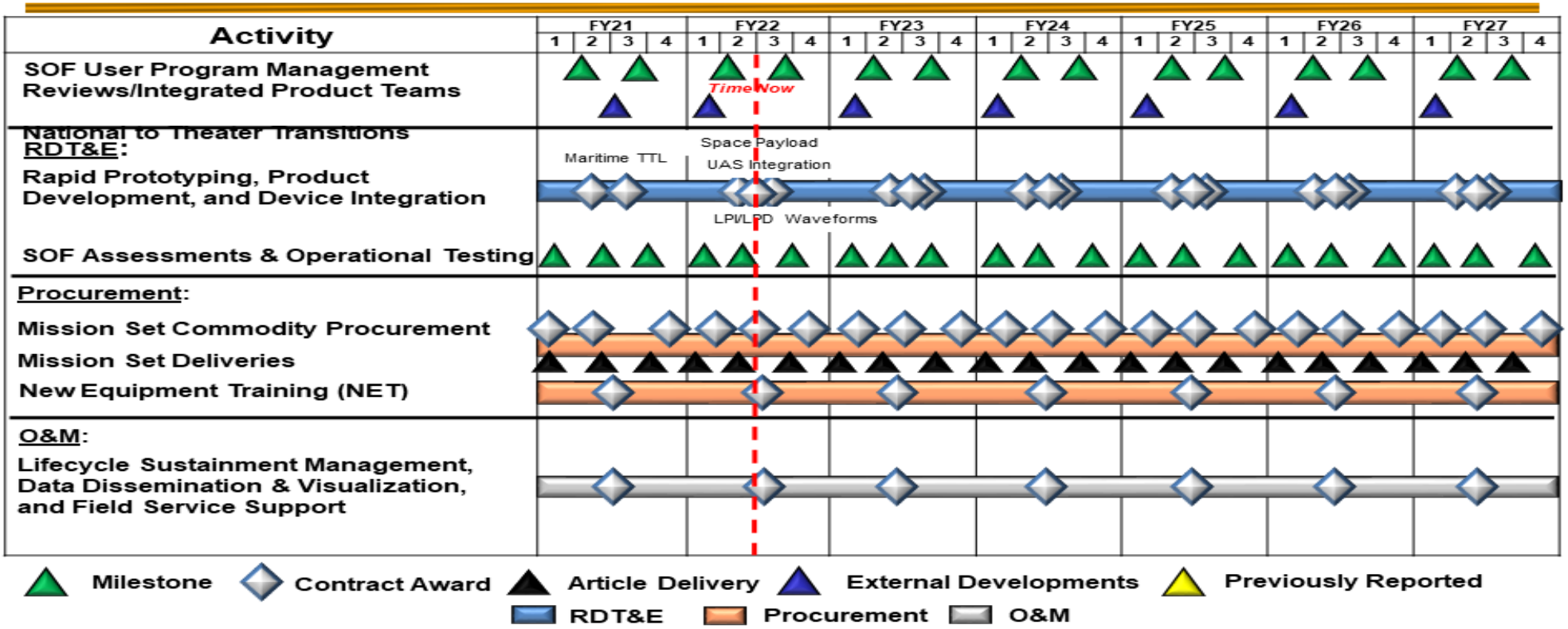

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Special Operations Tactical Video System / Reconnaissance, Surveillance, and Target (TVS/RSTA) Schedule

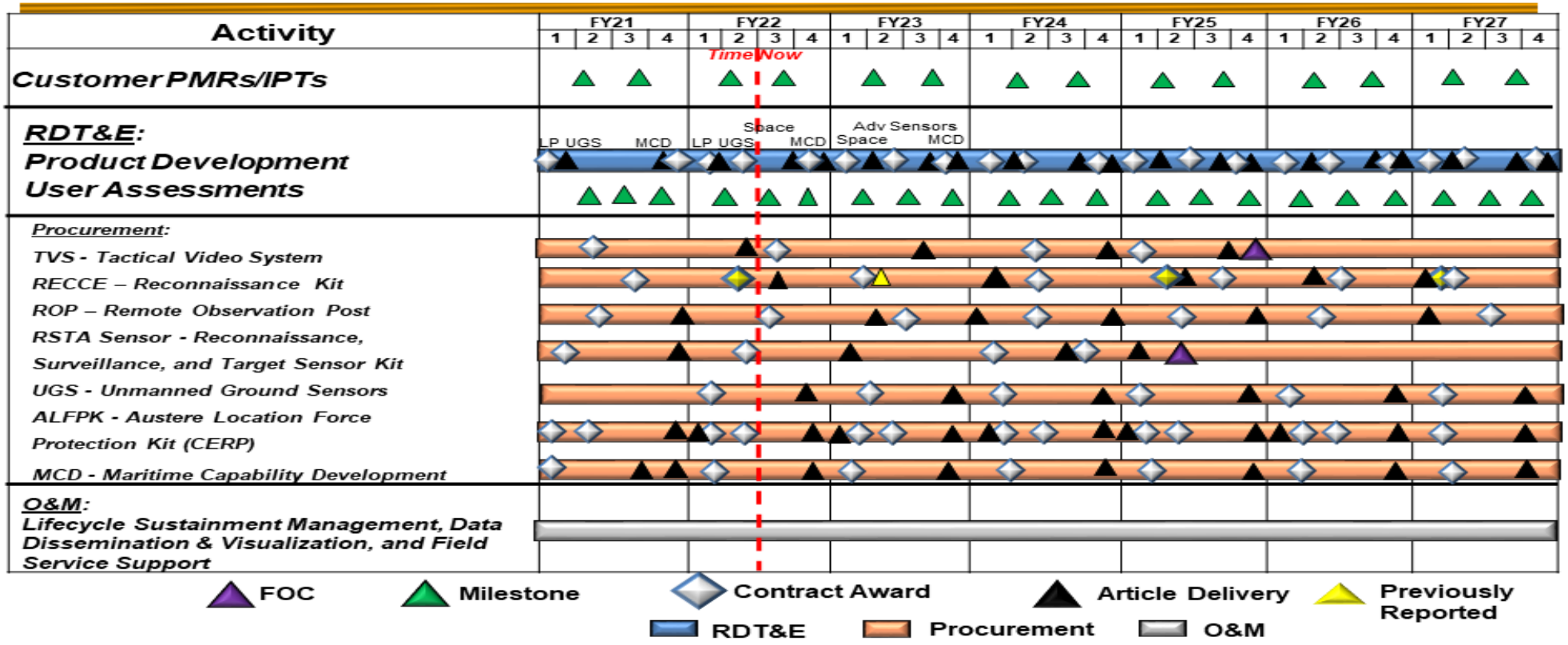

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

SOF Planning, Rehearsal and Execution Preparation (SOFPREP) Schedule

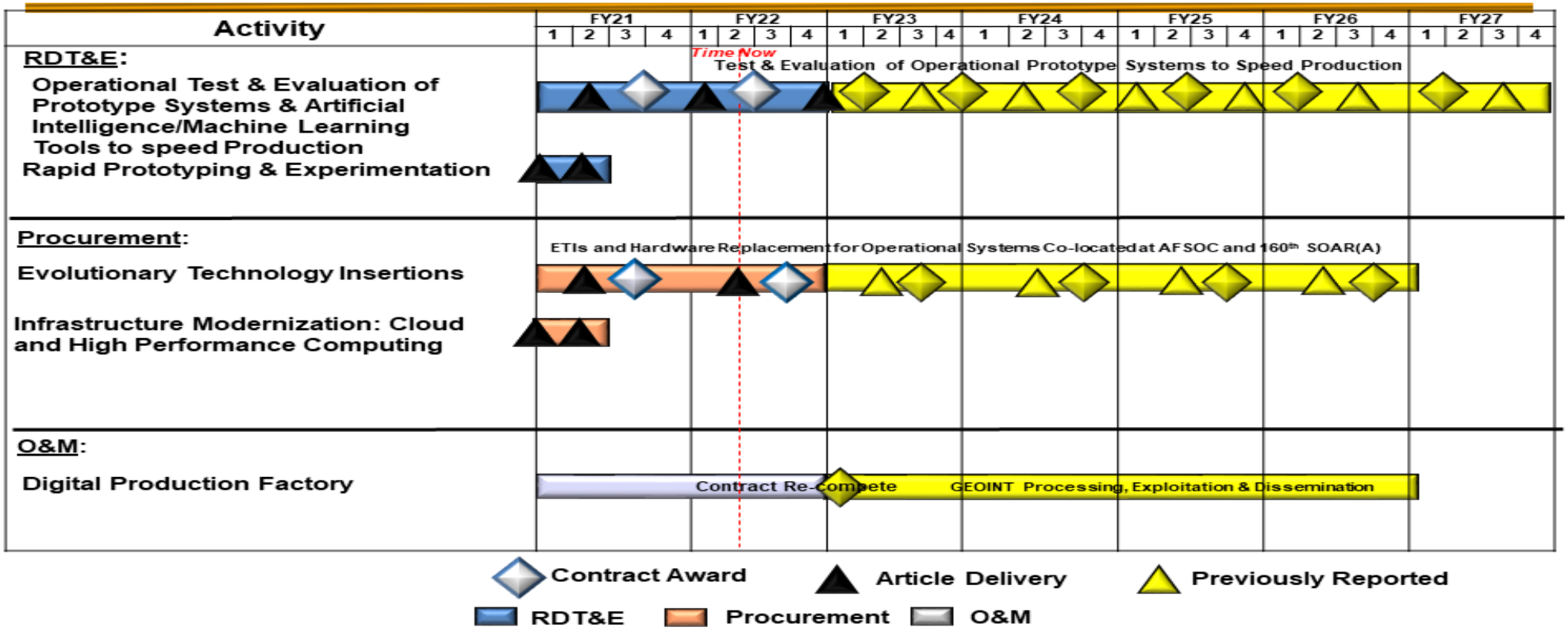

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Integrated Survey Program (ISP)

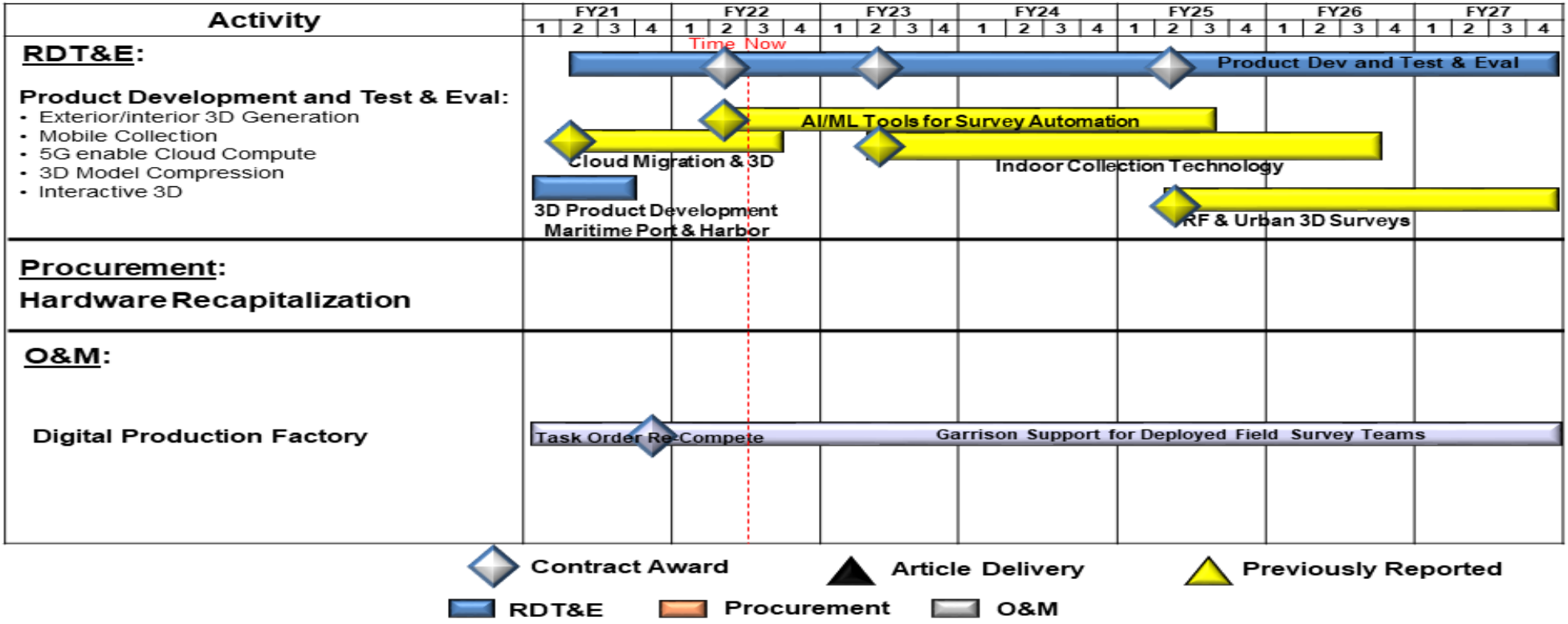

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Sensitive Site Exploitation (SSE) Schedule

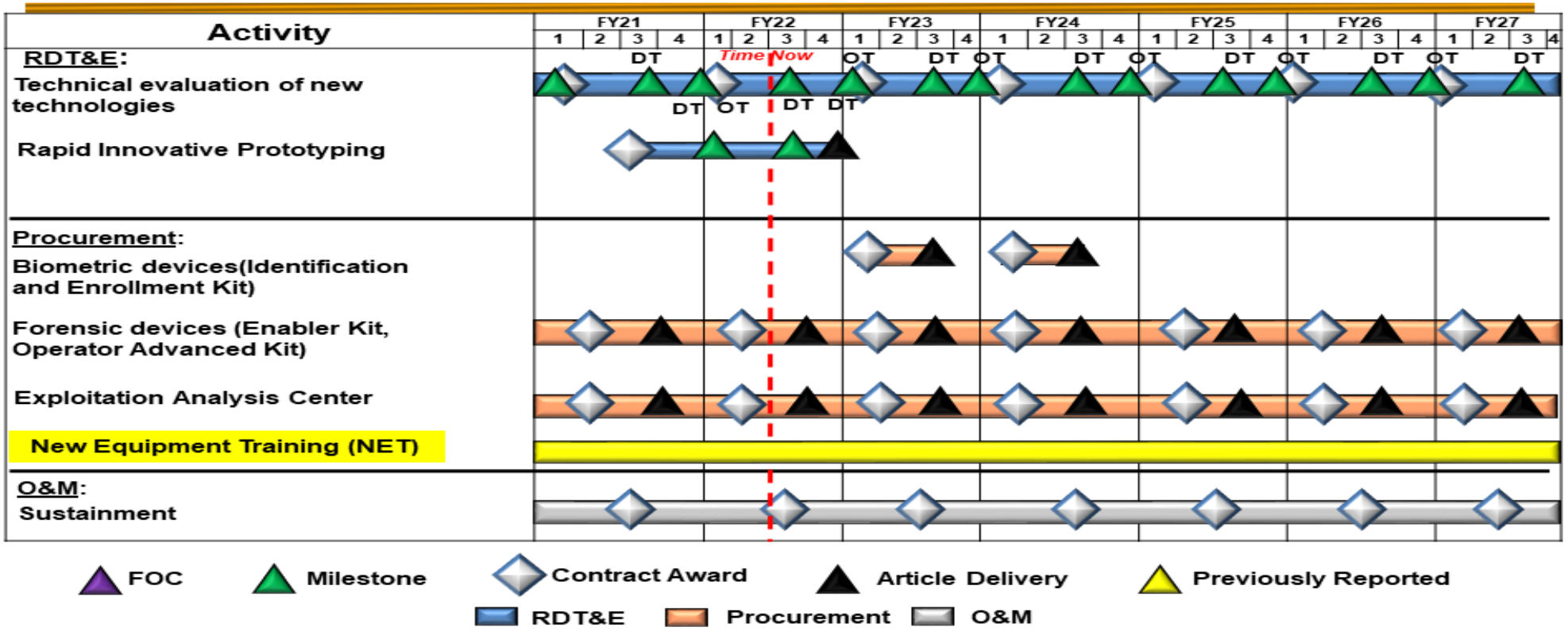

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

SOF Signals Intelligence (SIGINT), Processing, Exploitation, Dissemination (PED), Silent Dagger (SD) Schedule

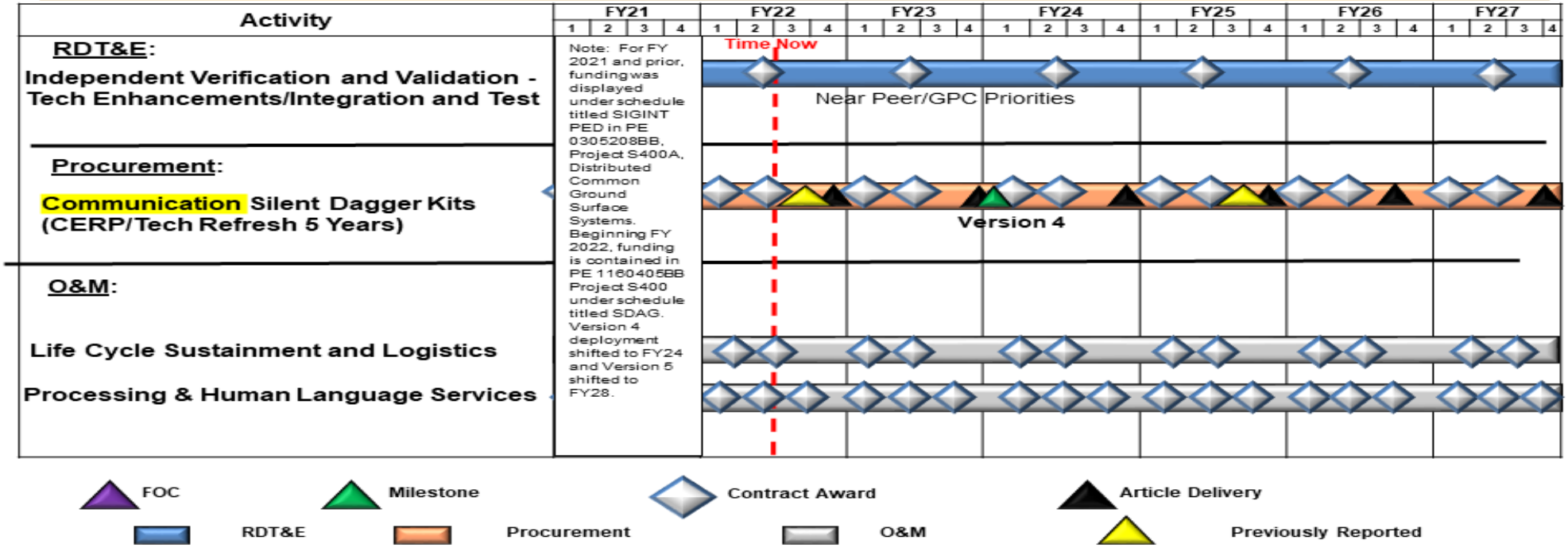

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Expeditionary Organic Tactical Airborne Intelligence Surveillance Reconnaissance Capability Set (EOTACS) Schedule

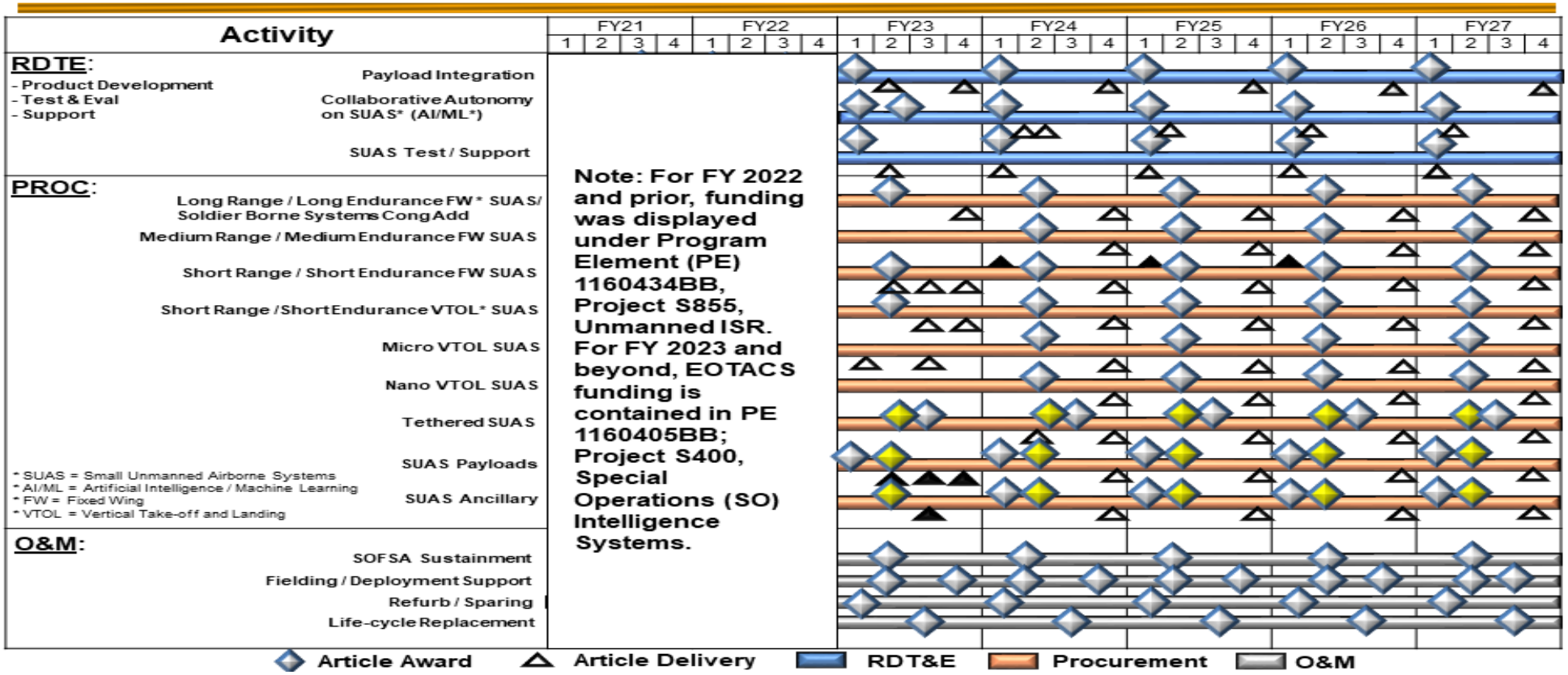

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Multi-Mission Tactical Unmanned Aerial Systems (MTUAS) Schedule

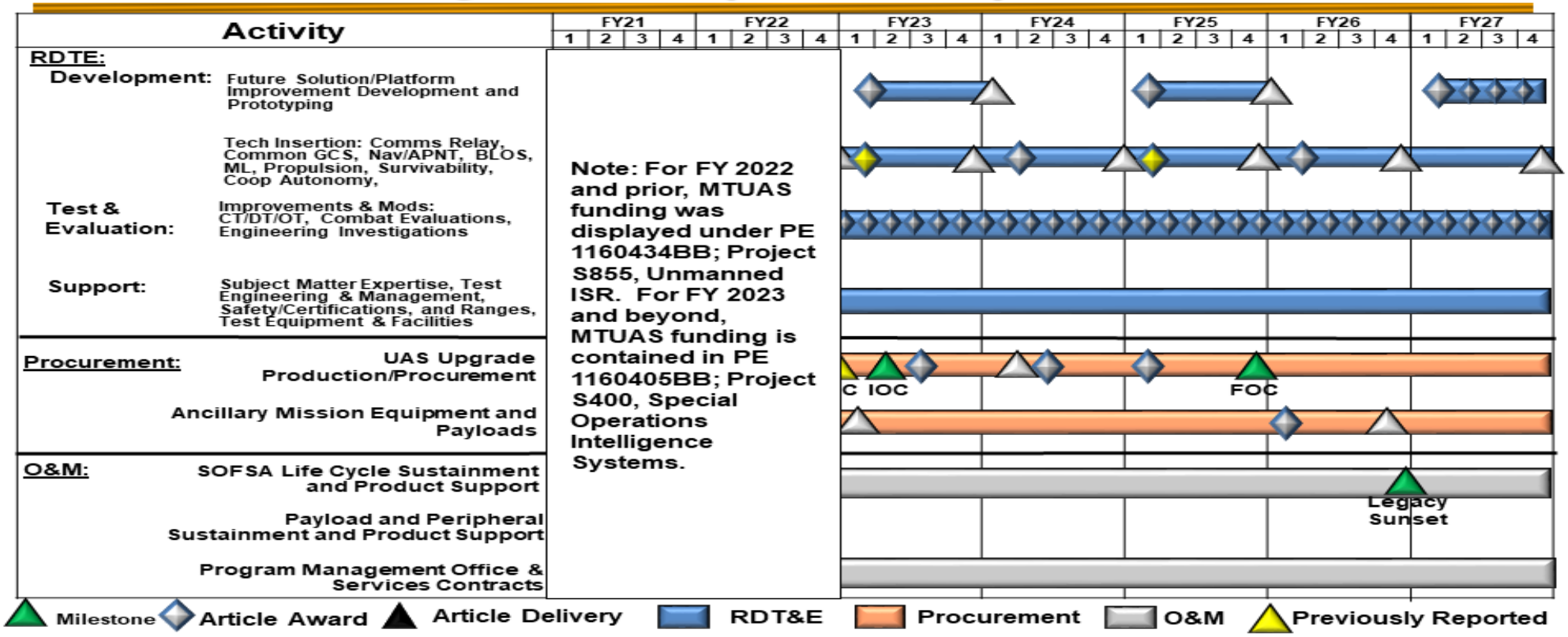

Exhibit R-4A, RDT&E Schedule Details: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
National Systems Support to SOF (NSSS)				
Enhanced Situational Awareness (ESA); (formerly Global Space Based Comms Transceiver)	4	2021	4	2027
Tactical Target Acquisition (TTA); (formerly Long Range Precision Fires)	4	2021	4	2027
Signals Intelligence (SIGINT); (formerly Tactical Tasking and Delivery of National Technical Means Data)	4	2021	4	2027
Geospatial Intelligence (GEOINT)	4	2021	4	2027
Payload Development / Integration	1	2021	4	2027
Joint Threat Warning System (JTWS)				
JTWS - All Variants (Air, Ground, Maritime, and Unmanned)	1	2021	4	2027
JTWS Modular Payloads	1	2021	4	2027
JTWS Space Payloads	1	2023	4	2027
JTWS Integration/Test/Test support	1	2021	4	2027
Hostile Forces - Tagging, Tracking, and Locating (HF-TTL)				
Rapid Prototyping, Product Development, and Device Integration	1	2021	4	2027
SOF Assessments and Operational Testing	1	2021	4	2027
Special Operations Tactical Video System/Reconnaissance, Surveillance, and Target Acquisition (TVS/RSTA)				
Product Development	1	2021	4	2027
User Assessments	1	2021	4	2027
Special Operations Forces Planning, Rehearsal & Execution Preparation (SOFPREP)				

Exhibit R-4A, RDT&E Schedule Details: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Operational Test and Evaluation of Prototype Systems and Artificial Intelligence/ Machine Learning to speed production	1	2021	4	2022
Rapid Prototyping and Experimentation	1	2021	2	2021
Integrated Survey Program (ISP)				
Product Development, Test and Evaluation	2	2021	4	2027
Sensitive Site Exploitation (SSE)				
Technical evaluation of new technologies	1	2021	4	2027
Rapid Innovative Prototyping	3	2021	4	2022
SOF Signals Intelligence (SIGINT), Processing, Exploitation, Dissemination (PED), Silent Dagger (SD)				
Independent Verification and Validation - Tech Enhancements/Integration and Test	1	2022	4	2027
Expeditionary Organic Tactical Airborne - Intelligence, Surveillance, Reconnaissance (ISR) Capability Sets (EOTACS)				
Product Development	1	2023	4	2027
Test & Evaluation	1	2023	4	2027
Support	1	2023	4	2027
Multi-Mission Tactical Unmanned Aerial System (MTUAS)				
Future Solution Platform Improvement Development and Prototyping	1	2023	4	2027
Technology Insertion	1	2023	4	2027
Test and Evaluation of Improvements and Modifications	1	2023	4	2027
Support	1	2023	4	2027