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**Department of Defense
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



United States Special Operations Command

Defense-Wide Justification Book Volume 5 of 5

Research, Development, Test & Evaluation, Defense-Wide

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United States Special Operations Command • Budget Estimates FY 2023 • RDT&E Program

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Department of Defense
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Apr 2022

		FY 2022	FY 2022	FY 2022	FY 2022
		Less	Division B	Division B	Division A
		Supplementals	Division C	Division B	Division A
			P.L.117-43	P.L.117-70	P.L. 117-86
			Enactment*	Enactment**	Enactment***
					Enactment****
Appropriation	FY 2021	FY 2022	FY 2022	FY 2022	FY 2022
-----	(Base + OCO)	Enactment	Enactment*	Enactment**	Enactment***
Research, Development, Test & Eval, DW	812,658	856,257			
Total Research, Development, Test & Evaluation	812,658	856,257			

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

**Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

***Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

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Department of Defense
FY 2023 President's Budget
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Total Obligational Authority
(Dollars in Thousands)

25 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Research, Development, Test & Eval, DW		856,257	822,508
Total Research, Development, Test & Evaluation		856,257	822,508

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Department of Defense
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities -----						
Applied Research	47,657	51,329				
Advanced Technology Development	92,656	112,415				
Operational Systems Development	672,345	692,513				
Total Research, Development, Test & Evaluation	812,658	856,257				
Summary Recap of FYDP Programs -----						
Intelligence and Communications	6,062	5,994				
Special Operations Forces	806,596	850,263				
Total Research, Development, Test & Evaluation	812,658	856,257				

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Department of Defense
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Total Obligational Authority
(Dollars in Thousands)

25 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Applied Research		51,329	49,174
Advanced Technology Development		112,415	118,877
Operational Systems Development		692,513	654,457
Total Research, Development, Test & Evaluation		856,257	822,508
Summary Recap of FYDP Programs -----			
Intelligence and Communications		5,994	6,095
Special Operations Forces		850,263	816,413
Total Research, Development, Test & Evaluation		856,257	822,508

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Defense-Wide
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(Dollars in Thousands)

25 Apr 2022

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Total Research, Development, Test & Evaluation	812,658	856,257				
Summary Recap of FYDP Programs -----						
Intelligence and Communications	6,062	5,994				
Special Operations Forces	806,596	850,263				
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Operational Systems Development		692,513	654,457
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Summary Recap of FYDP Programs -----			
Intelligence and Communications		5,994	6,095
Special Operations Forces		850,263	816,413
Total Research, Development, Test & Evaluation		856,257	822,508

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-----	-----	-----	-----	-----	-----	-----
U.S., Special Operations Command	812,658	856,257				
Total Research, Development, Test & Evaluation	812,658	856,257				

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Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
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Total Research, Development, Test & Evaluation		856,257	822,508

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Defense-Wide
FY 2023 President's Budget
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(Dollars in Thousands)

25 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element No Number	Item ----	Act ---	FY 2021 (Base + OCO) -----	FY 2022 Less Supplementals Enactment -----	FY 2022 Division B Division C P.L.117-43 Enactment* -----	FY 2022 Division B P.L.117-70 Enactment** -----	FY 2022 Division A P.L. 117-86 Enactment*** -----	FY 2022 Division N P.L. 117-103 e Enactment**** c -----	S e c -
28	1160401BB	SOF Technology Development	02	47,657	51,329					U
		Applied Research		47,657	51,329					
72	1160402BB	SOF Advanced Technology Development	03	92,656	112,415					U
		Advanced Technology Development		92,656	112,415					
240	0305208BB	Distributed Common Ground/Surface Systems	07	6,062	5,994					U
261	1105219BB	MQ-9 UAV	07	20,489	63,065					U
262	1160279BB	Small Business Innovative Research/Small Bus Tech Transfer Pilot Prog	07	26,995						U
263	1160403BB	Aviation Systems	07	239,991	173,537					U
264	1160405BB	Intelligence Systems Development	07	26,519	30,399					U
265	1160408BB	Operational Enhancements	07	164,711	179,230					U
266	1160431BB	Warrior Systems	07	67,226	125,473					U
267	1160432BB	Special Programs	07	7,220	10,486					U
268	1160434BB	Unmanned ISR	07	17,154	18,006					U
269	1160480BB	SOF Tactical Vehicles	07	13,736	7,703					U
270	1160483BB	Maritime Systems	07	66,037	62,630					U
271	1160489BB	Global Video Surveillance Activities	07	4,602						U

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Line	Program Element No Number	Item ----	Act ---	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----	S e c -
28	1160401BB	SOF Technology Development	02		51,329	49,174	U
		Applied Research			51,329	49,174	
72	1160402BB	SOF Advanced Technology Development	03		112,415	118,877	U
		Advanced Technology Development			112,415	118,877	
240	0305208BB	Distributed Common Ground/Surface Systems	07		5,994	6,095	U
261	1105219BB	MQ-9 UAV	07		63,065	14,000	U
262	1160279BB	Small Business Innovative Research/Small Bus Tech Transfer Pilot Prog	07				U
263	1160403BB	Aviation Systems	07		173,537	179,499	U
264	1160405BB	Intelligence Systems Development	07		30,399	75,136	U
265	1160408BB	Operational Enhancements	07		179,230	142,900	U
266	1160431BB	Warrior Systems	07		125,473	129,133	U
267	1160432BB	Special Programs	07		10,486	518	U
268	1160434BB	Unmanned ISR	07		18,006	3,354	U
269	1160480BB	SOF Tactical Vehicles	07		7,703	13,594	U
270	1160483BB	Maritime Systems	07		62,630	82,645	U
271	1160489BB	Global Video Surveillance Activities	07				U

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272	1160490BB	Operational Enhancements Intelligence	07	11,603	15,990					U
		Operational Systems Development		672,345	692,513					
				812,658	856,257					
Total Research, Development, Test & Eval, DW				812,658	856,257					

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Appropriation: 0400D Research, Development, Test & Eval, DW

				FY 2022			
Line	Program			Total	FY 2022		S
No	Element			Supplemental	Total		e
		Item	Act	Enactment	Enactment	Request	c
--	-----	----	---	-----	-----	-----	-
272	1160490BB	Operational Enhancements Intelligence	07		15,990	7,583	U
		Operational Systems Development		-----	-----	-----	
					692,513	654,457	
				-----	-----	-----	
Total Research, Development, Test & Eval, DW					856,257	822,508	

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U.S., Special Operations Command
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28	1160401BB	SOF Technology Development	02	47,657	51,329					U
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Total U.S., Special Operations Command				812,658	856,257					

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U.S., Special Operations Command
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Appropriation: 0400D Research, Development, Test & Eval, DW

					FY 2022				
Line	Program				Total	FY 2022			S
No	Element				Supplemental	Total			e
--	-----	Item		Act	Enactment	Enactment		FY 2023 Request	c
--	-----	----		---	-----	-----		-----	-
272	1160490BB	Operational Enhancements Intelligence		07		15,990		7,583	U
	Operational Systems Development				-----	-----		-----	
						692,513		654,457	
					-----	-----		-----	
	Total U.S., Special Operations Command					856,257		822,508	

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Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Line #	Budget Activity	Program Element Number	Program Element Title	Page
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261	07	1105219BB	MQ-9 Unmanned Aerial Vehicle (UAV).....	Volume 5 - 25
262	07	1160279BB	Small Business Innovation Research/Small Bus Tech Transfer.....	Volume 5 - 33

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Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Line #	Budget Activity	Program Element Number	Program Element Title	Page
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266	07	1160431BB	Warrior Systems.....	Volume 5 - 141
267	07	1160432BB	Special Programs.....	Volume 5 - 227
268	07	1160434BB	Unmanned ISR.....	Volume 5 - 229
269	07	1160480BB	SOF Tactical Vehicles.....	Volume 5 - 245
270	07	1160483BB	Maritime Systems.....	Volume 5 - 253
271	07	1160489BB	Global Video Surveillance Activities.....	Volume 5 - 289
272	07	1160490BB	Operational Enhancements Intelligence.....	Volume 5 - 291

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Research, Development, Test and Evaluation, United States Special Operations Command

(\$ In Thousands)

The FY 2023 Overseas Operations Costs transferred to the base budget are as follows:

Fiscal Year (FY) 2023 Overseas Operations Costs funding accounted for in the Base budget include:

- There are no combat or direct combat support costs accounted for in the base budget.
- In-theater and in-CONUS expenses that remain after combat operations cease and have been previously funded in OCO \$14,682.

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ACRONYMS

Acronym	Full Naming Convention
A2/AD	Anti-Access/Area Denial
AA	Air-to-Air
AbMN	Airborne Mission Networking
ACT	AFT Cabin Trainer
ADM	Acquisition Decision Memorandum
AMLCD	Active Matrix Liquid Crystal Display
ADS-B	Automatic Dependent Surveillance-Broadcast
AFRL	Air Force Research Laboratory
A&FC	Airworthiness and Flight Characteristics
AI	Artificial Intelligence
AISR	Airborne Intelligence, Surveillance, Reconnaissance
ALFPK	Austere Location Force Protection Kits
Alt PNT	Alternative Precision Location and Timing
AM	Amplitude Modulation
AMLCD	Active Matrix Liquid Crystal Display
AMN	Airborne Mission Network
AMS	Aviation Management System
APAS	Active Parallel Actuator System
ARSOA	Army Special Operations Aviation
ASE	Aircraft Survivability Equipment
ASIF	All Source Information Fusion
ATD	Advanced Technology Demonstration
ATPIALS	Advanced Target Pointer Illuminator Aiming Laser System
ATW	Advanced Threat Warning
AvFID	Aviation Foreign Internal Defense
AVS	Air Variant System
AWR	Air Worthiness Release
BAA	Broad Area Announcement
BFT	Blue Force Tracking
BLOS	Beyond Line of Site
BOA	Basic Ordering Agreement

ACRONYMS

CASEVAC	Casualty Evacuation
C2	Command and Control
C3	Command, Control, and Communications
C4	Command, Control, Communications, and Computer
C4I	Command, Control, Communications, Computers, and Intelligence
C4IAS	Command, Control, Communications, and Computer Intelligence Automation Systems
CA	Civil Affairs
CAAS	Common Avionics Architecture Systems
CAR	Combat Assault Rifle
CASEVAC	Casualty Evacuation
CBA	Cost Benefit Analysis
CCFLIR	Combatant Craft Forward Looking Infrared Radar
CCA	Combatant Craft - Assault
CCH	Combatant Craft - Heavy
CCM	Combatant Craft - Medium
CCME	Combatant Craft Mission Equipment
CDR	Critical Design Review
CDU	Control Display Units
CERP	Capital Equipment Replacement Program
CFE	Contractor Furnished Equipment
CHMD	Color Helmet Mounted Display
CIO	Chief Information Officer
CIM	Civil Information Management
CIMDPS	Civil Information Management Data Processing System
CIRCM	Common Infrared Countermeasure
CMNS	Combat Mission Needs Statement
CMS	Combat Mission Simulator
CNVD	Clip-On Night Vision Device
COD	Correction of Deficiencies
COP	Common Operational Picture
COSI	Clip-On Short Wave Infrared Imager
COTI	Clip-On Thermal Imager

ACRONYMS

COTM	Communications-on-the-Move
COTS	Commercial-Off-The-Shelf
CP	Counter-Proliferation
CPD	Capabilities Production Document
CQC	Close Quarter Combat
CT	Counter-Terrorism
C-UAS	Counter - Unmanned Aerial Systems
DAMS	Distributed Audio Media System
DCGS-SOF	Distributed Common Ground/Surface System--Special Operations Forces
DCM	Defensive Countermeasures
DCS	Dry Combat Submersible
DCU	Data Concentrator Unit
DDS	Dry Deck Shelter
DEWDS	Dedicated Electronic Warfare Display
DI2E	Defense Intelligence Information Environment
DOD	Department of Defense
DRWG	Distributed Common Ground/Surface System Working Group
DT	Developmental Testing
DTU	Data Transfer Unit
DVE	Degraded Visual Environment
DVEPS	Degraded Visual Environment Pilotage System
DWR	Defense Wide Review
DWS	Defensive Weapon System
EAC	Exploitation Analysis Centers
ECM	Electronic Countermeasures
ECOS	Enhanced Combat Optical Sights
ECP	Engineering Change Proposal
EDM	Engineering Development Model
EGI	Embedded Global Inertial
EGPWS	Enhanced Ground Proximity Warning
ELINT	Electronic Intelligence
EMD	Engineering and Manufacturing Development

ACRONYMS

ENT/ASIF	Enterprise All Source Information Fusion
EO/IR	Electro-Optical Infrared
EOSS	Electro-Optical Sensor System
EOTACS	Expeditionary Organic Tactical AISR Capability Set
ER	Extended Range
ESA	Enhanced Situational Awareness
ETI	Evolutionary Technology Insertion
EUD	End User Devices
EW	Electronic Warfare
FAA	Federal Aviation Agency
FABS	Fly-Away Broadcast System
FAR	Federal Acquisition Regulation
FADE	Fusion Analysis and Development Effort
FCD	Field Computing Devices
FFRDC	Federally Funded Research Development Center
FDWS	Forward Defensive Weapon System
FM	Frequency Modulation
FMV	Full Motion Video
FOC	Full Operational Capability
FoS	Family of Systems
FQT	Functional Qualification Test
FRP	Full Rate Production
FSOV	Family of Special Operations Vehicles
FVL	Future Vertical Lift
FY	Fiscal Year
FYDP	Fiscal Year Defense Plan
GATM	Global Air Traffic Management
GCC	Geographical Combatant Commander
GCS	Ground Control Station
GEOINT	Geospatial Intelligence
GFE	Government Furnished Equipment
GIG	Global Information Grid

ACRONYMS

GMV	Ground Mobility Vehicle
GOTS	Government-Off-The-Shelf
GPPU	General Purpose Processing Units
GPS	Global Positioning System
GSK	Ground Signals Intelligence Kit
GTR	Gun Training Room
HEL	High Energy Laser
HF	High Frequency
HFIS	Hostile Fire Indicator System
HFTTL	Hostile Forces Tagging, Tracking, and Locating
HHI	Hand Held Imager
HLM	Handheld Laser Marker
IC	Intelligence Community
IDIQ	Indefinite Delivery/Indefinite Quantity
ILS	Integrated Logistics Support
IM	Insensitive Munitions
INOD	Improved Night/Day Observation/Fire Control Device
IOC	Initial Operational Capability
IPN	Installation Processing Node
IR	Infrared
IRAD	Industrial Research and Development
IRCM	Infrared Countermeasures
IRES	Improved Rotary Wing Electro-Optical Sensor
IRSS	Infrared Suppression System
ISIS	islamic State of Iraq and Syria
ISP	Integrated Survey Plan
ISR	Intelligence, Surveillance and Reconnaissance
ISR&T	Intelligence, Surveillance, Reconnaissance, and Targeting
IT	Information Technology
ITMS	Integrated Tactical Mission Systems
JIE	Joint Information Environment
JOS	Joint Operational Stocks

ACRONYMS

JTAC	Joint Terminal Attack Controller
JTWS	Joint Threat Warning System
LAM	Laser Aiming Marker
LCM	Low Cost Modification
LCS	Load Carriage System
LEA	Long Endurance Aircrat
LFT&E	Live Fire Test and Evaluation
LiDAR	Light Detection and Ranging
LMAMS	Lethal Miniature Aerial Munition Systems
LOS	Line of Sight
LPI/LPD	Low Probability of Intercept/Low Probably of Detection
LRBS	Long Range Broadcast System
LR/LE	Long Range Endurance
LRIP	Low Rate Initial Production
LRU	Line Replaceable Unit
LSDB	Laser--Small Diameter Bomb
LTATV	Lightweight Tactical All Terrain Vehicle
LWIR	Long-Wave Infrared
MALET	Medium Altitude Long Endurance Tactical
MAAWS	Multi-Purpose Anti-Armor/Anti-Personnel Weapons System
MANET	Mobile Ad-hoc Networking
MC/COP	Mission Command/Common Operational Picture
MCE	Military Construction Collateral Equipment
MDA	Milestone Decision Authority
MDO	Multi-domain Operations
MEDEVAC	Medical Evacuation
MELB	Mission Enhanced Little Bird
MERIT	Military Exploitation of Reconnaissance and Intelligence Technology
MFD	Multi-Function Display
MFP	Major Force Program
MG	Machine Gun
MGS	Modular Glove System

ACRONYMS

MICH	Modular Integrated Communications Helmet
MIP	Military Intelligence Program
MIPR	Military Interdepartmental Purchase Request
MISO	Military Information Support Operations
MLE	Military Liaison Element
MMP	Multi-Mission Payload
MPE	Maritime Precision Engagement
MPU	Mission Processor Unit
MR/ME	Medium Range/Medium Endurance
MS	Milestone
MSSEP	Mobile SOF Strategic Entry Points
MTA	Middle Tier Acquisition
MTD	Mission Training Devices
MTPS	Mission Training and Preparation Systems
MTS-B	Multi-Spectral Targeting System--B
MTTE	Maritime Technology Transition and Exploitation
MTUAS	Multi-Mission Tactical Unmanned Aerial System
MWC	Mid-Water Column
MWIR	Mid-Wave Infrared
MWS	Missile Warning System
MYP	Multiyear Procurement
NDI	Non-Developmental Item
NDS	National Defense Strategy
NET	New Equipment Training
NGA	National Geospatial-Intelligence
NGFLIR	Next Generation Forward Looking Infrared Radar
NG CCFLIR	Next Generation Combatant Craft Forward Looking Infrared Radar
NGLS	Next Generation Loud Speakers
NLP	Natural Language Processing
NM	Nautical Mile
NRE	Non-Recurring Engineering
NSAV	Non-Standard Aviation

ACRONYMS

NSCV	Non-Standard Commercial Vehicle
NSSS	National Systems Support to SOF
NTM	National Technical Means
NVD	Night Vision Devices
OA	Operational Assessment
OCO	Overseas Contingency Operations
OEM	Original Equipment Manufacturer
OFP	Operational Flight Program
OT	Operational Test
OT&E	Operational Test and Evaluation
P3I	Pre-Planned Product Improvement
PCAS	Persistent Close Air Support
PCU	Protective Combat Uniform
PDR	Preliminary Design Review
PE	Program Element
PED	Processing, Exploitation, and Dissemination
PGL	Precision Geo Location
PGM	Precision Guided Munitions
PISA	Predator Integrated Signals Intelligence Architecture
PME	Prime Mission Equipment
POR	Program of Record
PSM	Personal Signature Management
PSP	Precision Strike Package
PTT	Part Task Trainer
QL-CBA	Quick-Look Capabilities-Based Assessment
RAMS	Removable Airborne Military Information Support Operations System
RC-IED	Counter Radio Controlled-Improvised Explosive Device
RCI	Rapid Capability Insertion
R&D	Research and Development
RDT&E	Research, Development, Test, and Evaluation
RECCE	Tactical Reconnaissance Kit
RF	Radio Frequency

ACRONYMS

RFCM	Radio Frequency Countermeasures
RIS	Radio Integration System
ROP	Remote Observation Post
RSTA	Reconnaissance, Surveillance, and Targeting Acquisition
RWR	Radar Warning Receiver
SA	Surface-to-Air
SAFC	Special Applications for Contingencies
SAPNET	Special Access Program Network
SATCOM	Satellite Communications
SBIR	Small Business Innovative Research
SBUD	Simulator Block Updates
SCE	Special Communications Enterprise
SCO	SOF Cryptologic Operator
SDB	Small Diameter Bomb
SDN	SOF Deployable Node
SDN-EP	SOF Deployable Node--Extension Packages
SDN-H	SOF Deployable Node-Heavy
SDN-L	SOF Deployable Node-Light
SDN-M	SOF Deployable Node-Medium
SDV	Sea, Air, Land (SEAL) Delivery Vehicle
SEAL	Sea, Air, Land
SEALION	Sea, Air, Land, Insertion Observation Neutralization
SFAC	Security Forces Assistance Craft
SGM	Small Glide Munition
SIE	Special Operations Forces Information Environment
SIGINT	Signals Intelligence
SIL	System Integration Lab
SIM	Sensor Integration Module
SIP	System Integration Partner
SIRFC	Suite of Integrated Radio Frequency Countermeasures
SKR	Silent Knight Radar
SMS	Special Mission System

ACRONYMS

SOCRATES	Special Operations Command, Research, Analysis and Threat Evaluation System
SOF	Special Operations Forces
SOF-P	Special Operations Forces--Peculiar
SOFNET	Special Operations Forces Network
SOFPREP	Special Operations Forces Planning, Rehearsal, and Execution Preparation
SOFS	Special Operations Forces Support Activity
SOMPE	Special Operations Mission Planning and Execution
SOPGM	Standoff Precision Guided Munitions
SoS	System of Systems
SPCOM	Special Communications Field Segment - Enterprise
SPEAR	SOF Personal Equipment Advanced Requirements
SPPN	Special Purpose Processing Node
SMU	Special Mission Units
SR	Special Reconnaissance
SR/SE	Short Range/Short Endurance
SRTV	Secure Real-Time Video
SSE	Sensitive Site Exploitation
STAMP	SOCOM Tactical Airborne Multi-Sensor Platform
STC	SOF Tactical Communications
STLD	Small Target Location Devices
STTR	Small Business Technology Transfer
STUAS	Small Tactical Unmanned Aerial Systems
SURG	Suppressed Upper Receiver Group
SWAP	Size, Weight and Power
SWCS	Shallow Water Combat Submersible
SWIR	Shortwave Infrared
TACLAN	Tactical Local Area Network
TAK	Tactical Assault Kit
TALOS	Tactical Assault Lightweight Operator Suit
TAS	Threat Awareness System
TCCC	Tactical Combat Casualty Care
TDL	Tactical Data Link

ACRONYMS

TENCAP	Tactical Exploitation of National Capabilities
TF/TA	Terrain Following/Terrain Avoidance
TOCNET	Tactical Operations Center
TMN	Tactical (Airborne) Mission Network
TMS	Tactical Mission Systems
TMMR	Technology Maturation and Risk Reduction
TPAN	Tactical Personal Area Networks
TRL	Technical Readiness Level
TSOC	Theater Special Operations Command
TTV	Team Transportable Variant
TTL	Tagging, Tracking and Locating
TV	Television
TVS/RSTA	Tactical Video System/Reconnaissance, Surveillance, and Target Acquisition
UARC	University Affiliated Research Agreement
UAS	Unmanned Aerial System
UAV	Unmanned Aerial Vehicle
UGS/UMS	Unattended Ground Sensors/Unattended Maritime Sensors
UHF	Ultra High Frequency
UI	User Interface
URG	Upper Receiver Groups
VAK	Virtual Accompany Kits
VAS	Visual Augmentation Systems
VAS-BM	Visual Augmentation-Binocular-Monocular
VASWA	Visual Augmentation System-Weapons Accessories
VBIED	Vehicle-Borne Improvised Explosive Device
VBL	Visible Bright Light
VBSS	Visit, Board, Search, and Seizure
VHF	Very High Frequency
VTC	Video Teleconferencing
VTOL	Vertical Take Off and Landing
WAN	Wide Area Network
WPAN	Wireless Personal Area Networks

ACRONYMS

WPNAC	Weapons Accessories
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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 2: Applied Research</i>	R-1 Program Element (Number/Name) PE 1160401BB / <i>SOF Technology Development</i>											
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	625.167	47.657	51.329	49.174	-	49.174	52.287	49.101	48.802	49.778	Continuing	Continuing
S100: <i>SOF Technology Development</i>	625.167	47.657	51.329	49.174	-	49.174	52.287	49.101	48.802	49.778	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element enables United States Special Operations Command (USSOCOM) to conduct studies and develop laboratory prototypes for applied research and advanced technology development, as well as leverage other organizations' technology projects. Applying small incremental amounts of investments to the Department of Defense (DOD), other government agencies, and commercial organizations allows USSOCOM to influence the direction of technology development or the schedule against which it is being pursued, and to acquire disruptive solutions and emerging technologies for Special Operations Forces (SOF). This project provides an investment strategy for USSOCOM to link technology opportunities with capability deficiencies, capability objectives, technology thrust areas, human endurance and sensory performance, and technology development objectives. This investment strategy is aligned to establish future SOF capability in support of Joint Warfighting Concepts.

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	49.464	44.829	0.000	-	0.000
Current President's Budget	47.657	51.329	49.174	-	49.174
Total Adjustments	-1.807	6.500	49.174	-	49.174
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	6.500			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.807	-			
• Adjustments to Budget Year	-	-	49.174	-	49.174

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: S100: *SOF Technology Development*

Congressional Add: *National Consortium for the Study of Terrorism*

Congressional Add: *Sustained Human Performance and Resilience*

Congressional Add: *Classified Sub-Project*

FY 2021	FY 2022
6.746	-
4.816	5.000
-	1.500

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command		Date: April 2022	
Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 2: Applied Research</i>		R-1 Program Element (Number/Name) PE 1160401BB / <i>SOF Technology Development</i>	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2021	FY 2022
Congressional Add Subtotals for Project: S100		11.562	6.500
Congressional Add Totals for all Projects		11.562	6.500
<u>Change Summary Explanation</u>			
Funding:			
FY 2021: Net decrease of \$1.807 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs.			
FY 2022: Net increase of \$6.500 million is due to a Congressional Add for sustained human performance and resilience (\$5.000 million) and a Congressional Add for a Classified sub-project, details will be provided under separate cover (\$1.500 million).			
FY 2023: FY 2023 funding increase of \$49.174 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.			
FY 2023 funding request was reduced by \$3.124 million to account for the availability of prior year execution balances.			

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Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command										Date: April 2022		
Appropriation/Budget Activity 0400 / 2					R-1 Program Element (Number/Name) PE 1160401BB / SOF Technology Development				Project (Number/Name) S100 / SOF Technology 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
S100: SOF Technology Development	625.167	47.657	51.329	49.174	-	49.174	52.287	49.101	48.802	49.778	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project conducts studies and develops laboratory prototypes for applied research and advanced technology developments and leverages other organizations' technology projects. Small incremental co-investments with Department of Defense (DOD), other government agencies, and commercial organizations allow USSOCOM to influence the schedule and direction of technology developments, emerging technologies, and capabilities for Special Operations Forces (SOF), with significant economies of investment. This USSOCOM investment strategy is used to link technology opportunities with capability deficiencies, capability objectives, technology thrust areas, and technology objectives through key stakeholder relationships with the DOD and government technology developers. Technology development needs in these areas may be advertised to industry and government research and development agencies via agency announcements and calls for white papers.

B. Accomplishments/Planned Programs (\$ in Millions)

Title: SOF Technology Development		FY 2021	FY 2022	FY 2023
		32.170	40.670	45.011
Description: This project conducts studies and develops laboratory prototypes for applied research and advanced technology developments and leverages other organizations' technology projects. This project will continue to exploit and integrate emerging technologies to enable SOF to conduct assigned military responsibilities and expand in support of integrated deterrence. Increases focus on Next Generation Effects, particularly effects that are scalable or non-kinetic; capitalizes on commercial and government discoveries in data and analytics; explores future emplacement and access opportunities, sensor and sensor fusion technology, and biotechnologies and human interface capabilities. Also funds experimentation and concept development to equip the future SOF warfighter.				
FY 2022 Plans: Continue ongoing technology development projects in areas such as, but not limited to: enabling power technologies; electromagnetic spectrum; data analytics; signature reduction technologies; high data-rate throughput; and advances in lightweight materials. Advance technologies for combat medical equipment, biotechnologies, tactics, human performance, sensors, information sources, and processing improvements, improve human-machine interfaces and displays, identify SOF specific machine learning/artificial intelligence, and secure communications. Based upon agreed technology maturity metrics, transfers successful projects into programs of record. Continue the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes.				
FY 2023 Plans:				

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Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022	
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 1160401BB / <i>SOF Technology Development</i>	Project (Number/Name) S100 / <i>SOF Technology Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022
Continues ongoing technology development projects in areas such as, but not limited to: enabling power technologies; electromagnetic spectrum; data analytics; signature reduction technologies; high data-rate throughput; and advances in lightweight materials. Advances technologies for combat medical equipment, biotechnologies, tactics, human performance, sensors, information sources, and processing improvements, improves human-machine interfaces and displays, identifies SOF specific machine learning/artificial intelligence, and secure communications. Based upon agreed technology maturity metrics, transfers successful projects into programs of record. Continues the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes.			
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$4.341 million supports USSCOM's focus on advanced research and development in artificial intelligence, machine learning, computing power and autonomous systems that will provide increased capability to SOF operators and platforms.			
Title: Classified Sub-Project Description: Classified Sub-Project (provided under separate cover).		3.925	4.159
FY 2022 Plans: Details provided under separate cover.			
FY 2023 Plans: Details provided under separate cover.			
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.004 million will be provided under separate cover. This Sub-project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.			
Accomplishments/Planned Programs Subtotals		36.095	44.829
		FY 2021	FY 2022
Congressional Add: National Consortium for the Study of Terrorism		6.746	-
FY 2021 Accomplishments: Established Joint Special Operations University (JSOU) Advanced Research efforts for Irregular and Asymmetric Warfare in partnership with OSD Research and Engineering (R&E). Expanded the National Consortium for the Study of Terrorism and Responses to Terrorism (START). The START effort will be awarded to the University of Maryland, College Park as the lead for the National Consortium for the Study of Terrorism in September 2021, using data sets and scientists' findings regarding Irregular and Asymmetric Warfare topics specific to SOF that support integrative statecraft and applied scenario testing. The deliverable for START is an academic study conducted by a consortium of university-based research entities			

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Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022	
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 1160401BB / <i>SOF Technology Development</i>	Project (Number/Name) S100 / <i>SOF Technology Development</i>	
who will develop a wargame to explore multi-national and inter-agency challenges integral to Irregular Warfare conducted by SOF. Upon completion of the applied research effort, the consortium will deliver proposed updates to JSOU's existing curriculum and training programs of instruction and will be incorporated into courses by Academic Year 2022.		FY 2021	FY 2022
Congressional Add: Sustained Human Performance and Resilience FY 2021 Accomplishments: Continued ongoing development of human performance technology development projects, including performance nutrition and supplementation, achieving the results of exercise via alternative methods, maximizing cognitive performance, musculoskeletal injury prediction, sleep restoration, holistic assessment (e.g., physical/cognitive metrics, biomarkers, and genomics), and tracking of exposures throughout a SOF Operator's career. Continued pursuit of methods to reduce operator load and improve human-machine interfaces and displays. FY 2022 Plans: Continue ongoing development of human performance technology development projects, including performance nutrition and supplementation, achieving the results of exercise via alternative methods, maximizing cognitive performance, musculoskeletal injury prediction, sleep restoration, holistic assessment (e.g., physical/cognitive metrics, biomarkers, and genomics), and tracking of exposures throughout a SOF Operator's career. Continue pursuit of methods to reduce operator load and improve human-machine interfaces and displays.		4.816	5.000
Congressional Add: Classified Sub-Project FY 2022 Plans: Additional details can be provided under separate cover. This Sub-project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.		-	1.500
Congressional Adds Subtotals		11.562	6.500
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)	R-1 Program Element (Number/Name) PE 1160402BB / SOF Advanced Technology Development
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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	1,517.264	92.656	112.415	118.877	-	118.877	121.097	116.604	116.147	118.271	Continuing	Continuing
S200: Advanced Technology Development	1,441.618	74.936	93.019	84.496	-	84.496	86.241	81.348	80.386	81.993	Continuing	Continuing
SF101: Engineering Analysis	75.646	17.720	19.396	34.381	-	34.381	34.856	35.256	35.761	36.278	Continuing	Continuing

A. Mission Description and Budget Item Justification

Advanced Technology Development (Project S200) conducts rapid prototyping and Advanced Technology Demonstrations (ATDs). ATDs provide a means for demonstrating and evaluating the utility of disruptive solutions and emerging/advanced technologies in as realistic a operational environment used by Special Operations Forces (SOF). Evaluation results are included in a transition package, which assists in the initiation of or insertion into an acquisition program. ATDs also address projects that are a result of unique joint special mission or area-specific needs for which a few-of-a-kind prototypes must be developed on a rapid response basis, or of sufficient time sensitivity to accelerate the prototyping effort of a normal acquisition program in any phase. This United States Special Operations Command ATD investment strategy is aligned to establish future SOF capability in support of Joint Warfighting Concepts.

Engineering Analysis (project SF101) provides rapid response capability for the investigation, evaluation, and demonstration of technologies for SOF platform (ground, air, and maritime) and soldier system-unique requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in such areas as: sensor integration; enhanced situational awareness; near-real-time intelligence to include data fusion, threat detection and avoidance; electronic support measures for threat geo-location and specific emitter identification; navigation; target detection; weapon performance integration; and future SOF platform and soldier system requirements. Provides additional engineering analysis and testing required to transition items from national forces to theater forces.

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	96.861	93.415	0.000	-	0.000
Current President's Budget	92.656	112.415	118.877	-	118.877
Total Adjustments	-4.205	19.000	118.877	-	118.877
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	19.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.670	-			
• SBIR/STTR Transfer	-3.535	-			
• Adjustments to Budget Year	-	-	118.877	-	118.877

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command		Date: April 2022	
Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>		R-1 Program Element (Number/Name) PE 1160402BB / <i>SOF Advanced Technology Development</i>	
<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2021	FY 2022
Project: S200: <i>Advanced Technology Development</i>			
Congressional Add: <i>Identity Threat Mitigation and Force Protection Initiative</i>		9.635	15.000
Congressional Add: <i>Assessing and Tracking Tactical Forces Initiatives</i>		-	4.000
Congressional Add Subtotals for Project: S200		9.635	19.000
Congressional Add Totals for all Projects		9.635	19.000
<u>Change Summary Explanation</u> Funding: <p>FY 2021: Net decrease of -\$4.205 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs (-\$3.535 million) and a reprogramming from Program Element (PE) 1160402BB SOF Advanced Technology Development to PE 1160431BB Warrior Systems in support of Maritime Precision Engagement Munition (MPE-M) (-\$0.670 million).</p> <p>FY 2022: Net increase of \$19.000 million is due to a Congressional Add for assessing and tracking tactical forces initiatives (\$4.000 million) and a Congressional Add for identity threat mitigation and force protection initiative (\$15.000 million).</p> <p>FY 2023: Funding increase of \$118.877 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.</p>			

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Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command										Date: April 2022		
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 1160402BB / SOF Advanced Technology Development				Project (Number/Name) S200 / Advanced Technology 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
S200: Advanced Technology Development	1,441.618	74.936	93.019	84.496	-	84.496	86.241	81.348	80.386	81.993	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for rapid prototyping, Advanced Technology Demonstrations (ATDs) and Joint Capability Technology Demonstrations. It is a means for demonstrating and evaluating the utility of emerging/advanced technologies in operationally relevant environments with Special Operations Forces (SOF) users. This project integrates disruptive solutions and emerging technologies and then presents them in technology demonstrations, in conjunction with joint experiments and other assessment events. Evaluation results often facilitate the initiation of new programs and the insertion of appropriate technologies to acquisition programs. This program element leverages key stakeholder relationships with the DOD and government technology developers to address unique, joint special mission or area-specific needs for which a few rapid prototypes must be developed on a responsive basis, or of sufficient time sensitivity to accelerate prototyping efforts of a normal acquisition program in any phase.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: SOF Special Technology Project	59.476	67.849	78.323
<p>Description: This project integrates emerging technologies and presents them in technology demonstrations, in conjunction with joint experiments and other assessment events. This project will continue to exploit and integrate emerging technologies to enable SOF to conduct assigned military responsibilities and expand in support of integrated deterrence. Increases focus on Next Generation Effects, particularly effects that are scalable or non-kinetic; capitalizes on commercial and government discoveries in data and analytics; explores future emplacement and access opportunities, sensor and sensor fusion technology, and biotechnologies and human interface capabilities. Also funds experimentation and concept development to equip the future SOF warfighter.</p> <p>FY 2022 Plans: Continue the development and insertion of technology into existing programs. Technologies include, but are not limited to: reduced signature profiles; Next Generation Effects; assured communications; command and control systems; machine learning/artificial intelligence; sensors; information sources; emplacement and access; and situational awareness tools; revolutionary materials; power and energy enablers; and technologies that reduce the load of the operator. Continue development of technologies supporting undersea, ground and air mobility. Evaluate and develop opportunities to leverage the electromagnetic spectrum to meet operational requirements. Continue the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes. Continue to develop sensors, surveillance, network and data management technologies to provide tactically relevant situational awareness at point of need. Continue effort</p>			

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Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022		
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 1160402BB / SOF Advanced Technology Development	Project (Number/Name) S200 / Advanced Technology Development		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
for field prototype system incorporating technologies likely to transition to fielded systems. Based upon agreed technology maturity metrics, transfer successful projects into programs of record, and conduct field experimentations at various venues to facilitate technology insertion. FY 2023 Plans: Continues the development and insertion of technology into existing programs. Technologies include, but are not limited to: reduced signature profiles; Next Generation Effects; assured communications; command and control systems; machine learning/artificial intelligence; sensors; information sources; emplacement and access; and situational awareness tools; revolutionary materials; power and energy enablers; and technologies that reduce the load of the operator. Continues development of technologies supporting undersea, ground and air mobility. Evaluates and develops opportunities to leverage the electromagnetic spectrum to meet operational requirements. Continues the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes. Continues to develop sensors, surveillance, network and data management technology to provide tactically relevant situational awareness at the point of need. Continues effort for field prototype system incorporating technologies likely to transition to fielded systems. Based upon agreed technology maturity metrics, transfer successful projects into programs of record, and conduct field experimentations at various venues to facilitate technology insertion. Continues USSOCOM's focus on modernization supporting advanced technology development. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$10.474 million is consistent with USSOCOM's focus on modernization supporting the advanced technology development of edge computing, data experimentation and data fusion, as well as continued advancements in information operations and electronic warfare technologies.				
Title: Classified Sub-Project Description: Classified Project (provided under separate cover). FY 2022 Plans: Details provided under separate cover. FY 2023 Plans: Details provided under separate cover. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.003 million will be provided under separate cover. This project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.		5.825	6.170	6.173
Accomplishments/Planned Programs Subtotals		65.301	74.019	84.496

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Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022	
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 1160402BB / SOF Advanced Technology Development	Project (Number/Name) S200 / Advanced Technology Development	
		FY 2021	FY 2022
Congressional Add: Identity Threat Mitigation and Force Protection Initiative FY 2021 Accomplishments: Additional details provided upon request. FY 2022 Plans: This effort funds the development of Identity Threat Mitigation Systems for integration into the SOF Digital Ecosystem. Capabilities developed under this effort will provide enhanced identity protection and monitoring capabilities, incorporate new data sources, and enhance data fusion and display methods. Software-intensive Identity Threat Mitigation systems will be managed in accordance with agile methodologies and best practices.		9.635	15.000
Congressional Add: Assessing and Tracking Tactical Forces Initiatives FY 2022 Plans: Expand the Assessing & Tracking Tactical (ATTAC) Forces study to include retrospective analysis of baseline measurements in a long term monitored Special Operations Forces (SOF) population to demonstrate the ability to detect, prevent, and treat cognitive deficits, injury, or illness associated with Traumatic Brain Injury (TBI) and blast exposures associated with combat and training related events. Continue an analysis of blast gauge data correlated with other biometrics and medical history to assess the ability to correlate blast exposure with any trends in the incidence of injury, disease, cognitive decline, behavioral health concerns, or other measures to prevent or correct any effects of Repeated Sub-concussive Blast Exposure. Outcomes aim to provide tactics, techniques, and procedures that can be incorporated into training and operations to reduce the effects of exposures and extend the career of SOF personnel and quality of life following service.		-	4.000
Congressional Adds Subtotals		9.635	19.000
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command										Date: April 2022		
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 1160402BB / SOF Advanced Technology Development				Project (Number/Name) SF101 / Engineering Analysis			
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
SF101: Engineering Analysis	75.646	17.720	19.396	34.381	-	34.381	34.856	35.256	35.761	36.278	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This project provides a rapid response capability to support Special Operations Forces (SOF) programs and capabilities across the enterprise. The purpose is to correct system deficiencies, improve asset life, and enhance mission capability through the means of feasibility studies, analysis of alternatives, pre-developmental risk reduction studies, and engineering analyses. This project provides the engineering required to improve the design and performance integrity of the SOF equipment and software and to integrate disruptive “off-the-shelf” technologies to meet current and emergent capability gaps. This project also conducts risk reduction studies, analyses, and demonstrations to support emerging, time-critical equipment, weapons, and sensor enhancements.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2021	FY 2022	FY 2023	
Title: National to Theater Engineering Analysis									2.198	2.327	2.375	
Description: Provides additional engineering analysis and testing required to transition items from national forces to theater forces.												
FY 2022 Plans: Continue additional testing and evaluation required on various equipment items such as communications, intelligence, weapons, and operator protection planned for transition to SOF Theater Forces.												
FY 2023 Plans: Continues additional testing and evaluation required on various equipment items such as communications, intelligence, weapons, and operator protection planned for transition to SOF Theater Forces.												
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.048 million is to support additional testing and evaluation required on various equipment items.												
Title: Engineering Analysis									11.668	13.069	28.006	
Description: Funding supports the development of rapid response capabilities to support SOF platform and soldier systems. Supports technology development to correct system deficiencies, improve platform asset life, and enhance mission capabilities. Supports engineering assessments and evaluation of technology feasibility, producibility, and integration into next generation soldier equipment. Supports engineering analysis activities to address platform survivability such as signature management, situational awareness, and versatile mission equipment (payloads, communications, and weapons) to achieve SOF mission objectives. Rapidly addresses technology needs for insertion into Programs of Record.												

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Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022	
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 1160402BB / SOF Advanced Technology Development	Project (Number/Name) SF101 / Engineering Analysis	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022
<p>FY 2022 Plans: Continue to assess concepts and prototypes that provide increased capability of SOF mobility platforms to include improvements to meet emerging threats. Assess and evaluate advanced methods to deliver tailorable lethality. Identify, assess, and evaluate improved network and data management systems that incorporate significant improvements to operate in contested environments, systems that improve situational awareness on the battlefield, and disruptive technologies to enable ISR in future environments. Continue to assess materials, concepts, and prototypes to increase operator effectiveness and situational awareness in all environments. Continue engineering analysis activities to improve SOF platform mission survivability. Activities include, but are not limited to, signature management (acoustic, infrared, radio frequency), situational awareness 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.</p> <p>FY 2023 Plans: Continues to assess concepts and prototypes that provide increased capability of SOF mobility platforms to include improvements to meet emerging threats. Assesses and evaluates advanced methods to deliver next generation effects. Identifies, assess, and evaluates improved network and data management systems that incorporate significant improvements to operate in contested environments, systems that improve situational awareness on the battlefield, and disruptive technologies to enable ISR in future environments. Continues to assess materials, concepts, and prototypes to increase operator effectiveness and situational awareness in all environments. Continues engineering analysis activities to improve SOF platform mission survivability. Activities include, but are not limited to, signature management (acoustic, infrared, radio frequency), situational awareness 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.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$14.937 million supports initiatives in areas such as Data Fusion, Next Generation Effects and Information Dominance which is consistent with USSOCOM's focus on modernization to develop rapid response capabilities by inserting technology through a variety of acquisition pathways.</p>			
<p>Title: Experimentation Force</p> <p>Description: Funding supports the integration of technology with operational vignette-based experiments designed to stimulate innovative applications across all domains addressing SOF specific modernization needs.</p> <p>FY 2022 Plans:</p>		3.854	4.000

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Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command		Date: April 2022	
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 1160402BB / <i>SOF Advanced Technology Development</i>	Project (Number/Name) SF101 / <i>Engineering Analysis</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022
Continue the development of innovative concepts and conduct experimentation to develop hyper-enabled teams capable of conducting globally integrated special operations across all domains.			
FY 2023 Plans: Continues the development of innovative concepts and conducts experimentation to develop hyper-enabled teams capable of conducting globally integrated special operations across all domains.			
Accomplishments/Planned Programs Subtotals		17.720	19.396
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development					PE 0305208BB / Distributed Common Ground/Surface 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
Total Program Element	61.289	6.062	5.994	6.095	-	6.095	6.214	5.854	6.066	6.187	Continuing	Continuing
S400A: Distributed Common Ground/Surface Systems	61.289	6.062	5.994	6.095	-	6.095	6.214	5.854	6.066	6.187	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program (MIP). The Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF) is part of a family of systems providing rapid fielding of Intelligence, Surveillance, and Reconnaissance (ISR) Processing, Exploitation, Dissemination (PED), and analytical capabilities at the Combatant Command (COCOM), Component/Theater Special Operations Commands (TSOC) level and below through a combination of reach back, forward support, and collaboration. The mission tailored infrastructure interconnects the warfighters, analysts, and sensors to find and fix high value targets and provides a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services with SOF and between the Services, national intelligence agencies, combatant commands and multi-national partners. DCGS-SOF connects SOF warfighters and analysts with essential intelligence information and provides situational awareness information to SOF leadership at all echelons. The two components of DCGS-SOF are Enterprise/All Source Information Fusion (ENT/ASIF) and SOF Geospatial Intelligence Processing, Exploitation, and Dissemination (SGIP). ENT/ASIF provides infrastructure, processing, and intelligence analytical tools for worldwide SOF intelligence information sharing via a globally connected cloud based architecture as well as a forward disconnected capability. SGIP provides capabilities in garrison and deployed environments for the PED of manned and unmanned sensors. 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	6.062	5.994	0.000	-	0.000
Current President's Budget	6.062	5.994	6.095	-	6.095
Total Adjustments	0.000	0.000	6.095	-	6.095
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	6.095	-	6.095

Change Summary Explanation

Funding:

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 7: Operational Systems Development	PE 0305208BB I Distributed Common Ground/Surface Systems	
FY 2021: None.		
FY 2022: None.		
FY 2023: Funding increase of \$6.095 million reflects the fact that the FY 2022 President’s Budget request did not include out-year funding.		
Schedule: None.		
Technical: None.		

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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 0305208BB / Distributed Common Ground/Surface Systems				Project (Number/Name) S400A / Distributed Common Ground/Surface 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
S400A: Distributed Common Ground/Surface Systems	61.289	6.062	5.994	6.095	-	6.095	6.214	5.854	6.066	6.187	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program (MIP). The Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF) is part of a family of systems providing rapid fielding of Intelligence, Surveillance, and Reconnaissance (ISR) Processing, Exploitation, Dissemination (PED), and analytical capabilities at the Combatant Command (COCOM), Component/Theater Special Operations Commands (TSOC) level and below through a combination of reach back, forward support, and collaboration. The mission tailored infrastructure interconnects the warfighters, analysts, and sensors to find and fix high value targets and provides a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services with SOF and between the Services, national intelligence agencies, combatant commands and multi-national partners. DCGS-SOF connects SOF warfighters and analysts with the essential intelligence information and provides situational awareness information to SOF leadership at all echelons. The two components of DCGS-SOF are Enterprise/All Source Information Fusion (ENT/ASIF) and SOF Geospatial Intelligence Processing, Exploitation, and Dissemination (SGIP). ENT/ASIF provides infrastructure, processing, and intelligence analytical tools for worldwide SOF intelligence information sharing via a globally connected cloud based architecture as well as a forward disconnected capability. SGIP provides capabilities in garrison and deployed environments for the PED of manned and unmanned sensors. These technologies will be pursued via rapid prototyping efforts when appropriate.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: DCGS-SOF	6.062	5.994	6.095
Description: DCGS-SOF is composed of two major components: Enterprise/ASIF and SGIP. DCGS-SOF develops and integrates SOF hardware and software networks that provide United States Special Operations Command (USSOCOM) with unique decision capabilities to include: measurement and signature data; sensor exploitation; data compressions and man-portable workstations. DCGS-SOF provides the supporting architecture to link the Global Sensor Network to those who will interpret the data for rapid transmission to collaborative partners via the SOF Information Environment (SIE).			
FY 2022 Plans: Continue technology development, integration of emerging technologies, software solutions and capabilities enhancements for DCGS-SOF ENT/ASIF requirements including but not limited to: Advanced analytics; User Interfaces (UI); cloud computing; machine learning; and disconnected operations capability. Continue technology development, testing and integration of emerging technologies for SGIP. Continue DCGS-SOF Limited Objective Events and exercise participation to test integration of emerging			

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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 0305208BB / Distributed Common Ground/Surface Systems				Project (Number/Name) S400A / Distributed Common Ground/Surface Systems				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2021	FY 2022	FY 2023
technologies and obtain user feedback of items in development. Continue tech development and integration of emerging technologies for SGIP.												
FY 2023 Plans: Continues technology development, integration of emerging technologies, software solutions and capabilities enhancements for DCGS-SOF ENT/ASIF requirements including but not limited to: Advanced analytics; UI; cloud computing; machine learning; and disconnected operations capability. Continues technology development, testing and integration of emerging technologies for SGIP. Continues DCGS-SOF Limited Objective Events and exercise participation to test integration of emerging technologies and obtain user feedback of items in development. Continues tech development and integration of emerging technologies for SGIP.												
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.101 million is due to projected price increases on new software development contract.												
Accomplishments/Planned Programs Subtotals										6.062	5.994	6.095
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/020401INTL: Distributed Common Ground/Surface System	11.645	5.991	2.214	-	2.214	6.113	4.471	3.321	4.274	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
In FY 2021, DCGS SOF ENT/ASIF transformed to employ the software acquisition pathway to facilitate rapid and iterative delivery of operational software to meet dynamic SOF requirements. DCGS-SOF leverages SOF programs, DOD and Intelligence Community partners, national labs, and other government agencies to integrate Commercial Off The Shelf/Government Off The Shelf (COTS/GOTS), hardware and software solutions, and other mature technologies into the Program of Record which will reside partially within the SOF Information Enterprise combined with Web-Client tools in a global cloud. These alliances enable more agile access to (searchable, discoverable) and sharing of larger data domains and services to meet SOF-peculiar documented requirements. The technology allows for seamless integration and federation with DOD, Interagency, and Coalition tactical ISR PED systems. The DCGS-SOF program office employs an agile software development process with capability insertions into the development baseline for assessment and future deployment into the operational baseline. All development requirements are prioritized through the DCGS Requirements Working Group (DRWG) chaired by USSOCOM J2. Once approved, the requirements are evaluated and scheduled by engineering development teams. Using this methodology allows capabilities to be inserted in a fast and agile manner based on user requirements and priorities. All Evolutionary Technology Insertions (ETIs) in Exhibit R-4, RDT&E Schedule Profile, are based on current program office projections. If requirements change based on the DRWG decisions, the ETI and version capabilities identified may change.												

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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 0305208BB / Distributed Common Ground/Surface Systems				Project (Number/Name) S400A / Distributed Common Ground/Surface Systems					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development and Integration - Enterprise / All Source Information Fusion (ENT/ASIF)	Various	Various : Various	14.454	2.953	Jan 2021	3.732	Jan 2022	4.493	Jan 2023	-		4.493	Continuing	Continuing	-
Capabilities Modernization - SOF Geospatial Intelligence Processing Exploitation, and Dissemination (SGIP)	Various	Various : Various	19.760	0.730	Jan 2021	0.600	Jan 2022	0.750	Jan 2023	-		0.750	Continuing	Continuing	-
Independent Verification and Validation - SOF Signals Intelligence Processing Exploitation, and Dissemination (SOF SIGINT PED)	MIPR	Various : Various	2.936	0.829	Mar 2021	-		-		-		-	0.000	3.765	-
Prior Year Funding - Completed Efforts	Various	Various : Various	1.788	-		-		-		-		-	0.000	1.788	-
Subtotal			38.938	4.512		4.332		5.243		-		5.243	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support (ENT/ASIF)	C/FFP	Various : Various	6.982	1.100	Mar 2021	1.225	Mar 2022	0.591	Jul 2023	-		0.591	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	0.576	-		-		-		-		-	0.000	0.576	-
Subtotal			7.558	1.100		1.225		0.591		-		0.591	Continuing	Continuing	N/A

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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 0305208BB / Distributed Common Ground/Surface Systems				Project (Number/Name) S400A / Distributed Common Ground/Surface Systems					
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ENT/ASIF Test and Evaluation	MIPR	Various : Various	2.810	0.150	Oct 2020	0.176	Oct 2021	-		-		-	0.000	3.136	-
Independent Verification and Validation	MIPR	Various : Various	3.680	-		-		-		-		-	0.000	3.680	-
Interoperability Support	MIPR	JITC : Ft Huachuca, AZ	2.317	0.300	Feb 2021	0.261	Feb 2022	0.261	Feb 2023	-		0.261	Continuing	Continuing	-
Interoperability Testing	C/FFP	SITEC : Various	5.986	-		-		-		-		-	Continuing	Continuing	-
Subtotal			14.793	0.450		0.437		0.261		-		0.261	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			61.289	6.062		5.994		6.095		-		6.095	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

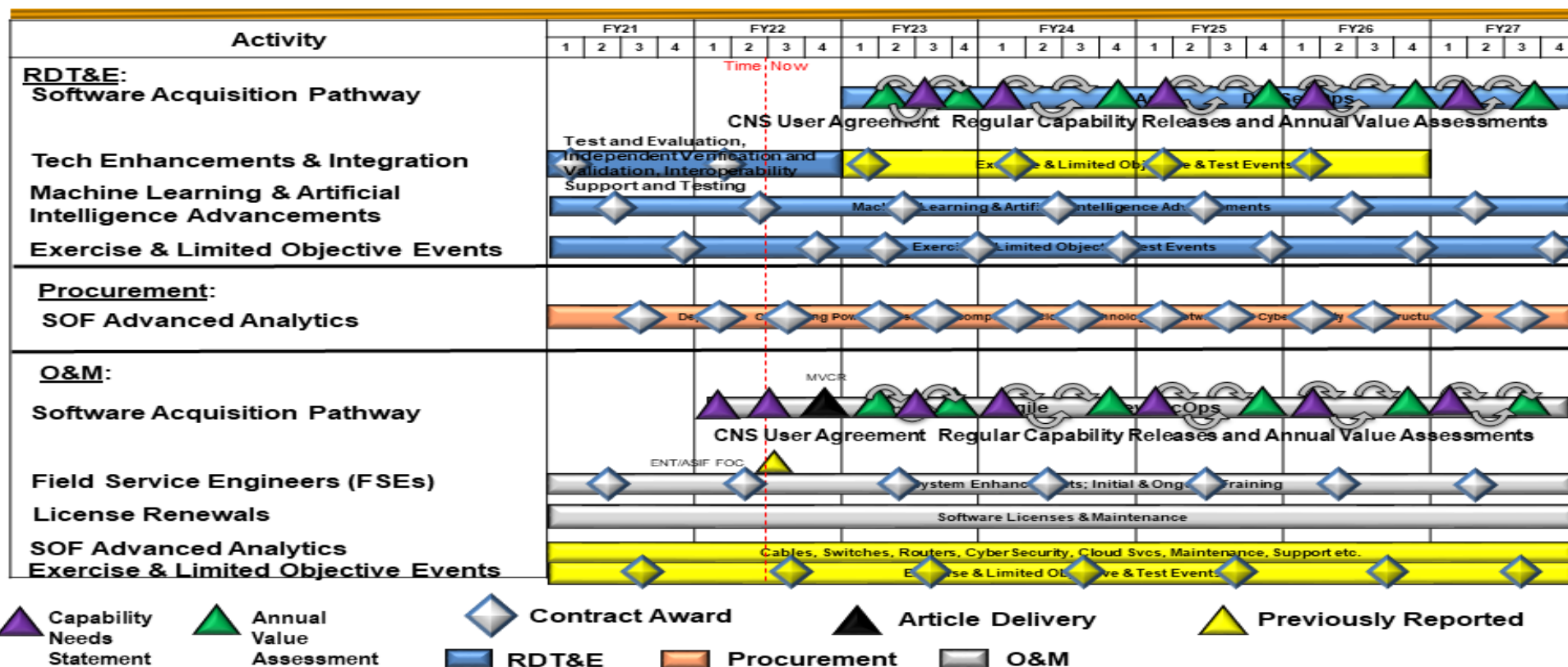
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 0305208BB / Distributed Common Ground/Surface Systems

Project (Number/Name)
S400A / Distributed Common Ground/Surface Systems

Distributed Common Ground/Surface System-Special Operations Forces Enterprise/All Source Information Fusion (ENT/ASIF) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

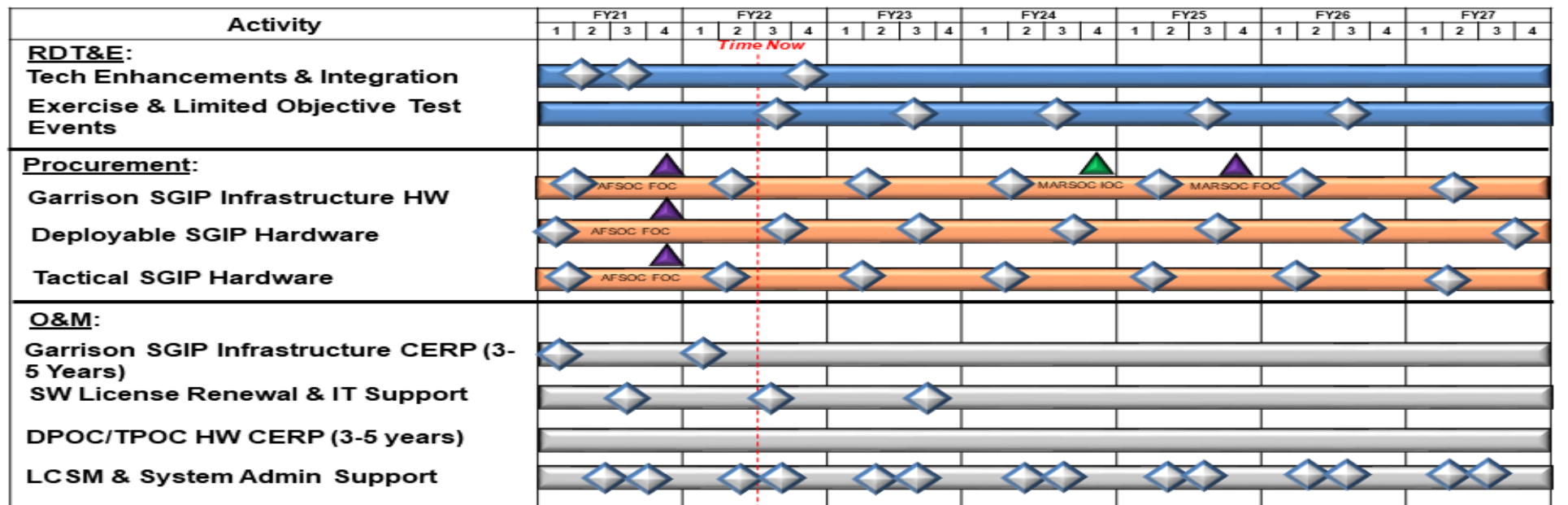
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 0305208BB / Distributed Common Ground/Surface Systems

Project (Number/Name)
S400A / Distributed Common Ground/Surface Systems

Distributed Common Ground/Surface System-Special Operations Forces Geospatial Intelligence Processing, Exploitation and Dissemination (SGIP) Schedule

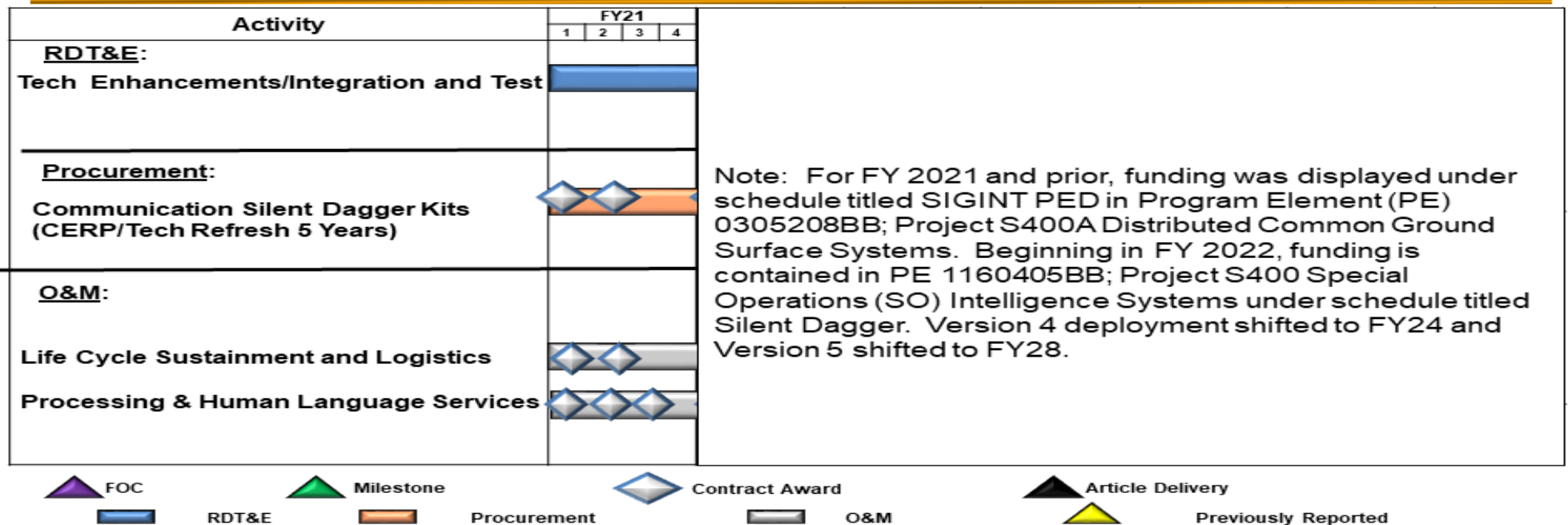


FOC
 Milestone
 Agile SW MVP
 Contract Award
 RDT&E
 Procurement
 O&M
 Previously Reported

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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 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	Project (Number/Name) S400A / <i>Distributed Common Ground/Surface Systems</i>

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



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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 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	Project (Number/Name) S400A / <i>Distributed Common Ground/Surface Systems</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Distributed Common Ground/Surface Systems - Enterprise/All Source Information Fusion (ENT/ASIF)</i>				
Software Aquisition Pathway	1	2023	4	2027
Tech Enhancements & Integration	1	2021	4	2022
Machine Learning and Artificial Intelligence Advancements	1	2021	4	2027
Exercise & Limited Objective Events	1	2021	4	2027
<i>Distributed Common Ground/Surface Systems - SOF Geospatial Intelligence Processing and Dissemination (SGIP)</i>				
Tech Enhancements & Integration	1	2021	4	2027
Exercise & Limited Objective Test Events	1	2021	4	2027
<i>SOF Signals Intelligence (SIGINT) Silent Dagger (SDAG)</i>				
Tech Enhancements/Integration and Test	1	2021	4	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1105219BB / MQ-9 <i>Unmanned Aerial Vehicle (UAV)</i>											
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	151.255	20.489	63.065	14.000	-	14.000	29.688	34.851	29.427	39.340	Continuing	Continuing
S851: <i>MQ-9 Unmanned Aerial Vehicle (UAV)</i>	151.255	20.489	63.065	14.000	-	14.000	29.688	34.851	29.427	39.340	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element identifies, develops, rapidly prototypes, integrates, and tests Special Operations Forces (SOF)-peculiar mission kits, mission payloads, weapons, and modifications on MQ-9 Unmanned Aerial Vehicles (UAVs), Ground Control Stations (GCSs), and training systems as a component of the Medium Altitude Long Endurance Tactical (MALET) program. The United States Special Operations Command (USSOCOM) is designated as the DOD lead for planning, synchronizing, and as directed, executing global operations against terrorist networks. The USSOCOM requires the capability to find, fix, finish, exploit, and analyze time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This program element addresses the primary areas of Intelligence, Surveillance, Reconnaissance, and Target Acquisition and Strike. 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	21.265	19.065	0.000	-	0.000
Current President's Budget	20.489	63.065	14.000	-	14.000
Total Adjustments	-0.776	44.000	14.000	-	14.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	44.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.776	-			
• Adjustments to Budget Year	-	-	14.000	-	14.000

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: S851: *MQ-9 Unmanned Aerial Vehicle (UAV)*

Congressional Add: *Speed Loader Agile Pod*

Congressional Add: *Self-Protection Pods*

Congressional Add Subtotals for Project: S851

	FY 2021	FY 2022
-	10.000	
-	34.000	
-	44.000	

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command		Date: April 2022	
Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1105219BB / <i>MQ-9 Unmanned Aerial Vehicle (UAV)</i>	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2021	FY 2022
Congressional Add Totals for all Projects		-	44.000
<u>Change Summary Explanation</u> Funding: FY 2021: Net decrease of -\$0.776 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs. FY 2022: Net increase of \$44.000 million is due a to Congressional Add for speed loader agile pod (\$10.000 million) and a Congressional Add for self-protection pods (\$34.000 million). FY 2023: Funding increase of \$14.000 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.			

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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 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)				Project (Number/Name) S851 / MQ-9 Unmanned Aerial Vehicle (UAV)			
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
S851: MQ-9 Unmanned Aerial Vehicle (UAV)	151.255	20.489	63.065	14.000	-	14.000	29.688	34.851	29.427	39.340	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
As the supported combatant command in global operations, the United States Special Operations Command (USSOCOM) requires the capability to find, fix, finish, exploit, and analyze time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This project addresses the primary areas of Intelligence, Surveillance, Reconnaissance, and Target Acquisition and Strike. The majority of the developmental funds provides for the Operational Flight Program (OFP) Software for the aircraft, Ground Control Station (GCS), and turret. Special Operations Forces (SOF) peculiar modifications to the OFP allow for a rapid integration of emerging capabilities in order to maintain relevance and dominance of the MQ-9 in support of the National Defense Strategy (NDS).												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2021	FY 2022	FY 2023	
Title: MQ-9 Unmanned Aerial Vehicles (UAVs)									20.489	19.065	14.000	
Description: Identifies, develops, integrates, and tests SOF-peculiar mission kits, mission payloads, weapons, and modifications on MQ-9 UAVs, GCSs, and training systems.												
FY 2022 Plans: Develop, test, and integrate SOF-peculiar emerging technology mission kits, mission payloads, weapons and modifications on MQ-9 UAVs, GCSs, and training systems.												
FY 2023 Plans: Develops, tests, and integrates SOF-peculiar emerging technology mission kits, mission payloads, weapons and modifications on MQ-9 UAVs, GCSs, and training systems.												
FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$5.065 million supports a deliberate approach to reinvest in modernization and advance the transition of special operations capabilities to support integrated deterrence and implement the joint warfighting concept.												
Accomplishments/Planned Programs Subtotals									20.489	19.065	14.000	
							FY 2021	FY 2022				
Congressional Add: Speed Loader Agile Pod							-	10.000				

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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 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)				Project (Number/Name) S851 / MQ-9 Unmanned Aerial Vehicle (UAV)			
								FY 2021	FY 2022		
FY 2022 Plans: The Speed Loader Agile Pod (SLAP) will provide increased weapons carrying capability within the Common Launch Tube (CLT) family of systems. The SLAP will allow the MQ-9 to carry four weapons per pylon. Funds allow for the integration and testing of the SLAP capability on the SOF MQ-9 weapon system.											
Congressional Add: Self-Protection Pods FY 2022 Plans: Provide a self-protection capability on the MQ-9. This capability facilitates access and operation in denied or non-permissive airspace. Funds provide for the development and integration of a self-protect pod onto the SOF MQ-9 weapon system and delivery of prototype Engineer Design Model pods for further testing and development of techniques, tactics, and procedure.								-	34.000		
Congressional Adds Subtotals								-	44.000		
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/1108MQ9: MQ-9 Unmanned Aerial Vehicle	6.746	8.020	9.000	-	9.000	17.684	19.603	19.211	27.360	-	-
Remarks											
D. Acquisition Strategy MQ-9 UAV implements an agile acquisition approach for the MQ-9 aircraft, GCS and Electro-Optical/Infrared (EO/IR) turret sensor OFP software development. The MQ-9 UAV provides rapid prototyping activities and technology maturation events in order to increase first pass lethality. Contract types include a mix of cost type and fixed priced. Proprietary issues with the aircraft, GCS and sensor software as well as aircraft modification may require sole source contracting to the original equipment manufacturer. MQ-9 UAV leverages service common Contractor Logistics Support (CLS) contracts for aircraft and ancillary equipment sustainment.											

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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 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)	Project (Number/Name) S851 / MQ-9 Unmanned Aerial Vehicle (UAV)
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-9 Unmanned Aerial Vehicles (UAVs), Ground Control Stations (GCS), and Training Systems	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	94.159	16.992	Feb 2021	15.176	Feb 2022	12.000	Feb 2023	-		12.000	Continuing	Continuing	-
MQ-9 UAVs, GCS, and Training Systems	SS/ Various	Raytheon : McKinney, TX	12.693	1.496	Feb 2021	1.361	Feb 2022	1.000	Feb 2023	-		1.000	Continuing	Continuing	-
Speed Loader Agile Pod (Congressional Add)	SS/TBD	Air Force Research Lab (AFRL) : Huntsville, AL	-	-		4.250	Jul 2022	-		-		-	Continuing	Continuing	-
Self Protection Pods (Congressional Add)	SS/CPFF	General Atomics : Poway, CA	-	-		29.000	Jul 2022	-		-		-	Continuing	Continuing	-
Prior Years Completed Projects	Various	Various : Various	15.891	-		-		-		-		-	0.000	15.891	-
Subtotal			122.743	18.488		49.787		13.000		-		13.000	Continuing	Continuing	N/A

Remarks
Indefinite Delivery, Indefinite Quantity (IDIQ) contract awards every two years for MQ-9 UAVs, Ground Control Stations, and Training Systems

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-9 UAVs, GCS, and Training Systems	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	23.212	2.001	Feb 2021	2.528	Feb 2022	1.000	Feb 2023	-		1.000	Continuing	Continuing	-
Speed Loader Pod (Congressional Add)	SS/TBD	General Atomics : Poway, CA	-	-		5.750	Jul 2022	-		-		-	Continuing	Continuing	-
Self Protection Pods (Congressional Add)	SS/CPFF	General Atomics : Poway, CA	-	-		5.000	Jul 2022	-		-		-	Continuing	Continuing	-
Prior Years Completed Projects	Various	Various : Various	5.300	-		-		-		-		-	0.000	5.300	-
Subtotal			28.512	2.001		13.278		1.000		-		1.000	Continuing	Continuing	N/A

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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 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)					Project (Number/Name) S851 / MQ-9 Unmanned Aerial Vehicle (UAV)							
					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					151.255	20.489		63.065		14.000		-		14.000	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

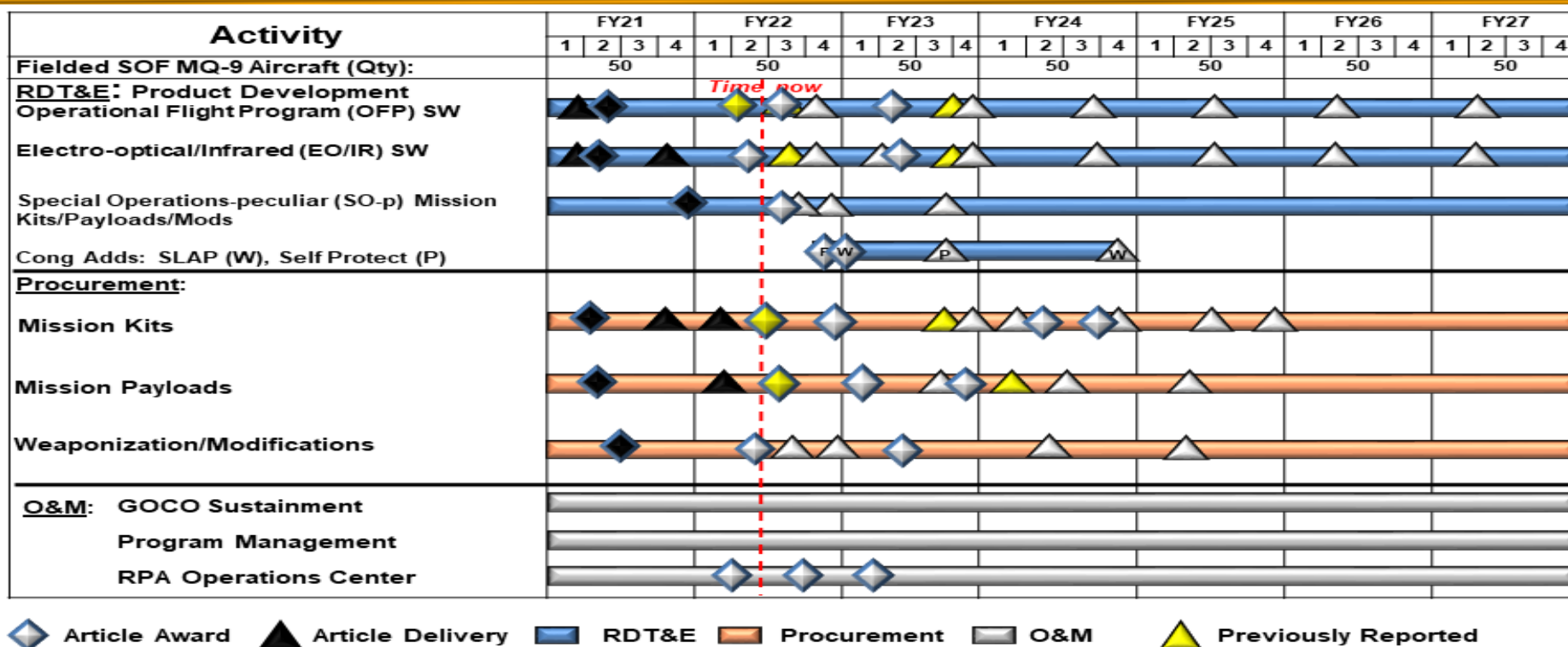
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)

Project (Number/Name)
S851 / MQ-9 Unmanned Aerial Vehicle (UAV)

MALET – MQ9 Schedule



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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 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)	Project (Number/Name) S851 / MQ-9 Unmanned Aerial Vehicle (UAV)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>MQ-9 Unmanned Aerial Vehicles (UAVs), Ground Control Stations (GCSs), and Training Systems Product Development</i>				
Operational Flight Program (OFP) Software (SW)	1	2021	4	2027
Electro-optical/Infrared (EO/IR) SW	1	2021	4	2027
Special Operations Forces-peculiar (SOF-p) Mission Kits/Payloads/Mods	1	2021	4	2027
Speed Loader Agile Pod and Self Protection Pods (Congressional Adds)	4	2022	4	2024

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>											
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	289.995	26.995	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
S050: <i>Small Business Innovation Research</i>	274.180	23.666	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
S051: <i>Small Business Technology Transfer</i>	15.815	3.329	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The goals of the Small Business Innovation Research (SBIR) program are to stimulate technological innovation, increase private sector commercialization of federal research and development (R&D), increase small business participation in federally funded R&D, and foster participation by minority and disadvantaged firms in technological innovation. Leveraging the innovation of small business concerns is an important contributor to the development of the cutting-edge technologies that will generate decisive and sustained U.S. military advantages by increasing the readiness, modernization, and lethality of the United States Special Operations Command (USSOCOM). This program supports high priority projects within the USSOCOM Components, their missions, and the Warfighter. The goals of the Small Business Technology Transfer (STTR) program is to stimulate a partnership of ideas between small business concerns (SBCs) and research institutions through the USSOCOM funded research or research and development (R/R&D). By providing awards to SBCs or cooperative R/R&D efforts with research institutions, USSOCOM supports innovation and economic growth to generate decisive and sustained U.S. military advantages. This program supports high priority projects within the USSOCOM Components, their missions, and the Warfighter.

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	26.995	0.000	0.000	-	0.000
Total Adjustments	26.995	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	26.995	-			

Change Summary Explanation

Funding:

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development	PE 1160279BB / Small Business Innovation Research/Small Bus Tech Transfer	
FY 2021: Net increase of \$26.995 million is due to reprogrammings from various program elements for the congressionally mandated SBIR (\$23.666 million) and STTR (\$3.329 million) programs.		
FY 2022: None.		
FY 2023: None.		
Schedule: None.		
Technical: None.		

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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 1160279BB / Small Business Innovation Research/Small Bus Tech Transfer				Project (Number/Name) S050 / Small Business Innovation Research			
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
S050: Small Business Innovation Research	274.180	23.666	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The goals of the Small Business Innovation Research (SBIR) program is to stimulate technological innovation, increase private sector commercialization of federal research and development (R&D), increase small business participation in federally funded R&D, and foster participation by minority and disadvantaged firms in technological innovation. Leveraging the innovation of small business concerns is an important contributor to the development of the cutting-edge technologies that will generate decisive and sustained U.S. military advantages by increasing the readiness, modernization, and lethality of the United States Special Operations Command (USSOCOM). This program supports high priority projects within the USSOCOM Components, their missions, and the Warfighter.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: Small Business Innovation Research (SBIR)	23.666	0.000	0.000
FY 2022 Plans: <ul style="list-style-type: none"> • Biotechnology Space (estimated funding, \$3.400 million): Human performance improvements; in field medical improvements; and combat divers' breathing improvements. • Control and Communications (estimated funding, \$3.092 million): Small tactical ultra-secure communication. • Artificial Intelligence & Machine Learning (estimated funding, \$8.600 million): Multi domain virtual innovation; social media monitor and measure development. • Advanced Small Arms Ammunition and Precision Strike (estimated funding, \$5.000 million): Sniper heads up display; and small Unmanned Aerial System (UAS) munition. 			
FY 2023 Plans: <ul style="list-style-type: none"> • Biotechnology Space (estimated funding, \$4.166 million): In field medical improvements; and combat divers' breathing improvements. • Control and Communications (estimated funding, \$4.204 million): Small tactical ultra-secure communication; low orbital satcom commercial mobile communications, command, and control for common operating picture. • Artificial Intelligence & Machine Learning (estimated funding, \$3.000 million): Monitor and measure development; data analytics; and modeling and simulation. • Advanced Small Arms Ammunition and Precision Strike (estimated funding, \$9.000 million): Improvements to SOF specific precision strike munitions; Sniper heads up display; and small UAS munition. 			

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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 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>	Project (Number/Name) S050 / <i>Small Business Innovation Research</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022
• Directed energy (estimated funding, \$3.000 million): Hi energy density battery.			
Accomplishments/Planned Programs Subtotals		23.666	0.000
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy SBIR is a three-phase program that provides early-stage R&D to small companies. Eligible projects must fulfill an R&D need identified by Department of Defense and have the potential to be developed into a product or service for commercial or defense markets. SBIR is designed to stimulate technological innovation, increase private sector commercialization of federal R&D, increase small business participation in federally funded R&D, and foster participation by minority and disadvantaged firms in technological innovation.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command												Date: April 2022			
Appropriation/Budget Activity						R-1 Program Element (Number/Name)				Project (Number/Name)					
0400 / 7						PE 1160279BB / Small Business Innovation Research/Small Bus Tech Transfer				S050 / Small Business Innovation Research					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Small Business Innovation Research (SBIR) Phase I < \$150K	C/Various	Various : Various	43.681	3.891	Dec 2020	-		-		-		-	Continuing	Continuing	-
SBIR Phase II >\$750K	C/Various	Various : Various	31.988	19.775	Oct 2020	-		-		-		-	Continuing	Continuing	-
Prior Year Funding	C/Various	Various : Various	198.511	-		-		-		-		-	Continuing	Continuing	-
Subtotal			274.180	23.666		-		-		-		-	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			274.180	23.666		-		-		-		-	Continuing	Continuing	N/A
Remarks															
Due to multiple awards, the dates listed above reflect the first Phase I and II efforts awarded.															

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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 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>	Project (Number/Name) S050 / <i>Small Business Innovation Research</i>	

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Small Business Innovative Research (SBIR)</i>																												
Phase I Efforts																												
Phase II Efforts																												

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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 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>	Project (Number/Name) S050 / <i>Small Business Innovation Research</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Small Business Innovative Research (SBIR)</i>				
Phase I Efforts	1	2021	4	2021
Phase II Efforts	1	2021	4	2021

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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 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>				Project (Number/Name) S051 / <i>Small Business Technology Transfer</i>			
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
S051: <i>Small Business Technology Transfer</i>	15.815	3.329	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification
 The goals of the Small Business Technology Transfer (STTR) program is to stimulate a partnership of ideas between small business concerns (SBCs) and research institutions through the United States Special Operations Command (USSOCOM) funded research or research and development (R/R&D). By providing awards to SBCs or cooperative R/R&D efforts with research institutions, USSOCOM supports innovation and economic growth to generate decisive and sustained U.S. military advantages. This program supports high priority projects within the USSOCOM Components, their missions, and the Warfighter.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Title: Small Business Technology Transfer (STTR)	3.329	0.000	0.000
FY 2022 Plans: • Advanced Small Arms Ammunition and Precision Strike (estimated funding, \$2.825 million): Improvements to SOF specific precision strike munitions.			
FY 2023 Plans: • A series of feasibility and initial research into the following focus areas (estimated funding, \$3.287 million): Next Gen Effects; Network & Data management; Biotechnologies & Human Interface; Next Generation Mobility; Next Generation Intelligence, Surveillance, and Reconnaissance (ISR) & Situational Awareness (SA); and Hyper Enabled Operator (HEO).			
Accomplishments/Planned Programs Subtotals	3.329	0.000	0.000

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

Remarks

D. Acquisition Strategy
 The STTR provides early-stage R&D funding directly to small companies working cooperatively with researchers at universities and other research institutions. The STTR is also a three-phased program designed to stimulate technological innovation, increase private sector commercialization of federal R&D, increase small business participation in federally funded R&D, and foster participation by minority and disadvantaged firms in technological innovation.

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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 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>	Project (Number/Name) S051 / <i>Small Business Technology Transfer</i>
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Small Business Technology Transfer (STTR) Phase I <\$150K	C/FFP	Various Vendors : Various Locations	6.600	-		-		-		-		-	0.000	6.600	-
STTR Phase II >\$750K	C/Various	Various Vendors : Various Locations	4.092	3.329	Nov 2020	-		-		-		-	Continuing	Continuing	-
Prior Year Funding	C/Various	Various : Various	5.123	-		-		-		-		-	0.000	5.123	-
Subtotal			15.815	3.329		-		-		-		-	Continuing	Continuing	N/A

Remarks
Due to multiple awards, the dates listed above reflect the last Phase I and II awarded.

	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	15.815	3.329	-	-	-	-	Continuing	Continuing	N/A

Remarks
Due to multiple awards, the dates listed above reflect the first Phase I and II efforts awarded.

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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 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>					Project (Number/Name) S051 / <i>Small Business Technology Transfer</i>			

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Small Business Technology Transfer (STTR)</i>																												
STTR Phase I Efforts																												
STTR Phase II Efforts																												

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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 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>	Project (Number/Name) S051 / <i>Small Business Technology Transfer</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Small Business Technology Transfer (STTR)</i>				
STTR Phase I Efforts	1	2021	4	2021
STTR Phase II Efforts	2	2021	4	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1160403BB / <i>Aviation Systems</i>
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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	1,958.417	239.991	173.537	179.499	-	179.499	230.228	231.072	155.516	171.647	Continuing	Continuing
SF100: <i>Aviation Systems Advanced Development</i>	1,449.437	101.503	38.594	46.162	-	46.162	78.295	81.473	44.563	62.608	Continuing	Continuing
SF200: CV-22	64.061	13.011	6.932	11.695	-	11.695	-	9.727	19.064	19.445	Continuing	Continuing
SF300: <i>Armed Overwatch/ Targeting</i>	0.000	24.088	22.952	1.200	-	1.200	0.800	-	-	-	0.000	49.040
S750: <i>Mission Training and Preparation Systems</i>	51.441	9.272	10.227	13.848	-	13.848	17.430	16.804	13.530	13.800	Continuing	Continuing
S875: <i>AC/MC-130J</i>	95.574	51.783	52.045	40.757	-	40.757	65.496	63.116	17.184	17.528	Continuing	Continuing
D615: <i>Rotary Wing Aviation</i>	297.904	40.334	42.787	65.837	-	65.837	68.207	59.952	61.175	58.266	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 (SOF)-unique aviation and training requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in areas such as: SOF common avionics; SOF Common Terrain Following/Terrain Avoidance (TF/TA) radar, best known as Silent Knight Radar (SKR) or AN/APQ-187; Defensive Countermeasures; Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM); Precision Strike Package (PSP); PSP High Energy Laser (HEL); AC-130H/W/U and MC-130E/ H/P Recapitalization; Armed Overwatch and other SOF airborne platforms; digital terrain elevation data and electronic order of battle; digital maps; mission networking; near real-time Intelligence, Surveillance and Reconnaissance (ISR); data fusion; threat detection and avoidance; navigation, target detection, and identification technologies; weapons integration; digital broadcast capabilities; aerial refueling; survivability; mission systems automation and ISR payload technological improvements with size, weight, power and integration onto all SOF Unmanned Aerial System (UAS) ISR platforms.

SF200 CV-22 Development/Test and Evaluation:

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, infiltration (infil), exfiltration (exfil), and resupply to SOF teams in hostile, denied, and politically sensitive areas. This is a capability not currently provided by other existing aircraft. The funding in 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); ISR, weapons, avionics; SOF communications; defensive/survivability systems; interoperability; speed and maneuverability; mission deployment and improved reliability and maintainability of the CV platform. The CV-22 SOF Common TF/TA APQ-187 SKR enables the CV-22 crew to penetrate medium-to-high threat areas at night and in adverse weather conditions while conducting long-range, clandestine infil, exfil and SOF resupply missions. Presents a more

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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 1160403BB / Aviation Systems	
<p>sustainable/capable replacement to the obsolete and technology-limited TF/TA APQ-186 Multi-Mode Radar (MMR). CV-22 Reliability Improvements designs, integrates, tests and validates system, and sub-system, reliability improvement enhancements to meet required aircraft availability and operational requirements. This incremental development will accelerate the fielding and retrofit of system design improvements directly increasing CV-22 fleet readiness and aircraft availability.</p>		
<p>SF300 Armed Overwatch:</p> <p>Armed Overwatch provides SOF with crewed deployable, affordable, and sustainable aircraft systems capable of executing Close Air Support (CAS), Precision Strike, and Manned Armed ISR requirements in austere and permissive environments for use in Irregular Warfare operations aligned with the National Defense Strategy (NDS) priorities. The funding in this project supports integration and testing of SOF-unique capabilities and Aircraft Certification efforts. Armed Overwatch is designated a Middle Tier of Acquisition (MTA) program which uses a Rapid Prototype user assessment for a SOF-peculiar, fixed wing aircraft with specific sensors to detect ground assists. The USSOCOM anticipates rapid fielding of the aircraft with sensors, and transitioning to the Major Capability Acquisition pathway at Milestone C.</p> <p>The total cost of the Armed Overwatch Middle Tier of Acquisition effort is \$2.000 million (FY 2023 - FY 2027), including RDT&E and procurement of prototype units. The Armed Overwatch effort is fully funded across the Future Years Defense Program.</p>		
<p>S750 Mission Training and Preparation Systems (MTPS):</p> <p>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-unique 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 Simulator Block Upgrade (SBUD) training transformation initiatives to develop and integrate innovative training solutions as well as advanced instructor and student feedback capabilities for the Air Force Special Operations Command (AFSOC) fixed wing simulator and training device portfolio.</p>		
<p>S875 AC/MC-130J:</p> <p>The AC/MC-130J project funds core SOF-unique modifications to replace aging/retired AC-130H Spectre, AC-130W Stinger II, AC-130U Spooky, MC-130E Combat Talon I, MC-130P Combat Shadow, MC-130H Combat Talon II aircraft. The 8 AC-130H Spectre, 12 AC-130W Stinger II and 17 AC-130U Spooky airframes will be replaced with MC-130J aircraft modified with the PSP to achieve the AC-130J configuration. The AC-130J aircraft will provide close air support, air interdiction, and armed reconnaissance capability. The 14 MC-130E Combat Talon I, 23 MC-130P Combat Shadow, and 24 MC-130H Combat Talon II airframes will be replaced by MC-130J Commando II aircraft with SOF mission modifications. The MC-130J Commando II aircraft provide clandestine single or multi-ship low-level aerial refueling for special operations helicopters and CV-22 aircraft; and conducts airdrops of leaflets, small special operations teams, resupply bundles, and combat rubber raiding craft. The Air Force procures and fields the basic aircraft, common support equipment, and trainers for the United States Special Operations Command (USSOCOM). Incremental upgrade and agile software delivery approaches will be used to rapidly prototype, integrate and mature SOF capabilities onto the aircraft. SOF capabilities include, but are not limited to: Airborne Mission Networking (AbMN); data fusion; threat detection and avoidance; integrated terrain following/terrain avoidance; electronic warfare; and embedded training. Integrating and automating SOF mission systems that deliver these capabilities is critical to fielding SOF-capable AC/MC-130J aircraft to recapitalize AFSOC legacy C-130 fleet.</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1160403BB / <i>Aviation Systems</i>
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D615 Rotary Wing Aviation:

This project provides for the development, rapid prototyping, demonstration, and integration of current and maturing technologies for SOF-peculiar rotary wing aviation and training requirements. 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. Efforts include aircraft sensor data fusion via a common mission processor to create a one world model that serves as a central node for multi-application capability with potential growth in the areas of situational awareness, safety, lethality, and survivability and cross platform synergy. 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. They must be capable of rapid deployment, undetected penetration of hostile areas, and operations at extended ranges under adverse weather conditions to infiltrate, provide logistics for, reinforce, and extract SOF in the multi-domain operations (MDO) environments and build enduring advantage.

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.

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	250.623	173.537	0.000	-	0.000
Current President's Budget	239.991	173.537	179.499	-	179.499
Total Adjustments	-10.632	0.000	179.499	-	179.499
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-9.148	-			
• Adjustments to Budget Year	-	-	179.499	-	179.499
• Total Other Adjustments	-1.484	-	-	-	-

Change Summary Explanation

Funding:

FY 2021: Net decrease of -\$10.632 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/ Small Business Technology Transfer (STTR) programs (-\$9.148 million) and a decrease to support emerging critical command requirements (-\$1.484 million).

FY 2022: None

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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 1160403BB / Aviation Systems	
<p>FY 2023: Funding increase of \$179.499 million reflects the fact that the FY 2022 President’s Budget request did not include out-year funding.</p> <p>FY 2023 funding request was reduced by \$22.474 million to account for the availability of prior year execution balances.</p>		

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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 1160403BB / Aviation Systems				Project (Number/Name) SF100 / Aviation Systems Advanced 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
SF100: Aviation Systems Advanced Development	1,449.437	101.503	38.594	46.162	-	46.162	78.295	81.473	44.563	62.608	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)-unique aviation and training requirements. Timely application of SOF common technology is critical and necessary to meet requirements in such areas as: SOF common avionics; SOF Common Terrain Following/Terrain Avoidance (TF/TA) radar, best known as Silent Knight Radar (SKR) or AN/APQ-187; Defensive Countermeasures (DCM); Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM); Precision Strike Package (PSP); PSP High Energy Laser (HEL); AC-130H/W/U and MC-130E/H/P Recapitalization, and other SOF airborne platforms; digital terrain elevation data and electronic order of battle; digital maps; Airborne Mission Networking (AbMN); near real-time Intelligence, Surveillance and Reconnaissance (ISR); data fusion; threat detection and avoidance; navigation, target detection, and identification technologies; weapons integration; digital broadcast capabilities; aerial refueling; survivability; mission systems automation and ISR payload technological improvements with size, weight, power and integration onto all SOF Unmanned Aerial System (UAS) ISR platforms.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: EW-RFCM	46.557	21.605	10.075
Description: The EW-RFCM program supports development, integration, and test activities to provide EW capability against radio frequency threats for SOF-unique AC/MC-130J aircraft. The RFCM system is part of the DCM suite that provides situational awareness and threat response processing required for SOF missions.			
FY 2022 Plans: Continue aircraft integration and interoperability activities, system qualification, deficiency resolution and system developmental test. Begin system operational test on the AC-130J and MC-130J aircraft. Also, begin spiral one upgrade activities design to increase RFCM capabilities to meet emerging threats.			
FY 2023 Plans: Completes aircraft integration and interoperability activities, system qualification, deficiency resolution, system developmental test and system operational test on the AC-130J and MC-130J aircraft. Continues spiral one activities design to increase RFCM capabilities to meet emerging threats.			
FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$11.530 million is due to completion of integration and operational test on AC-130J and MC-130J aircraft.			
Title: PSP for SOF	4.460	-	-

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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 1160403BB / Aviation Systems		Project (Number/Name) SF100 / Aviation Systems Advanced Development	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
Description: PSP for SOF supports systems engineering, analysis, development, and enhancement of the baseline PSP and integration, installation, and test on host MC-130J aircraft provided by the U.S. Air Force for the AC-130H, AC-130W and AC-130U recapitalization, as well as current SOF AC-130Js, AC-130Ws, and other SOF platforms. Missions for the AC-130 aircraft include, but are not limited to: Close Air Support; Air Interdiction; and Armed Reconnaissance. PSP is modular, scalable, and platform agnostic.					
Title: PSP HEL Description: The HEL effort leverages a rapid prototyping approach to demonstrate integration of a laser weapon system onto an AC-130J aircraft. 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 2022 Plans: Complete delivery of HEL subsystems. Continue Government integration and ground testing. Perform aircraft fit check and flight test planning activities. FY 2023 Plans: Initiates HEL flight testing. Continues Government integration and ground testing. Performs aircraft fit check and flight test activities. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$3.962 million is due to initiation of HEL flight testing on an AC-130J.			23.313	12.008	15.970
Title: C-130 SOF Common TF/TA SKR 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.			16.301	-	-
Title: MH-47/MH-60 SOF Common TF/TA SKR Description: The MH-47/MH-60 SOF Common TF/TA SKR supports continuing capability enhancements, testing, and qualification of the TF/TA Low Probability of Intercept and Low Probability of Detection (LPI/LPD) radar to defeat advanced passive detection threats while maintaining safe TF capabilities. FY 2022 Plans:			5.435	2.095	2.139

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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 1160403BB / <i>Aviation Systems</i>		Project (Number/Name) SF100 / <i>Aviation Systems Advanced Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
Continue software spiral efforts to reduce TF/TA SKR signature, support data fusion initiatives, and increase reliability. FY 2023 Plans: Continues software spiral efforts to reduce TF/TA SKR signature, support data fusions initiatives, and increase reliability. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.044 million is due to increased SKR test engineering support costs.					
Title: ISR Payload Description: The ISR Payload Sensor Technology supports development, integration, and testing of sensor miniaturization efforts to adapt large uncrewed system ISR capabilities on all SOF unmanned ISR platforms.			1.838	-	-
Title: Next Generation Aviation Engineering Analysis (AEA) Description: Funding supports engineering analysis activities to address aviation survivability efforts such as signature management, situational awareness, versatile mission equipment (payloads, communications and weapons), next-generation mobility, and next-generation ISR to achieve SOF mission objectives. FY 2022 Plans: Continue to perform engineering analysis and perform demonstrations to improve aviation mission survivability, mission automation, sensor fusion, targeting enhancement, cyber hardening, navigation in denied environments, and datalink enhancements to support Fixed Wing next gen ISR, next gen Mobility and next gen Strike platforms. Activities include, but are not limited to, signature management (Acoustic, infrared, radio frequency), situational awareness 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 Plans: Continues to perform engineering analysis and to perform demonstrations to improve aviation mission survivability, mission automation, sensor fusion, targeting enhancement, cyber hardening, navigation in denied environments, and datalink enhancements to support Fixed Wing next-gen ISR, next-gen Mobility and next-gen Strike platforms. Activities include, but are not limited to, signature management (acoustic, infrared, radio frequency), situational awareness 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			3.599	2.886	17.978

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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 1160403BB / <i>Aviation Systems</i>	Project (Number/Name) SF100 / <i>Aviation Systems Advanced Development</i>	

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
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 of amphibious capability and High Speed Vertical Take Off & Landing (HSVTOL) platform.			
<i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> Increase of \$15.092 million is due to amphibious mobility and HSVTOL engineering analysis activities.			
Accomplishments/Planned Programs Subtotals	101.503	38.594	46.162

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/5000C13000: <i>C-130 Modifications</i>	16.121	13.373	11.945	-	11.945	18.796	18.285	22.925	23.384	Continuing	Continuing
• PROC/2012C130J: AC/MC-130J	150.883	205.216	225.569	-	225.569	319.754	310.229	341.280	388.428	Continuing	Continuing
• PROC/1202PSP: <i>Precision Strike Package</i>	233.111	165.224	57.450	-	57.450	108.497	111.346	107.500	65.473	Continuing	Continuing
• PROC0201RWUPGR: <i>Rotary Wing Upgrades and Sustainment</i>	220.676	207.278	214.575	-	214.575	254.073	247.746	222.701	229.260	Continuing	Continuing

Remarks

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.
- PSP for SOF: Incremental acquisition strategy to integrate and test the PSP and capability enhancements on donor MC-130J aircraft provided by the U.S. Air Force and other SOF aircraft. Multiple contract awards.
- PSP HEL: AC-130J HEL program 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.

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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 1160403BB / <i>Aviation Systems</i>	Project (Number/Name) SF100 / <i>Aviation Systems Advanced Development</i>
<ul style="list-style-type: none">• 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.• Next Generation AEA: Utilize Joint DOD programs to advance the technology levels for both the current Fixed Wing (FW) 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 and HSVTOL capabilities in conjunction with the Air Force Research Laboratory (AFRL), AFWERX, and other agencies.		

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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 1160403BB / Aviation Systems				Project (Number/Name) SF100 / Aviation Systems Advanced Development					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM) Follow-on Development Contract	C/FPAF	Sierra Nevada Corp. : Centennial, CO	30.195	40.711	Mar 2021	5.361	Nov 2021	-		-		-	0.000	76.267	-
EW RFCM Spiral One	C/TBD	Various : Various	-	-		6.950	Mar 2022	6.500	Mar 2023	-		6.500	Continuing	Continuing	-
Precision Strike Package (PSP) for SOF - Defensive Systems	C/Various	Various : Various	27.901	3.000	Mar 2021	-		-		-		-	0.000	30.901	-
PSP for SOF- Alternate Position, Navigation, and Timing	C/Various	Various : Various	8.308	0.500	Feb 2021	-		-		-		-	0.000	8.808	-
PSP for SOF - Deficiency Resolution	C/Various	Various : Various	6.789	0.711	Apr 2021	-		-		-		-	0.000	7.500	-
PSP for SOF- Other Government Costs	C/Various	Various : Various	1.020	0.249	Feb 2021	-		-		-		-	0.000	1.269	-
PSP High Energy Laser (HEL) - High Power Laser	C/CPFF	Lockheed Martin Aculite : Bothell, WA	21.468	1.810	Mar 2021	-		-		-		-	0.000	23.278	-
PSP HEL - Subsystem Assembly	C/CPFF	Naval Surface Warfare Center : Dahlgren, VA	17.034	11.473	Apr 2021	-		-		-		-	0.000	28.507	-
PSP HEL - Battery Development	C/CPFF	General Technical Services : Wall, NJ	3.544	1.048	Mar 2021	-		-		-		-	0.000	4.592	-
PSP HEL - Integration and Ground Testing	C/CPFF	Naval Surface Warfare Center : Dahlgren, VA	4.659	7.564	Apr 2021	10.608	Dec 2021	-		-		-	0.000	22.831	-
PSP HEL - Flight Testing/ Demonstration	C/CPFF	Various : Various	-	1.418	Apr 2021	1.400	Mar 2022	15.970	Nov 2022	-		15.970	0.000	18.788	-
C-130 SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR)	C/CPIF	Lockheed Martin Aero : Marietta, GA	207.288	11.834	Jan 2021	-		-		-		-	0.000	219.122	-

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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 1160403BB / Aviation Systems				Project (Number/Name) SF100 / Aviation Systems Advanced Development					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MH-47/MH-60 SOF Common TF/TA SKR	SS/FP	Raytheon : McKinney, TX	15.163	4.726	Apr 2021	1.467	Apr 2022	1.421	Apr 2023	-		1.421	Continuing	Continuing	1.201
Intelligence, Surveillance, and Reconnaissance (ISR) Payload Development, Test and Integration	Various	Various : Various	7.438	1.838	Jul 2021	-		-		-		-	0.000	9.276	-
Next Generation Aviation Engineering Analysis (AEA)	C/CPFF	Various : Various	24.389	3.599	Jan 2021	2.886	Jan 2020	17.978	Nov 2022	-		17.978	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	689.866	-		-		-		-		-	0.000	689.866	-
Prior Year Funding - Classified Project Congressional Add	C/Various	Under Separate Cover : Under Separate Cover	8.000	-		-		-		-		-	0.000	8.000	-
Subtotal			1,073.062	90.481		28.672		41.869		-		41.869	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
EW-RFCM	C/Various	Various : Various	29.853	3.805	Jan 2021	1.171	Jan 2022	1.030	Jan 2023	-		1.030	Continuing	Continuing	-
C-130 SOF Common TF/TA SKR	C/CPIF	Various : Various	19.976	1.932	Dec 2020	-		-		-		-	0.000	21.908	-
Prior Year Funding - Completed Efforts	Various	Various : Various	47.547	-		-		-		-		-	0.000	47.547	-
Subtotal			97.376	5.737		1.171		1.030		-		1.030	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
EW-RFCM	C/Various	Various : Various	11.461	2.041	Dec 2020	8.123	Jan 2022	2.545	Jan 2023	-		2.545	Continuing	Continuing	-

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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 1160403BB / Aviation Systems				Project (Number/Name) SF100 / Aviation Systems Advanced Development					
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
C-130 SOF Common TF/ TA SKR	C/CPIF	Various : Various	43.770	2.535	Dec 2020	-		-		-		-	0.000	46.305	-
MH-47/MH-60 SOF Common TF/TA SKR	SS/FP	Various : Various	127.306	0.709	Jan 2021	0.628	Jan 2022	0.718	Nov 2022	-		0.718	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	39.130	-		-		-		-		-	0.000	39.130	-
Subtotal			221.667	5.285		8.751		3.263		-		3.263	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Funding - Completed Efforts	Various	Various : Various	57.332	-		-		-		-		-	0.000	57.332	-
Subtotal			57.332	-		-		-		-		-	0.000	57.332	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			1,449.437	101.503		38.594		46.162		-		46.162	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

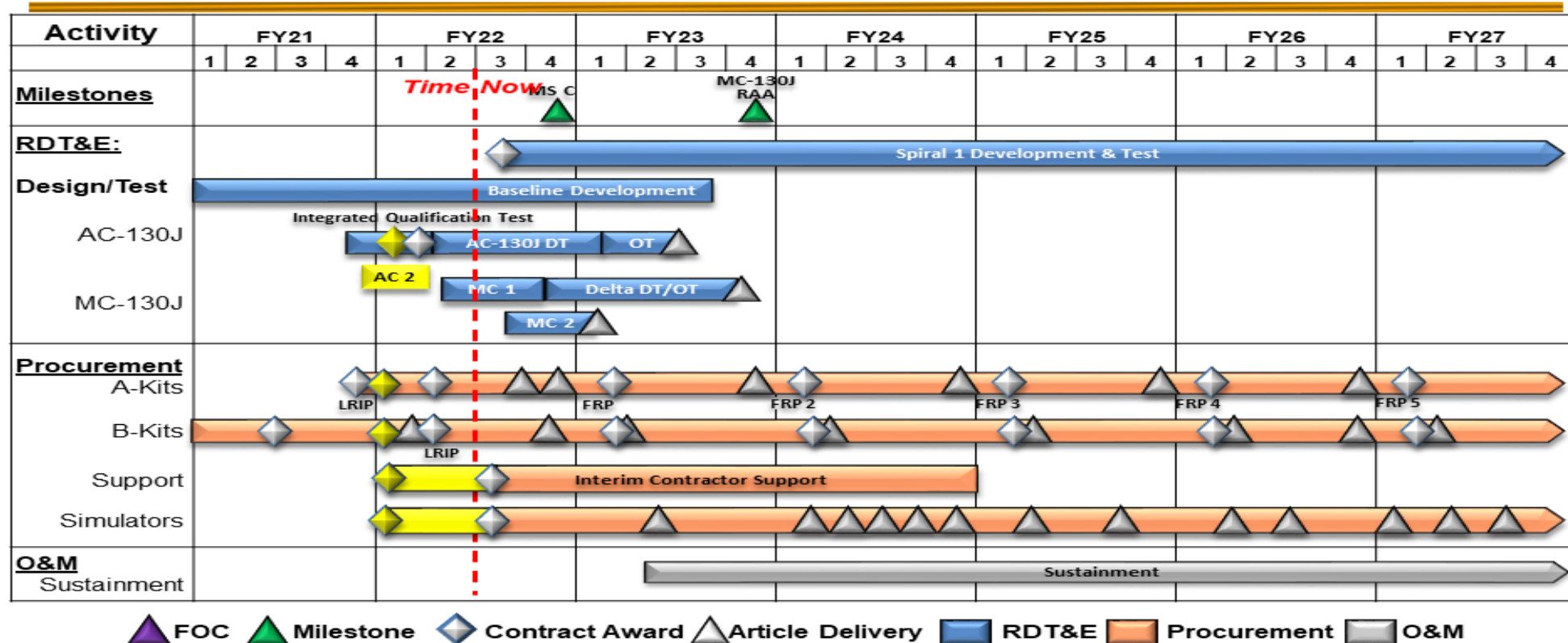
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
SF100 / Aviation Systems Advanced
Development

AC/MC-130J Radio Frequency Countermeasures Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

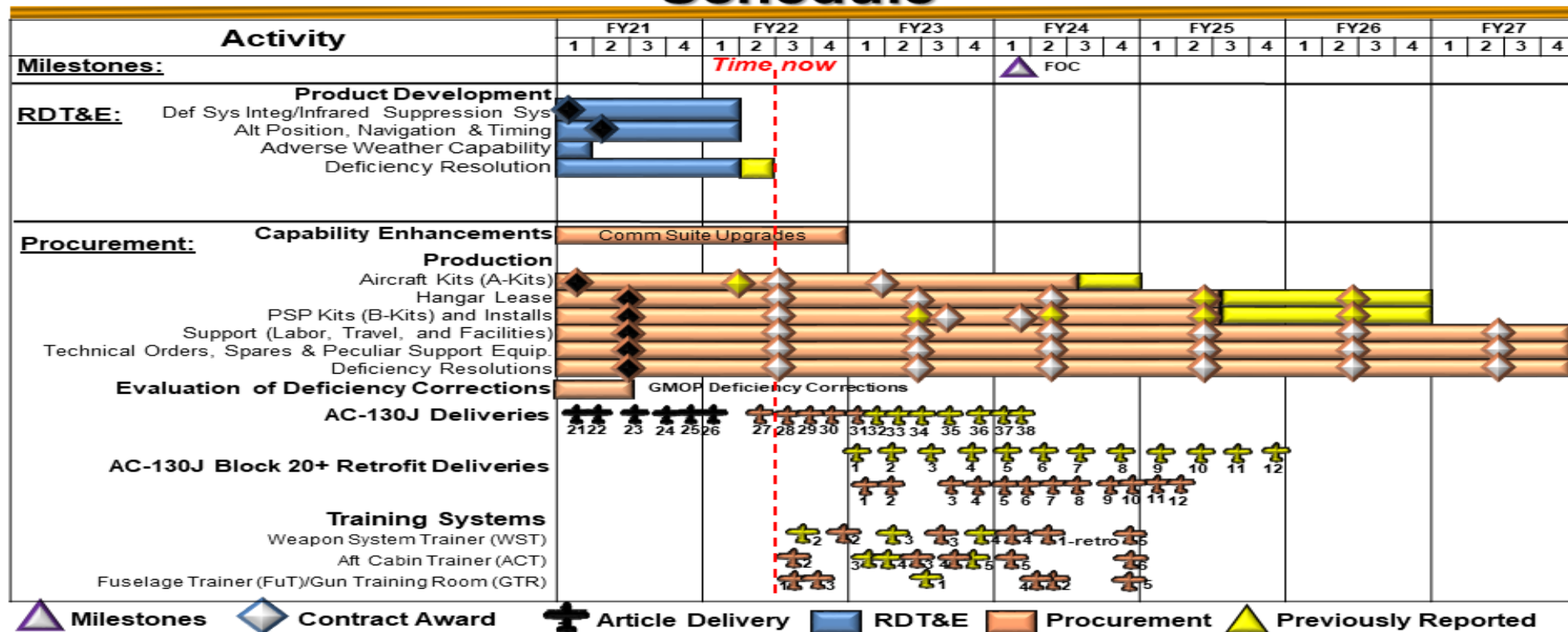
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
SF100 / Aviation Systems Advanced
Development

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



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

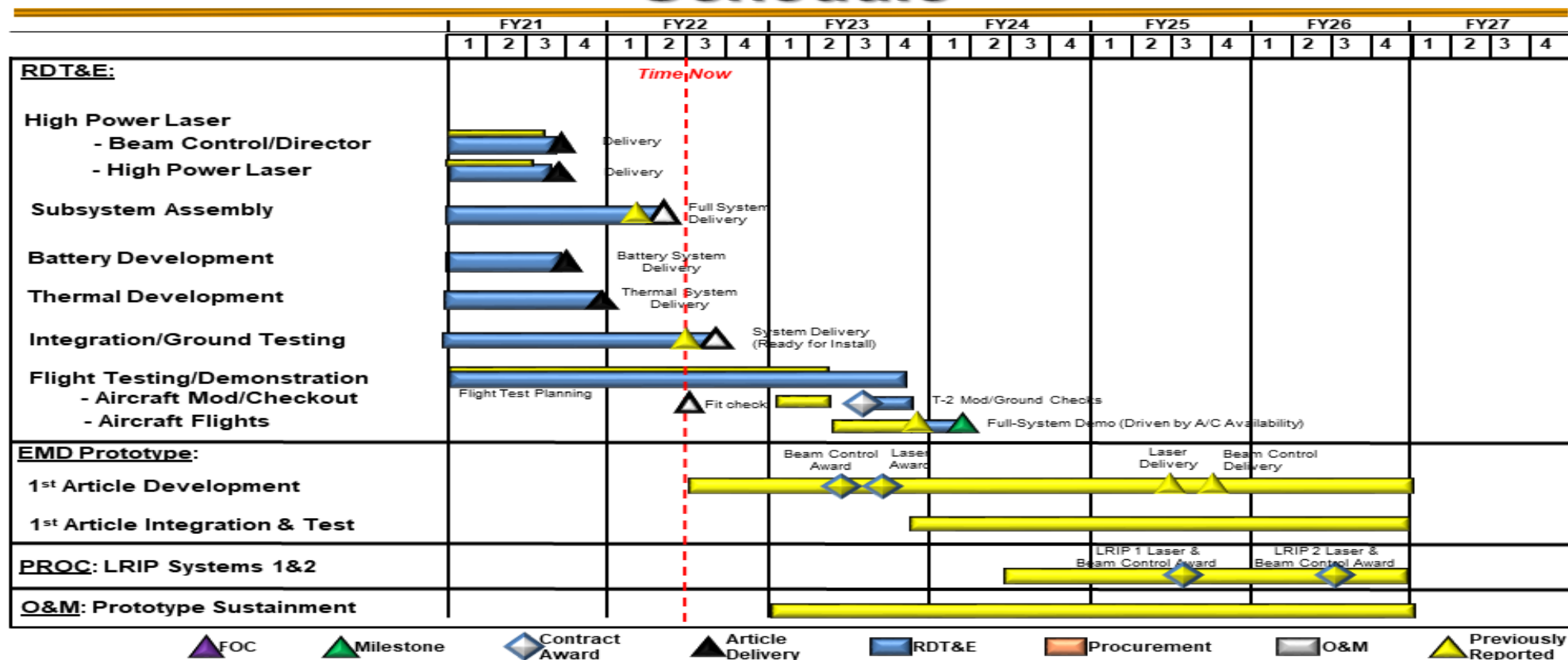
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Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
SF100 / Aviation Systems Advanced
Development

AC-130J High Energy Laser (HEL) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

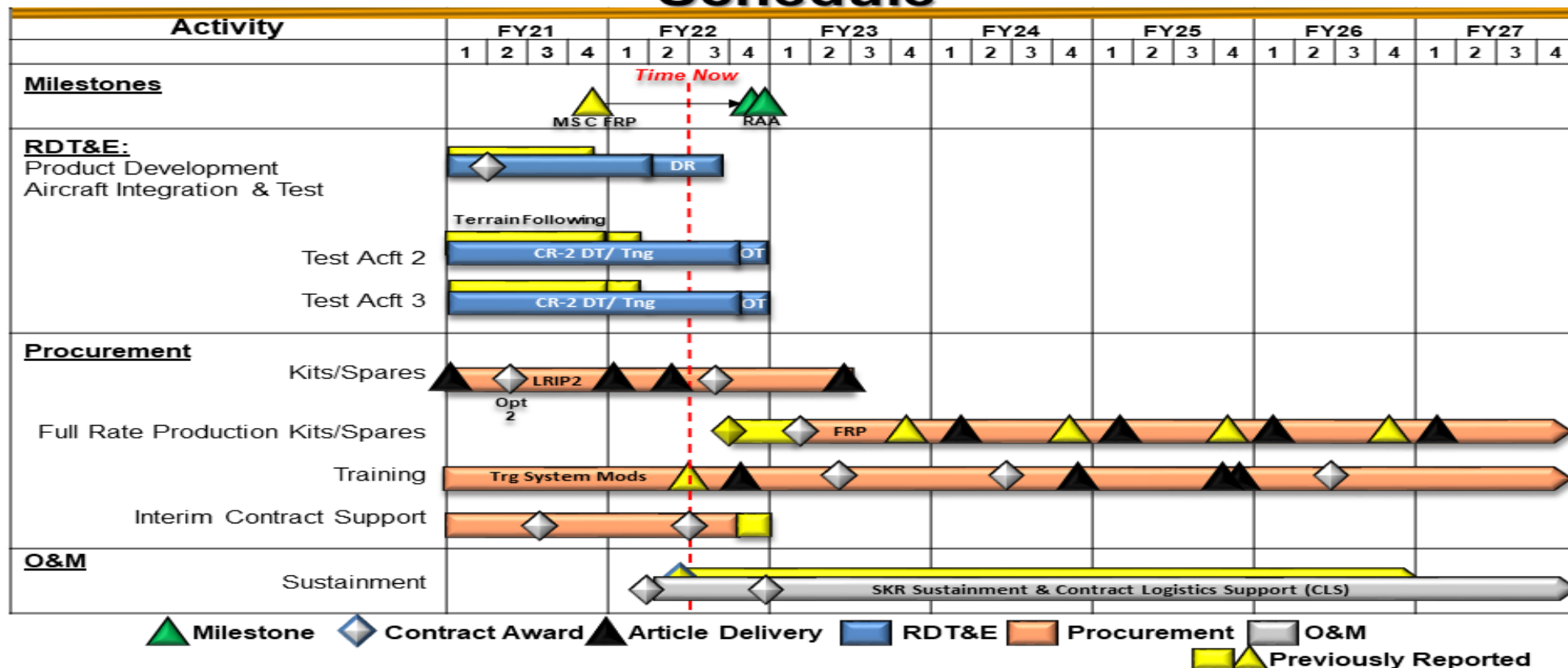
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Appropriation/Budget Activity
0400 / 7

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 (TF/TA) Silent Knight Radar (SKR) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

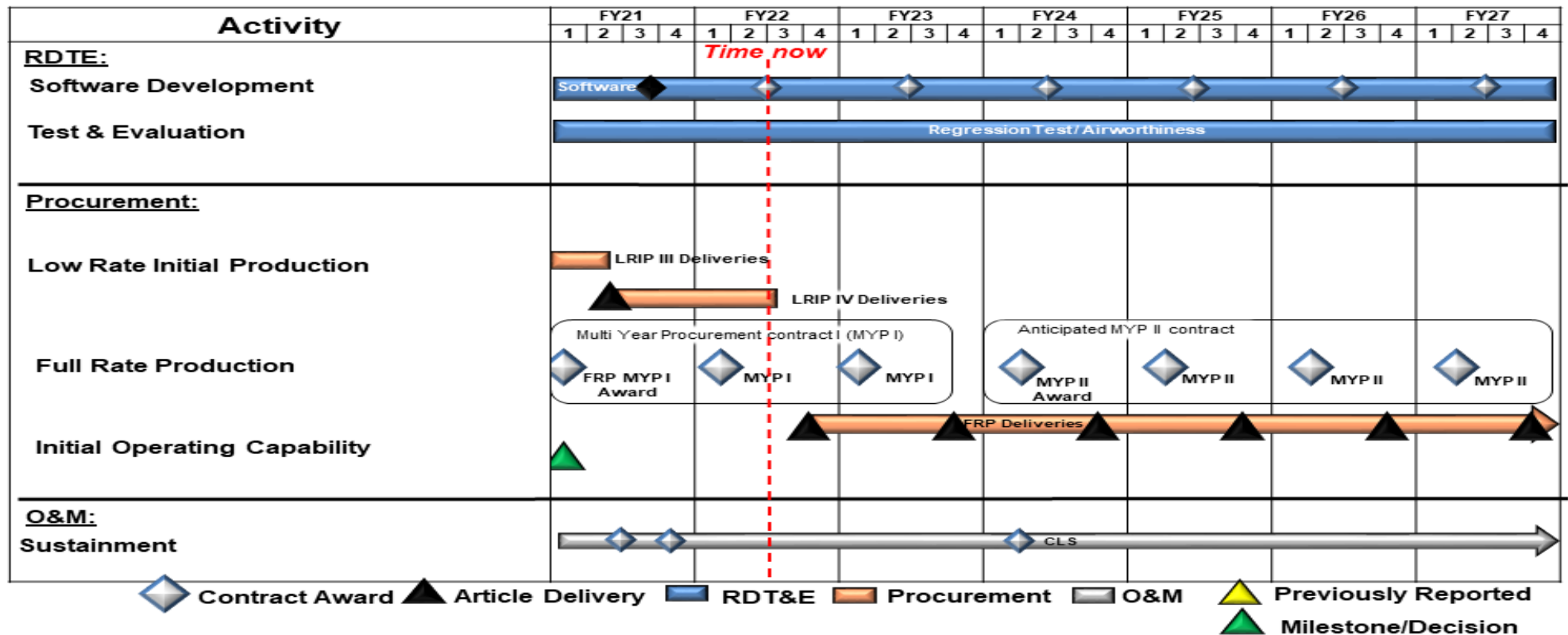
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
SF100 / Aviation Systems Advanced
Development

MH-47/MH-60 SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

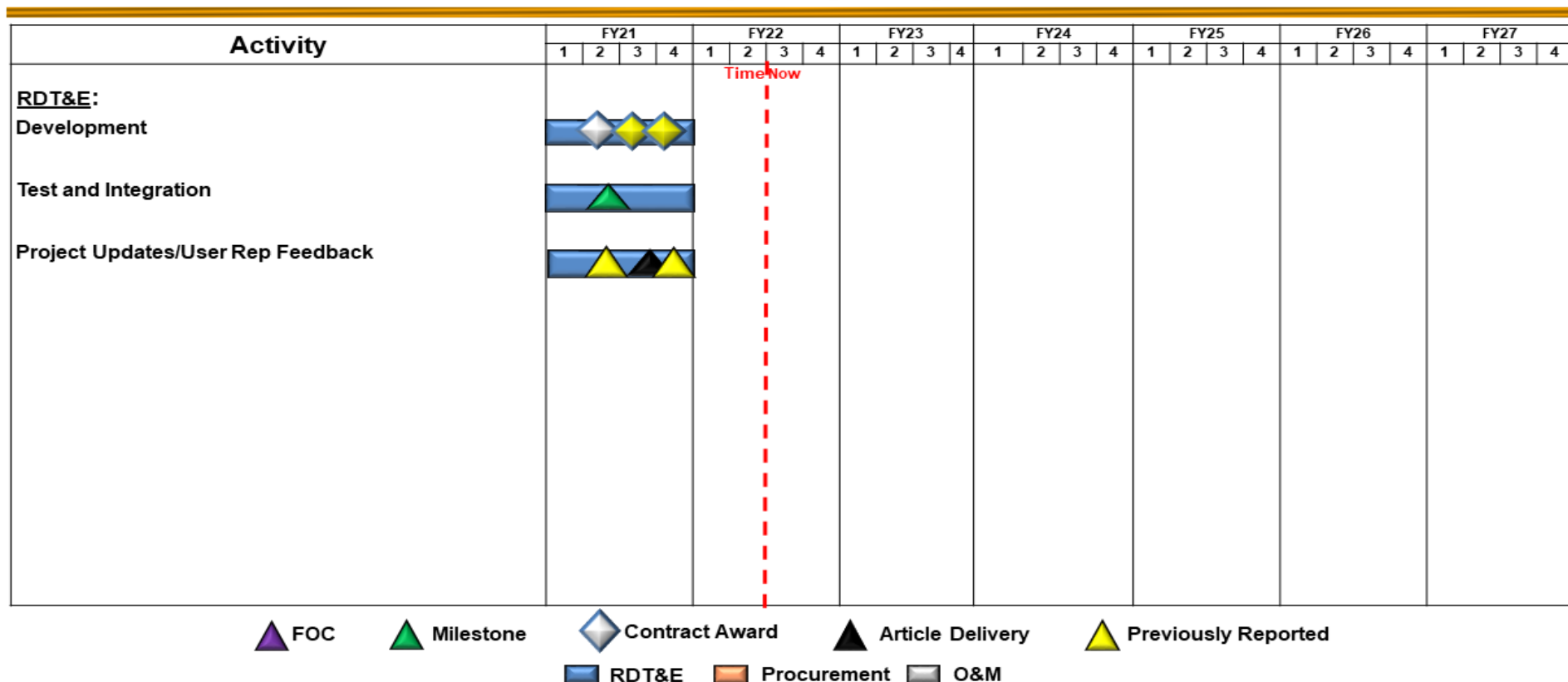
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Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
SF100 / Aviation Systems Advanced
Development

Intelligence, Surveillance, and Reconnaissance (ISR) Payload Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

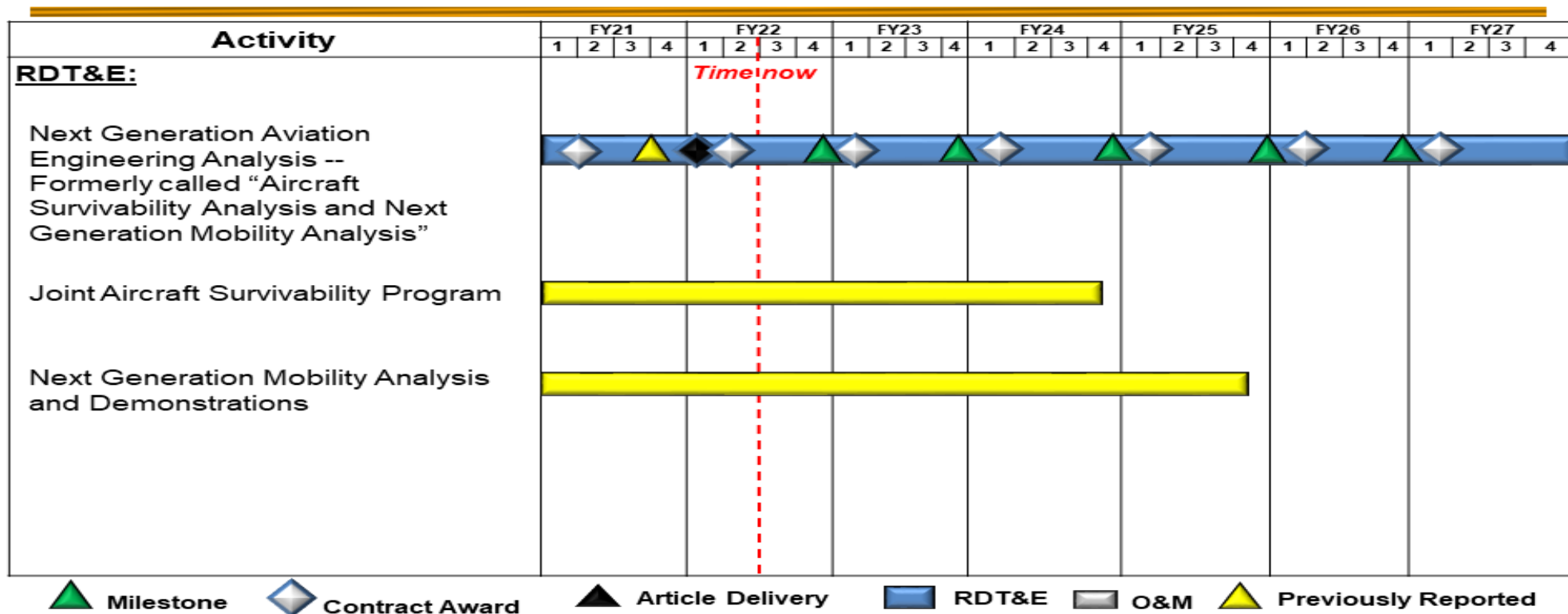
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
SF100 / Aviation Systems Advanced
Development

Aviation Engineering Analysis (AEA) Schedule



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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 1160403BB / Aviation Systems	Project (Number/Name) SF100 / Aviation Systems Advanced Development	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Electronic Warfare - Radio Frequency Countermeasures (EW-RFCM)</i>				
Spiral 1 Development	3	2022	4	2027
Product Development, Integration and Test	1	2021	3	2023
Developmental Test and Operational Test (DT/OT) AC-130J	4	2021	3	2023
DT/OT #1 MC-130J	2	2022	4	2023
<i>Precision Strike Package (PSP) for SOF</i>				
Defensive Systems Product Development	1	2021	2	2022
Alternate Position, Navigation and Timing Product Development	1	2021	2	2022
Adverse Weather Product Development	1	2021	1	2021
Deficiency Resolution Product Development	1	2021	2	2022
<i>PSP High Energy Laser (HEL)</i>				
PSP HEL 60kW Beam Control/Beam Director	1	2021	3	2021
PSP HEL High Power Laser	1	2021	3	2021
PSP HEL Subsystem Assembly	1	2021	2	2022
PSP HEL Battery Development	1	2021	3	2021
PSP HEL Thermal Development	1	2021	4	2021
PSP HEL Integration and Ground Testing	1	2021	3	2022
PSP HEL Flight Testing/Demonstration	1	2021	1	2024
<i>C-130 SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR)</i>				
Software Development	1	2021	2	2022
Development/Flight Testing	1	2021	3	2022

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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 1160403BB / Aviation Systems	Project (Number/Name) SF100 / Aviation Systems Advanced Development
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Operational Testing	4	2022	4	2022
<i>MH-60/MH-47 SOF Common TF/TA SKR</i>				
Software Development	1	2021	4	2027
Test and Evaluation	1	2021	4	2027
<i>Intelligence, Surveillance, and Reconnaissance (ISR) Payload</i>				
Development	1	2021	4	2021
Testing and Integration	1	2021	4	2021
Project Update/User Rep Feedback	1	2021	4	2021
<i>Aviation Engineering Analysis (AEA)</i>				
Next Generation Aviation Engineering Analysis	1	2021	4	2027

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Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command	Date: April 2022
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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 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
SF200: CV-22	64.061	13.011	6.932	11.695	-	11.695	-	9.727	19.064	19.445	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 212

A. Mission Description and Budget Item Justification

The CV-22 Osprey is a Special Operations Forces (SOF) variant of the Joint V-22 vertical medium lift, multi-mission aircraft. The CV-22 provides long range, high speed, infiltration, exfiltration, and resupply to SOF teams in hostile, denied, and politically sensitive areas. This is a capability not currently provided by other existing aircraft. The funding in 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; Intelligence; Surveillance; and Reconnaissance (ISR); weapons; SOF communications; avionics; interoperability; defensive/survivability systems; speed and maneuverability; mission deployment and improved reliability and maintainability of the CV-22 platform.

CV-22 SOF Common Terrain Following/Terrain Avoidance (TF/TA) APQ-187 Silent Knight Radar (SKR): Provides long-range, night/adverse weather, clandestine penetration of medium-to-high threat areas for infiltration, exfiltration, and resupply of SOF forces. This more sustainable and capable radar replaces the obsolete APQ-186 terrain following/avoidance radar currently integrated on CV-22 aircraft.

CV-22 Block 20 Systems: Design, integrate, test, and validate enhancements required to meet SOF-unique mission requirements and correct deficiencies identified in previous testing. This incremental development will provide improved capabilities to include, but not limited to: robust performance in situational awareness; ISR, weapons; SOF communications; avionics; interoperability; defensive/survivability systems; speed and maneuverability; mission deployment; improved reliability and maintainability of the CV platform.

CV-22 Reliability Improvements: Design, integrate, test and validate system, and sub-system, reliability improvement enhancements to meet required aircraft availability and operational requirements. This incremental development will accelerate the fielding and retrofit of system design improvements directly increasing CV-22 fleet readiness and aircraft availability.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: CV-22 SOF Common TF/TA SKR	13.011	4.851	11.695
Description: Provides long-range, night/adverse weather, clandestine penetration of medium-to-high threat areas for infiltration, exfiltration, and resupply of SOF forces. This more sustainable and capable radar replaces the obsolete APQ-186 Multi-Mode Radar (MMR) currently integrated on CV-22 aircraft. This effort includes 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 test.			
FY 2022 Plans:			

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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 1160403BB / <i>Aviation Systems</i>	Project (Number/Name) SF200 / CV-22	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Continue integration/testing of CV-22 SOF Common TF/TA SKR OFP.			
<i>FY 2023 Plans:</i> Completes integration/testing of CV-22 SOF Common TF/TAR SKR OFP.			
<i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> Increase of \$6.844 million due to maintain and operate a dedicated CV-22 test aircraft for the SKR integration and OFP flight test program.			
<i>Title:</i> CV-22 Reliability Improvements <i>Description:</i> Improves platform reliability and maintainability to meet fleet aircraft availability requirements. Efforts include design and re-design enhancements, and acceleration of field integration. <i>FY 2022 Plans:</i> Conduct and complete Non-Recurring Engineering (NRE) required to accelerate improved Block 3 Engine Turbine upgrades. <i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> Decrease of \$2.081 million is due to completing NRE to accelerate improved Block 3 Engine Turbine upgrades.	-	2.081	-
Accomplishments/Planned Programs Subtotals	13.011	6.932	11.695

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/1000CV22: CV-22 SOF Modification	58.033	46.572	75.629	-	75.629	113.267	107.335	88.225	86.931	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 Reliability Improvement projects will consist of a mix of competitive and sole-source awards.

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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 1160403BB / Aviation Systems				Project (Number/Name) SF200 / CV-22					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CV-22 SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR) - Operational Flight Program (OFP) Development	C/CPFF	Various : Various	32.995	6.087	Nov 2020	2.571	Jan 2022	1.000	Feb 2023	-		1.000	Continuing	Continuing	-
CV-22 SOF Common TF/TA SKR- Integration	C/CPFF	Various : Various	25.942	3.982	Nov 2020	1.310	Dec 2021	1.685	Feb 2023	-		1.685	Continuing	Continuing	-
CV-22 Block 20 Systems	Various	Various : Various	0.337	-		-		-		-		-	0.000	0.337	-
CV-22 Reliability Improvements	C/Various	Various : Various	-	-		1.081	Jan 2022	-		-		-	Continuing	Continuing	-
Subtotal			59.274	10.069		4.962		2.685		-		2.685	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CV-22 SOF Common TF/TA SKR - OFP	C/CPFF	Various : Various	2.582	2.412	Nov 2020	0.776	Dec 2021	1.200	Feb 2023	-		1.200	Continuing	Continuing	-
CV-22 SOF Common TF/TA SKR- Integration	C/CPFF	Various : Various	2.205	0.530	Nov 2020	0.194	Dec 2021	7.810	Feb 2023	-		7.810	Continuing	Continuing	-
CV-22 Reliability Improvements Test and Evaluation	C/Various	Various : Various	-	-		1.000	Jan 2022	-		-		-	Continuing	Continuing	-
Subtotal			4.787	2.942		1.970		9.010		-		9.010	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			64.061	13.011		6.932		11.695		-		11.695	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

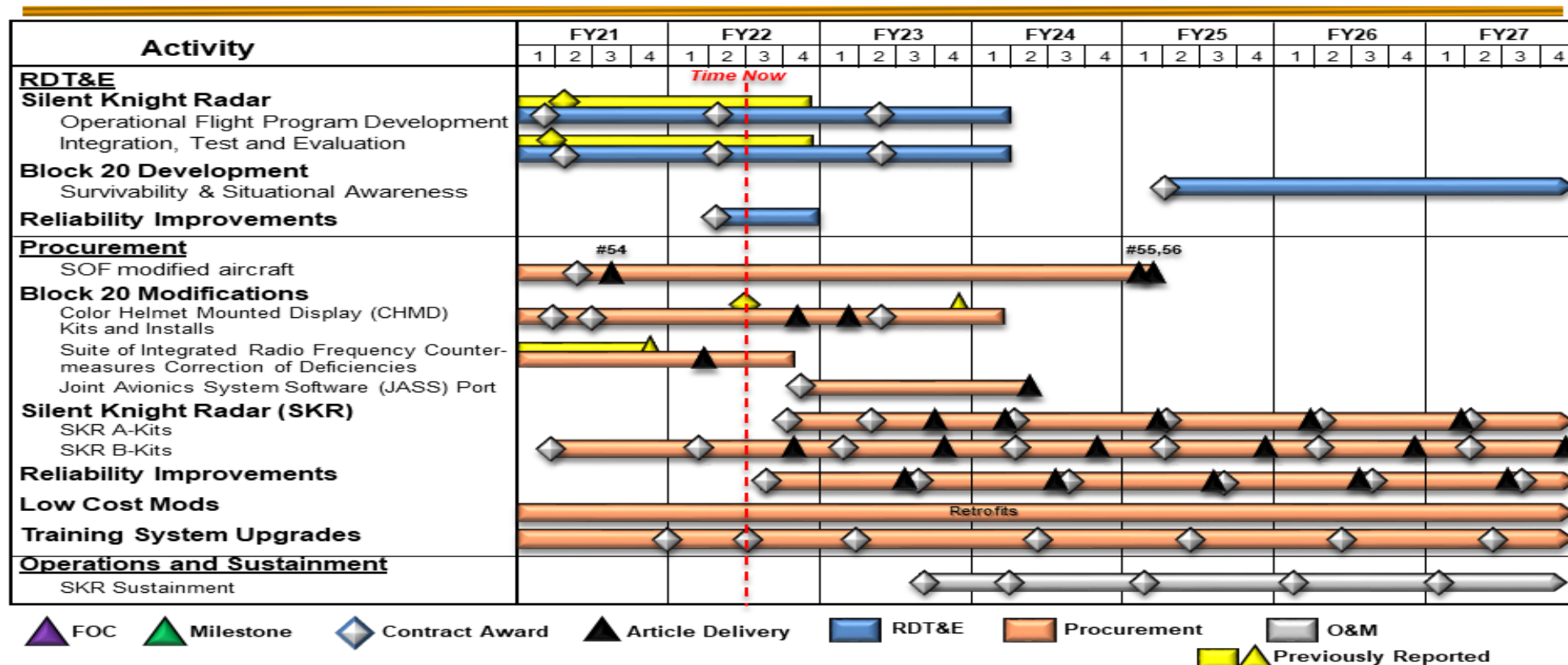
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
SF200 / CV-22

CV-22 Schedule



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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 1160403BB / <i>Aviation Systems</i>	Project (Number/Name) SF200 / CV-22	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
CV-22				
SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR) - Operational Flight Program (OFP) Development	1	2021	1	2024
SOF Common TF/TA SKR - Radar Integration, Test & Evaluation	1	2021	1	2024
Block 20 Survivability & Situational Awareness	1	2025	4	2027
Reliability Improvements Test and Evaluation	2	2022	4	2022

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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 1160403BB / Aviation Systems				Project (Number/Name) SF300 / Armed Overwatch/Targeting			
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
SF300: Armed Overwatch/Targeting	0.000	24.088	22.952	1.200	-	1.200	0.800	-	-	-	0.000	49.040
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
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 & Reconnaissance (Armed ISR) requirements in austere and permissive environments for use in Irregular Warfare operations to align with the National Defense Strategy priorities. The funding in this project supports integration and testing of SOF-unique capabilities and aircraft certification efforts.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2021	FY 2022	FY 2023	
Title: Armed Overwatch/Targeting									24.088	22.952	1.200	
Description: The funding in this project supports integration and testing of SOF-unique capabilities and aircraft certification efforts.												
FY 2022 Plans: Initiate integration and testing of SOF-unique capabilities and aircraft certification efforts.												
FY 2023 Plans: Continues integration, testing, and aircraft certification efforts and conducts Operational Test and Evaluation (OT&E) prior to Full Rate Production award.												
FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$21.752 million is due to the majority of certification and verification testing activities being completed with FY 2022 Research, Development, Test, and Evaluation funds.												
Accomplishments/Planned Programs Subtotals									24.088	22.952	1.200	
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/0201ARMOWT: Armed Overwatch/Targeting	21.000	166.000	246.000	-	246.000	223.000	220.792	229.234	249.567	Continuing	Continuing	
Remarks												

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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 1160403BB / Aviation Systems	Project (Number/Name) SF300 / Armed Overwatch/Targeting

D. Acquisition Strategy

Armed Overwatch/Targeting: These technologies will be pursued through industry partners via rapid prototyping, transitioning to the Major Capability Acquisition pathway at Milestone C. Flight demonstrations were conducted in FY 2021 and results were used to determine that a solicitation for a follow-on production contract is in the best interest of the Government. Production contract to be awarded to the industry partner with the best value proposal in the 4th quarter of FY 2022 with certification and verification testing to begin immediately following award.

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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 1160403BB / <i>Aviation Systems</i>						Project (Number/Name) SF300 / <i>Armed Overwatch/Targeting</i>			
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Armed Overwatch/Targeting: Prototype Testing/Demonstration	C/FFP	Various : Various	-	24.088	May 2021	-		-		-		-	0.000	24.088	-
Armed Overwatch/Targeting: Aircraft Certification and SOF Unique Integration	C/FFP	Various : Various	-	-		22.952	Jul 2022	1.200	Jul 2023	-		1.200	0.800	24.952	-
Subtotal			-	24.088		22.952		1.200		-		1.200	0.800	49.040	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			-	24.088		22.952		1.200		-		1.200	0.800	49.040	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

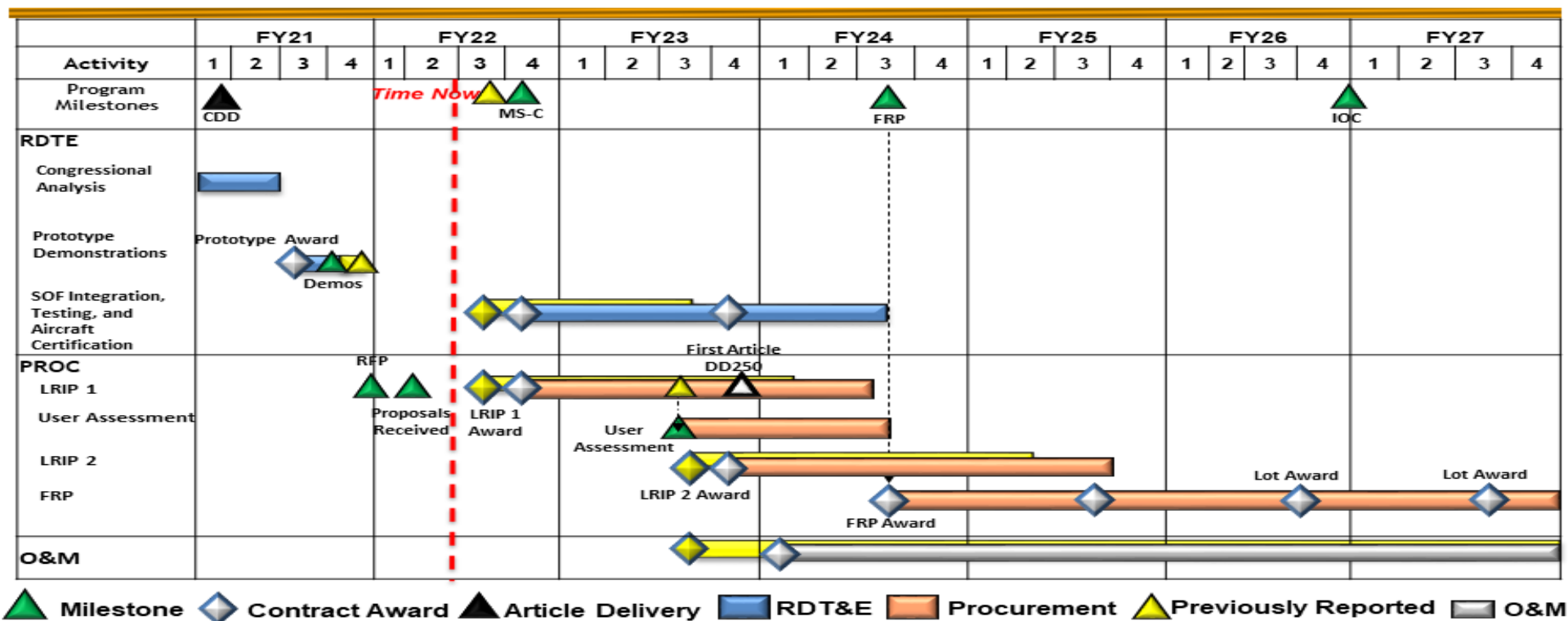
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
SF300 / Armed Overwatch/Targeting

Armed Overwatch Schedule



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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 1160403BB / Aviation Systems	Project (Number/Name) SF300 / Armed Overwatch/Targeting	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Armed Overwatch/Targeting				
Congressional Analysis	1	2021	2	2021
Prototype Testing/Demonstration	3	2021	4	2021
SOF Integration, Testing, and Aircraft Certification	4	2022	3	2024

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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 1160403BB / Aviation Systems				Project (Number/Name) S750 / Mission Training and Preparation 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
S750: Mission Training and Preparation Systems	51.441	9.272	10.227	13.848	-	13.848	17.430	16.804	13.530	13.800	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 (SOF)-unique 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.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: Special Operations Mission Planning and Execution (SOMPE)	9.272	10.227	10.941
<p>Description: The SOMPE project develops, integrates, tests, and validates software enhancements required to meet SOF-unique 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. SOMPE automates time-sensitive planning activities and provides enhanced situational awareness during mission execution. 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 project also provides the integration of SOMPE with multi-dimensional visualization systems, providing immersive mission rehearsal in minimal timeframes from the SOMPE mission plan. 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.</p> <p>FY 2022 Plans: Continue development of software applications to address increased SOF-unique aviation, ground and maritime mission planning requirements; data transfer software from mission planning systems to SOF helicopters, airplanes, and simulator rehearsal systems; and automated performance models and performance prediction software. Continue updates to mission planning, data transfer, and performance software. Continue development of software applications for smaller mobile computer devices (tablets, smart phones, etc.)</p> <p>FY 2023 Plans:</p>			

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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 1160403BB / Aviation Systems		Project (Number/Name) S750 / Mission Training and Preparation Systems	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
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 TAK Product Center to accelerate development of incremental releases of software with direct user input.					
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.714 million is to support convergence of the TAK software across the air, land, and sea battlespace; where tactical situational awareness is critical to the Military Decision-Making Process.					
Title: Training Transformation Simulator Block Upgrade-Fixed Wing (SBUDF) Description: The SBUDF program develops and integrates training innovation and transformation solutions across the Air Force Special Operations Command (AFSOC) 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, virtual reality, 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 AFSOC training devices and full motion simulators, but will rather mitigate current training limitations as well as enhance and complement existing training capabilities. This program 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 AFSOC training pipeline. FY 2023 Plans: Initiates the SBUDF training innovation and transformation program with the development of AC-130J aircrew and CV-22 aircrew and maintenance virtual and augmented reality mission training devices. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$2.907 million is develop virtual training environments by SBUDF in FY 2023.			-	-	2.907
Accomplishments/Planned Programs Subtotals			9.272	10.227	13.848
C. Other Program Funding Summary (\$ in Millions) N/A					
Remarks					
D. Acquisition Strategy In accordance with DoDI 5000.87, the SOMPE project will continue a transformation to execute in accordance with the Software Acquisition Pathway. Execution uses a combination of reimbursable working capital funds for technical leadership of the DevSecOps environment; and contract awards. Contracts will leverage existing sole source awards for Special Operations-Peculiar capability development; potential Commercial Service Offerings for Commercial Off the Shelf Software; and a combination of existing Science Engineering Technology and Acquisition (SETA) contracts and full and open competition for software development, integration, test,					

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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 1160403BB / Aviation Systems	Project (Number/Name) S750 / Mission Training and Preparation Systems
<p>fielding, and sustainment. The multiple contracts and Government working capital organizations enable the Program to continuously prioritize and balance work across the product mission areas to meet the needs of users as we shift to a new paradigm of a tighter feedback loop under the Software Acquisition Pathway.</p> <p>The 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.</p>		

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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 1160403BB / Aviation Systems				Project (Number/Name) S750 / Mission Training and Preparation Systems					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Special Operations Mission Planning and Execution (SOMPE) Software Development, Security, Operations (DevSecOps)	Various	Various : Various	41.512	7.361	Jan 2021	8.204	Jan 2022	8.971	Jan 2023	-		8.971	Continuing	Continuing	-
Augmented Reality/Virtual Reality Device Spiral Development Simulator Upgrade (SBUD)	Various	Various : Various	-	-		-		2.907	Mar 2023	-		2.907	Continuing	Continuing	-
Subtotal			41.512	7.361		8.204		11.878		-		11.878	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMPE Software	MIPR	Special Operations Mission Planning Office : Various	3.111	0.375	Feb 2021	0.386	Feb 2022	-		-		-	Continuing	Continuing	-
Subtotal			3.111	0.375		0.386		-		-		-	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMPE Software	C/CPFF	TBD : Various	6.818	1.536	Jan 2021	1.637	Jan 2022	1.970	Nov 2022	-		1.970	Continuing	Continuing	-
Subtotal			6.818	1.536		1.637		1.970		-		1.970	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			51.441	9.272		10.227		13.848		-		13.848	Continuing	Continuing	N/A

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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 1160403BB / Aviation Systems			Project (Number/Name) S750 / Mission Training and Preparation Systems				
	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

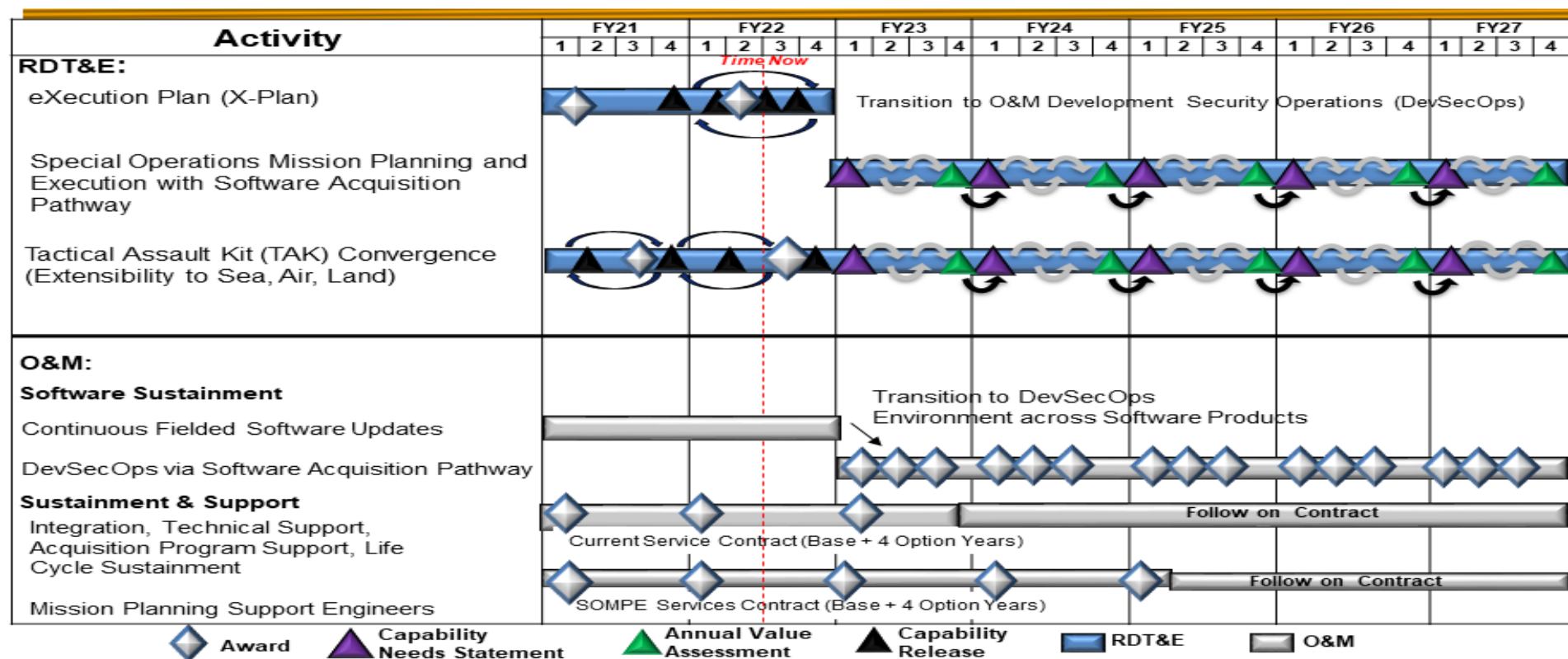
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 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.

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

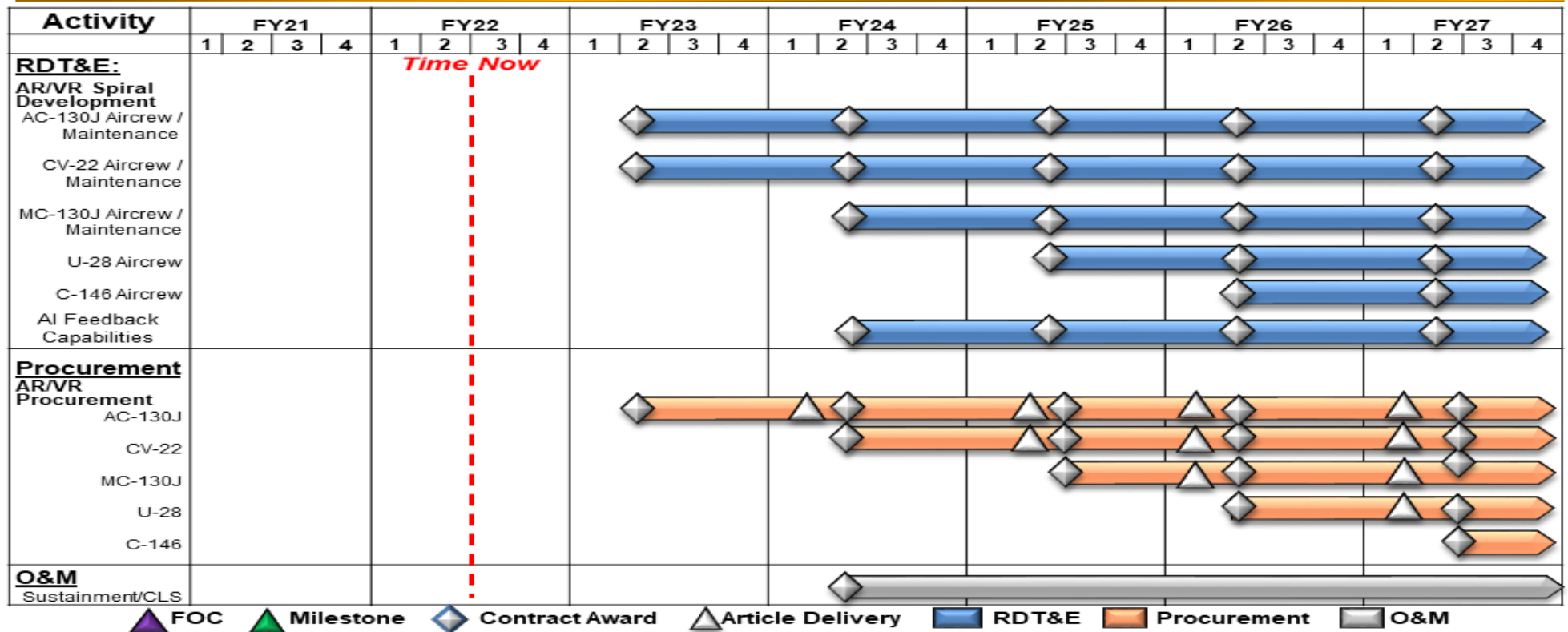
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
S750 / Mission Training and Preparation Systems

Training Transformation Simulator Block Upgrade-Fixed Wing (SBUDF) Schedule



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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 1160403BB / Aviation Systems	Project (Number/Name) S750 / Mission Training and Preparation Systems	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Special Operations Mission Planning and Execution (SOMPE)</i>				
eXecution Plan (XPlan)	1	2021	4	2022
SOMPE with Software Acquisition Pathway	1	2023	4	2027
Tactical Assault Kit (TAK) Convergence (Extensibility to Sea, Air, Land)	1	2021	4	2027
<i>Training Transformation Simulator Block Upgrade - Fixed Wing (SBUDF)</i>				
Augmented Reality/Virtual Reality (AR/VR) Device Spiral Development AC-130J Aircrew / Maintenance	2	2023	4	2027
AR/VR Device Spiral Development CV-22 Aircrew / Maintenance	2	2023	4	2027
AR/VR Device Spiral Development MC-130J Aircrew / Maintenance	2	2024	4	2027
AR/VR Device Spiral Development U-28 Aircrew	2	2025	4	2027
AR/VR Device Spiral Development C-146 Aircrew	2	2026	4	2027
Artificial Intelligence Feedback Capabilities	2	2024	4	2027

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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 1160403BB / Aviation Systems				Project (Number/Name) S875 / AC/MC-130J			
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
S875: AC/MC-130J	95.574	51.783	52.045	40.757	-	40.757	65.496	63.116	17.184	17.528	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The AC/MC-130J project funds core Special Operations Forces (SOF)-unique modifications to replace aging/retired AC-130H Spectre, AC-130W Stinger II, AC-130U Spooky, MC-130E Combat Talon I, MC-130P Combat Shadow, MC-130H Combat Talon II aircraft. The 8 AC-130H Spectre, 12 AC-130W Stinger II and 17 AC-130U Spooky airframes will be replaced with MC-130J aircraft modified with the Precision Strike Package (PSP) to achieve the AC-130J configuration. The AC-130J aircraft will provide close air support, air interdiction, and armed reconnaissance capability. The 14 MC-130E Combat Talon I, 23 MC-130P Combat Shadow, and 24 MC-130H Combat Talon II airframes will be replaced by MC-130J Commando II aircraft with SOF mission modifications. The MC-130J Commando II aircraft with SOF mission modifications provide clandestine single or multi-ship low-level aerial refueling for special operations helicopters and CV-22 aircraft; and conduct airdrops of leaflets, small special operations teams, resupply bundles, and combat rubber raiding craft. The Air Force procures and fields the basic aircraft, common support equipment, and trainers for the United States Special Operations Command (USSOCOM). Incremental upgrade and agile software development approaches will be used to integrate SOF capabilities onto the aircraft and training systems. SOF capabilities include, but are not limited to: Airborne Mission Networking (AbMN); data fusion; threat detection and avoidance; integrated Terrain Following/Terrain Avoidance (TF/TA); electronic warfare and embedded training. Integrating and automating SOF mission systems that deliver these capabilities is critical to fielding SOF-capable AC/MC-130J aircraft to recapitalize Air Force Special Operations Command's legacy C-130 fleet.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: MC-130J AbMN	2.590	-	-
Description: The AbMN provides aircrew and mission personnel aboard the MC-130J aircraft, with the ability to send and receive mission-critical data to/from tactical and operational nodes in the battlespace. Capabilities include, but are not limited to, secure Line-of-Sight (LOS)/Beyond Line-of-Sight (BLOS) voice/data communications, friendly force identification, mission tracking, threat identification, full-motion video, collaboration, chat, e-mail, integrated tactical map and data links. The AbMN enables SOF to streamline command and control, improve situational awareness, and reduce operational risk through real time exchange of digital information among aircraft, SOF components, and other tactical and operational nodes.			
Title: Integrated Tactical Mission Systems (ITMS)	49.193	52.045	40.757
Description: 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			

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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 1160403BB / <i>Aviation Systems</i>		Project (Number/Name) S875 / <i>AC/MC-130J</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
<p>to: automated route replanning; tactical flight management; integrated aircraft defensive systems; defensive countermeasures; and embedded training. The NextGen 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 (MC-130J aircraft) and seamless employment of the Precision Strike Package (PSP) on AC-130J aircraft.</p> <p>FY 2022 Plans: Continue to identify, prototype, and demonstrate modern OMS capabilities of: Pre-mission software; common roll-on roll-off payload interfaces; enhanced cybersecurity management; and AC-130J weapon system planning and management. 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 system architecture. Continue Tactical Flight Management System (TFMS), Automated Route Replanner (ARR), and Defensive Countermeasures (DCM) capability development and demonstration. Continue capability replication, performance, and test with the AC-130J PSP and Battle Management System (BMS) software. Continue the MC-130J Tactical Map enhancements. Complete the NextGen SMP qualification testing, technical data updates, and perform correction of deficiencies.</p> <p>FY 2023 Plans: Continues 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. Continues capability maturation of production and fielded software services through DevSecOps supported by a cloud-hosted software integration and test environment. Continues development, demonstration, and test of common interfaces to integrate legacy, current, and future mission systems into an inter-operable systems architecture. Releases the MC-130J Tactical Map, TFMS and ARR minimum viable products and continues software enhancements. Continues TFMS and DCM capability development, integration, and demonstration for MC-130J with common attributes with AC-130J. Continues capability demonstration, and DevSecOps software enhancements for MC-130J avionics and common applications of BMS in support of multi-role aircraft capabilities.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$11.288 million is due to completion of Next Gen SMP qualification testing and emerging critical Command requirements.</p>					
Accomplishments/Planned Programs Subtotals			51.783	52.045	40.757

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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 1160403BB / <i>Aviation Systems</i>				Project (Number/Name) S875 / <i>AC/MC-130J</i>			

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/2012C130J: <i>AC/MC-130J</i>	150.883	205.216	225.569	-	225.569	319.754	310.229	341.280	388.428	Continuing	Continuing
• PROC/1202PSP: <i>Precision Strike Package</i>	233.111	165.224	57.450	-	57.450	108.497	111.346	107.500	65.473	Continuing	Continuing

Remarks

D. Acquisition Strategy

As a core strategy, rapid prototyping has been incorporated in the acquisition strategies below to develop, demonstrate and evaluate residual operational capabilities.

MC-130J AbMN: Award sole source Cost-Plus-Fixed-Fee contract to develop a battlespace information exchange system for the MC-130J consisting of Government/Commercial-off-the-shelf communications and computing hardware and Government/developmental software. This approach leverages portions of the AC-130J gunship infrastructure design applicable to the MC-130J. After completing developmental and operational flight testing, award a sole source contract for Low Rate Initial Production (LRIP) followed by a competitive Firm-Fixed Price (FFP) contract for production, aircraft integration, and fielding.

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.

The U.S. Air Force procures the basic AC-130J aircraft under the HC/MC-130J Recapitalization procurement program. The USSOCOM will fund development, integration, and testing of capability enhancements for SOF-unique mission equipment using an incremental acquisition strategy. Multiple contract awards.

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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 1160403BB / Aviation Systems **Project (Number/Name)** S875 / AC/MC-130J

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MC-130J Airborne Mission Networking (AbMN)	C/CPFF	Sierra Nevada Corporation : Centennial, CO	22.022	1.190	Dec 2020	-		-		-		-	0.000	23.212	-
Integrated Tactical Mission System (ITMS) - AC/MC-130J Systems Interoperability & Tactical Map Enhancements	C/Various	Sierra Nevada Corporation : Nevada	45.034	2.980	Dec 2020	5.374	Dec 2021	5.257	Dec 2022	-		5.257	Continuing	Continuing	-
ITMS - Open Mission System (OMS) Capabilities	C/Various	Various : Various	6.243	5.283	Nov 2020	3.762	Dec 2021	5.750	Dec 2022	-		5.750	Continuing	Continuing	-
ITMS - MC-130J Software Capability Development	C/CPFF	Lockheed Martin Aeronautics : Marietta	5.752	10.320	Apr 2021	11.150	Nov 2021	10.566	Dec 2022	-		10.566	Continuing	Continuing	-
ITMS - AC-130J Software Capability Development	C/Various	Various : Various	-	4.800	May 2021	8.353	Mar 2022	-		-		-	0.000	13.153	-
ITMS - Agile Software Framework Dev & Test	C/Various	Various : Various	-	4.965	Jan 2021	6.986	Mar 2022	6.830	Mar 2023	-		6.830	Continuing	Continuing	-
ITMS - NextGen Special Mission Processor (SMP) Development, Integration & Test	C/Various	Various : Various	8.219	8.888	Dec 2020	1.075	Dec 2021	-		-		-	0.000	18.182	-
Subtotal			87.270	38.426		36.700		28.403		-		28.403	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Tactical Mission System (ITMS) - Support	C/Various	Various : Various	2.249	3.142	Mar 2021	3.494	Mar 2022	3.650	Mar 2023	-		3.650	Continuing	Continuing	-
Subtotal			2.249	3.142		3.494		3.650		-		3.650	Continuing	Continuing	N/A

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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 1160403BB / Aviation Systems	Project (Number/Name) S875 / AC/MC-130J
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Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MC-130J AbMN Integration & Test	Sub Allot	USSOCOM Detachment 1 Joint Test Interoperability Command : Eglin AFB, FL	2.302	1.400	Dec 2020	-		-		-		-	0.000	3.702	-
ITMS - Test & Integration	Sub Allot	USSOCOM Detachment 1 : Eglin AFB, FL	3.693	8.815	Jan 2021	11.851	Jan 2022	8.704	Mar 2023	-		8.704	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	C/Various	Lockheed Martin : Atlanta, GA	0.060	-		-		-		-		-	0.000	0.060	-
Subtotal			6.055	10.215		11.851		8.704		-		8.704	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			95.574	51.783		52.045		40.757		-		40.757	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

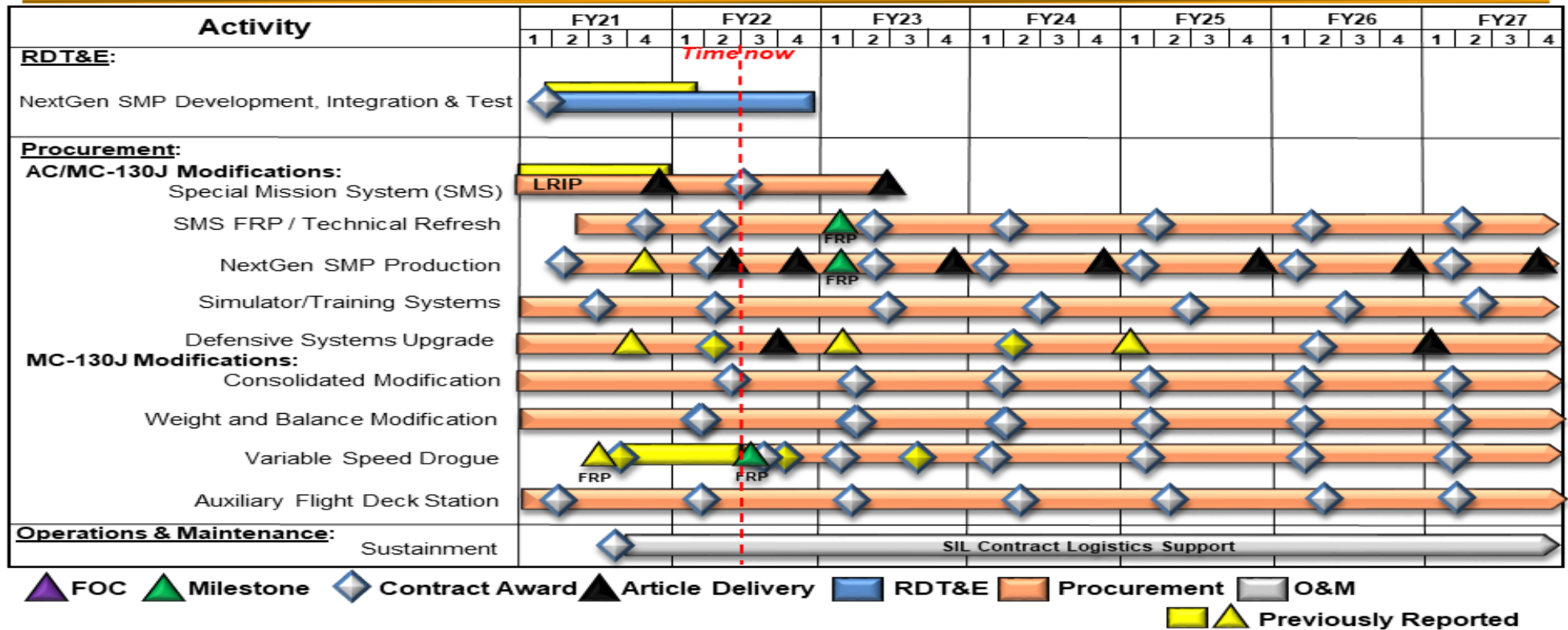
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
S875 / AC/MC-130J

Common AC/MC-130J Mission Systems Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

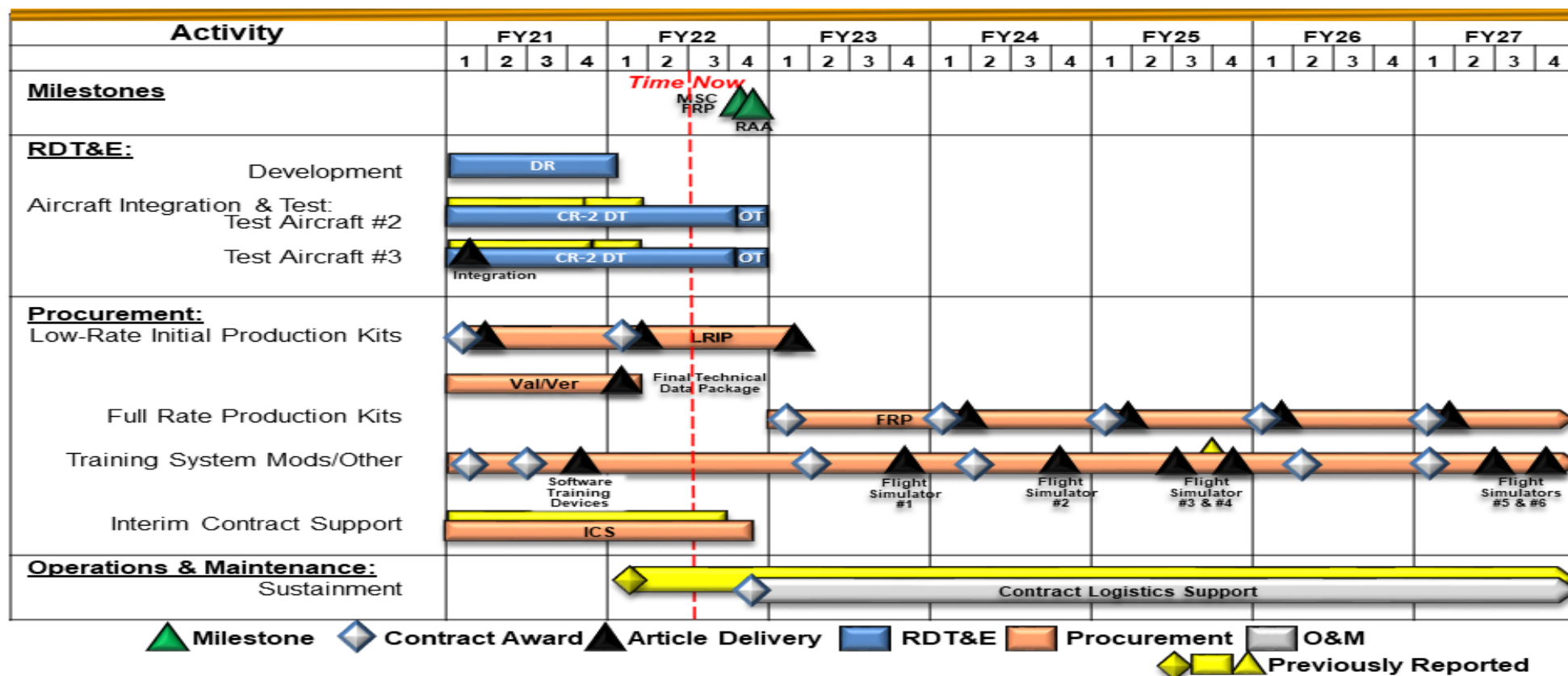
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
S875 / AC/MC-130J

Airborne Mission Networking (AbMN) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

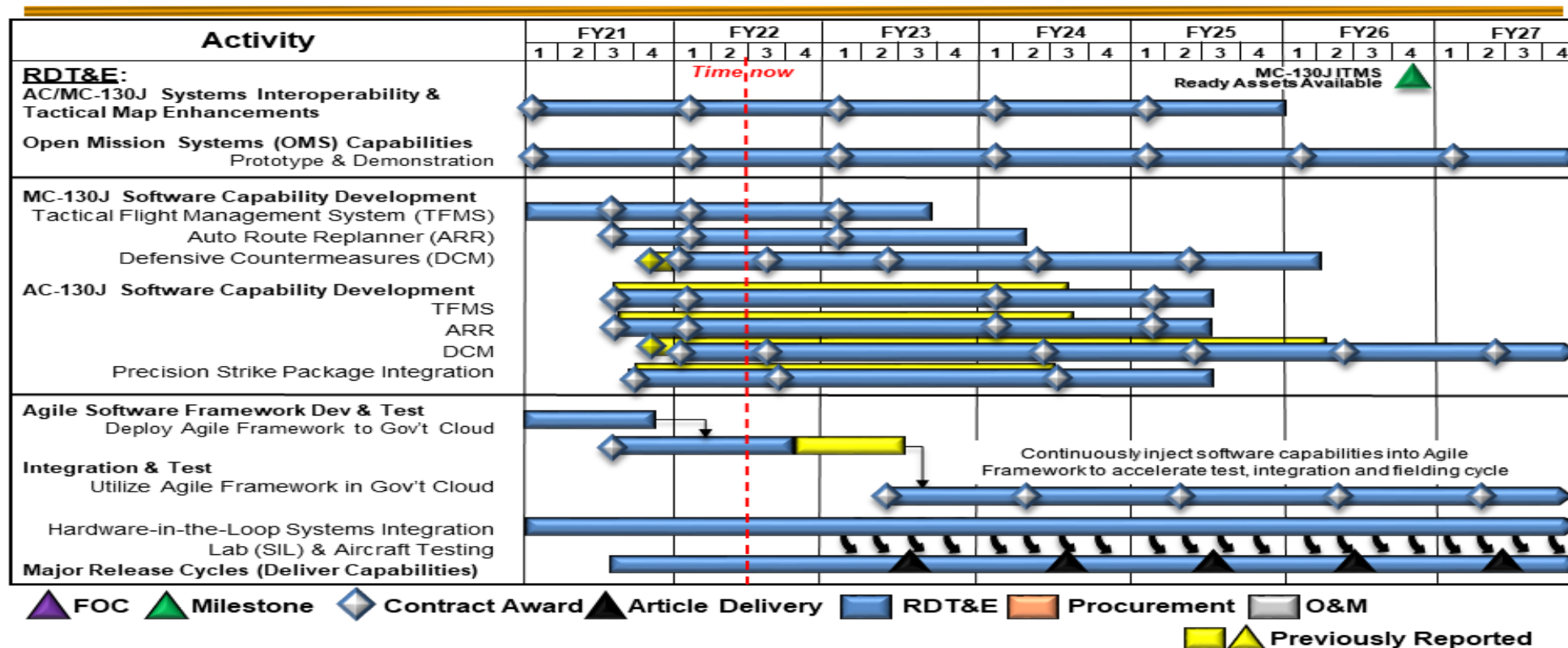
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
S875 / AC/MC-130J

Integrated Tactical Mission Systems (ITMS) Schedule



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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 1160403BB / <i>Aviation Systems</i>	Project (Number/Name) S875 / AC/MC-130J	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Common AC/MC-130J Mission Systems</i>				
NextGen SMP Development, Integration & Test	1	2021	4	2022
<i>MC-130J Airborne Mission Networking (AbMN)</i>				
Engineering and Manufacturing Development	1	2021	1	2022
Phase III Integration & Test (Includes Tech Data, Aircraft Integration, & Testing)	1	2021	4	2022
<i>Integrated Tactical Mission Systems (ITMS)</i>				
AC/MC-130J Systems Interoperability & Tactical Map Enhancements	1	2021	4	2025
Open Mission System (OMS) Capabilities Prototype and Demonstration	1	2021	4	2027
MC-130J Tactical Flight Management System (TFMS)	1	2021	3	2023
MC-130J Auto Route Replanner (ARR)	3	2021	2	2024
MC-130J Defensive Countermeasures (DCM)	4	2021	2	2026
AC-130J TFMS	3	2021	2	2025
AC-130J ARR	3	2021	2	2025
AC-130J DCM	4	2021	4	2027
AC-130J Precision Strike Package	3	2021	3	2025
Agile Software Framework Development & Test	1	2021	4	2022
Test & Integration of ITMS Capabilities	2	2023	4	2027
Hardware-in-the-Loop Systems Integration Lab (SIL) & Aircraft Testing	1	2021	4	2027

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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 1160403BB / Aviation Systems				Project (Number/Name) D615 / Rotary Wing Aviation			
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
D615: Rotary Wing Aviation	297.904	40.334	42.787	65.837	-	65.837	68.207	59.952	61.175	58.266	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 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 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.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: A/MH-6M Block 3.0 Upgrade Description: 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. FY 2022 Plans: Continue software updates to incorporate communications upgrades and crypto modernization, follow-on testing on Block 3 components to improve sustainability, improved tail rotor blade development and test, improved main rotor transmission study, improved main rotor study, test and evaluate anti-jamming antennas, and weapons system test. FY 2023 Plans: Continues software updates to incorporate communications upgrades and crypto modernization for enhanced situational awareness incorporating Tactical Assault Kit, continues Light Weight Auxiliary Fuel Tanks testing and initial articles build. Initiates 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 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.065 million is for increased Block 3.0 support.	1.783	2.728	2.793
Title: MH-60M Modifications and Upgrades 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	3.428	2.824	4.139

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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 1160403BB / Aviation Systems	Project (Number/Name) D615 / Rotary Wing Aviation		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
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 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. FY 2022 Plans: Begin testing and integration of guided munitions software and continue payload restoration efforts and other technologies to improve safety and decrease operational costs to ASE, weapons systems improvement and munitions. FY 2023 Plans: Continues payload restoration efforts 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 2022 to FY 2023 Increase/Decrease Statement: Increase of \$1.315 million is to support Block 1.0 induction support and mission critical MH-60 ITE integration designs.				
Title: Degraded Visual Environment (DVE) Description: The DVE solution will provide MH-47/60 aircrews with visual cues for obstacle avoidance and aircraft control during all phases of flight and significantly increase crew and passenger survivability in DVE. This program addresses SOF-p requirements for rapid fielding and weight limitations, and capitalizes on the integration of SOF-p avionics and the unique skills of the SOF aviator. FY 2023 Plans: Continues DVE system design, developmental and qualification testing and develops sensor data fusion of Degraded Visual Environment Pilotage System. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$19.500 million supports sensor fusion development and system integration efforts.		4.048	-	19.500
Title: Future Vertical Lift (FVL) 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. FY 2022 Plans:		9.114	9.059	10.086

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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 1160403BB / Aviation Systems	Project (Number/Name) D615 / Rotary Wing Aviation		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
Provide for delta cost design analysis of SOF Future Long Range Assault Aircraft (FLRAA) and Future Attack and Reconnaissance Aircraft (FARA); initiate FLRAA Structural Baseline support effort and engineering analysis for Modular Open System Architecture (MOSA) implementation of Radio Frequency (RF) Countermeasures (CM), Terrain Following/Terrain Avoidance (TF/TA) Radar, Infrared (IR) Countermeasures, and DVE; continue SOF FLRAA configuration analysis. FY 2023 Plans: Provides for SOF-p mission equipment package engineering, integration, and demonstration necessary to support advanced avionics, advanced mission equipment, RFCMs, TF/TA Sensor, Electro-Optical/IR Sensor, Air Launched Effects and DVE into the Army baseline. Maintains and updates FARA engineering analysis as Army baseline designs and requirements mature; continues integrating SOF-p requirements during development. Continues MOSA analysis into a common cockpit with Digital Backbone integrating SOF-p mission equipment. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$1.027 million is for continued engineering studies and risk reduction efforts.					
Title: Infrared Countermeasures (IRCM) Description: Provides a low Size, Weight, and Power (SWaP) IRCM capability suitable for the A/MH-6 Mission Enhanced Little Bird with potential use on the MH-60 and MH-47 aircraft. The IRCM program will leverage the Department of Navy developed Distributed Aperture Infrared Countermeasure System by integrating and testing a complete lightweight IRCM system to include a missile warning system and countermeasure capability. The IRCM program includes development of an infrared exhaust suppressor for the A/MH-6, and flare testing for emerging threats. NOTE: IRCM efforts have transitioned and are justified under Aircraft Survivability Equipment (ASE) Upgrades beginning with the FY 2023 President's Budget submission.			0.625	-	-
Title: MH-47 Modifications and Upgrades Description: Develops technologies to improve the performance and safety of the MH-47G and decrease operational costs. Efforts include, but are not limited to, the Active Parallel Actuator Subsystem (APAS), weight reduction, and performance improvement developments. This sub-project also includes modifications to ASE and weapons systems to counter rapidly emerging threats and enhance aircraft self-protection. FY 2022 Plans: Complete APAS development, including integration with MH-47G subsystems, such as Common Avionics Architecture System (CAAS), and execution of a configuration study of performance related improvements. FY 2023 Plans:			8.105	3.949	7.048

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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 1160403BB / Aviation Systems	Project (Number/Name) D615 / Rotary Wing Aviation		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
Continues developing technologies, weight reduction, and performance improvements; includes modifications to Aircraft Survivability Equipment (ASE) and weapons systems to counter rapidly emerging threats and enhance aircraft self-protection integration with MH-47G subsystems, such as CAAS, and 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 2022 to FY 2023 Increase/Decrease Statement: Increase of \$3.099 million supports the building and testing of weight reduction technologies to address emerging capability enhancements.					
Title: Mission Processor Upgrade (MPU) Description: 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 processors increases the processing power to support critical functionality and emerging technologies that will be integrated into the CAAS. This MPU provides the processing and memory resources required to incorporate the following functions into the General Purpose Processing Unit (GPPU): (1) Global Air Traffic Management replaces ground-based navigation aids with a capability that meets the international requirement that all aircraft be compliant with digital and space-based navigation systems; (2) cognitive decision aiding system 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. FY 2022 Plans: Continue exploration of the next generation ARSOA cockpit, to include architectures studies/development and individual enabling/enhancing technologies. FY 2023 Plans: Continues exploration of the next generation ARSOA cockpit, avionics upgrades and Next Generation Tactical Communications. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.032 million is to support continued systems engineering and testing.			0.588	1.522	1.554
Title: Tactical Mission Networking (TMN) 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 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			3.000	-	3.121

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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 1160403BB / Aviation Systems	Project (Number/Name) D615 / Rotary Wing Aviation		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
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.					
FY 2023 Plans: Continues development of software and hardware to rapidly incorporate advanced waveforms, advanced communications, and networking hardware onto ARSOA aircraft.					
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$3.121 million funds development of software and hardware to rapidly incorporate advanced waveforms, advanced communications, and networking hardware onto ARSOA aircraft.					
Title: Aircraft Survivability Equipment (ASE) Upgrades			9.643	22.705	17.596
Description: Provides a low SWaP IRCM and RFCM capability and develops, integrates, and tests critical active and passive SOF-p aircraft survivability equipment to counter the acknowledged high proliferation of advanced surface-to-air threat systems for the A/MH-6, MH-60, and MH-47. These threat systems are evolving technically at an unprecedented rate, requiring rapid countermeasure system development and immediate spiraled improvements that will reduce the probability of successful engagement, increase the probability of detecting and countering threat systems, and improve the aircraft's ability to continue operating after sustained battle damage. ASE upgrades will leverage the Department of Navy developed Distributed Aperture Infrared Countermeasure System by integrating and testing a complete lightweight IRCM system to include a missile warning system, countermeasure capability and development of an infrared exhaust suppressor for the A/MH-6, and flare testing for emerging threats. ASE upgrades includes development and testing of both new systems and Pre-Planned Product Improvements (P3I)/upgrades of fielded survivability equipment and associated qualification testing. P3I upgrades may include, but are not limited to, expansion of loadsets on existing systems, modernization of legacy components, and studies directed at potential "collaborative off-boarding/on-boarding" detect/countermeasure capabilities to provide expanded coverage for aircrews in a high threat environment.					
NOTE: IRCM efforts have transitioned and are justified under ASE Upgrades beginning with the FY 2023 President's Budget Submission.					
FY 2022 Plans: Continue development of new systems, P3I/upgrades of fielded survivability equipment, and continue development of countermeasures. Additional details can be provided under separate cover, upon request.					
FY 2023 Plans:					

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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 1160403BB / <i>Aviation Systems</i>	Project (Number/Name) D615 / <i>Rotary Wing Aviation</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Continues development of new systems, P3I/upgrades of fielded survivability equipment, and continues development of countermeasures. Additional details can be provided under separate cover, upon request.			
<i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> The FY 2023 funding request was reduced by \$5.109 million to account for the availability of prior year execution balances.			
Accomplishments/Planned Programs Subtotals	40.334	42.787	65.837

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/0201RWUPGR: <i>Rotary Wing Upgrades and Sustainment</i>	220.676	207.278	214.575	-	214.575	254.073	247.746	222.701	229.260	Continuing	Continuing
• 0201MH60: <i>MH-60 Blackhawk</i>	-	58.976	-	-	-	-	-	-	-	1,127.640	1,127.640
• 0601MH47: <i>MH-47 Chinook</i>	135.482	130.485	133.144	-	133.144	136.222	138.975	141.625	106.458	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 contract with Special Operations Forces Support Activity (SOFSA).
- MH-60M Modifications and Upgrades supports systems integration and qualification efforts on 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.
- DVE integrates and qualifies a solution to address a safety of flight issue while flying in Degraded Visual Environment. A competitive source selection process resulted in the down-selection of one vendor for the DVE solution which will procure, integrate, and install components to provide real-time “see through” imagery and visual cues for obstacle avoidance and landing zone information during all phases of flight.
- 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 vertical lift aviation capabilities over the next forty years.

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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 1160403BB / <i>Aviation Systems</i>	Project (Number/Name) D615 / <i>Rotary Wing Aviation</i>
<ul style="list-style-type: none"> • IRCM integrates a mission configurable Missile Warning System and IRCM capability at a weight suitable for the A/MH-6M aircraft. Procurement of systems for integration and test will leverage the Department of the Navy IRCM (DAIRCM) development efforts and contracts. The government will integrate the systems onto the A/MH-6 utilizing existing aircraft modification contracts. Will begin evaluation and qualification of an infrared exhaust suppressor for the A/MH-6M aircraft, and continue flare testing for emerging threats. • 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. • 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. • 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. • ASE upgrades integrates a mission configurable Missile Warning System and IRCM capability at a weight suitable for the A/MH-6M aircraft. Procurement of systems for integration and test will leverage DAIRCM development efforts and contracts. The government will integrate the systems onto the A/MH-6 utilizing existing aircraft modification contracts. Will begin evaluation and qualification of an infrared exhaust suppressor for the A/MH-6M aircraft and continue flare testing for emerging threats. ASE Upgrades also develops and tests both new systems and pre-planned product improvements/upgrades of fielded aircraft survivability systems and countermeasures. For new systems, other services' development and testing contracts are leveraged to the maximum extent possible. Upgrades of fielded equipment are typically accomplished by the OEM. 		

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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 1160403BB / Aviation Systems				Project (Number/Name) D615 / Rotary Wing Aviation					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Degraded Visual Environment (DVE)	C/Various	PM TAPO : Fort Eustis, VA	72.145	4.048	Jun 2021	-		19.500	Apr 2023	-		19.500	Continuing	Continuing	-
Future Vertical Lift (FVL)	C/Various	PM TAPO : Ft. Eustis, VA	-	8.781	Sep 2021	8.396	Dec 2021	9.280	Apr 2023	-		9.280	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	50.737	8.105	Nov 2020	3.949	Nov 2021	7.048	Nov 2022	-		7.048	Continuing	Continuing	-
Tactical Mission Networking (TMN)	C/Various	PM TAPO : Fort Eustis, VA	-	3.000	Mar 2021	-		3.121	Mar 2023	-		3.121	Continuing	Continuing	-
Aircraft Survivability Equipment Upgrades	C/Various	PM TAPO : Fort Eustis, VA	28.233	9.643	Aug 2021	22.705	Mar 2022	17.596	Nov 2023	-		17.596	Continuing	Continuing	-
Prior Years Funding	C/Various	PM MELB : Fort Eustis, VA	49.820	-		-		-		-		-	0.000	49.820	-
Subtotal			208.291	33.577		35.050		56.545		-		56.545	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FVL	C/Various	PM TAPO : Fort Eustis, VA	5.213	0.333	Nov 2020	0.663	Nov 2021	0.806	Feb 2023	-		0.806	Continuing	Continuing	-
FVL (Cong Add)	C/Various	PM TAPO : Fort Eustis, VA	0.359	-		-		-		-		-	0.000	0.359	-
Subtotal			5.572	0.333		0.663		0.806		-		0.806	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A/MH-6M Block 3.0 Upgrade	C/Various	PM MELB : Fort Eustis, VA	35.616	1.783	Apr 2021	2.728	Jan 2022	2.793	Feb 2023	-		2.793	Continuing	Continuing	-

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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 1160403BB / Aviation Systems	Project (Number/Name) D615 / Rotary Wing Aviation
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Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MH-60M Modification and Upgrades	C/Various	PM TAPO : Fort Eustis, VA	13.849	3.428	Apr 2021	2.824	Mar 2022	4.139	Mar 2023	-		4.139	Continuing	Continuing	-
Infrared Countermeasures Integration and Testing (IRCM)	C/Various	PM TAPO : Fort Eustis, VA	14.951	0.625	May 2021	-		-		-		-	0.000	15.576	-
Mission Processor Upgrade (MPU)	C/Various	PM TAPO : Fort Eustis, VA	1.002	0.588	Apr 2021	1.522	Apr 2022	1.554	Apr 2023	-		1.554	Continuing	Continuing	-
Prior Years Funding	C/Various	Various : Various	18.623	-		-		-		-		-	0.000	18.623	-
Subtotal			84.041	6.424		7.074		8.486		-		8.486	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			297.904	40.334		42.787		65.837		-		65.837	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

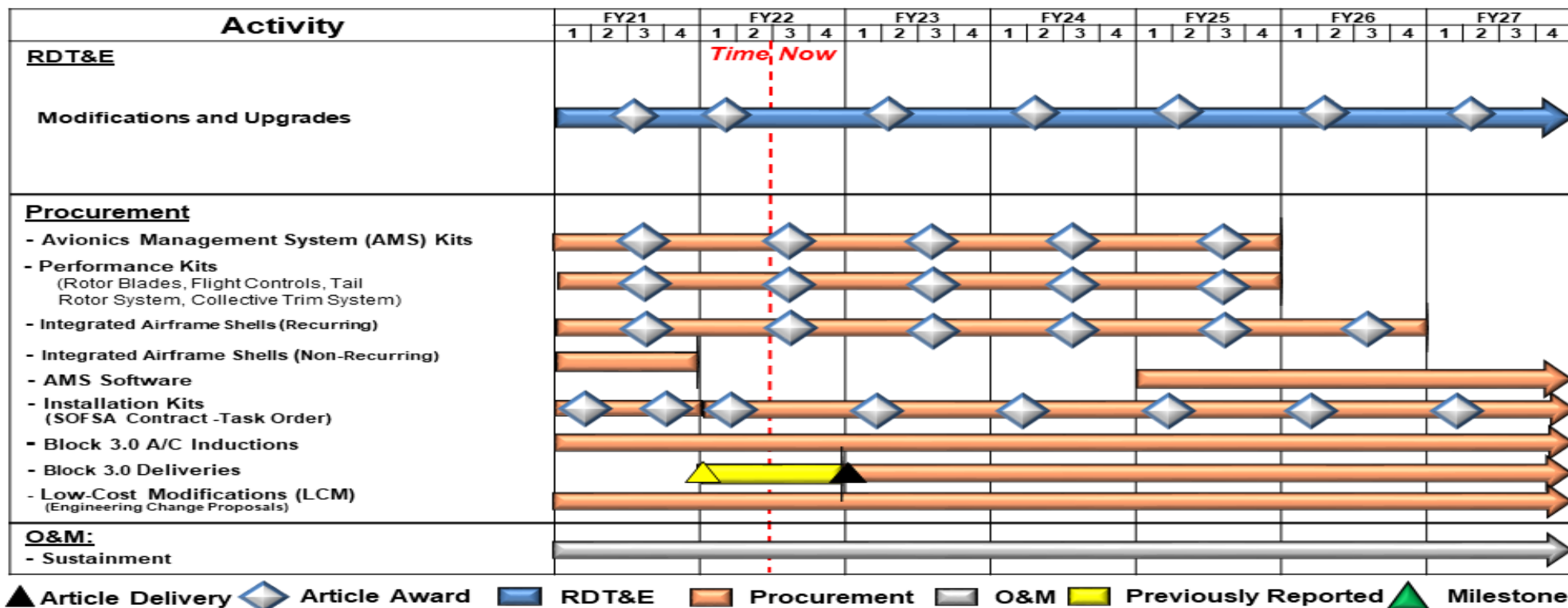
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
D615 / Rotary Wing Aviation

A/MH-6 Program Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

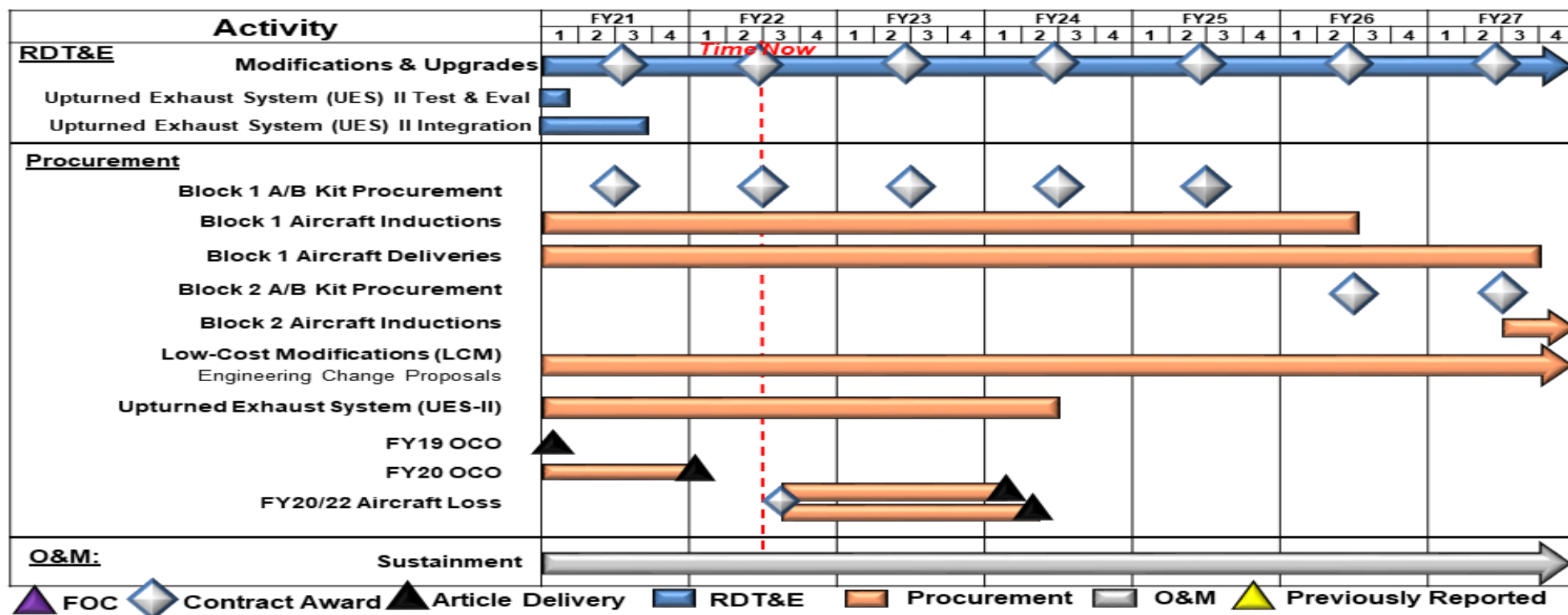
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 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 2023 United States Special Operations Command

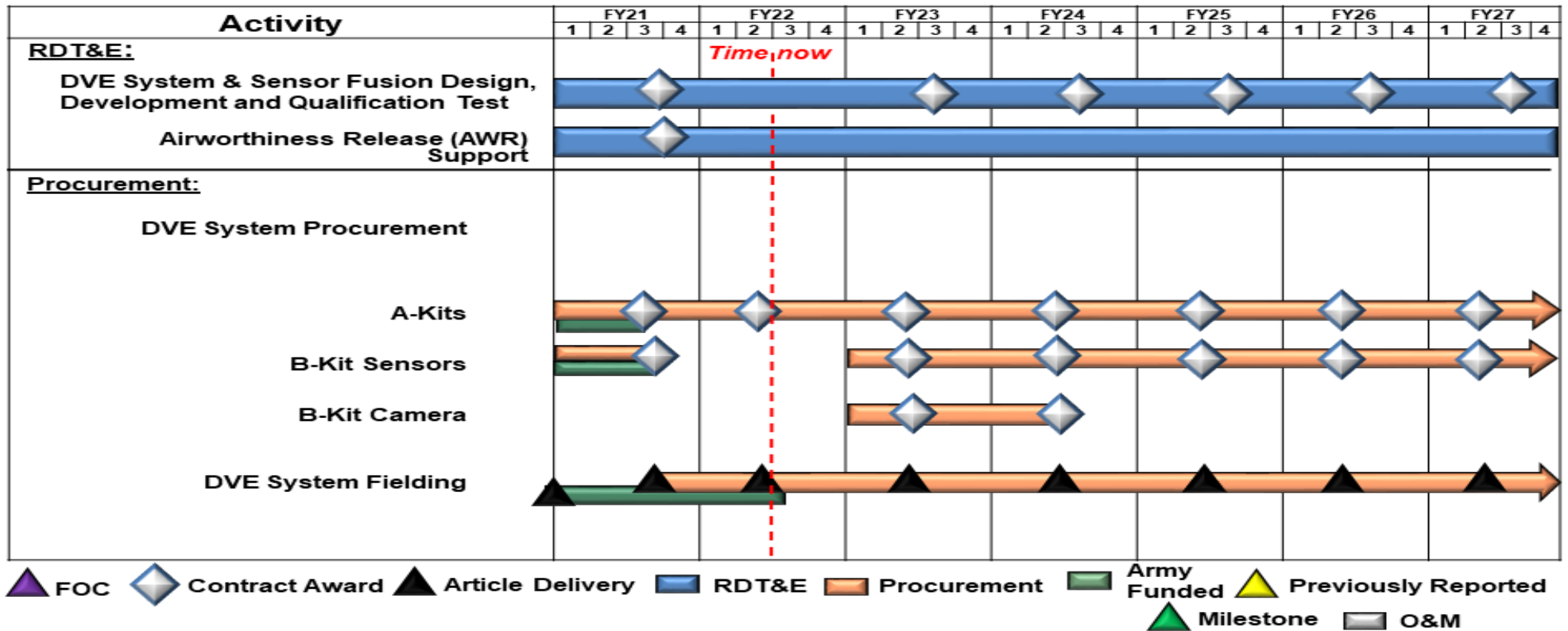
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
D615 / Rotary Wing Aviation

Degraded Visual Environment (DVE) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

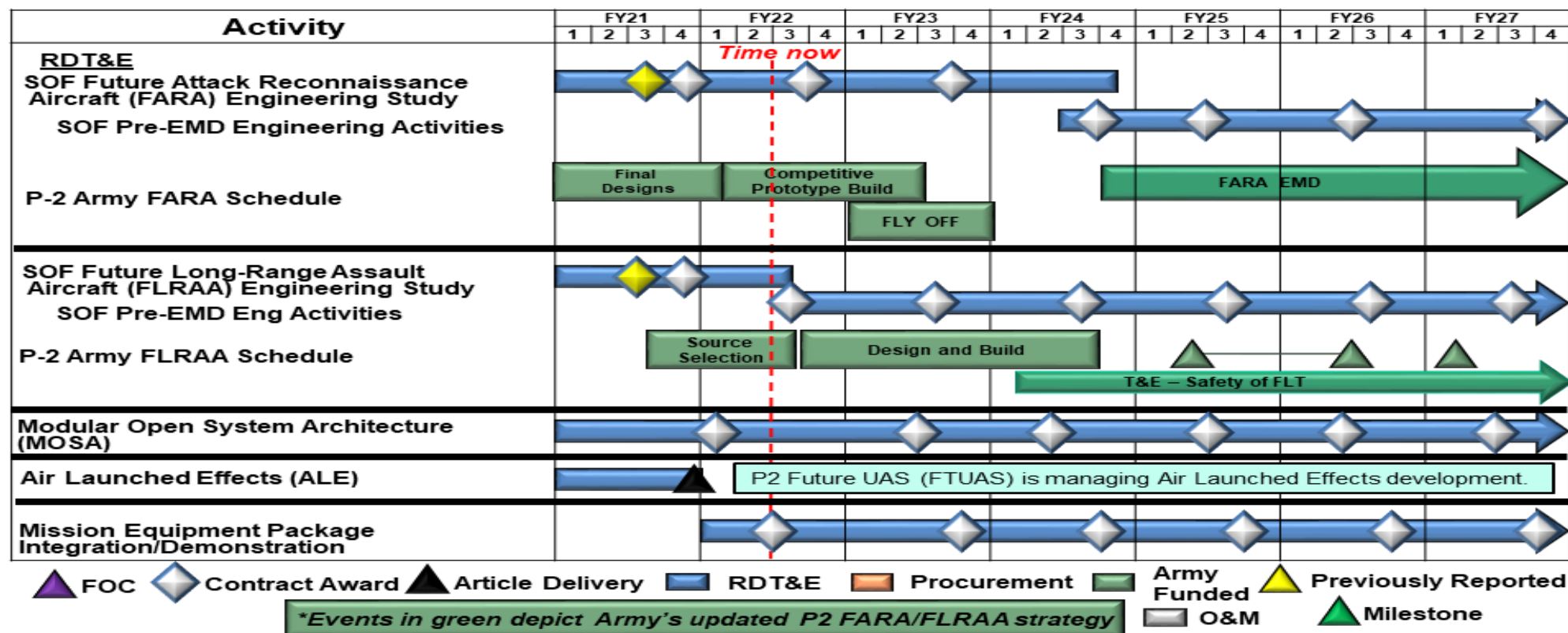
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
D615 / Rotary Wing Aviation

Future Vertical Lift Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

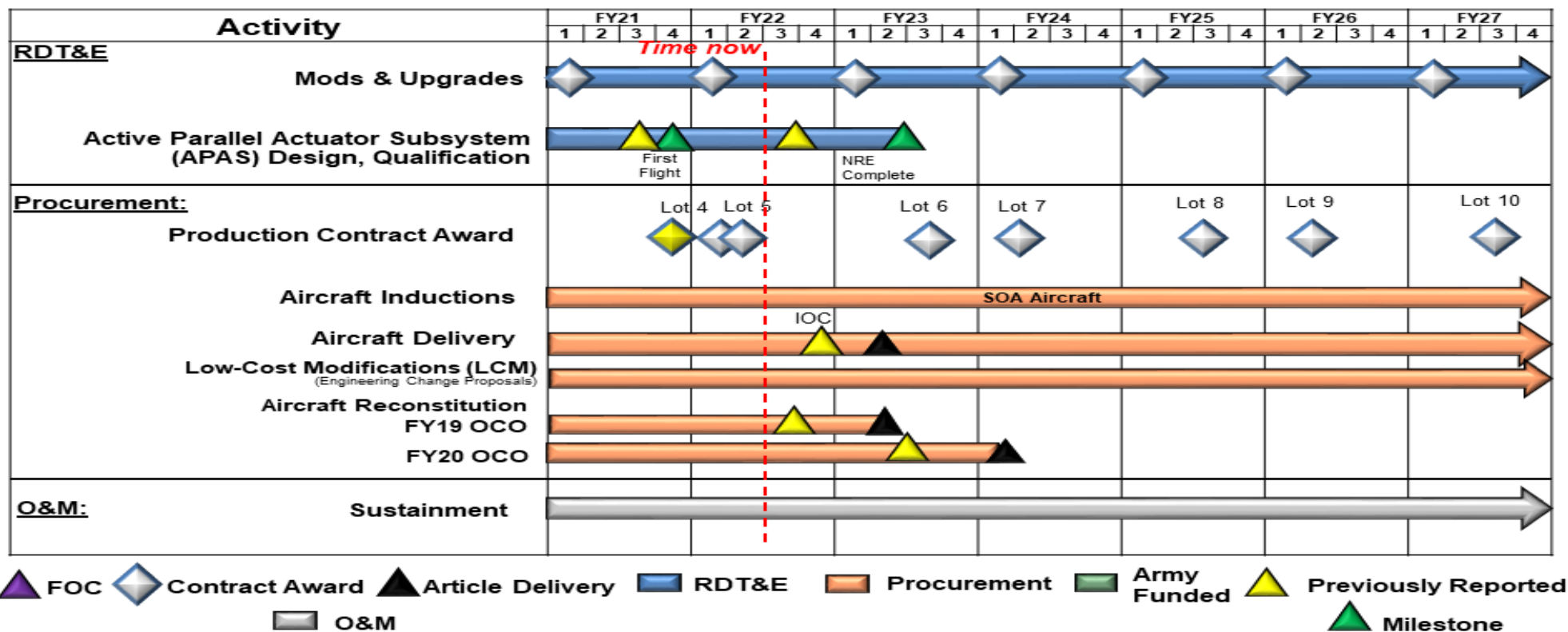
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
D615 / Rotary Wing Aviation

MH-47 Program Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

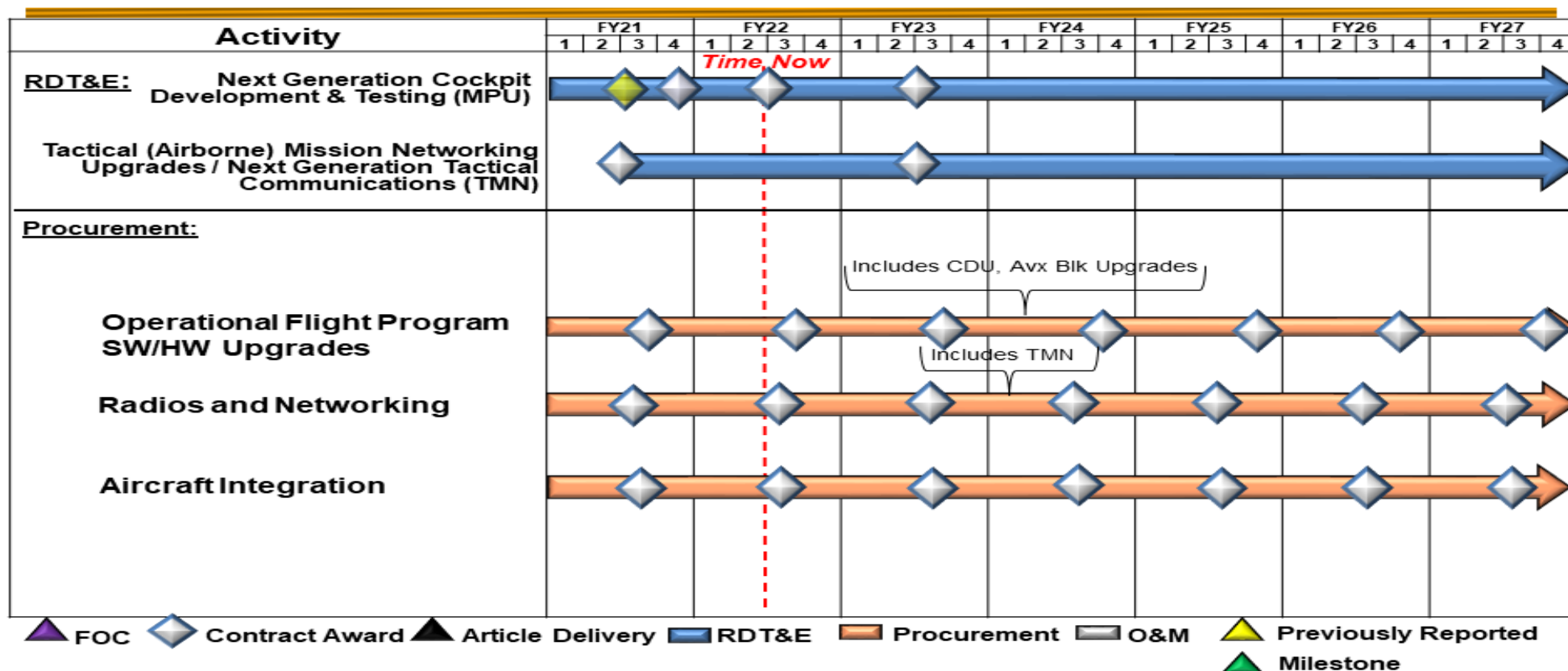
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
D615 / Rotary Wing Aviation

Mission Processor Upgrade Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

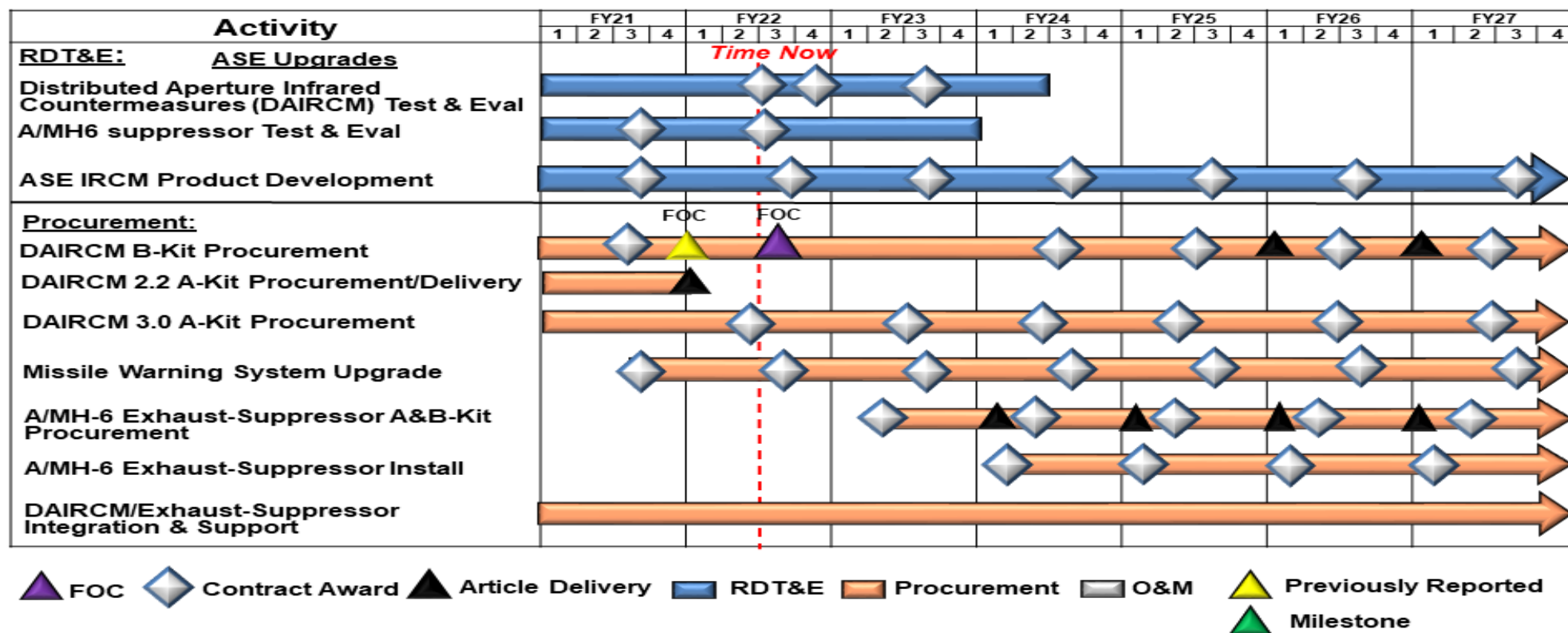
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
D615 / Rotary Wing Aviation

Aircraft Survivability Equipment Infrared Countermeasures Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

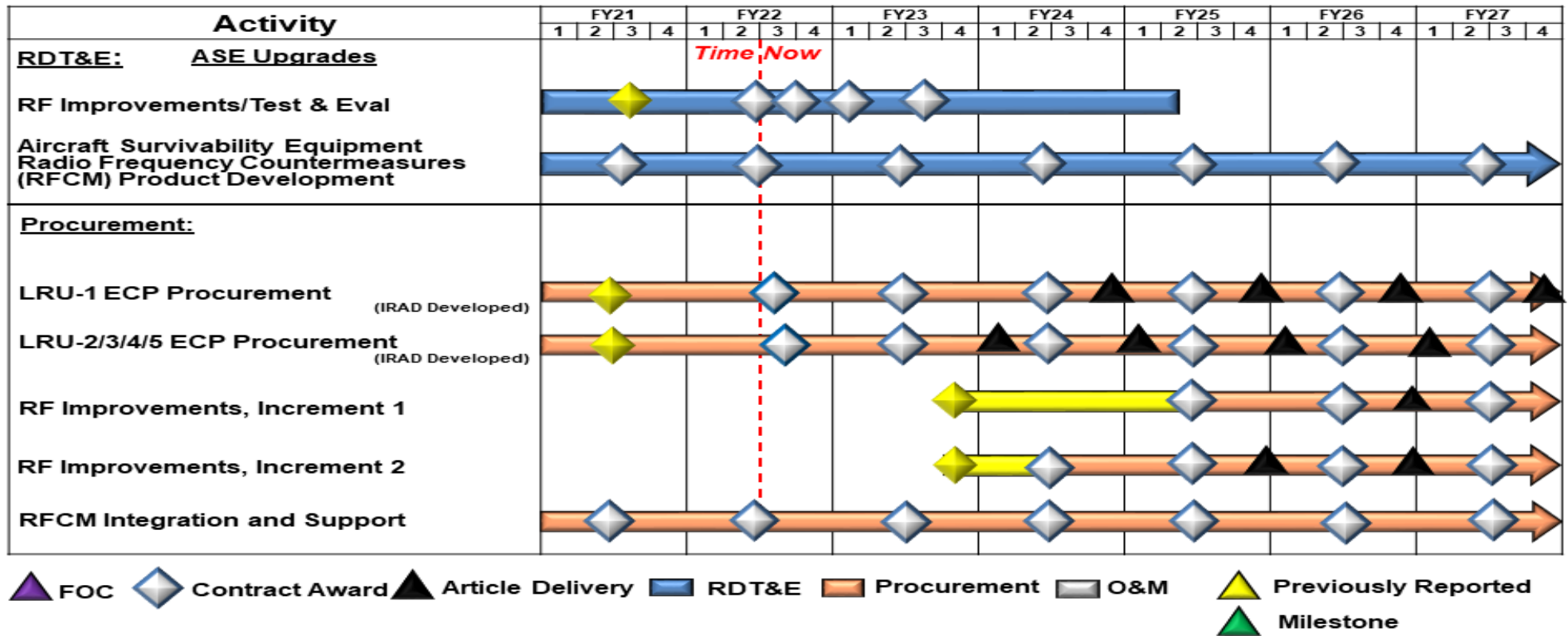
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160403BB / Aviation Systems

Project (Number/Name)
D615 / Rotary Wing Aviation

Aircraft Survivability Equipment Radio Frequency Countermeasures Schedule



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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 1160403BB / Aviation Systems	Project (Number/Name) D615 / Rotary Wing Aviation	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>A/MH-6M Block 3.0 and Modifications</i>				
Modifications and Upgrades	1	2021	4	2027
<i>MH-60M Modifications and Block Upgrades</i>				
Modifications and Upgrades	1	2021	4	2027
Upturned Exhaust System (UES) II Test & Eval	1	2021	1	2021
UES II Integration	1	2021	3	2021
<i>Degraded Visual Environment (DVE)</i>				
DVE Systems & Sensor Fusion Design, Development, and Qualification Test	1	2021	4	2027
Airworthiness Release (AWR) Support	1	2021	4	2027
<i>Future Vertical Lift (FVL)</i>				
SOF Future Attack Reconnaissance Aircraft (FARA) Engineering Study	1	2021	4	2027
SOF Future Long-Range Assault Aircraft (FLRAA) Engineering Study	1	2021	4	2027
Modular Open Systems Architecture	1	2021	4	2027
Air Launched Effects (ALE)	1	2021	4	2021
Mission Equipment Package (MEP)	1	2022	4	2027
<i>MH-47 Program</i>				
Modifications and Upgrades	1	2021	4	2027
Active Parallel Actuator Subsystem (APAS) Design, Qualification	1	2021	2	2023
<i>Mission Processor Upgrade (MPU)</i>				
Next Generation Cockpit Development and Testing	1	2021	4	2027
Tactical Mission Networking Upgrades / Next Generation Tactical Communications	2	2021	4	2027
<i>Aircraft Survivability Equipment (ASE) Infrared Countermeasures (IRCM)</i>				
Distributed Aperture IRCM Test and Evaluation	1	2021	2	2024

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / <i>Aviation Systems</i>	Project (Number/Name) D615 / <i>Rotary Wing Aviation</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
A/MH-6 Suppressor Test and Evaluation	1	2021	4	2023
ASE IRCM Product Development	1	2021	4	2027
<i>Aircraft Survivability Equipment (ASE) Radio Frequency Countermeasures (RFCM)</i>				
RF Improvements Test and Evaluation	1	2021	2	2025
ASE RFCM Product Development	1	2021	4	2027

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

Project: S400: *SO Intelligence Systems*

Congressional Add: *Sensitive Site Exploitation - Document and Media Exploitation Program*

FY 2021	FY 2022
7.000	-

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

<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>	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.

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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).			

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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 / <i>Intelligence Systems Development</i>		Project (Number/Name) S400 / <i>SO Intelligence Systems</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
<p>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.</p> <p>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).</p> <p>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).</p>					
<p>Title: JTWS</p> <p>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).</p> <p>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.</p> <p>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.</p>			14.200	11.661	21.805

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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 / <i>Intelligence Systems Development</i>	Project (Number/Name) S400 / <i>SO Intelligence Systems</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022
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		1.440	6.400
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.			6.022
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.			
Title: TVS/RSTA		1.263	3.117
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.			8.720

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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 / <i>Intelligence Systems Development</i>	Project (Number/Name) S400 / <i>SO Intelligence Systems</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022
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.		0.287	0.281
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.			
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.		0.803	0.797
FY 2022 Plans:			0.869

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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 / <i>Intelligence Systems Development</i>		Project (Number/Name) S400 / <i>SO Intelligence Systems</i>	
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			0.647	1.752	1.955
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:					

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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 / <i>Intelligence Systems Development</i>	Project (Number/Name) S400 / <i>SO Intelligence Systems</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022
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
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

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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 / <i>Intelligence Systems Development</i>	Project (Number/Name) S400 / <i>SO Intelligence Systems</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022
<p>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.</p> <p><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> 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).</p>			
<p><i>Title:</i> MTUAS</p> <p><i>Description:</i> 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.</p> <p><i>FY 2023 Plans:</i> 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.</p> <p><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> 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.</p>		-	10.935
<p><i>Title:</i> Classified Sub-Project</p> <p><i>Description:</i> Classified Sub-Project (provided under separate cover).</p> <p><i>FY 2022 Plans:</i> Details provided under separate cover.</p> <p><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></p>		-	2.481

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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	
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											
<p>• 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.</p> <p>• 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.</p>											

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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 / <i>Intelligence Systems Development</i>	Project (Number/Name) S400 / <i>SO Intelligence Systems</i>
<ul style="list-style-type: none"> • 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. 		

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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)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
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	-

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

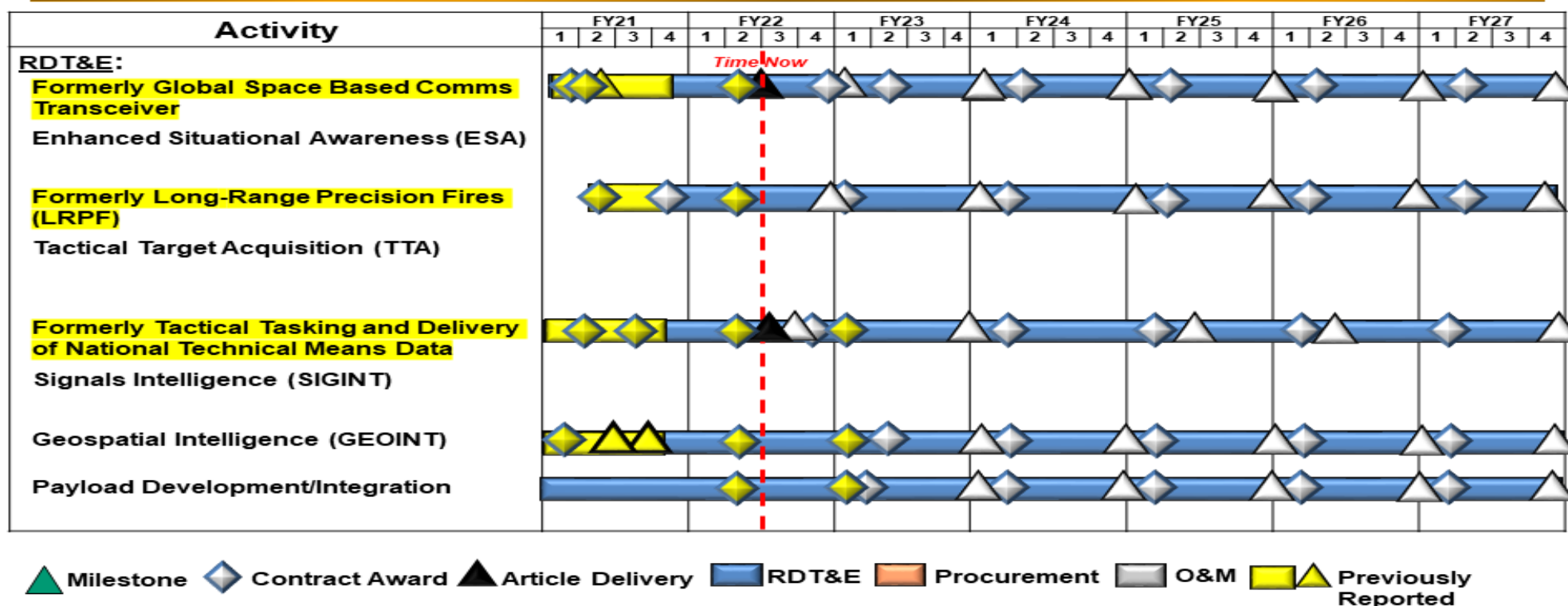
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command												Date: April 2022			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 1160405BB / Intelligence Systems Development				Project (Number/Name) S400 / SO Intelligence Systems					
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
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															

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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



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

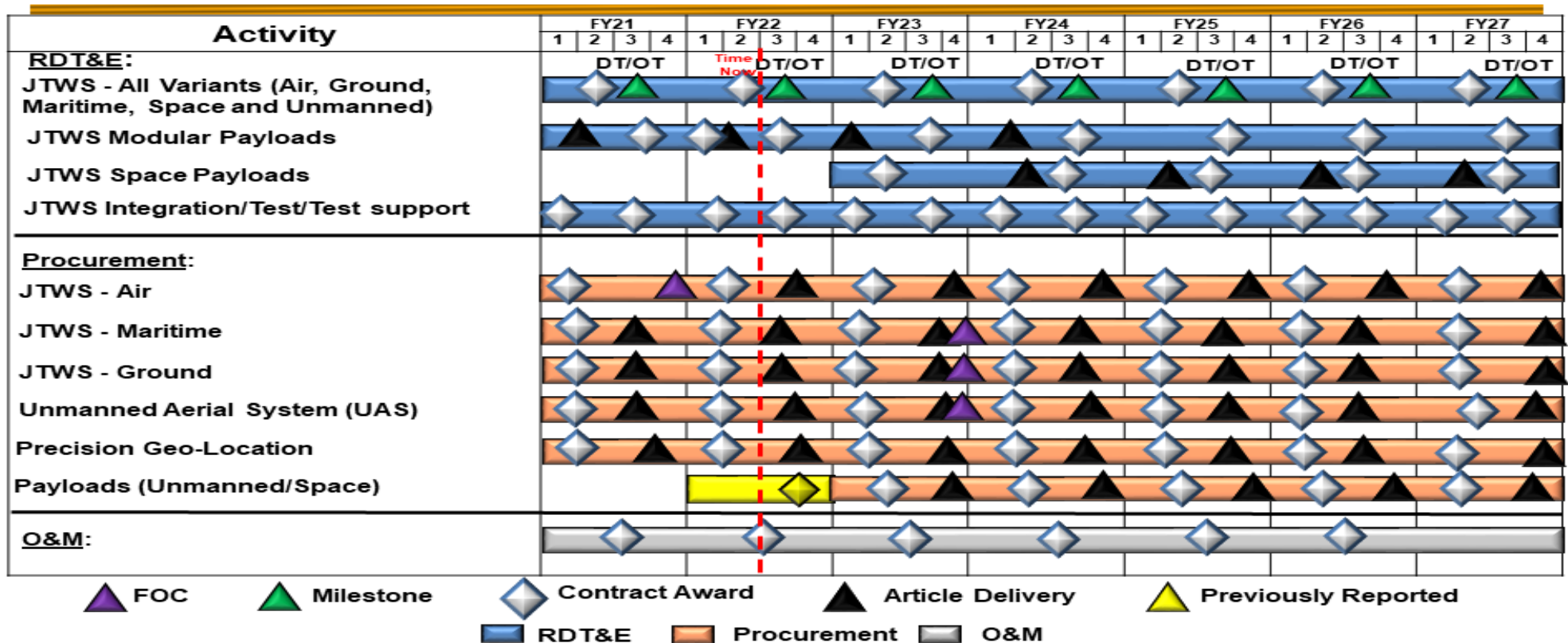
Date: April 2022

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



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

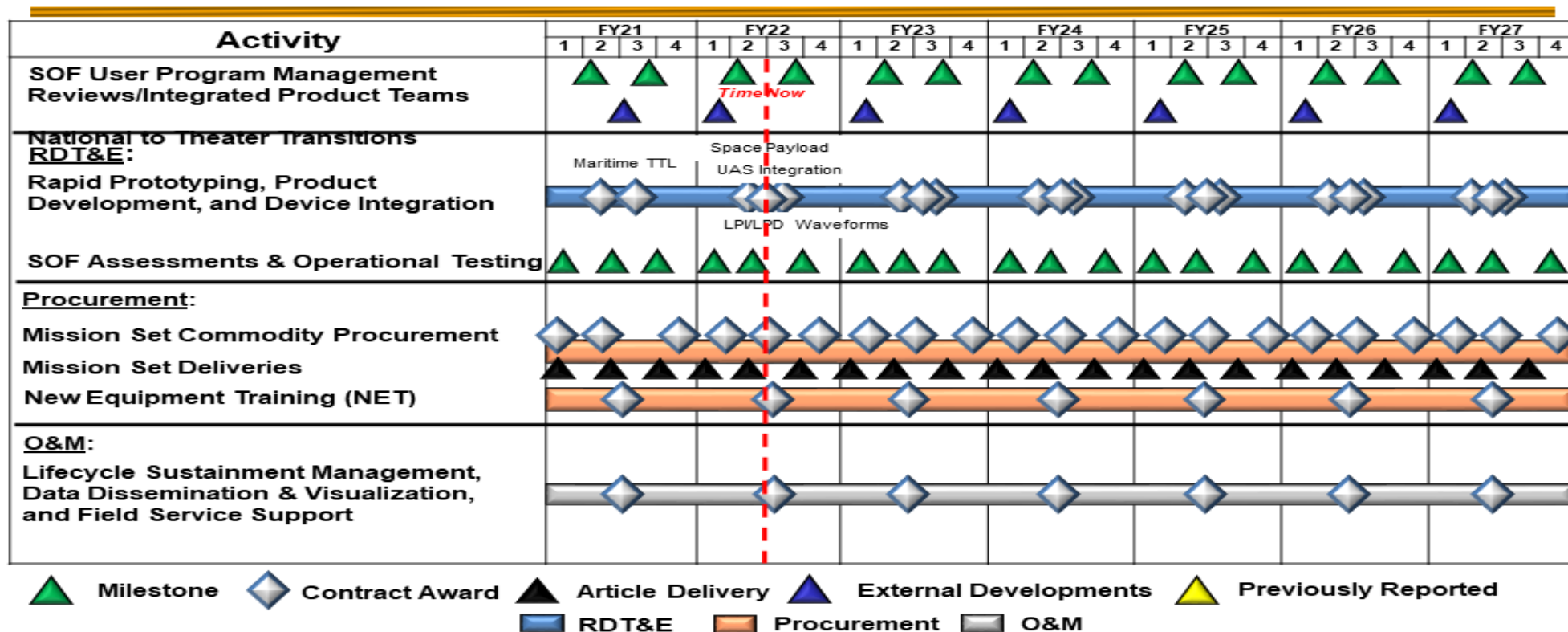
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Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160405BB / Intelligence Systems Development

Project (Number/Name)
S400 / SO Intelligence Systems

HF-TTL Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

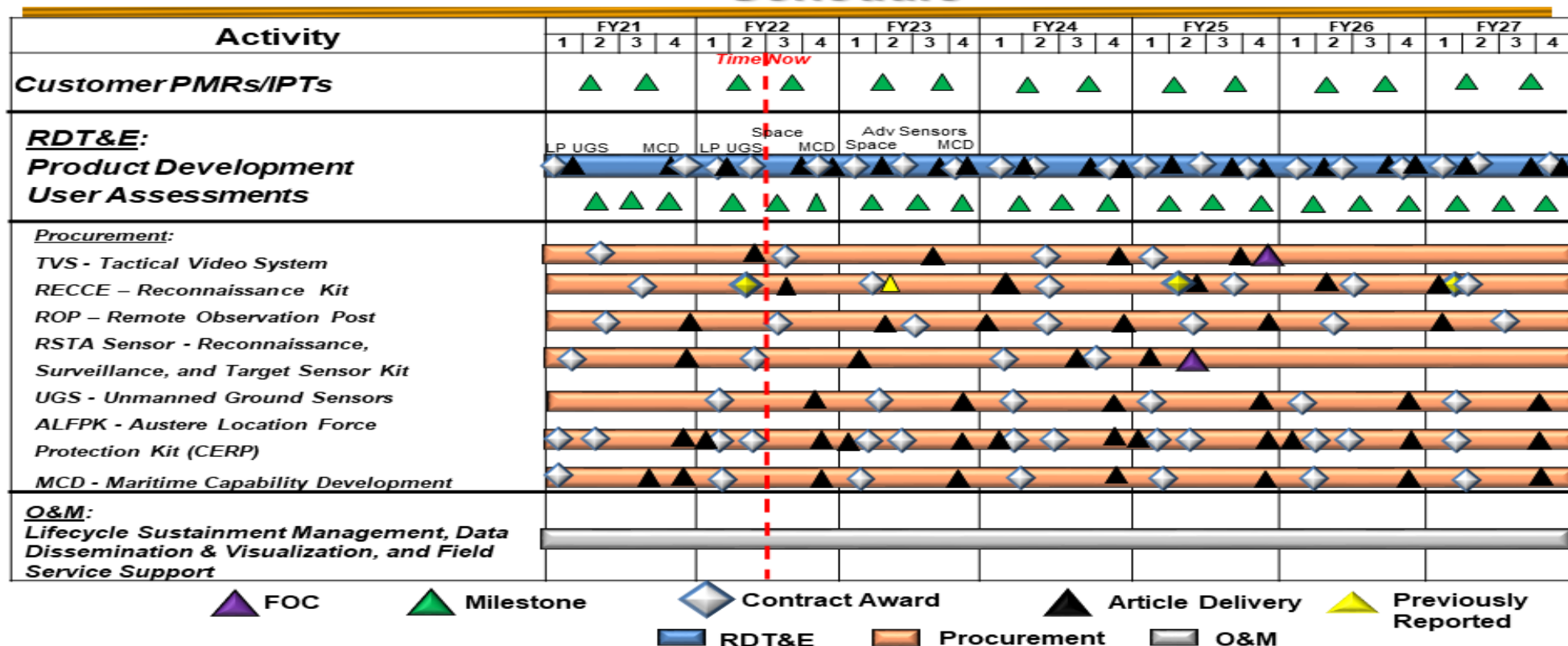
Date: April 2022

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



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

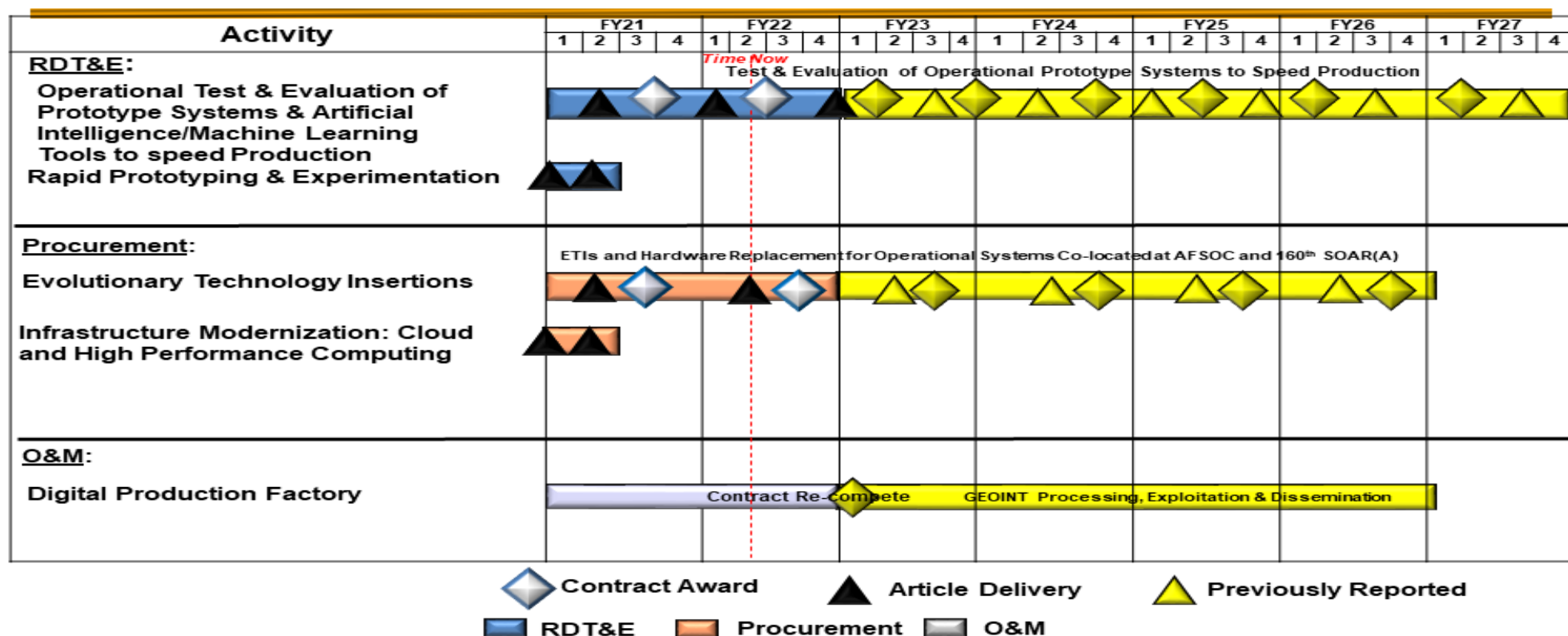
Date: April 2022

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



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

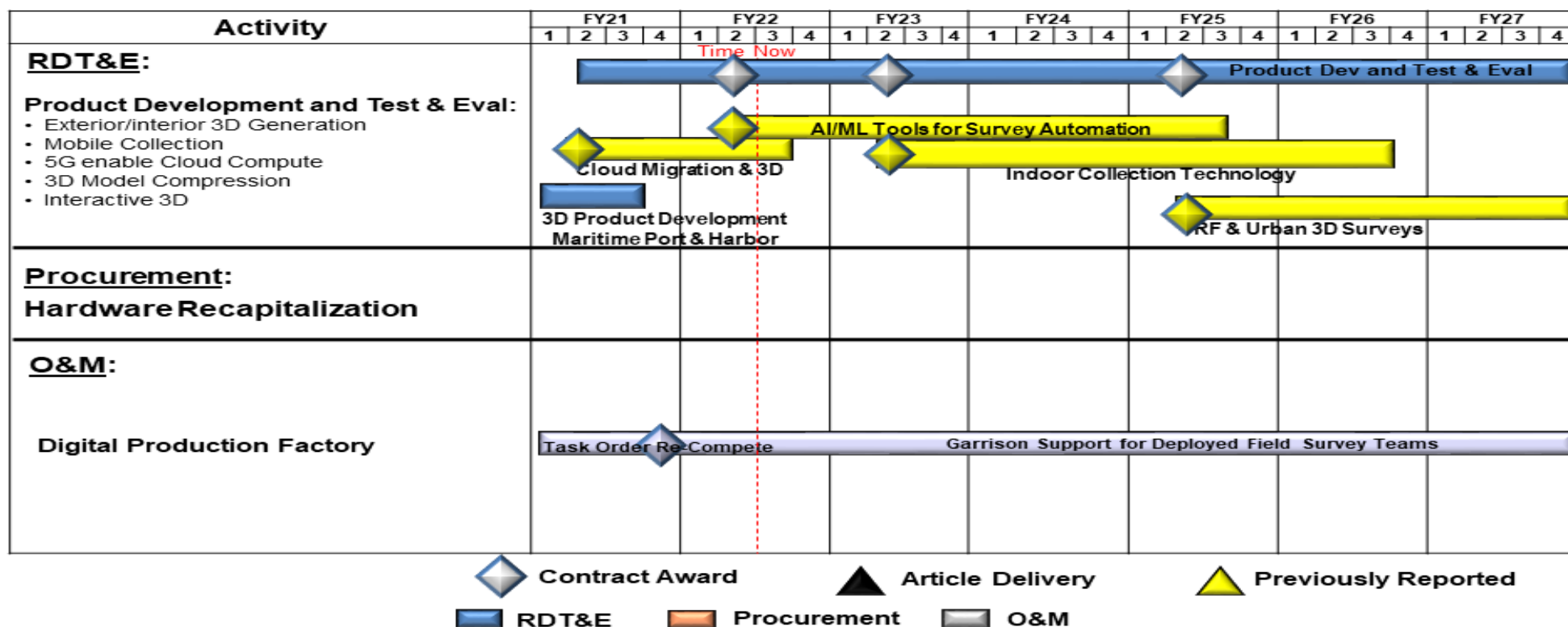
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name) PE 1160405BB / <i>Intelligence Systems Development</i>
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Project (Number/Name)	S400 / SO Intelligence Systems
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Integrated Survey Program (ISP)



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

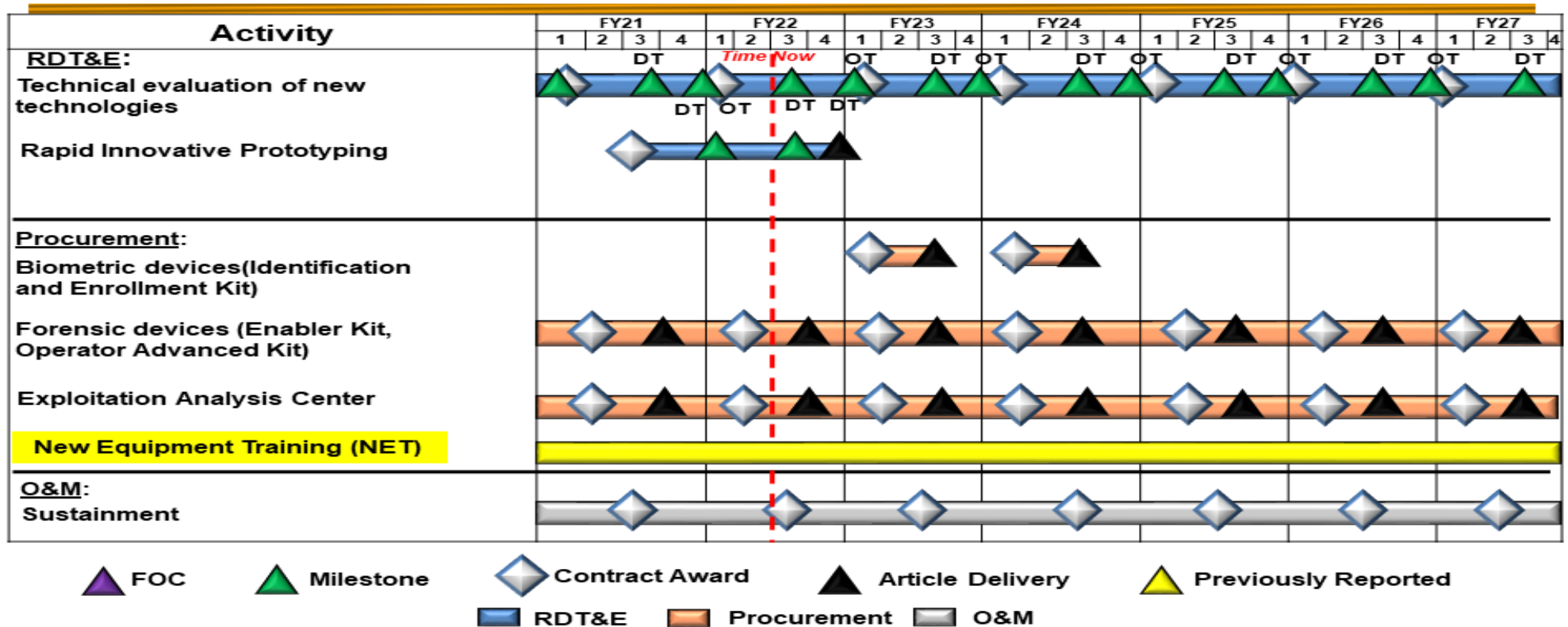
Date: April 2022

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

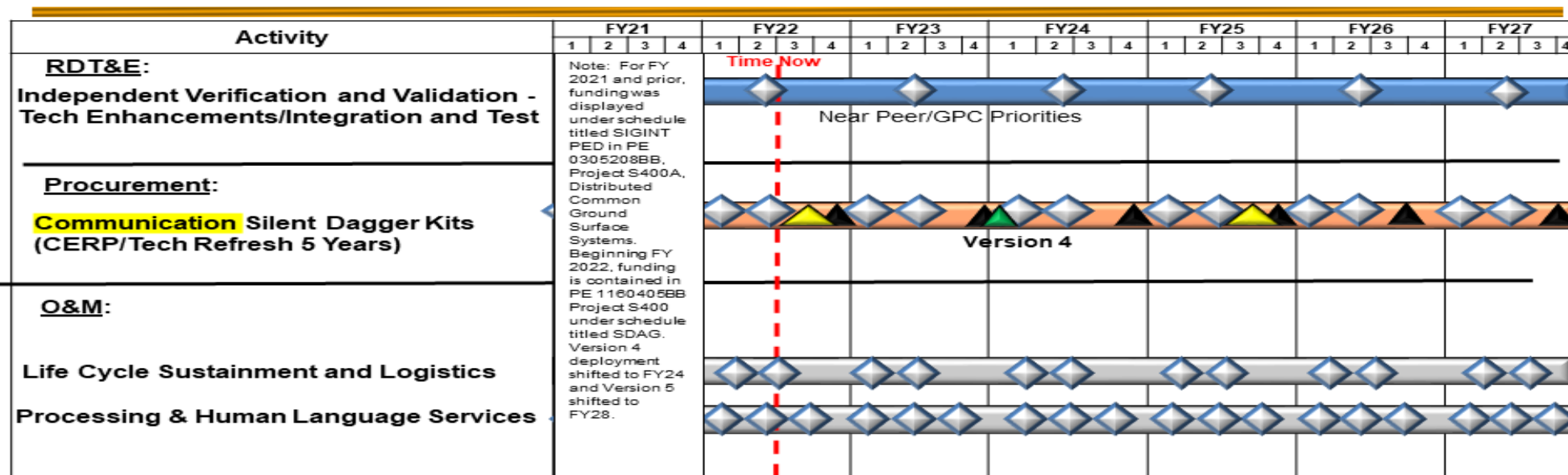


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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command Date: April 2022

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160405BB / Intelligence Systems Development	Project (Number/Name) S400 / SO Intelligence Systems
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SOF Signals Intelligence (SIGINT), Processing, Exploitation, Dissemination (PED), Silent Dagger (SD) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

Date: April 2022

Appropriation/Budget Activity

0400 / 7

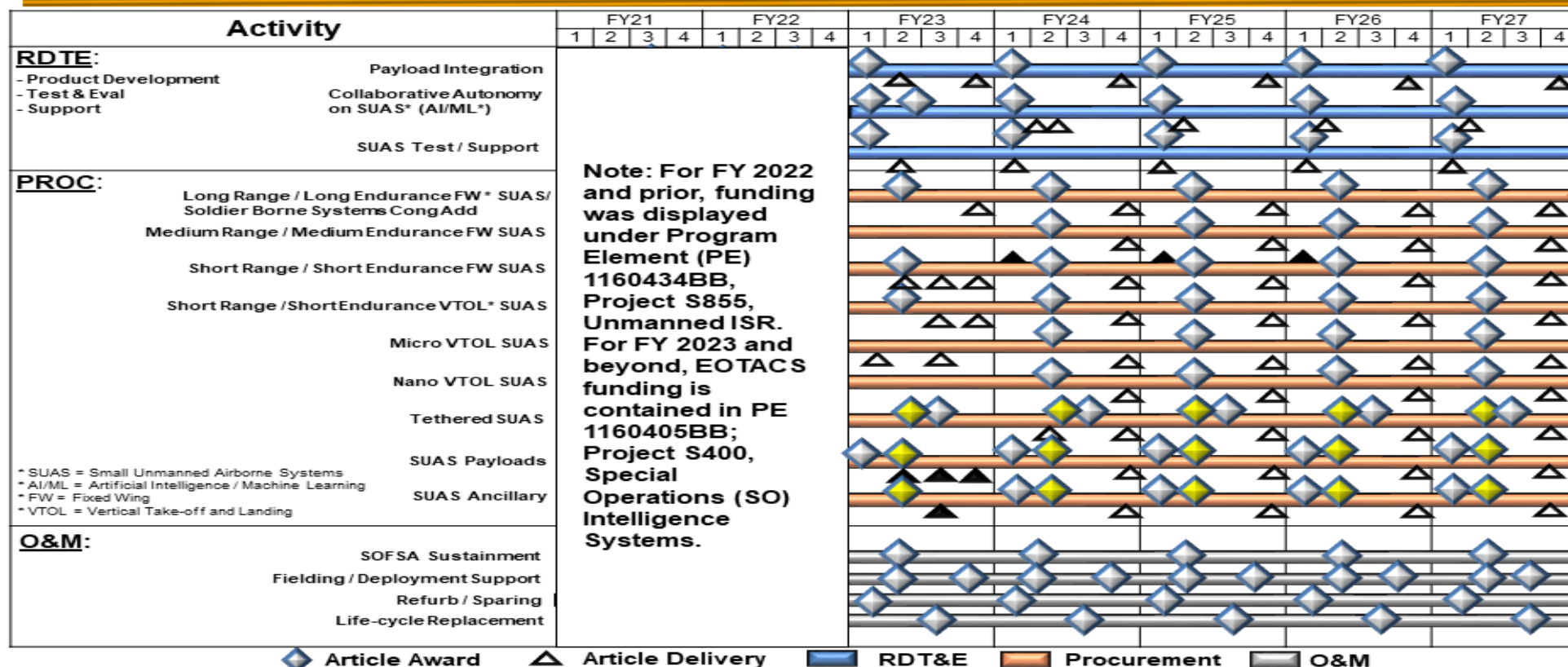
R-1 Program Element (Number/Name)

PE 1160405BB / Intelligence Systems Development

Project (Number/Name)

S400 / SO Intelligence Systems

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



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

Date: April 2022

Appropriation/Budget Activity

0400 / 7

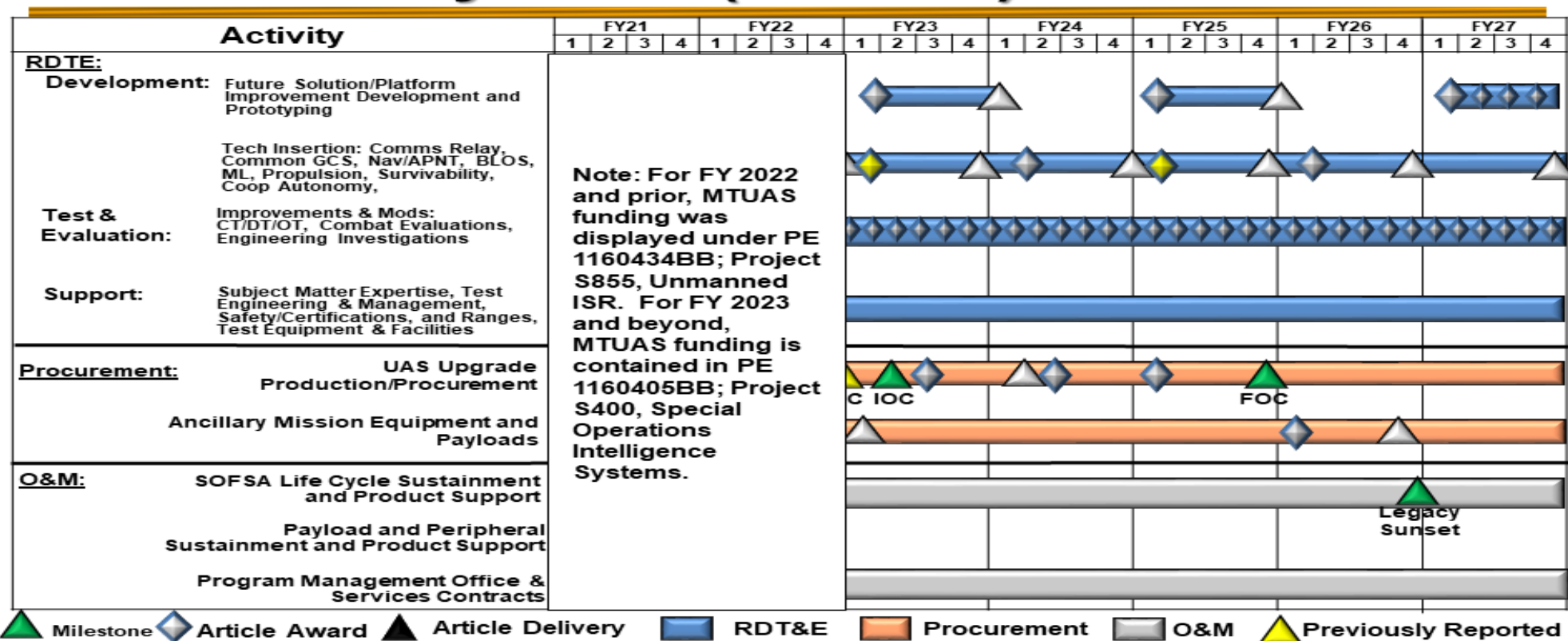
R-1 Program Element (Number/Name)

PE 1160405BB / Intelligence Systems Development

Project (Number/Name)

S400 / SO Intelligence Systems

Multi-Mission Tactical Unmanned Aerial Systems (MTUAS) Schedule



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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 / <i>Intelligence Systems Development</i>	Project (Number/Name) S400 / <i>SO Intelligence Systems</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>National Systems Support to SOF (NSSS)</i>				
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
<i>Joint Threat Warning System (JTWS)</i>				
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
<i>Hostile Forces - Tagging, Tracking, and Locating (HF-TTL)</i>				
Rapid Prototyping, Product Development, and Device Integration	1	2021	4	2027
SOF Assessments and Operational Testing	1	2021	4	2027
<i>Special Operations Tactical Video System/Reconnaissance, Surveillance, and Target Acquisition (TVS/RSTA)</i>				
Product Development	1	2021	4	2027
User Assessments	1	2021	4	2027
<i>Special Operations Forces Planning, Rehearsal & Execution Preparation (SOFPREP)</i>				

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

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160408BB / <i>Operational Enhancements</i>											
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	1,700.858	164.711	179.230	142.900	-	142.900	138.770	136.513	139.497	141.647	Continuing	Continuing
S500A: <i>Operational Enhancements</i>	1,700.858	164.711	179.230	142.900	-	142.900	138.770	136.513	139.497	141.647	Continuing	Continuing

A. Mission Description and Budget Item Justification

Details are provided under separate cover.

Fiscal Year (FY) 2021 funding totals include \$1.186 million appropriated for Overseas Contingency Operations (OCO).

FY 2022 funding totals include \$179.230 million Base with \$0.000 million Direct War and \$25.267 million for Enduring Costs.

FY 2023 Overseas Operations Costs funding accounted for in the Base budget include:

- Combat or direct combat support expenses that discontinue once combat operations end at major contingency locations (\$0.000 million).
- In-theater and in-CONUS expenses that remain after combat operations cease and have been previously funded in OCO (\$10.554 million).

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	174.122	145.830	0.000	-	0.000
Current President's Budget	164.711	179.230	142.900	-	142.900
Total Adjustments	-9.411	33.400	142.900	-	142.900
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	33.400			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-6.312	-			
• Other Adjustments	-3.099	-	142.900	-	142.900

Change Summary Explanation

Funding:

FY 2021: Net decrease of -\$9.411 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs (-\$6.312 million) and details provided under separate cover (-\$3.099 million).

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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 1160408BB / Operational Enhancements	
<p>FY 2022: Net increase of \$33.400 million is due to a Congressional Add for a classified adjustment (\$12.000 million) and a Congressional Add for AISUM (\$21.400 million). Details are provided under separate cover.</p> <p>FY 2023: Funding increase of \$142.900 million reflects the fact that the FY 2022 President’s Budget request did not include out-year funding.</p> <p>FY 2023 funding request was reduced by \$2.056 million to account for the availability of prior year execution balances.</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1160431BB / Warrior 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
Total Program Element	367.063	67.226	125.473	129.133	-	129.133	137.487	101.542	92.527	102.947	Continuing	Continuing
D476: Military Information Support Operations	55.212	3.705	3.168	5.371	-	5.371	5.500	3.434	3.503	3.573	Continuing	Continuing
S375: Weapons Systems	7.549	1.646	1.514	1.518	-	1.518	1.592	1.619	1.642	1.675	Continuing	Continuing
S385: Soldier Protection and Survival Systems	45.136	10.437	23.295	16.916	-	16.916	17.091	16.831	17.005	17.335	Continuing	Continuing
S385A: Body Armor and Associated Equipment	9.596	1.674	1.684	1.688	-	1.688	1.773	1.800	1.825	1.862	Continuing	Continuing
S395: Visual Augmentation, Lasers and Sensor Systems	16.812	2.092	5.047	4.990	-	4.990	5.152	5.188	5.198	5.301	Continuing	Continuing
S700: Communications Equipment and Electronics Systems	60.999	28.356	21.456	48.665	-	48.665	49.902	24.013	16.204	23.070	Continuing	Continuing
S710: Tactical Systems Development	9.912	3.222	14.331	21.736	-	21.736	25.597	26.683	25.191	27.417	Continuing	Continuing
S725: Tactical Radio Systems	43.178	4.149	12.999	10.058	-	10.058	10.339	5.414	5.490	5.568	Continuing	Continuing
S800: Munitions Advanced Development	118.669	11.945	41.979	18.191	-	18.191	20.541	16.560	16.469	17.146	Continuing	Continuing

A. Mission Description and Budget Item Justification

This Program Element (PE) provides for the development, rapid prototyping, testing, and integration of specialized equipment in the areas of automation, communication, radio, weapon, soldier protection and survival, visual augmentation, lasers and sensors, munition and military information support operations (MISO) systems. Warrior Systems specialized equipment will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. Special Operation Forces (SOF) must infiltrate by land, sea, and air to conduct unconventional warfare, direct action, or deep reconnaissance operations in denied areas against insurgent units, terrorists, or highly sophisticated threat forces. The requirement to operate in denied areas controlled by a sophisticated threat mandates that SOF systems remain technologically superior to threat forces to ensure mission success. The efforts within this PE improve SOF warfighting capabilities by continuing efforts to develop smaller, lighter, more efficient and more robust capabilities. The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability while, generally, being conducted in harsh environments for unspecified periods and in locations requiring small unit autonomy. Communications efforts will maintain a command, control, and communications (C3) link between SOF Commanders and SOF Teams, and provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies and allied foreign forces. Efforts relating to soldier

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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 I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 1160431BB I Warrior Systems	
<p>protection and survival requirements will improve survivability and mobility of SOF while conducting varied missions. Counter Unmanned Aerial Systems (C-UAS) efforts rely on cutting edge detection sensors, both passive and active, paired with kinetic and non-kinetic defeat systems to allow SOF Operators to conduct SOF missions in denied and hostile environments worldwide. Specialized visual augmentation, lasers and sensors will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. Munition efforts include advanced engineering, operational system development, and qualification efforts related to SOF-peculiar munitions and equipment. Maritime Precision Engagement Munition (MPE-M) and Ground Organic Precision Strike System (GOPSS) develop a SOF organic strike mission package to surgically strike an agile and mobile enemy, protect our forces, and minimize collateral damage. The MISO efforts convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. These technologies will be pursued via rapid prototyping efforts when appropriate.</p> <p>Fiscal Year (FY) 2021 funding totals include \$5.796 million appropriated for Overseas Contingency Operations (OCO). FY 2022 funding totals include \$78.592 million Base with \$0.000 million Direct War and \$5.195 million for Enduring costs in the Base Budget. FY 2023 Overseas Operations Costs funding accounted for in the Base Budget include:</p> <ul style="list-style-type: none">• Combat or direct combat support expenses that discontinue once combat operations end at major contingency locations (\$0.000 million).• In-theater and in-CONUS expenses that remain after combat operations cease and have been previously funded in OCO (\$4.128 million). <p>MISO:</p> <p>This project funds the development, test, and integration of systems to conduct the seven phase MISO process (planning, targeting audience analysis, series development, product development and design, approval, production/distribution/dissemination, and measures of effectiveness) in support of combatant commanders. MISO efforts convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals.</p> <p>Weapons Systems:</p> <p>This project provides for next generation system development and Pre-Planned Product Improvements (P3I), testing, and integration of specialized weapon systems and weapon accessories to meet the unique requirements of SOF. Efforts include muzzle brakes and suppressors, and P3I for assault, sniper, and crew served weapons leveraging the latest technological advances to achieve overmatch capability against emerging threats.</p> <p>Soldier Protection and Survival Systems:</p> <p>This project funds the development, testing, integration, rapid prototyping and evaluation of specialized equipment to meet the unique soldier protection and survival requirements of SOF, to include, but not limited to: individual survival equipment; hearing protection; clothing systems; load bearing equipment; Multi-Mission Electronic Countermeasures (MM-ECM) formerly Counter Radio Controlled Improvised Explosive Device (RC-IED) systems; Counter Unmanned Systems (aerial, ground and maritime); and personal safety equipment to improve the mobility of SOF, while conducting varied missions. These missions are generally conducted in harsh and hostile environments, for unspecified periods and in locations requiring small unit autonomy.</p> <p>The total cost of the C-UAS Middle Tier of Acquisition effort is \$30.234 million (FY 2023 – FY2027), including Research Development Test & Evaluation (RDT&E) and procurement of prototype units. The C-UAS effort is fully funded across the Future Years Defense Program (FYDP).</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>
<p>Body Armor and Associated Equipment: This project provides specialized equipment with ballistic protection to meet the unique soldier protection and survival requirements of SOF. Specialized ballistic equipment improves survivability and load bearing equipment impacting the mobility of SOF while conducting varied missions. This project enhances the SOF Personal Equipment Advanced Requirements program by providing for the research, development, and testing of body armor plates, soft armor, helmets, eye protection, and other personal protective equipment to meet current ballistic threats that exist on the battlefield.</p> <p>Visual Augmentation, Lasers and Sensor Systems: This project provides for the development, testing, and integration of specialized visual augmentation, laser and sensor systems equipment to meet the unique requirements of SOF and facilitate future Hyper-Enabled Operator capabilities. Programs in this area include binocular/monocular devices; next generation laser designation and geo-location systems; weapon aiming lasers, scopes and accessories; and training and simulation systems.</p> <p>Communications Equipment and Electronics Systems: This project provides for communication systems to meet emergent requirements to support SOF. The SOF units require communications equipment that improves their warfighting capability without degrading their mobility. SOF Communications Equipment and Electronics is a continuing effort to develop smaller, lighter, more efficient and more robust SOF command, control, communications, and computer (C4) capabilities.</p> <p>Tactical Systems Development: This project provides for the development, testing, and integration of specialized automation equipment to meet the unique requirements of SOF. Tactical systems provide forward deployed forces with advanced networking, automated data processing, storage, and display capabilities to support situational awareness, mission planning and execution, and command and control (C2) of forces.</p> <p>Tactical Radio Systems: This project provides for the development of all SOF tactical radio programs. The SOF units require radio communication equipment that improves their warfighting capability without degrading their mobility. The USSOCOM has developed an overall strategy to ensure that Tactical Radio Systems continue to provide SOF with the required capabilities throughout the 21st century. The SOF Tactical Radios provide the critical command, control, and communications link between SOF Commanders and SOF Teams involved in operational missions and training exercises. They also provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies, and allied/coalition forces. Tactical Radios rapidly and seamlessly establish and maintain mobile and fixed C2 communications between infiltrated/operational elements and higher echelon headquarters, allowing SOF to operate with any force combination in multiple environments.</p> <p>The total cost of the Remote, Advise and Assist Virtual Accompany Kit (RAA/VAK) Middle Tier of Acquisition effort is \$5.451 million (FY 2023 – FY2027), including RDT&E and procurement of prototype units. The RAA/VAK effort is fully funded across the FYDP.</p> <p>Munitions Advanced Development:</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>
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This project provides for the advanced engineering, operational system development, and qualification efforts related to SOF-peculiar and Foreign/Non-standard munitions and equipment. Funding supports development of Insensitive Munitions (IM) technology and evaluation, in accordance with the statutory requirement set forth in U.S. Code, Title 10, Chapter 141, Section 2389 (December 2001). Testing is in accordance with the USSOCOM IM Strategic Plan. Funding also supports efforts to develop and improve MPE-M, GOPSS, and Stand-Off Precision Guided Munitions (SOPGM), including the development and integration of various technologies to enhance/modernize the SOPGMs delivered onto SOF and non-SOF platforms. When appropriate, these technologies will be pursued via rapid prototyping to develop, demonstrate, and evaluate residual operational capabilities. Munitions Scalable Effects (MSE) is designated a Middle Tier of Acquisition (MTA) program which uses a Rapid Prototype effort to assess a capability to deliver different munitions with multiple effects at short range from maritime platforms. MPE-M and GOPSS are designated MTA programs which uses the rapid prototyping pathway and is executing using existing contracts, government agencies, and new contracts competitively selected as appropriate.

The total cost of the Ordnance (MPE-M and GOPSS) MTA effort is \$48.033 million (FY 2023 – FY2027), including RDT&E and procurement of prototype units. The Ordnance effort is fully funded across the FYDP.

The total cost of the Target Engagements MTA effort is \$15.329 million (FY 2023 – FY2027), including RDT&E and procurement of prototype units. The Target Engagements effort is fully funded across the FYDP.

The total cost of the MSE MTA effort is \$2.812 million (FY 2023 – FY2027), including RDT&E and procurement of prototype units. The MSE effort is fully funded across the FYDP.

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	64.095	78.592	0.000	-	0.000
Current President's Budget	67.226	125.473	129.133	-	129.133
Total Adjustments	3.131	46.881	129.133	-	129.133
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	46.881			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.128	-			
• Other Adjustments	5.259	-	-	-	-
• Adjustments to Budget Year	-	-	129.133	-	129.133

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: S385: *Soldier Protection and Survival Systems*

FY 2021	FY 2022

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command		Date: April 2022	
Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	
<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2021	FY 2022
Congressional Add: <i>C-UAS</i>		-	8.670
Congressional Add Subtotals for Project: S385		-	8.670
Project: S710: <i>Tactical Systems Development</i>			
Congressional Add: <i>Special Operations Fused Global Data Analytics and Visualization</i>		-	8.000
Congressional Add Subtotals for Project: S710		-	8.000
Project: S725: <i>Tactical Radio Systems</i>			
Congressional Add: <i>STC - Software-Defined Radio Waveforms</i>		-	10.000
Congressional Add Subtotals for Project: S725		-	10.000
Project: S800: <i>Munitions Advanced Development</i>			
Congressional Add: <i>Various Effects Launcher Capability</i>		-	16.000
Congressional Add: <i>Maritime Scalable Effects Acceleration</i>		-	4.211
Congressional Add Subtotals for Project: S800		-	20.211
Congressional Add Totals for all Projects		-	46.881
<u>Change Summary Explanation</u>			
Funding:			
FY 2021: Net increase of \$3.131 million is due to an increase for product development, design, and integration of MPE-M test articles for the Altius-700 warhead payload and product development and integration of GOPSS manpackable loitering munitions (LM) capabilities (\$5.169 million); an increase to support the evaluation of Satellite Deployable Node High (SDN) Throughput Satellite constellations and terminals (\$2.900 million); an increase for product development of classified MSE against identified adversaries (\$1.000 million); an increase to support the implementation of Windows Tactical Assault Kit-Common Operating Picture - MISO enhancements (\$0.523 million); an increase for weapons prototype suppression construction (\$0.100 million); a decrease to support the evaluation of SDN High Throughput Satellite constellations and terminals and emerging critical command requirements (-\$3.500 million); a decrease to support implementation of Windows Tactical Assault Kit-Common Operating Picture enhancements and emerging critical command requirements (-\$0.933 million); and a decrease due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs (-\$2.128 million).			

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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 1160431BB / Warrior Systems	
<p>FY 2022: Net increase of \$46.881 million is due to a Congressional Add for C-UAS (\$8.670 million); a Congressional Add for Special Operations Fused Global Data Analytics and Visualization (\$8.000 million); a Congressional Add for Software-Defined Radio Waveforms (\$10.000 million); a Congressional Add for Various Effects Launcher Capability (\$16.000 million); and a Congressional Add for Maritime Scalable Effects Acceleration (\$4.211 million).</p> <p>FY 2023: FY 2023 funding increase of \$129.133 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.</p> <p>FY 2023 funding request was reduced by \$1.957 million to account for the availability of prior year execution balances.</p>		

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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 1160431BB / Warrior Systems				Project (Number/Name) D476 / Military Information Support Operations			
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
D476: Military Information Support Operations	55.212	3.705	3.168	5.371	-	5.371	5.500	3.434	3.503	3.573	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the development and acquisition of MISO equipment. The MISO are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of foreign governments, organizations, groups, and individuals. This project funds transformational systems and equipment to conduct MISO in support of combatant commanders.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: Fly-Away Broadcast System (FABS) Description: The FABS is a transit case fly-away broadcast system that uses Government and industry standard technology to disseminate approved messaging to target audiences via Frequency Modulation (FM), Shortwave (SW), cellular Short Message Service (SMS), and Television (TV) transmissions. FY 2022 Plans: Continue development of the Next Generation FABS-Broadcast Dissemination Platform (BDP) by integrating key capabilities that enhance MISO broadcast (Short Wave, AM Broadcast, Multi-Mode, Live Streaming and Next Generation Loud Speakers (NGLS)-Scatterable Media Integration) and reduce size, weight, and power (SWAP) through the employment of a Software Defined Radio (SDR). FY 2023 Plans: Continues development and commences test and evaluation of the Next Generation FABS-BDP by integrating key capabilities that enhance MISO broadcast (Short Wave, AM Broadcast, Multi-Mode, Live Streaming and NGLS-Scatterable Media Integration) and reduce SWAP through the employment of a SDR. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$2.140 million supports the continued development and the beginning of development/operational test of the Next Generation FABS BDP.	0.682	0.696	2.836
Title: Next Generation Loud Speakers (NGLS) Description: The NGLS are portable capabilities that disseminate high quality pre-recorded and live audio messages for global employment by MISO SOF. The NGLS consists of three variants: NGLS Dismounted (NGLS-D), NGLS-Scatterable Media (NGLS-SM), and NGLS-Sonic Projection (NGLS-SP). The NGLS-D is a man-portable capability that is lighter, smaller, and louder	1.370	0.885	0.904

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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 1160431BB / Warrior Systems				Project (Number/Name) D476 / Military Information Support Operations			
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2021	FY 2022	FY 2023
than legacy speaker systems with increased resilience and durability. The NGLS--SM is a hand-emplaced or air delivered printed audio-visual device that disseminates delayed or on-cue messages to foreign target audiences. The NGLS-SP is a loudspeaker with a highly focused and narrow beam of sound capable of projecting an audio message to one specific targeted individual while being concealed from personnel in the immediate vicinity.											
FY 2022 Plans: Continue development and evaluation of new systems and components to enhance MISO broadcasts. Complete NGLS-SM Increment 2 and development of Windows-Tactical Assault Kit/Common Operating Picture enhancements. Begin NGLS-SP development.											
FY 2023 Plans: Continues NGLS-D development, test, and evaluation. Continues NGLS-SP development.											
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.019 million supports accelerated NGLS-SP development.											
Title: Media Production Center (MPC)									1.653	1.587	1.631
Description: The MPC is a family of systems which include multi-media production, editing, and archiving capabilities to deliver imagery, audio, animation, and audio/video products of varying technical complexity to support SOF Psychological Operations Operators.											
FY 2022 Plans: Continue incremental development, test, and evaluation of emerging software applications.											
FY 2023 Plans: Continues incremental development, test, and evaluation of emerging software applications.											
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.044 million due to costs associated with the test and evaluation of new technologies.											
Accomplishments/Planned Programs Subtotals									3.705	3.168	5.371
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
• PROC1/0204OTHER:	82.776	55.722	98.096	-	98.096	131.156	88.698	93.486	125.880	Continuing	Continuing
OTHER ITEMS <\$5M											

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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 1160431BB / <i>Warrior Systems</i>			Project (Number/Name) D476 / <i>Military Information Support Operations</i>	

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
Remarks											
None.											

D. Acquisition Strategy

- The FABS program has an evolutionary acquisition strategy that aligns to the availability of developmental and commercial off-the-shelf technology, Government agencies and commercial sources are leveraged for required certifications, functional and operational tests, and sustainment.
- The NGLS program has an evolutionary acquisition strategy for the legacy NGLS-D and an incremental acquisition strategy for developmental variants NGL-SM and NGLS-SP. Government agencies and commercial sources are leveraged for required certifications, functional and operational tests, and sustainment.
- The MPC program has an incremental acquisition strategy for the development, test, and evaluation of advanced software applications. Government agencies and commercial sources are leveraged for required certifications, functional and operational tests, and sustainment.

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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 1160431BB / Warrior Systems				Project (Number/Name) D476 / Military Information Support Operations					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Fly Away Broadcast Systems (FABS) - Broadcast Dissemination Platform (BDP)	MIPR	Various : Various	6.101	0.682	Feb 2021	0.696	Nov 2021	2.736	Dec 2022	-		2.736	Continuing	Continuing	-
Next Generation Loud Speakers (NGLS)	Various	Various : Various	1.164	1.370	Feb 2021	0.885	Apr 2022	0.804	Jun 2023	-		0.804	Continuing	Continuing	-
Media Production Center (MPC)	C/Various	Various : Various	-	1.653	Feb 2021	1.487	Jan 2022	1.531	Jan 2023	-		1.531	Continuing	Continuing	-
Prior Year	C/Various	Various : Various	30.929	-		-		-		-		-	0.000	30.929	-
Prior Year - Congressional Add	C/Various	Various : Various	15.409	-		-		-		-		-	0.000	15.409	-
Subtotal			53.603	3.705		3.068		5.071		-		5.071	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FABS-BDP	MIPR	Various : Various	-	-		-		0.100	Mar 2023	-		0.100	Continuing	Continuing	-
NGLS	MIPR	Various : Various	-	-		-		0.100	Jun 2023	-		0.100	Continuing	Continuing	-
MPC	C/Various	Various : Various	-	-		0.100	Jan 2022	0.100	Jan 2023	-		0.100	Continuing	Continuing	-
Prior Year	Various	Various : Various	1.609	-		-		-		-		-	0.000	1.609	-
Subtotal			1.609	-		0.100		0.300		-		0.300	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			55.212	3.705		3.168		5.371		-		5.371	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

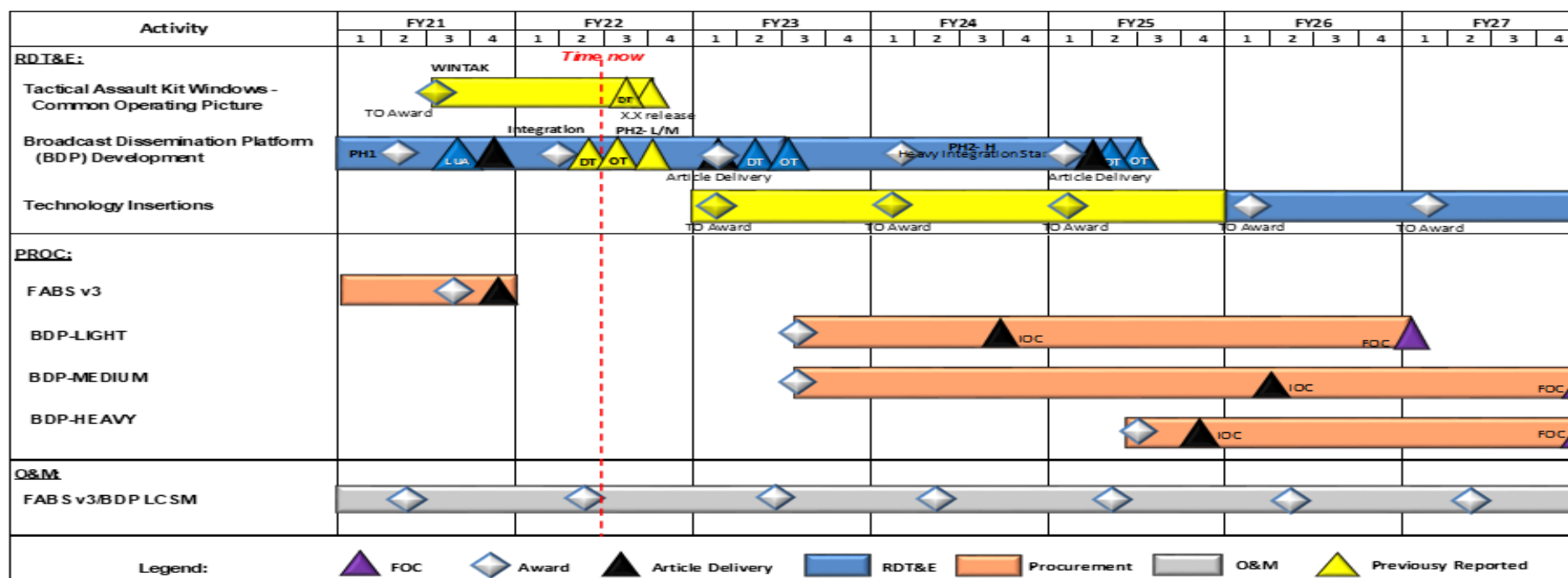
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
D476 / Military Information Support
Operations

Fly-Away Broadcast System (FABS) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

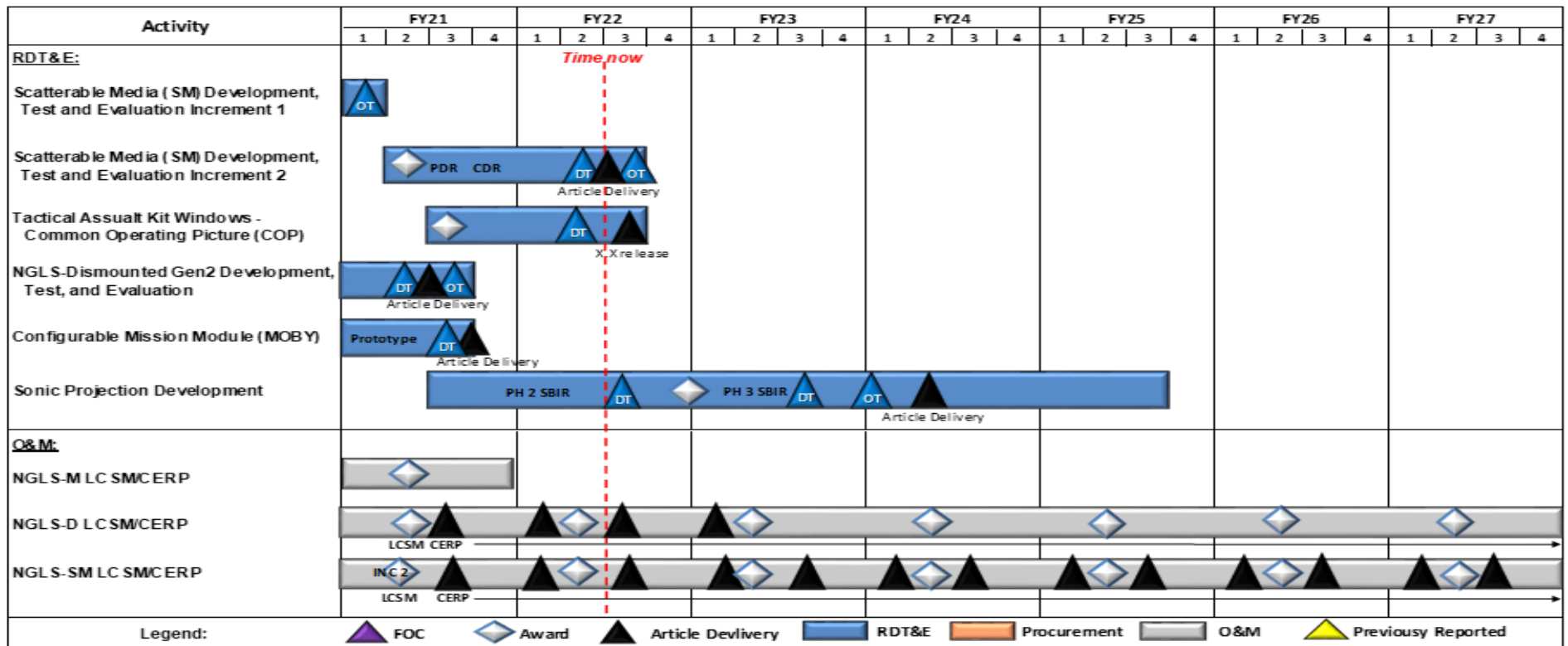
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
D476 / Military Information Support
Operations

Next Generation Loudspeaker System (NGLS) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

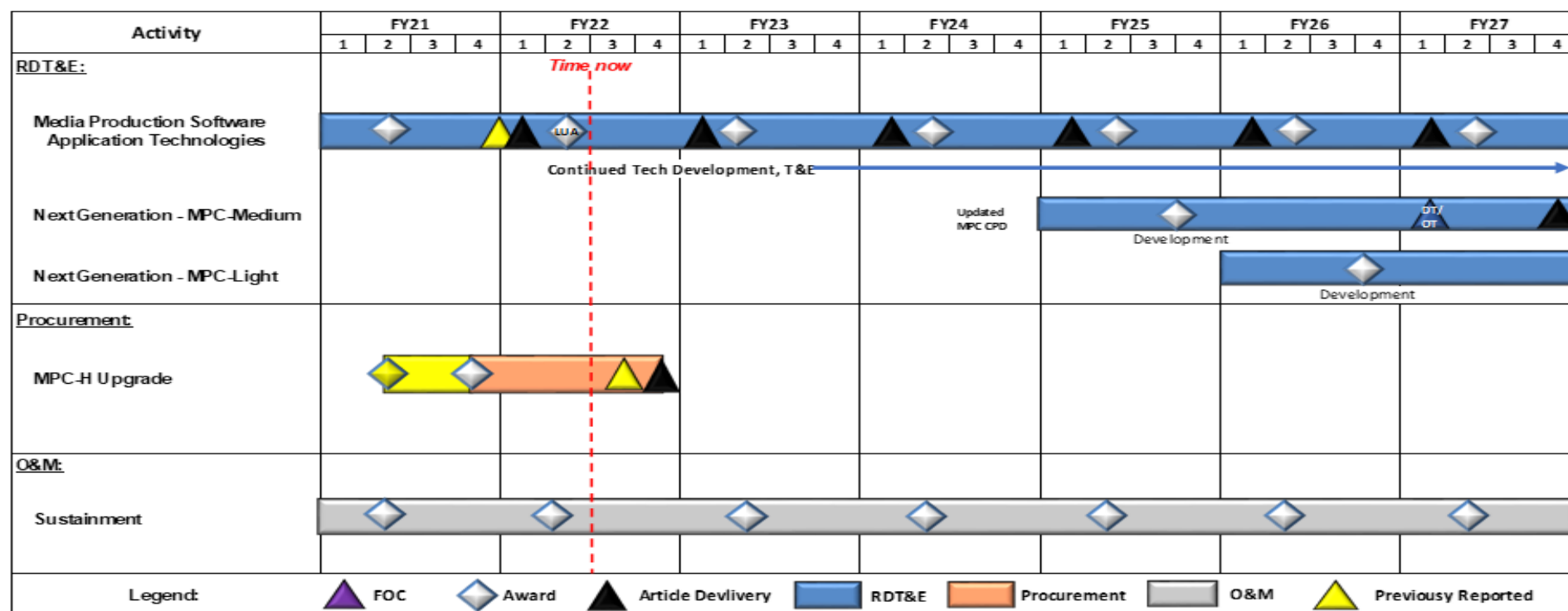
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
D476 / Military Information Support
Operations

Media Production Center (MPC) Schedule



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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 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) D476 / <i>Military Information Support Operations</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Fly Away Broadcast Systems (FABS)</i>				
FABS - Broadcast Dissemination Platform (BDP) development	1	2021	3	2025
Technology Insertions	1	2026	4	2027
<i>Next Generation Loudspeakers (NGLS)</i>				
Scatterable Media (SM) Development, Test, and Evaluation Inc 1	1	2021	1	2021
SM Development, Test, and Evaluation Inc 2	2	2021	3	2022
Tactical Assault Kit Windows - Common Operating Picture	3	2021	3	2022
Dismounted GEN 2 Development, Test, and Evaluation	1	2021	3	2021
Configurable Mission Module (MOBY)	1	2021	3	2021
Sonic Projection Development	3	2021	3	2025
<i>Media Production Center (MPC)</i>				
Media Production Software Technologies	1	2021	4	2027
Next Generation - MPC - Medium	1	2025	4	2027
Next Generation - MPC - Light	1	2026	4	2027

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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 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) <i>S375 / Weapons Systems</i>			
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
S375: <i>Weapons Systems</i>	7.549	1.646	1.514	1.518	-	1.518	1.592	1.619	1.642	1.675	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the next generation systems Pre-Planned Product Improvements (P3I), testing, and integration of specialized weapon systems and weapon accessories to meet the unique requirements of SOF. The efforts include the product improvements and testing of the Suppressed Upper Receiver Group (SURG), Advanced Sniper Rifle (ASR), Machine Gun (MG) Barrel, Mid-Range Gas Gun (MRGG), Personal Defense Weapon (PDW), Hand Gun (HG) Suppressor, Lightweight Machine Gun-Medium (LMG-M), and Advance Machine Gun (AMG). The product improvements will leverage the latest technological advances to achieve overmatch capability against current and emerging threats. These technologies will be pursued via rapid prototyping efforts when appropriate.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: Weapons	1.646	1.514	1.518
Description: The SOF weapons are developed to enable the operator to tailor the configuration of the weapon to the assigned mission and operational environment, enhancing the overall effectiveness of the weapons, which enables mission accomplishment and operator survivability. Weapons is designated a Middle Tier of Acquisition (MTA) program which uses the rapid prototyping pathway and is executed using existing contracts, government agencies, and new contract competitively selected as appropriate.			
FY 2022 Plans: Continue development of enhanced capabilities to improve performance of individual sniper, rifle, and machine gun weapons to gain synergy on the Army's Next Generation efforts/gains.			
FY 2023 Plans: Performs safety and qualification testing and engineering change proposals of individual sniper, rifle, suppressors, machine gun weapons to support weapon reliability and performance enhancements.			
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.004 million is due to a miscellaneous adjustment.			
Accomplishments/Planned Programs Subtotals	1.646	1.514	1.518

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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 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S375 / <i>Weapons Systems</i>			

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems <\$5M</i>	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing

Remarks

D. Acquisition Strategy

Evolutionary acquisition, leveraging emerging technology and rapid prototyping efforts when appropriate. An evolutionary approach delivers capability in increments, recognizing, up front, the need for future capability improvements. Full and open competition with Firm-Fixed Price contracts and Other Transaction Authorities (OTAs).

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S375 / <i>Weapons Systems</i>
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Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Weapon Test & Evaluation	MIPR	Various : Various	7.549	1.646	Jan 2021	1.514	Jan 2022	1.518	Jan 2023	-		1.518	Continuing	Continuing	-
Subtotal			7.549	1.646		1.514		1.518		-		1.518	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			7.549	1.646		1.514		1.518		-		1.518	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

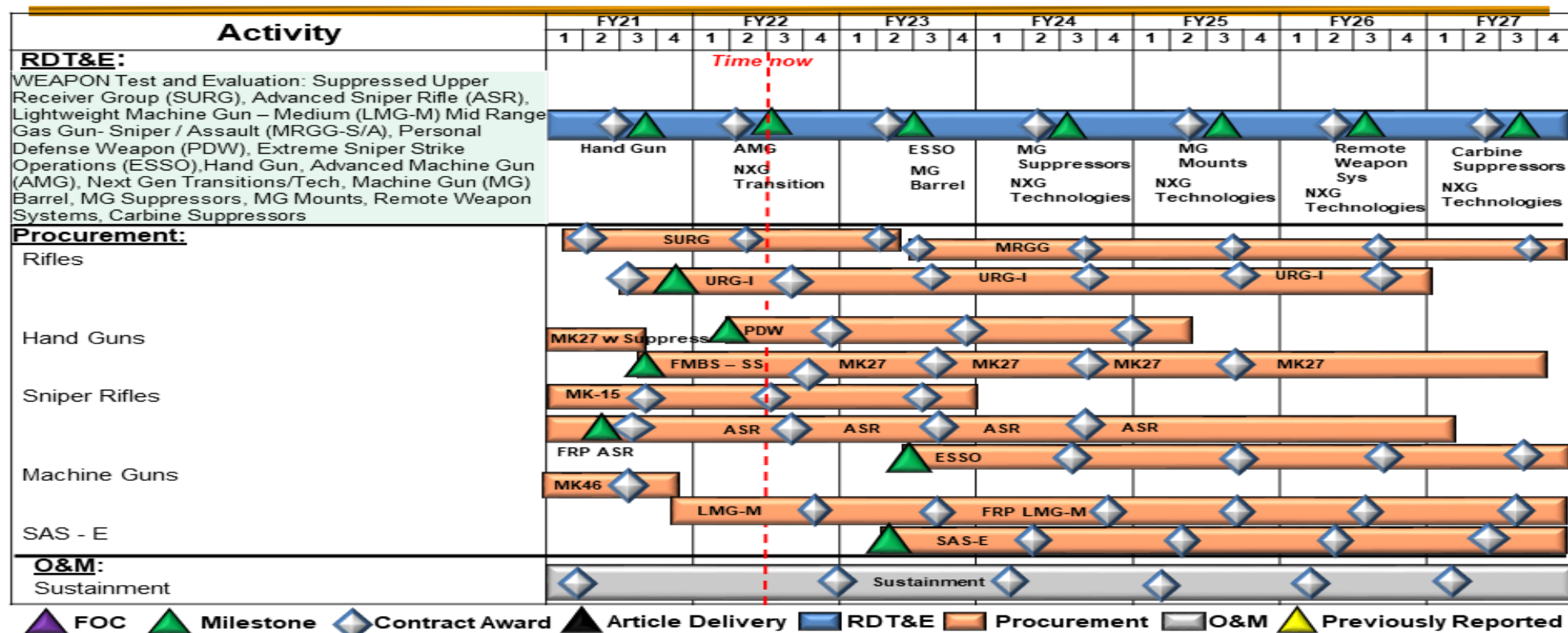
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S375 / Weapons Systems

Weapon Systems Schedule



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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 1160431BB / Warrior Systems	Project (Number/Name) S375 / Weapons Systems	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Weapon Systems				
Test & Evaluation: Suppressed Upper Receiver Group, Advanced Sniper Rifle, SOF Machine Gun Barrel, Mid-Range Gas Gun, Personal Defense Weapon, Hand Gun, Lightweight Machine Gun, Advanced Machine Gun	1	2021	4	2027

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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 1160431BB / Warrior Systems				Project (Number/Name) S385 / Soldier Protection and Survival 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
S385: Soldier Protection and Survival Systems	45.136	10.437	23.295	16.916	-	16.916	17.091	16.831	17.005	17.335	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This project funds the development, testing, integration, rapid prototyping and evaluation of specialized equipment to meet the unique soldier protection and survival requirements of Special Operations Forces (SOF), to include, but not limited to: individual survival equipment; hearing protection; clothing systems; load bearing equipment; Multi-Mission Electronic Countermeasures (MM-ECM); Counter Unmanned Systems (aerial, ground and maritime); and personnel safety equipment to improve the mobility of SOF, while conducting varied missions. These missions are generally conducted in harsh and hostile environments, for unspecified periods and in locations requiring small unit autonomy. These technologies will be pursued via rapid prototyping efforts when appropriate.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2021	FY 2022	FY 2023	
Title: SOF Personal Equipment Advanced Requirements (SPEAR)									1.187	2.980	2.951	
Description: The SPEAR program provides for the research, development, testing and evaluation of a variety of individual and survival equipment to include: ballistic and environmental protective combat uniforms; load carriage systems; communications headsets; and visual augmentation system mounts.												
FY 2022 Plans: Continue wireless Communications Headset Competition, Safety Belt recompetes, and 66 ft diveable rucksack development, test, and evaluation. Continue environmental protective combat uniforms and ancillaries, materials testing and incorporation into commodity lines, and begin power and data management efforts.												
FY 2023 Plans: Continues power and data management, wireless headsets, environmental protection and material testing.												
FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$0.029 million is due to miscellaneous adjustments.												
Title: Tactical Combat Casualty Care (TCCC)									0.221	0.706	0.693	
Description: The TCCC program provides lifesaving medical devices, ancillary equipment and Casualty Evacuation (CASEVAC) sets for SOF. The CASEVAC procures a suite of Food and Drug Administration (FDA) approved medical items including, but not limited to, intraosseous infusion devices, patient monitoring and assessment devices, emergency airway kits, as well as devices that provide SOF the capability to support extraction, mobility, transportation, and sustainment of casualties in forward areas. The TCCC program fields essential lifesaving CASEVAC equipment and capabilities and is a platform to transition capabilities												

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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 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) <i>S385 / Soldier Protection and Survival Systems</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022
developed under the National Mission Force's Tactical Medical Programs. This capability provides significant ability to lessen battlefield losses by providing timely, critical lifesaving and evacuation capabilities to the forward-deployed SOF operators.			
FY 2022 Plans: Continue the test support, market surveys, rapid prototyping, test article acquisition, test and evaluation, and systems engineering in direct support of the CASEVAC program with continued focus on enabling telemedicine. Test and evaluation of robust ventilators for improved capability. The FY 2022 plan includes the initiation of the USSOCOM Brain Health RDT&E line in support of the longitudinal tracking of SOF end users' neurocognitive health for treatment and recovery.			
FY 2023 Plans: Continues the test support, market surveys, rapid prototyping, test article acquisition, test and evaluation, and systems engineering in direct support of the CASEVAC program with continued focus on enabling telemedicine. Develops enhanced software to analyze blast overpressure information, conduct market surveys and test article acquisition, and test and evaluation of emerging neurocognitive assessment.			
FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$0.013 million is due to miscellaneous adjustments.			
Title: Multi-Mission Electronic Countermeasures (MM-ECM)		1.573	4.004
Description: The Radio Controlled Improvised Explosive Device program name has been updated to MM-ECM to better reflect current operational use cases for ECM equipment across Theater and National Force missions. This is the result of expanded capabilities through system modernization efforts. The USSOCOM uses ground (mounted/dismounted) based jammers to provide ECM capabilities to counter Radio Frequency (RF) controlled devices and cellular threats. This program provides scalable ECM systems whose configuration and modularity address multiple mission critical capabilities to counter this threat globally. To stay ahead of emerging threats, USSOCOM has historically developed advanced techniques on an annual basis. Through strategic partnerships with the Services, and other government agencies, USSOCOM vastly improved program affordability while maintaining Joint Force compatibility. The USSOCOM's Countering Weapons of Mass Destruction (CWMD) special mission remains the top hardware and special application module upgrades, USSOCOM is able to use its ECM for its top priority mission and continue to apply advanced techniques against emerging threats across the spectrum of warfare including great power competition. All Next Generation ECM is designed to support multiple SOF missions in competition including force protection, CWMD, and counter-Unmanned Systems (CUxS), while maintaining cost effective Counter Violent Extremist Organization (CVEO) capabilities.			7.398
FY 2022 Plans:			

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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 1160431BB / <i>Warrior Systems</i>		Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
Continue test support to the MM-ECM program. Continue system engineering, test and evaluation, test article acquisition, and market research of the ECM programs. Maintain range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems from state and non-state actors. Continue development and testing of ECM systems capability to include advanced software technique countermeasures and loadsets for mounted and dismounted systems. Initiate Next Generation ECM development.					
FY 2023 Plans: Continues test support to the MM-ECM program. Continues system engineering, test and evaluation, test article acquisition, prototyping and development of Next Generation ECM. Continues development and testing of ECM systems capability to include advanced software technique countermeasures and loadsets for mounted and dismounted systems. Efforts target range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems from state and non-state actors.					
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$3.394 million supports a MTA Rapid Prototyping effort for Next Generation ECM capability including hardware and software design, system development, testing, and generating advanced software techniques. Next Generation ECM capabilities and techniques are designed to counter emerging threats including 5G cellular and wireless protocols in support of NDS priorities.					
Title: Counter Unmanned Aerial System (C-UAS) Description: SOF C-UAS enhances the SOF operator's ability to detect, identify, classify, locate, track, deter, defeat, and exploit unmanned system threats. The funding in this program supports a Family of Systems (FoS) design, development, integration, prototyping, and test of cutting edge technologies that deliver and integrate various capabilities including, but not limited to, interceptors, RF detection and defeat, other passive detection, radar, and electro-optical and infrared (EO/IR). FY 2022 Plans: Continue test and evaluation of sensor and effector capabilities of mounted, dismounted, and expeditionary fixed-site form factors to address emerging threats with a Systems Integration Partner (SIP). FY 2023 Plans: Continues test and evaluation of sensor and effector capabilities of mounted, dismounted, and expeditionary fixed-site form factors to address emerging threats with a SIP. Completes initial fielding and deployment release testing of proven capabilities for entry into program of record. FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$1.067 million is due to portfolio transition into a program, with acquisition strategy of a SIP.			5.796	5.195	4.128
Title: Personal Signature Management (PSM)			1.660	1.740	1.746

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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 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Description: The PSM provides for development, rapid prototyping, test, and evaluation of signature reducing materials and technology in order to reduce the probability of detection by battlefield threat sensors. FY 2022 Plans: Continue fielding of signature reducing material solution and training. Initiate baseline testing against advanced threat sensors and continue development of threat sensor detector. Provide for program management, market research, test item acquisition and test and evaluation in support of PSM efforts for both land and maritime operations. FY 2023 Plans: Continues baseline testing against advanced threat sensors, development of threat sensor detector, and initiates development of next generation signature reducing material solution and training. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.006 million is due to miscellaneous adjustments.			
Accomplishments/Planned Programs Subtotals	10.437	14.625	16.916

	FY 2021	FY 2022
Congressional Add: C-UAS FY 2022 Plans: Conduct Concept of Operations (CONOP) package optimization of Expeditionary Fixed Site configurations for new integrations via the SIP.	-	8.670
Congressional Adds Subtotals	-	8.670

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: Warrior Systems <\$5M	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing

Remarks

D. Acquisition Strategy

SPEAR: Contracts in support of SPEAR are a combination of Firm Fixed Price (FFP) five year Indefinite Delivery Indefinite Quantity (IDIQ) with single vendor awards, small business set asides, and prime vendor style multiple awards.

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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 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>
<p>TCCC: Operator & Medic Kits - Program managed by Program Manager - Special Operations Forces Survival, Support, and Equipment Systems (PM - SOF SSES) using US Army Medical Materiel Agency prime vendor contracts for equipment purchases and Special Operations Forces Support Activity (SOFSA) for warehousing and sustainment. The CASEVAC Set program managed by PM - SOF SSES uses an IDIQ Commercial-Off-The-Shelf (COTS) prime integrator contract.</p> <p>MM-ECM: The USSOCOM collaborates with the DoD ECM managers and other government agencies in order to maintain Joint Force compatibility and improve program affordability. All next generation ECM development is designed to support SOF missions in integrated deterrence, while maintaining cost effective CVEO capabilities. The ECM are employed across multiple missions including force protection, support to C-UAS, Explosive Ordnance Detection, and Render Safe Electronics. Centralized life cycle sustainment of SOF ECM inventory supports Theater Special Operations Command operational demand as Theater Provided Equipment (TPE), Component CONUS home station training, and rapid deployment requirements. The SOF ECM collaborates with the Joint Services, Academia, and other government agencies to maintain interoperability and cost effectiveness. The SOF ECM will continue to leverage the SOF-to-Service transition of proven capabilities.</p> <p>C-UAS: The SOF C-UAS acquisition strategy focuses on the establishment of a SIP to work alongside Program Manager Counterproliferation. Together, we develop and integrate various sensors in mounted, dismounted and expeditionary fixed-site configurations that enhance SOF's ability to detect, identify, classify, locate, track, deter, defeat, and exploit unmanned systems threats. While the Services focus primarily on providing capability to address fixed site defense of homeland and Forward Operating Bases (FOBs); SOF require an increased level of autonomy, lower size, weight, and power (SWaP), and limited signature solutions. In FY 2021, C-UAS transitioned into a Counter Unmanned Systems (CUxS) Program of Record with an approved Capabilities Development Document (CDD). Contracts are expected to be a combination of FFP and Cost types through full and open competition across the SOCOM focus areas. The SOF C-UAS collaborates with the Joint C-UAS Office (JCO), Academia, and other government agencies for solutions and to maintain interoperability and cost effectiveness when appropriate. The SOF will continue to leverage the SOF-to-Service transition of proven capabilities where possible.</p> <p>PSM: Signature reducing technologies will be embedded into hardware or SOF clothing and equipment via modified commercial-off-the-shelf variants. Contracts in support of fielding/sustainment of any material solution will be a combination of sole source FFP five year IDIQ contracts, Source America mandatory sole sources, small business set asides and prime vendor style multiple award contracts. The PSM program will utilize SOFSA for warehousing and sustainment.</p>		

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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 1160431BB / Warrior Systems				Project (Number/Name) S385 / Soldier Protection and Survival Systems					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Personal Equipment Advanced Requirements (SPEAR) - Protective Combat Uniform (PCU)	Various	PM-SSES : Natick, MA	0.706	0.375	Jan 2021	0.409	Jan 2022	0.411	Jan 2023	-		0.411	Continuing	Continuing	-
SPEAR - Hearing Protection and Communications Headsets	Various	PM-SSES : Natick, MA	1.386	0.290	Jan 2021	0.300	Jan 2022	0.300	Jan 2023	-		0.300	Continuing	Continuing	-
SPEAR Modular Glove System (MGS)	Various	PM-SSES : Natick, MA	0.055	0.030	Jan 2021	0.030	Jan 2022	0.030	Jan 2023	-		0.030	Continuing	Continuing	-
SPEAR - Load Carriage System (LCS) and Backpacks	Various	PM-SSES : Natick, MA	0.107	0.090	Mar 2021	0.100	Mar 2022	0.100	Mar 2023	-		0.100	Continuing	Continuing	-
SPEAR - Power and Data Management	Various	PM-SSES : Natick, MA	-	-		0.750	Apr 2022	0.719	Apr 2023	-		0.719	Continuing	Continuing	-
Multi-Mission Electronic Countermeasures (MM-ECM) - Next Generation Capability Development	C/Various	Various : Various	-	-		2.327	Jun 2022	5.549	Jun 2023	-		5.549	Continuing	Continuing	-
Counter Unmanned Aerial System (C-UAS) Emerging Threat /Advanced Technology Development (Systems Integration Partner)	C/Various	Various : Various	2.551	-		3.689	Mar 2022	2.661	Jun 2023	-		2.661	Continuing	Continuing	-
C-UAS Emerging Threat / Advanced Technology Development (Systems Integration Partner) (OCO)	C/Various	Various : Various	-	3.527	Apr 2021	-		-		-		-	0.000	3.527	-
C-UAS Emerging Threat / Advanced Technology Development (Systems Integration Partner) Congressional Add	C/Various	Various : Various	-	-		6.069	Jul 2022	-		-		-	0.000	6.069	-

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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 1160431BB / Warrior Systems				Project (Number/Name) S385 / Soldier Protection and Survival Systems					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Personal Signature Management (PSM) Development (Inc II and III)	Various	Various : Various	1.546	0.830	Mar 2021	1.040	Mar 2022	0.675	Mar 2023	-		0.675	Continuing	Continuing	-
Rotary Wing Aviation Helmet Congressional Add	C/Various	PM-SSES : Natick, MA	1.500	-		-		-		-		-	0.000	1.500	-
Prior Years	Various	Various : Various	1.656	-		-		-		-		-	0.000	1.656	-
Prior Years - Overseas Contingency Operations (OCO)	Various	Various : Various	7.293	-		-		-		-		-	0.000	7.293	-
Subtotal			16.800	5.142		14.714		10.445		-		10.445	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SPEAR - PCU testing/ Pre-Planned Product Improvement	Various	PM-SSES : Natick, MA	0.605	0.100	Mar 2021	0.100	Mar 2022	0.100	Mar 2023	-		0.100	Continuing	Continuing	-
SPEAR - MGS Test and Evaluation	Various	PM-SSES : Natick, MA	0.109	0.045	Jan 2021	0.045	Jan 2022	0.045	Jan 2023	-		0.045	Continuing	Continuing	-
SPEAR - Hearing Protection and Comms Headset Test & Evaluation	Various	PM-SSES : Natick, MA	1.936	0.162	Jan 2021	0.162	Jan 2022	0.162	Jan 2023	-		0.162	Continuing	Continuing	-
SPEAR - LCS/Body Armor Vest/Backpack Material and Prototype Test and Evaluation	Various	PM-SSES : Natick, MA	0.165	0.095	Feb 2021	0.095	Feb 2022	0.095	Feb 2023	-		0.095	Continuing	Continuing	-
SPEAR - Power and Data Managment	Various	PM-SSES : Natick, MA	-	-		0.989	Apr 2022	0.989	Apr 2023	-		0.989	Continuing	Continuing	-
Tactical Combat Casualty Care (TCCC) CASEVAC Sets Development, Test and Evaluation	Various	PM-SSES : Natick, MA	1.970	0.221	Jan 2021	0.209	Jan 2022	0.205	Jan 2023	-		0.205	Continuing	Continuing	-

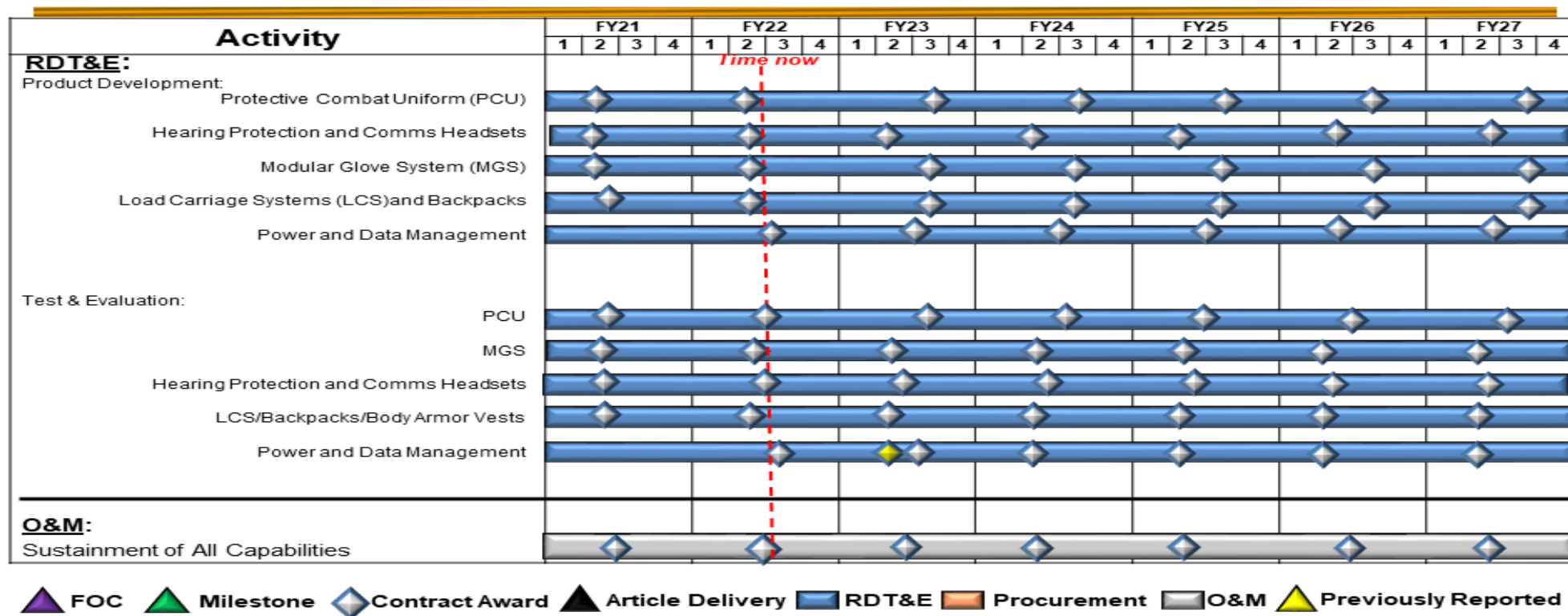
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command												Date: April 2022			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S385 / Soldier Protection and Survival Systems					
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
TCCC Brain Health Test and Evaluation	C/Various	PM-SSES : Natick, MA	-	-		0.497	Jan 2022	0.488	Jan 2023	-		0.488	Continuing	Continuing	-
MM-ECM Technology Insertion/Software/Techniques	C/Various	Various : Various	17.368	1.573	Dec 2020	1.677	Mar 2022	1.849	Mar 2023	-		1.849	Continuing	Continuing	-
C-UAS Test and Evaluation Support	C/Various	Various : Various	1.500	-		1.506	Nov 2021	1.467	Nov 2022	-		1.467	Continuing	Continuing	-
C-UAS Test and Evaluation Support (OCO)	C/Various	Various : Various	1.509	2.269	Mar 2021	-		-		-		-	0.000	3.778	-
C-UAS Test and Evaluation Support Congressional Add	C/Various	Various : Various	-	-		2.601	Jun 2022	-		-		-	Continuing	Continuing	-
PSM Test and Evaluation	Various	Various : Various	1.683	0.830	Jan 2021	0.700	Feb 2022	1.071	Feb 2022	-		1.071	Continuing	Continuing	-
Prior Years	MIPR	Various : Various	1.091	-		-		-		-		-	0.000	1.091	-
Prior Years (OCO)	Various	Various : Various	0.400	-		-		-		-		-	0.000	0.400	-
Subtotal			28.336	5.295		8.581		6.471		-		6.471	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			45.136	10.437		23.295		16.916		-		16.916	Continuing	Continuing	N/A
Remarks															

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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 1160431BB / Warrior Systems	Project (Number/Name) S385 / Soldier Protection and Survival Systems

Special Operations Forces Personal Equipment Advanced Requirements (SPEAR) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

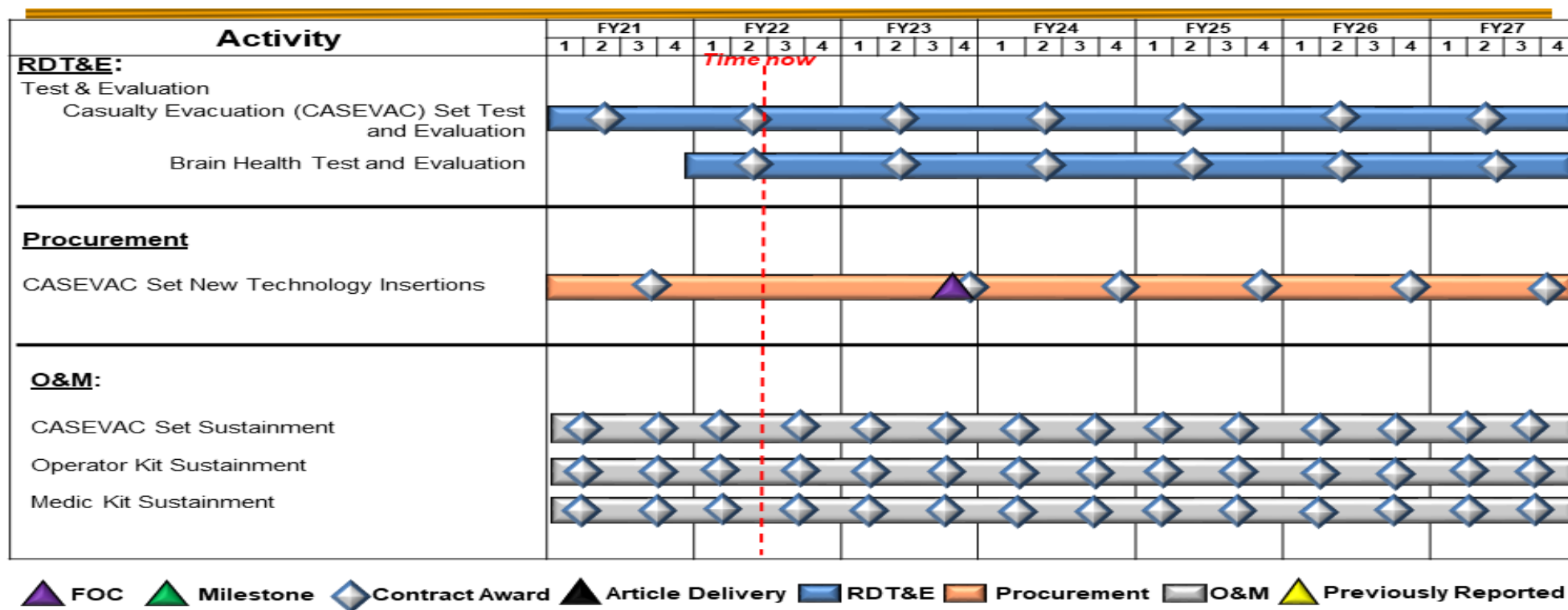
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S385 / Soldier Protection and Survival Systems

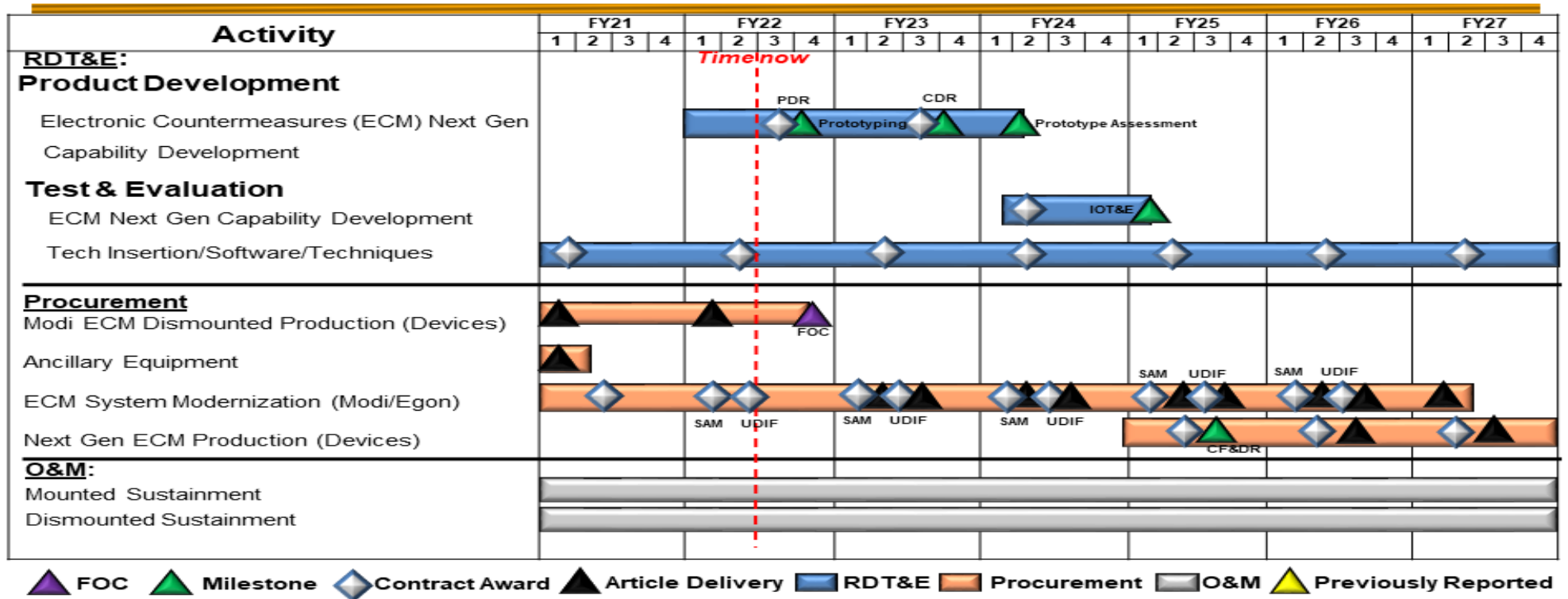
Tactical Combat Casualty Care (TCCC) Schedule



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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 1160431BB / Warrior Systems	Project (Number/Name) S385 / Soldier Protection and Survival Systems	

Multi-Mission Electronic Countermeasures (MM-ECM) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

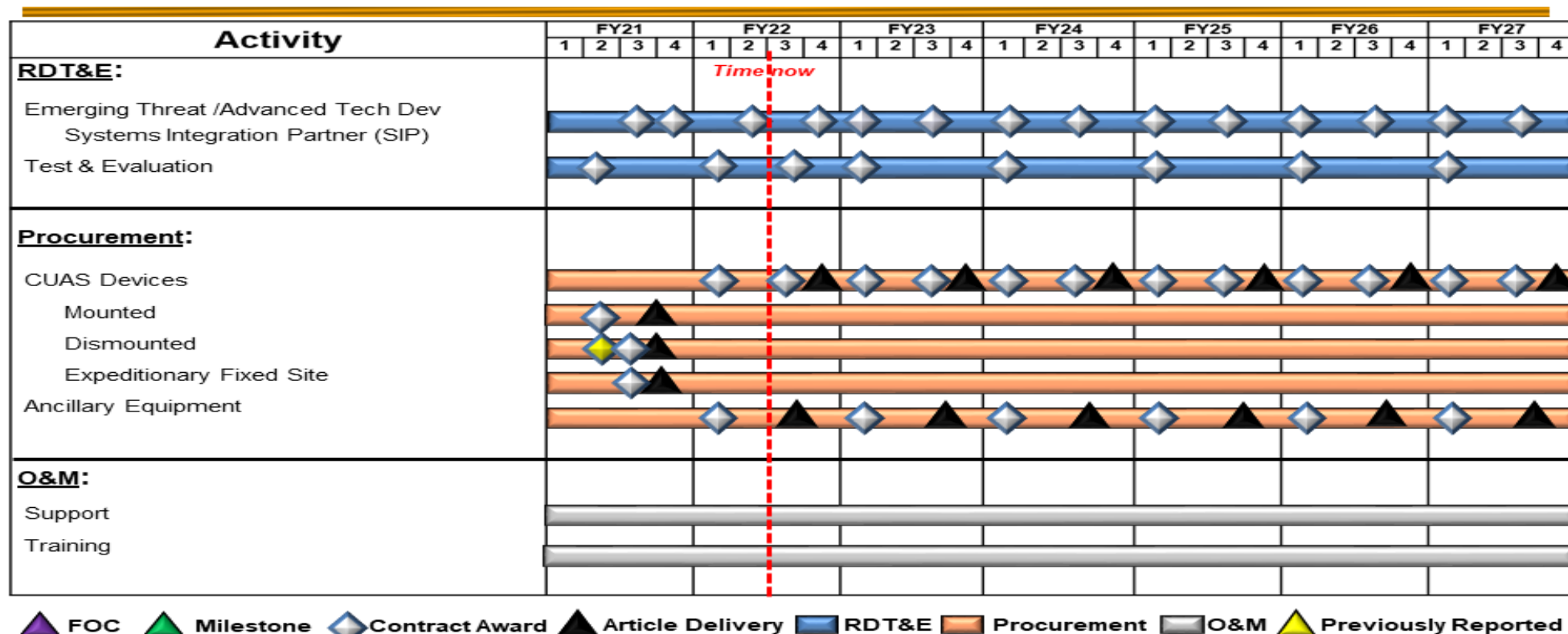
Date: April 2022

Appropriation/Budget Activity
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R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S385 / Soldier Protection and Survival Systems

Counter Unmanned Aerial Systems Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

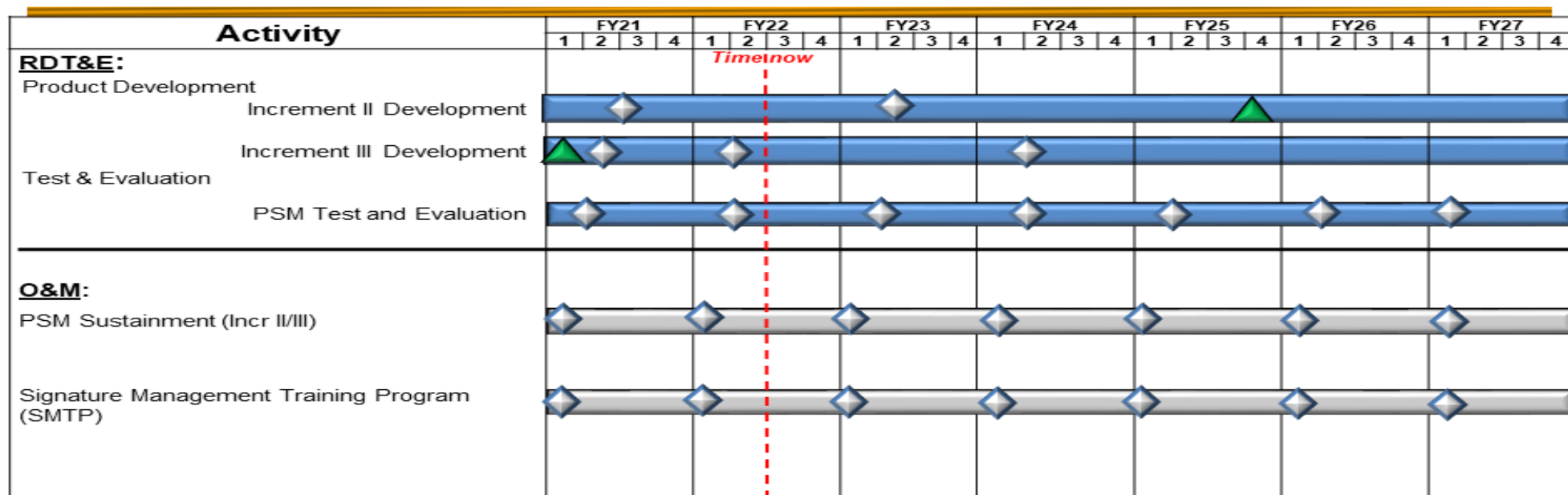
Date: April 2022



Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S385 / Soldier Protection and Survival Systems

Personal Signature Management (PSM) Schedule



 FOC
  Milestone
  Contract Award
  Article Delivery
  RDT&E
  Procurement
  O&M
  Previously Reported

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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 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Soldier Protection and Survival Systems (SPEAR)</i>				
Protective Combat Uniform (PCU) Product Development	1	2021	4	2027
Hearing Protection & Comms Headsets Product Development	1	2021	4	2027
Modular Glove System (MGS) Product Development	1	2021	4	2027
Load Carriage System (LCS) and Backpacks Product Development	1	2021	4	2027
Power and Data Management Product Development	1	2021	4	2027
PCU Test & Evaluation	1	2021	4	2027
MGS Test & Evaluation	1	2021	4	2027
Hearing Protection & Comms Headsets Test & Evaluation	1	2021	4	2027
LCS/Backpack/Body Armor Vest Test & Evaluation	1	2021	4	2027
Power and Data Management Test & Evaluation	1	2021	4	2027
<i>Tactical Combat Casualty Care (TCCC)</i>				
TCCC Casualty Evacuation (CASEVAC) Sets Development, Test & Evaluation	1	2021	4	2027
TCCC Brain Health Test and Evaluation	4	2021	4	2027
<i>Multi-Mission Electronic Countermeasures (MM-ECM)</i>				
Next Generation Electronic Countermeasures (ECM) Capability Development (Product Development)	1	2022	2	2024
Next Generation ECM Capability Development (Test & Evaluation Support)	1	2024	1	2025
Technology Insertion/Software/Techniques (Test & Evaluation Support)	1	2021	4	2027
<i>Counter Unmanned Aerial System (C-UAS)</i>				
C-UAS Emerging Threat /Advanced Technology Development (Systems Integration Partner)	1	2021	4	2027
C-UAS Test and Evaluation Support	1	2021	4	2027

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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 1160431BB / <i>Warrior Systems</i>		Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Personnel Signature Management (PSM)</i>				
PSM Development (Incr II)	1	2021	4	2027
PSM Development (Incr III)	1	2021	4	2027
PSM Test & Evaluation	1	2021	4	2027

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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 1160431BB / Warrior Systems				Project (Number/Name) S385A / Body Armor and Associated Equipment			
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
S385A: Body Armor and Associated Equipment	9.596	1.674	1.684	1.688	-	1.688	1.773	1.800	1.825	1.862	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides specialized equipment to meet the unique operator protection and survival requirements of SOF, to include: Army Rangers; Army Special Forces; Navy Sea, Air, Land (SEAL) teams; Navy Special Boat Units; Air Force Operators; and Marine Raiders. Specialized ballistic equipment improves survivability impacting the mobility of SOF while conducting varied missions. These missions are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: SOF Personal Equipment Advanced Requirement (SPEAR)-Ballistic Protection	1.674	1.684	1.688
Description: This project enhances the SPEAR program by supporting body armor, helmets, and eye protection. It also provides for the research, development, and testing of a variety of body armor and personal protective equipment.			
FY 2022 Plans: Continue foreign ammunition testing and threat validation to assess effectiveness of currently fielded personal protective equipment. Continue development and testing of lightweight body armor and helmets to upgrade systems that have been fielded. Continue evaluation of transparent armor products which include variable light transmission and laser lenses to upgrade systems that have been fielded. Continue development and testing of technologies to upgrade the maritime crewman and rotary wing helmet.			
FY 2023 Plans: Continues foreign ammunition testing and threat validation to assess effectiveness of currently fielded personal protective equipment. Continues development and testing of lightweight body armor and helmets (ground, maritime, rotary wing) to upgrade systems that have been fielded. Continues evaluation of transparent armor products which include variable light transmission and laser lenses to upgrade systems that have been fielded.			
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.004 million is due to miscellaneous adjustments.			
Accomplishments/Planned Programs Subtotals	1.674	1.684	1.688

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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 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S385A / <i>Body Armor and Associated Equipment</i>			

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems <\$5M</i>	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing

Remarks

D. Acquisition Strategy

The SPEAR ballistic protection equipment takes advantage of modified commercial-off-the-shelf (COTS) or non-developmental items. As USSOCOM requires tailored solutions for SOF Mission sets, SPEAR items leveraged from industry are often on the cutting edge of technology with modifications specific for SOF missions and require substantial testing in SOF environments. Using SOFSA for warehousing and sustainment, PM - SOF SSES has cradle to grave responsibility. Contracts in support of SPEAR are a combination of Firm Fixed Price five year Indefinite Delivery Indefinite Quantity with single vendor awards, Source America mandatory sole sources, small business set asides, and prime vendor style multiple award contracts.

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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 1160431BB / Warrior Systems				Project (Number/Name) S385A / Body Armor and Associated Equipment					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Personal Equipment Advanced Requirement (SPEAR) - Body Armor	Various	PM-SSES : Natick, MA	3.037	0.377	Feb 2021	0.556	Feb 2022	0.325	Apr 2023	-		0.325	Continuing	Continuing	-
SPEAR - Lightweight Ballistic Helmets	Various	PM-SSES : Natick, MA	2.096	0.368	Jan 2021	0.390	Feb 2022	0.625	May 2023	-		0.625	Continuing	Continuing	-
SPEAR - Eye Protection	Various	PM-SSES : Natick, MA	0.357	0.100	Mar 2021	0.060	Mar 2022	0.173	Jun 2023	-		0.173	Continuing	Continuing	-
Subtotal			5.490	0.845		1.006		1.123		-		1.123	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SPEAR - Body Armor	Various	PM-SSES : Natick, MA	2.212	0.367	Apr 2021	0.378	Jun 2022	0.150	May 2023	-		0.150	Continuing	Continuing	-
SPEAR - Lightweight Ballistic Helmet	Various	PM-SSES : Natick, MA	1.637	0.367	Apr 2021	0.260	Jun 2022	0.350	Jun 2023	-		0.350	Continuing	Continuing	-
SPEAR - Transparent Armor	Various	PM-SSES : Natick, MA	0.257	0.095	Mar 2021	0.040	Mar 2022	0.065	Jul 2023	-		0.065	Continuing	Continuing	-
Subtotal			4.106	0.829		0.678		0.565		-		0.565	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			9.596	1.674		1.684		1.688		-		1.688	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

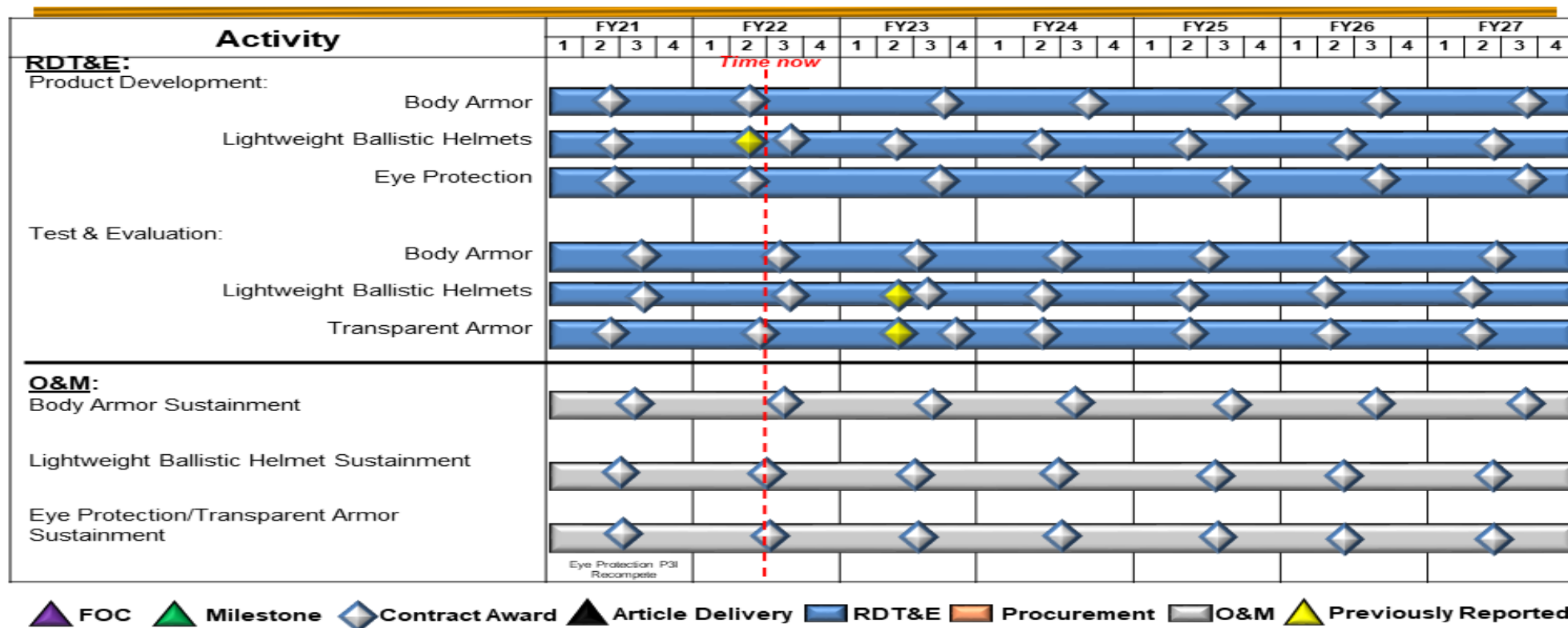
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S385A / Body Armor and Associated Equipment

Special Operations Forces Personal Equipment Advanced Requirements (SPEAR) - Body Armor Schedule



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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 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385A / <i>Body Armor and Associated Equipment</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>SOF Personal Equipment Advanced Requirement (SPEAR)-Ballistic Protection</i>				
Body Armor Product Development	1	2021	4	2027
Lightweight Ballistic Helmets Product Development	1	2021	4	2027
Eye Protection Product Development	1	2021	4	2027
Body Armor Test & Evaluation	1	2021	4	2027
Lightweight Ballistic Helmets Test & Evaluation	1	2021	4	2027
Transparent Armor Test & Evaluation	1	2021	4	2027

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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 1160431BB / Warrior Systems				Project (Number/Name) S395 / Visual Augmentation, Lasers and Sensor 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
S395: Visual Augmentation, Lasers and Sensor Systems	16.812	2.092	5.047	4.990	-	4.990	5.152	5.188	5.198	5.301	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for development, testing and integration of specialized visual augmentation, binocular and monocular night vision devices, laser markers, laser designators, geo-location systems, weapon optics, weapon aiming lasers, sensor systems, visible lights, infrared imagers, clandestine pointers, simulators and accessories to meet the unique requirements of Special Operations Forces (SOF). These projects ensure SOF hyper-enabled operators (HEO) will remain technologically superior to enemy threats and ensure mission success.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: Visual Augmentation Systems (VAS)	2.092	5.047	4.990
Description: Sensor technologies being developed include image intensification thermal imaging, short wave infrared, multi-spectral, fusion, and other sensor types. Developments will decrease weight, increase range, increase situational awareness, provide data, image processing, image filtering, determine wind speed, observe bullet trace, and sensor fusion to be able to detect, identify, classify and engage targets at greater ranges. Some efforts may be tied to HEO.			
FY 2022 Plans: Continue development and testing of visual augmentation, laser devices, and continue development and testing of simulators to improve situational awareness, sharing of data/images, target acquisition, and training. Initiate transition of an integrated head-mounted sensor and augmented reality display providing threat detection from the Joint Acquisition Task Force (JATF) to USSOCOM and the HEO program. Real-time shared imaging and sensor discovery with distributed algorithm processing of a common operating picture.			
FY 2023 Plans: Continues development and testing of visual augmentation systems, laser devices, and simulators to improve situational awareness, sharing of data/images, target acquisition, and training. Continues System Integration/HEO development to include integrated head-mounted sensors and augmented reality displays providing enhanced threat detection. Real-time, shared imaging and sensor discovery with distributed algorithm processing for a common operating picture. Ability to significantly increase the speed and effectiveness of our operators through SOF expeditionary equipment and networks to provide the force with more lethal and decisive effects.			
FY 2022 to FY 2023 Increase/Decrease Statement:			

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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 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2021	FY 2022	FY 2023
Decrease of \$0.057 million is due to a miscellaneous adjustment.												
Accomplishments/Planned Programs Subtotals										2.092	5.047	4.990
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/0204WARRIOR: <i>Warrior Systems<\$5M</i>	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
Evolutionary acquisition and leveraging emerging technologies. An evolutionary approach delivers capability in increments, recognizing up front the need for future capability improvements. Full and open competition contracts are a combination of five-year FFP, IDIQ and small business set asides at several locations, primarily via Naval Surface Warfare Center, Crane Contracting Office, USSOCOM Contracting Office, and other contracting offices.												

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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 1160431BB / Warrior Systems				Project (Number/Name) S395 / Visual Augmentation, Lasers and Sensor Systems					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Visual Augmentation Systems (VAS) Product Development (Laser and Optic)	C/CPFF	USSOCOM : Tampa, FL	10.448	0.921	Apr 2021	4.367	Mar 2022	4.339	Jan 2023	-		4.339	Continuing	Continuing	-
VAS Product Development (Simulator)	C/CPFF	USSOCOM : Tampa, FL	1.492	0.481	Apr 2021	0.480	Apr 2022	0.481	Feb 2023	-		0.481	Continuing	Continuing	-
Prior Year	C/CPFF	USSOCOM : Tampa, FL	1.500	-		-		-		-		-	0.000	1.500	-
Prior Year Overseas Contingency Operations (OCO)	C/CPFF	USSOCOM : Tampa, FL	2.667	-		-		-		-		-	0.000	2.667	-
Subtotal			16.107	1.402		4.847		4.820		-		4.820	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
VAS Test and Evaluation	C/CPFF	USSOCOM : Tampa, FL	0.495	-		-		-		-		-	0.000	0.495	-
VAS Laser Test and Evaluation	C/CPFF	USSOCOM : Tampa FL	0.105	0.345	Apr 2021	0.100	Sep 2022	0.085	Aug 2023	-		0.085	Continuing	Continuing	-
VAS Optic Test and Evaluation	C/CPFF	USSOCOM : Tampa FL	0.105	0.345	Apr 2021	0.100	Sep 2022	0.085	Aug 2023	-		0.085	Continuing	Continuing	-
Subtotal			0.705	0.690		0.200		0.170		-		0.170	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			16.812	2.092		5.047		4.990		-		4.990	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

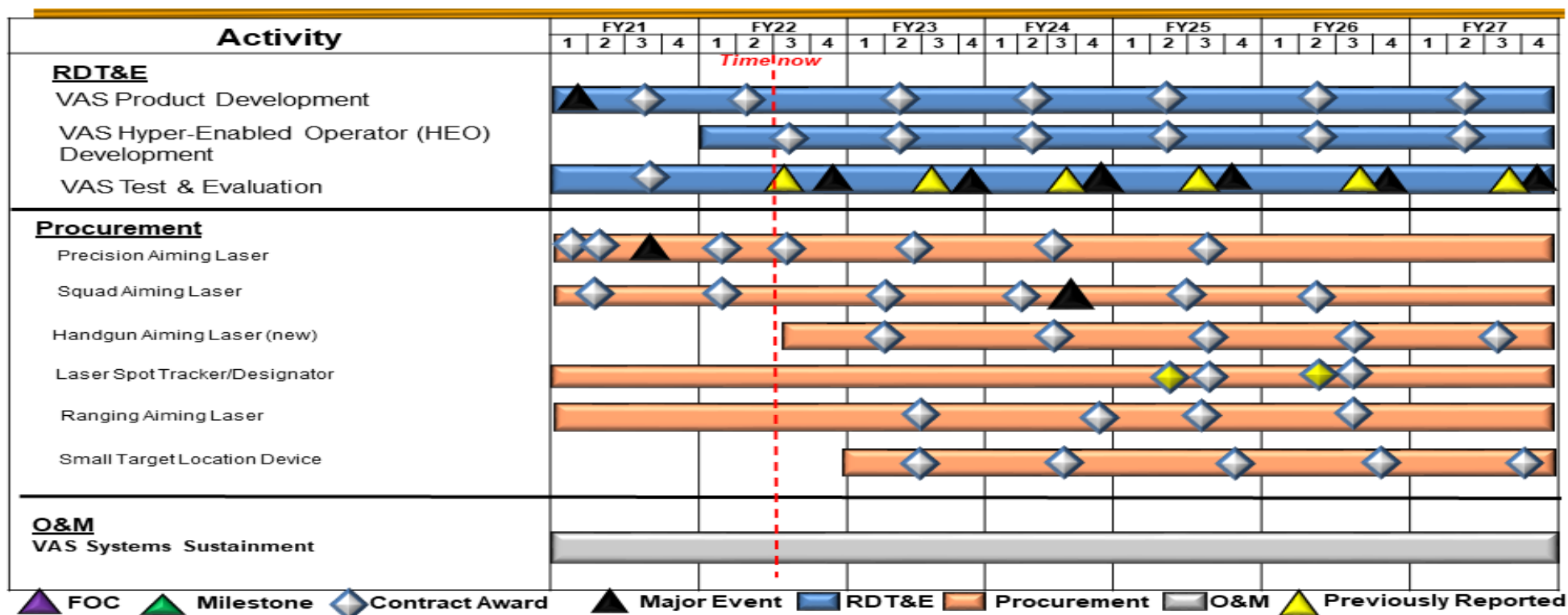
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S395 / Visual Augmentation, Lasers and
Sensor Systems

Visual Augmentation Systems Laser Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

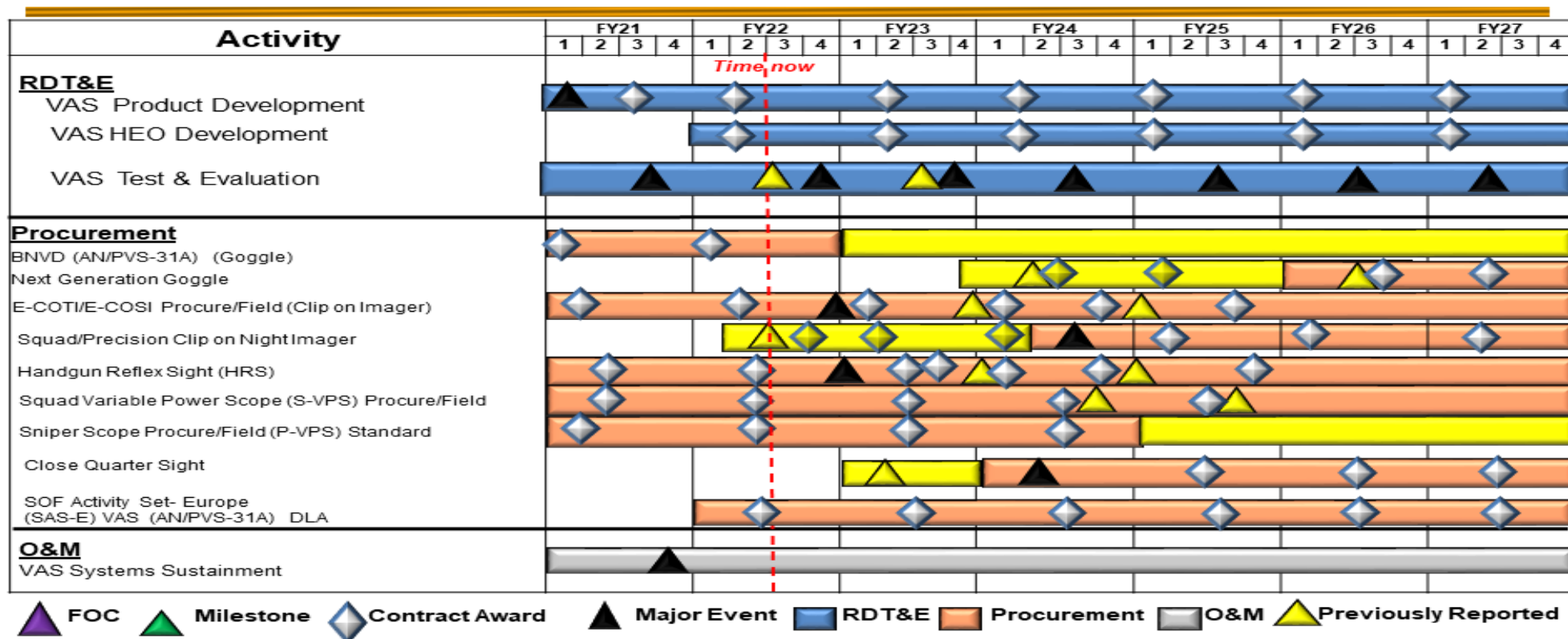
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S395 / Visual Augmentation, Lasers and
Sensor Systems

Visual Augmentation Systems Optic Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

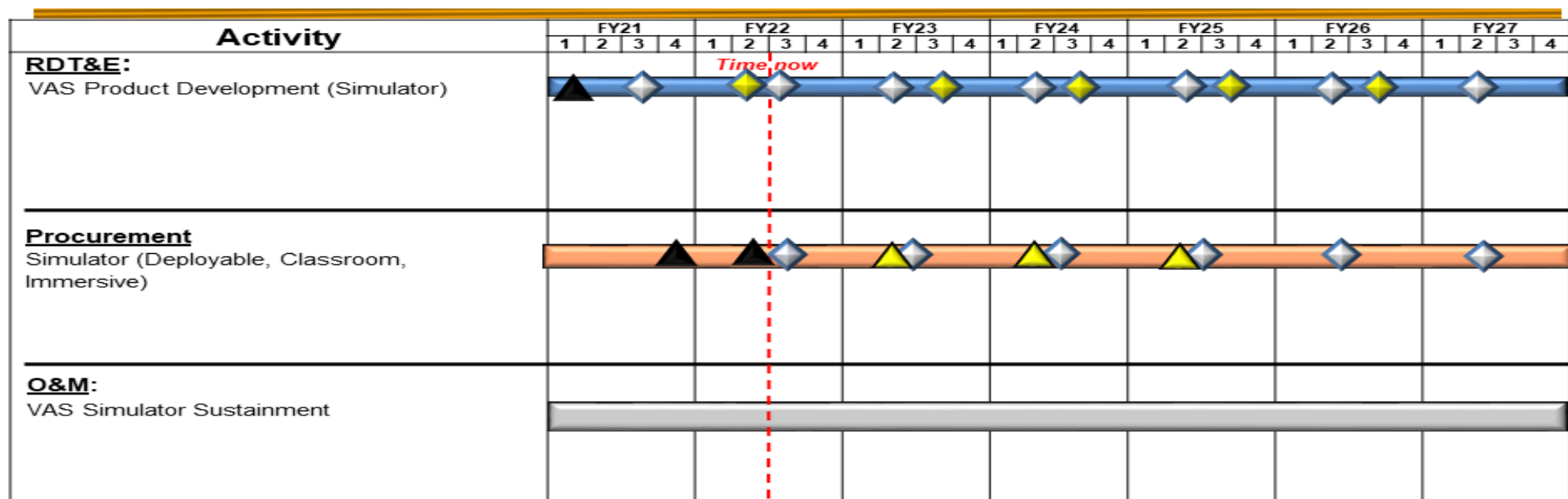
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S395 / Visual Augmentation, Lasers and
Sensor Systems

Visual Augmentation Systems Simulator Schedule



FOC
 Milestone
 Contract Award
 Article Delivery
 RDT&E
 Procurement
 O&M
 Previously Reported

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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 1160431BB / Warrior Systems	Project (Number/Name) S395 / Visual Augmentation, Lasers and Sensor Systems	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Visual Augmentation Systems (VAS) Laser				
Product Development	1	2021	4	2027
Hyper-Enabled Operator Development (HEO)	1	2022	4	2027
Test & Evaluation	1	2021	4	2027
VAS Optic				
Product Development	1	2021	4	2027
Hyper-Enabled Operator Development (HEO)	1	2022	4	2027
Test & Evaluation	1	2021	4	2027
VAS Simulator				
Product Development	1	2021	4	2027

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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 1160431BB / Warrior Systems				Project (Number/Name) S700 / Communications Equipment and Electronics 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
S700: Communications Equipment and Electronics Systems	60.999	28.356	21.456	48.665	-	48.665	49.902	24.013	16.204	23.070	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for communication systems to meet emergent requirements to support SOF. Communications Equipment and Electronics Systems is a continuing effort to develop smaller, lighter, more efficient and more robust SOF command, control, communications, and computer (C4) capabilities.

The USSOCOM C4 systems comprise an integrated network of systems providing positive command and control and the timely exchange of information to all organizational echelons. The C4 systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration within the Global Information Grid (GIG). The GIG is a multitude of existing and projected national assets that 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: Satellite Deployable Node (SDN)	13.151	5.634	3.825
Description: The SDN is a family of deployable, super high frequency, multi-band, satellite communications (SATCOM) systems providing the transport path for high-capacity, voice, data, video teleconferencing (VTC), and full motion video (FMV) at all levels of classification. It consists of SDN subprograms, transport for intelligence variants, technology insertions and Capital Equipment replacement.			
FY 2022 Plans: Continue assessments, tests, and evaluations for wide-band Communication-On-The-Move (COTM) maritime, ground mobile, and airborne technologies. Continue assessments in Size, Weight and Power (SWAP) reduction across all SDN systems. Continue evaluation of High Throughput Satellite (HTS) constellations and terminals. Continue evaluation of resilience of systems in a degraded communications environment.			
FY 2023 Plans: Continues assessments, tests, and evaluations for wide-band COTM maritime, ground mobile, and airborne technologies. Continues assessments in SWAP reduction across all SDN systems. Continues evaluation of HTS constellations and terminals. Continues evaluation of resilience of systems in a degraded communications environment.			
FY 2022 to FY 2023 Increase/Decrease Statement:			

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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 1160431BB / <i>Warrior Systems</i>		Project (Number/Name) S700 / <i>Communications Equipment and Electronics Systems</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
Decrease of \$1.809 million supports a deliberate approach to reinvest in modernization and advance the transition of special operations capabilities to support integrated deterrence and implement the Joint Warfighting Concept.					
Title: Special Communications (SPCOM) Enterprise program Description: The SPCOM Enterprise includes organizations, practices, processes, services, networks, systems and subsystems that manage and provide clandestine exchange of information between elements (field-to-field, field-to-base, base-to-field) for worldwide deployed SOF units, often in austere environments with heavy adversarial monitoring. Acquisition efforts are structured for rapid, tailored development to counter adaptable emerging threats in all theaters of SOF sensitive missions. FY 2022 Plans: Continue segment development for the SPCOM enterprise; develop means and methods to provide near-term impact to operators. Continue development of anti-intrusion/anti-tamper capabilities. Continue extensive vulnerability assessments plus independent verification and validation. Acquisition efforts are structured for rapid, tailored development to counter adaptable emerging threats in all theaters of SOF sensitive missions. FY 2023 Plans: Continues segment development for the SPCOM enterprise; includes field set and waveform development with a focus on supporting operations in highly contested and/or denied environments for the SPCOM enterprise. Continues development of anti-intrusion/anti-tamper capabilities to reduce signature and protect in the event of a compromise. Continues tailoring extensive vulnerability assessments plus independent verification and validation to mimic nation state level threats. Acquisition efforts are structured to support rapid, tailored development to counter adaptable emerging threats targeting active and/or planned operations in all theaters of SOF sensitive missions. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$1.181 million supports development of enhanced processing for special communications satellite devices.			10.793	11.220	12.401
Title: Mission Command System/Common Operational Picture (MCS/COP) Description: The MCS/COP provides shared situational awareness for SOF Commanders across all domains at the tactical, operational, and strategic levels. The MCS/COP delivers a near-real time operational understanding of the intelligence and operational environment to support decision making. FY 2022 Plans: Continue rapid prototyping, product development, and operational testing and evaluation based upon dynamic and emergent operational requirements. FY 2023 Plans:			4.412	4.602	32.439

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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 1160431BB / Warrior Systems				Project (Number/Name) S700 / Communications Equipment and Electronics Systems				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2021	FY 2022	FY 2023
Continues and greatly expands the range of prototype and product development software solutions under a modular open systems architecture. Continues operational testing and evaluation based on dynamic and emergent operational requirements.												
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$27.837 million enables rapid development of Mission Command capabilities focused on modernization in support of Command Joint All-Domain Command & Control (JADC2) requirements for DoD interoperability and SOF support to integrated deterrence. This includes development of artificial intelligence/machine learning algorithms, a SOF unified data layer, advanced data analytics and Denied – Disconnected, Intermittent, Limited (D-DIL) hardware and software capabilities.												
Accomplishments/Planned Programs Subtotals										28.356	21.456	48.665
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/0204WARRIOR: Warrior Systems<\$5M	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing	
• PROC/0204OTHER: OTHER ITEMS <\$5M	82.776	55.722	98.096	-	98.096	131.156	88.698	93.486	125.880	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
The SDN is a fielded program with Evolutionary Technology Insertions (ETI) into all variants: Heavy, Medium, and Light, and wide-band COTM. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.												
The SPCOM is an ETI effort to provide and support multiple field mission sets fully integrated with secure transports for complete end-to end capabilities. In particular, rapid, phased prototyping is prioritized to both develop operationally-relevant prototypes but also to be flexible and agile in ensuring countermeasures against dynamically adapting special communication threats in all theaters. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.												
The MCS/COP program employs the software acquisition pathway to facilitate rapid and iterative delivery of operational software to meet dynamic SOF requirements. The MCS/COP implements a modular open systems architecture that leverages commercial and government sources to quickly deploy evolving technologies for decision support such as artificial intelligence, three dimensional (3D) virtual reality, and computer vision for advanced fusion and battlespace visualization.												

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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 1160431BB / Warrior Systems				Project (Number/Name) S700 / Communications Equipment and Electronics Systems					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Satellite Deployable Node (SDN) Development	Various	Various : Various	17.740	6.576	Jan 2021	1.125	Dec 2021	2.375	Feb 2023	-		2.375	Continuing	Continuing	-
Special Communications (SPCOM) Enterprise Capability Development	C/Various	Various : Various	21.443	8.996	Mar 2021	9.220	May 2022	10.501	May 2023	-		10.501	Continuing	Continuing	-
SPCOM Technology Vulnerability Assessments	MIPR	MITRE : Bedford, MA	4.254	1.424	Dec 2020	1.600	Apr 2022	1.400	Dec 2022	-		1.400	Continuing	Continuing	-
Mission Command System Common Operational Picture (MCS/COP) Prototype and Product Development	C/Various	Various : Various	-	2.292	Apr 2021	3.500	Mar 2022	10.000	Mar 2023	-		10.000	Continuing	Continuing	-
MCS/COP Modular Open Systems Architecture	C/Various	CAE : Various	-	-		-		8.039	Mar 2023	-		8.039	Continuing	Continuing	-
MCS/COP Artificial Intelligence Analytics	C/FFP	BlackCape : Various	-	-		-		6.000	Jun 2023	-		6.000	Continuing	Continuing	-
MCS/COP Unified Data Layer	MIPR	BlueStaq : Various	-	-		-		6.000	Mar 2023	-		6.000	Continuing	Continuing	-
Prior Year Funding - Base	C/Various	Various : Various	1.788	-		-		-		-		-	Continuing	Continuing	-
Subtotal			45.225	19.288		15.445		44.315		-		44.315	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SDN Evaluation and Testing	Various	Various : Various	13.789	6.575	Feb 2021	4.509	Dec 2021	1.450	Dec 2022	-		1.450	Continuing	Continuing	-
SPCOM Independent Verification and Validation	MIPR	OTC : Ft. Huachuca, AZ	1.985	0.373	Dec 2020	0.400	Apr 2022	0.500	Dec 2022	-		0.500	Continuing	Continuing	-
MCS/COP	C/Various	Various : Various	-	2.120	Apr 2021	1.102	Mar 2022	2.400	Mar 2023	-		2.400	Continuing	Continuing	-
Subtotal			15.774	9.068		6.011		4.350		-		4.350	Continuing	Continuing	N/A

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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 1160431BB / Warrior Systems					Project (Number/Name) S700 / Communications Equipment and Electronics Systems					
			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			60.999	28.356		21.456		48.665		-		48.665	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

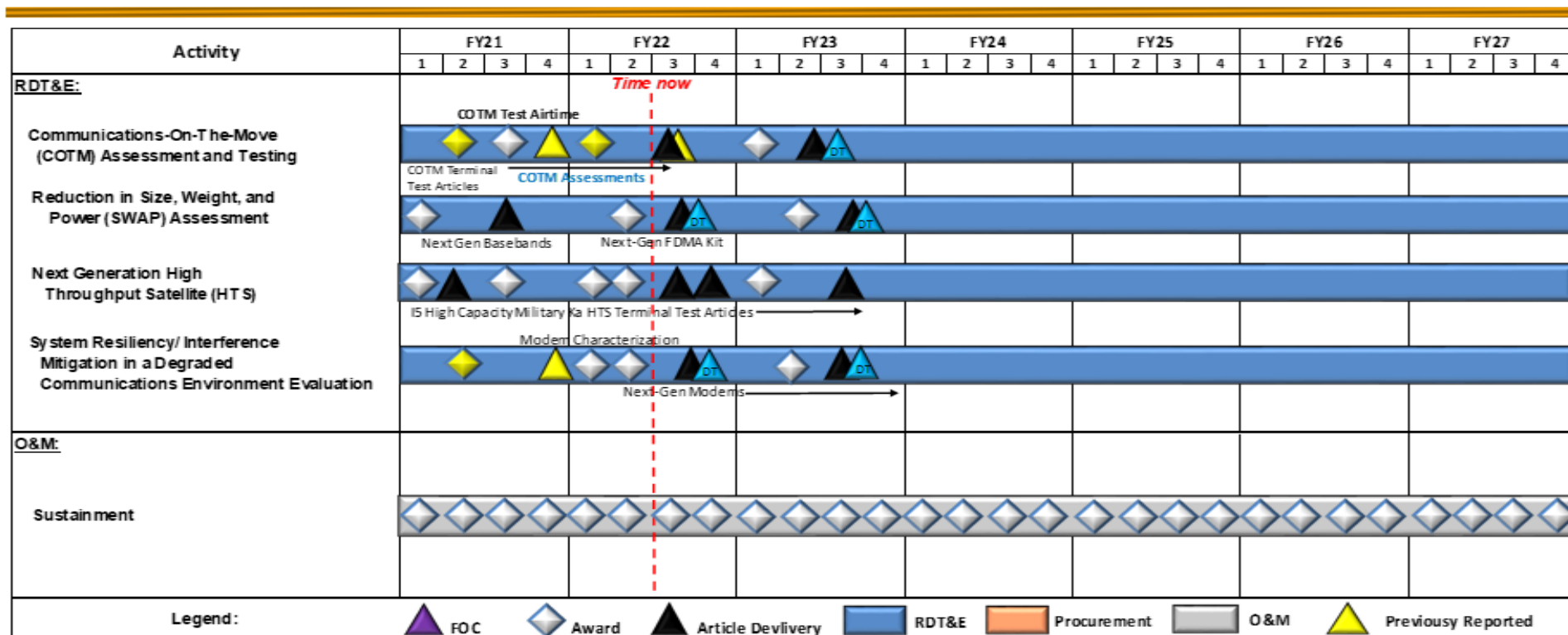
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S700 / Communications Equipment and Electronics Systems

Satellite Deployable Node (SDN) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

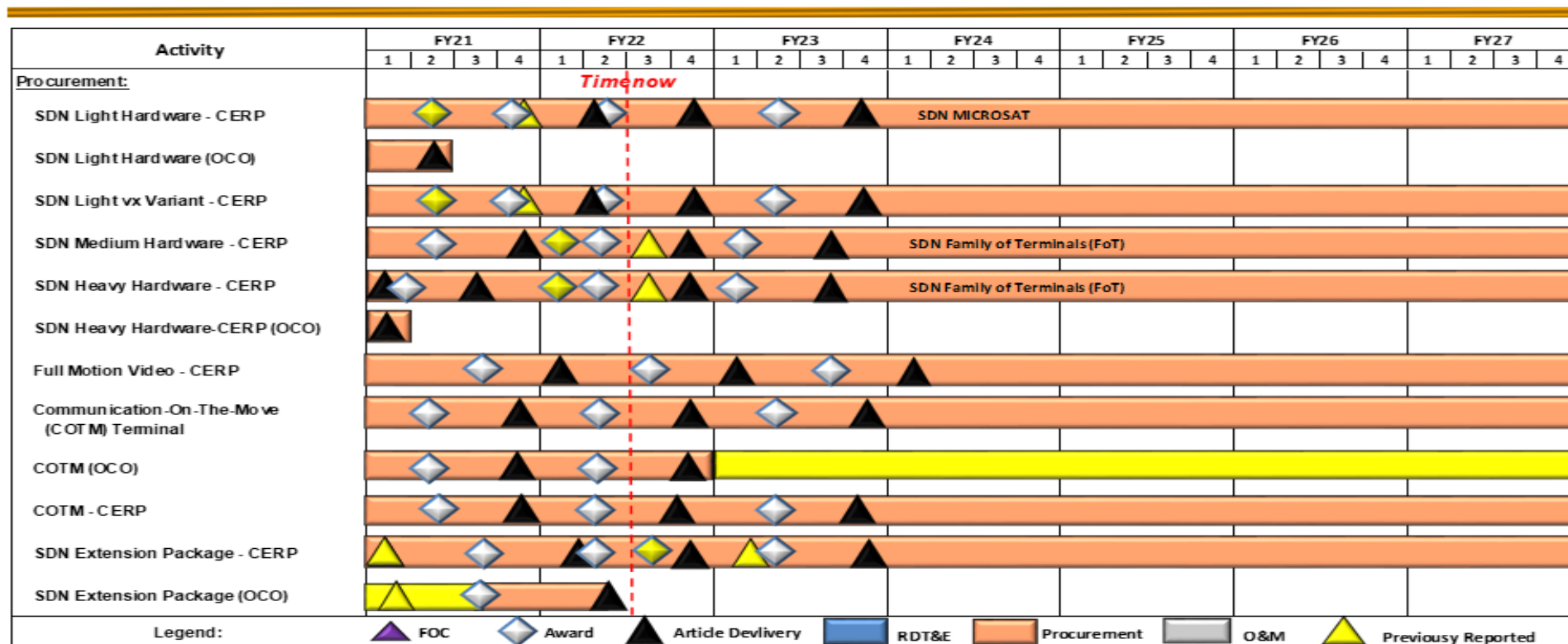
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S700 / Communications Equipment and Electronics Systems

SDN Schedule (con't)



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

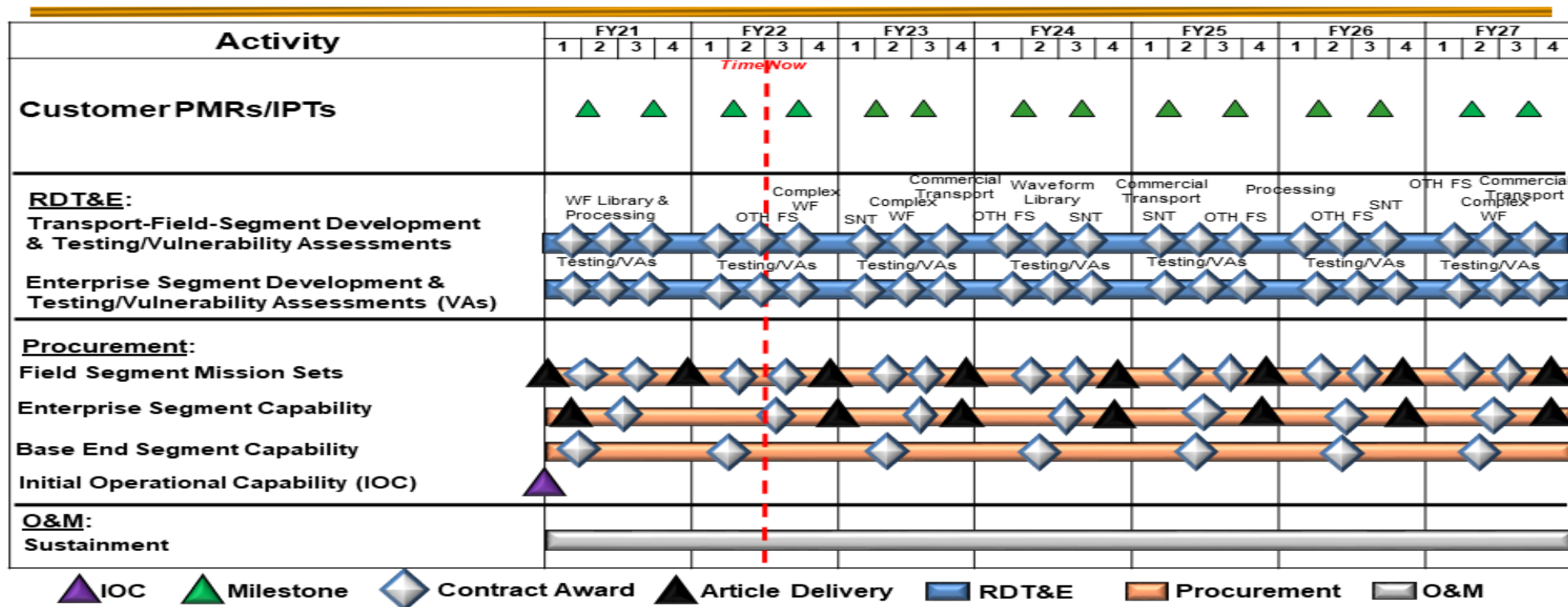
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S700 / Communications Equipment and Electronics Systems

Special Communications (SPCOM) Enterprise Program Schedule



SNT: Secure Note Taking OTH FS: Over the Horizon Field Set
RF: Radio Frequency WF: Waveform

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

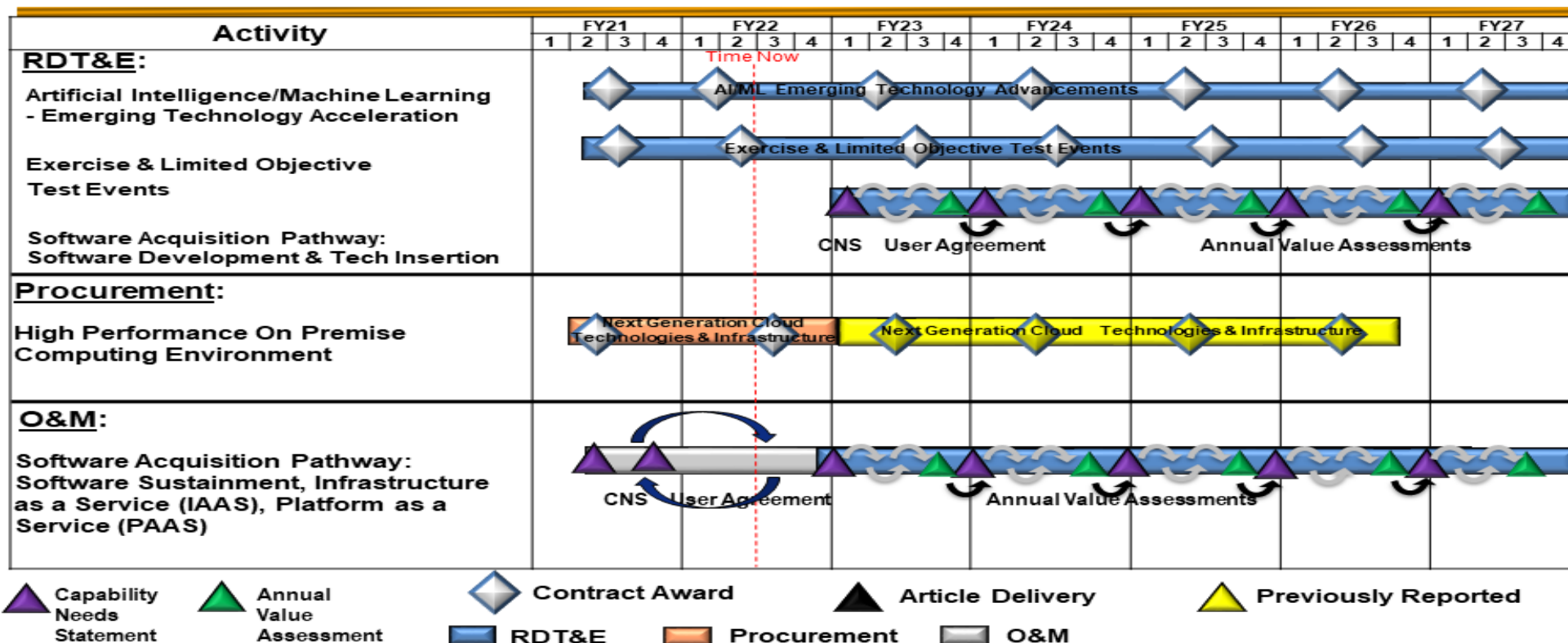
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S700 / Communications Equipment and Electronics Systems

Mission Command System (MCS) / Common Operational Picture (COP) Schedule



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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 1160431BB / Warrior Systems	Project (Number/Name) S700 / Communications Equipment and Electronics Systems	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Satellite Deployable Node (SDN)				
Communication-on-the-Move (COTM) Assessment & Testing	1	2021	4	2027
Reduction in Size, Weight, and Power (SWaP)	1	2021	4	2027
Next Generation High Throughput (HTS) Satellite	1	2021	4	2027
System Resiliency / Interference Mitigation in Degraded Communications Environment Evaluation	1	2021	4	2027
Special Communications (SPCOM) Enterprise Program				
Transport - Field Segment Kit Development and Testing/Vulnerability Assessments	1	2021	4	2027
Enterprise Segment Development and Testing/Vulnerability Assessments	1	2021	4	2027
Mission Command System/Common Operational (MCS/COP)				
Artificial Intelligence/Machine Learning (AI/ML) - Emerging Technology Acceleration	2	2021	4	2027
Exercise & Limited Objective Test Events	2	2021	4	2027
Software Acquisition Pathway: Software Development & Tech Insertion	1	2023	4	2027

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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 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S710 / <i>Tactical Systems Development</i>			
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
S710: <i>Tactical Systems Development</i>	9.912	3.222	14.331	21.736	-	21.736	25.597	26.683	25.191	27.417	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for development, testing, and integration of specialized automation equipment to meet the unique requirements of Special Operations Forces (SOF). Specialized automation equipment will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. These operations are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy. SOF must infiltrate by land, sea, and air to conduct unconventional warfare, direct action, or deep reconnaissance operations in denied areas against insurgent units, terrorists, or highly sophisticated threat forces. The requirement to operate in denied areas controlled by a sophisticated threat mandates that SOF systems remain technologically superior to threat forces to ensure mission success.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: Tactical Local Area Network (TACLAN) Description: The TACLAN provides SOF operational commanders and forward deployed forces advanced networking, automated data processing, storage, and display capabilities to support situational awareness, mission planning and execution, and command and control of forces. The TACLAN consists of Suites, Mission Planning Kits, Field Computing Devices (FCD), and Tactical Work Stations. FY 2022 Plans: Continue integration and testing of Evolutionary Technology Insertions (ETIs) for TACLAN FCD and Network Management Suite upgrades. Complete the development of Mobile Edge Computing capabilities for integration and assessment in the TACLAN Family of Systems. FY 2023 Plans: Continues integration and testing of ETIs for TACLAN FCD and Network Management Suite upgrades. Begins the development of Graphical Processing Unit (GPU) computing capabilities for the integration and assessment of the TACLAN suites. FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$0.587 million supports emerging critical command requirements.	3.222	3.068	2.481
Title: Classified Sub-project Description: Classified Sub-project (provided under separate cover). FY 2022 Plans:	-	3.263	19.255

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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 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S710 / <i>Tactical Systems Development</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Details provided under separate cover.			
<i>FY 2023 Plans:</i> Details provided under separate cover.			
<i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> Increase of \$15.992 million will be provided under separate cover.			
Accomplishments/Planned Programs Subtotals	3.222	6.331	21.736

	FY 2021	FY 2022
<i>Congressional Add:</i> Special Operations Fused Global Data Analytics and Visualization	-	8.000
<i>FY 2022 Plans:</i> Details provided under separate cover.		
Congressional Adds Subtotals	-	8.000

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204OTHER: OTHER ITEMS <\$5M	82.776	55.722	98.096	-	98.096	131.156	88.698	93.486	125.880	Continuing	Continuing

Remarks

D. Acquisition Strategy

TACLAN - The TACLAN evolutionary acquisition strategy includes the use of commercial and government agency sources that will be leveraged for required certifications, functional and operational test, and acceptance support.

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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 1160431BB / Warrior Systems				Project (Number/Name) S710 / Tactical Systems Development					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Tactical Local Area Network (TACLAN) Graphical Processing Unit (GPC)	Reqn	Raven Tek : Tampa, FL	-	-		-		1.249	Mar 2023	-		1.249	Continuing	Continuing	-
Classified Sub-project	C/FFP	Various : Various	-	-		3.263		19.255		-		19.255	Continuing	Continuing	-
Classified Sub-project Congressional Add	C/FFP	Various : Various	-	-		8.000		-		-		-	Continuing	Continuing	-
Subtotal			-	-		11.263		20.504		-		20.504	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
TACLAN Evolutionary Technology Insertions (ETIs)	Reqn	Raven Tek : Tampa, FL	4.387	1.378	Mar 2021	3.068	Mar 2022	1.000	Mar 2023	-		1.000	Continuing	Continuing	-
Network Management Suite ETIs	Reqn	Raven Tek : Tampa, FL	3.975	1.294	Feb 2021	-		0.232	Apr 2023	-		0.232	Continuing	Continuing	-
Mobile Edge Computing	Reqn	Raven Tek : Tampa, FL	0.550	0.550	Aug 2021	-		-		-		-	0.000	1.100	-
Prior Year	C/Various	Various : Various	1.000	-		-		-		-		-	0.000	1.000	-
Subtotal			9.912	3.222		3.068		1.232		-		1.232	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			9.912	3.222		14.331		21.736		-		21.736	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

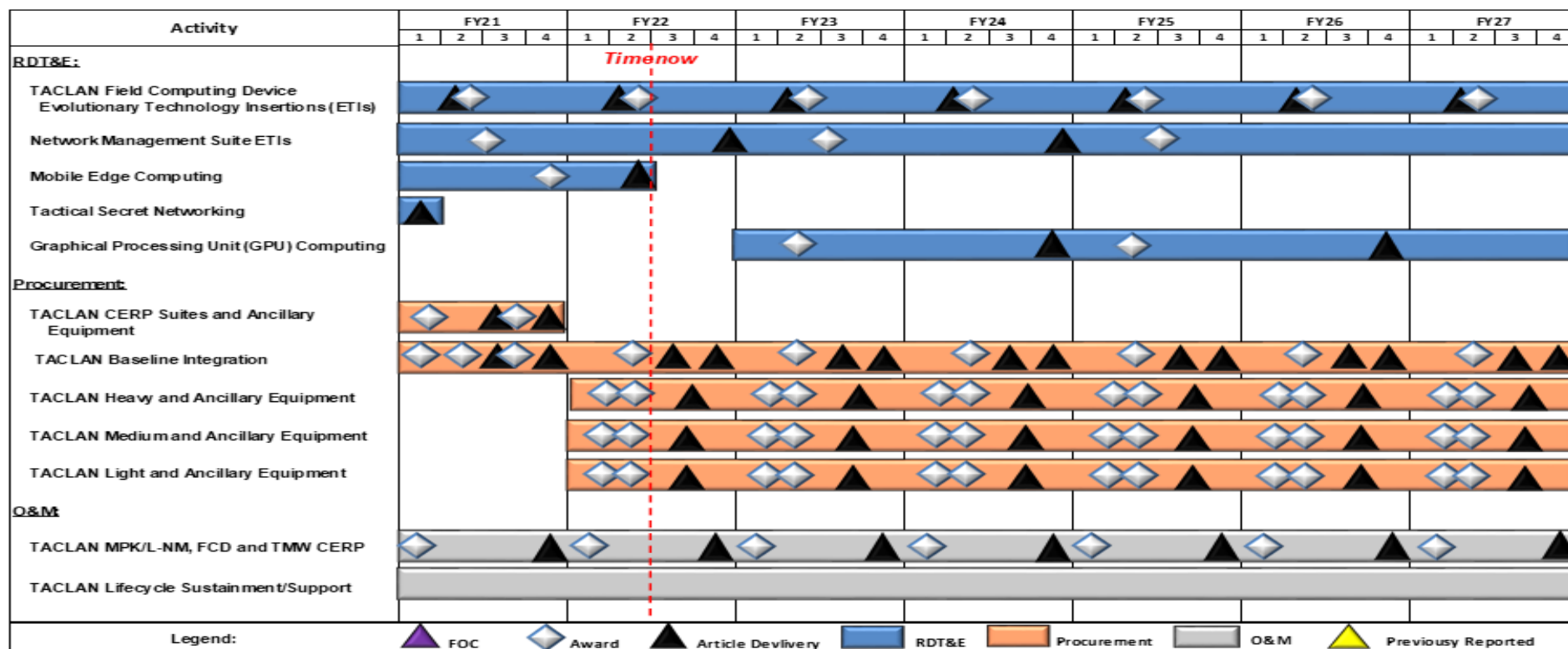
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S710 / Tactical Systems Development

Tactical Local Area Network (TACLAN) Schedule



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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 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S710 / <i>Tactical Systems Development</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Tactical Local Area Network (TACLAN) Suites</i>				
TACLAN Field Computing Device (FCD) Evolutionary Technology Insertions (ETIs)	1	2021	4	2027
Network Management Suite ETIs	1	2021	4	2027
Mobile Edge Computing	1	2021	2	2022
Tactical Secret Networking	1	2021	1	2021
Graphical Processing Unit Computing	1	2023	4	2027

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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 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) <i>S725 / Tactical Radio Systems</i>			
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
<i>S725: Tactical Radio Systems</i>	43.178	4.149	12.999	10.058	-	10.058	10.339	5.414	5.490	5.568	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is for the development of all Special Operations Forces (SOF) tactical radio programs. Tactical Radios provide the critical command, control, and communications (C3) link between SOF Commanders and SOF Teams conducting operational missions and training exercises. They also provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies, and allied foreign forces. Tactical Radios rapidly and seamlessly establish and maintain mobile and fixed command and control (C2) communications between operational elements and higher echelon headquarters, allowing SOF to operate with any force combination in multiple environments.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: SOF Tactical Communications (STC)	3.487	1.791	7.827
Description: The STC consists of Next-Generation SOF Communication Systems which replace most of the currently fielded SOF tactical radios. Capabilities include real time, hostile and friendly force information; Line of Sight (LOS) and beyond LOS (BLOS) communications; and access to situational awareness in the form of intelligence inputs, broadcasts, and networks.			
FY 2022 Plans: Continue Engineering Change Proposals (ECPs) for the Next Generation Handheld (NGHH) and Next Generation Manpack (NGMP), to include initial development of the Mobile User Objective System (MUOS), to transition from legacy Ultra High Frequency tactical satellite waveforms. Continue High Frequency (HF) platform modernization of two complementary systems into an overarching, predominantly Government-owned, HF capability that provides low probability of intercept/detection (LPI/D) capabilities.			
FY 2023 Plans: Continues ECPs for the NGHH and NGMP, to include development of MUOS to transition from legacy UHF tactical satellite waveforms. Continues HF platform modernization of two complementary systems into an overarching, predominantly Government-owned, high frequency capability that provides LPI/D capabilities. Begins contested communications/waveform development focusing on anti-jam capabilities.			
FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$6.036 million is due to \$5.000 million increase to support MUOS phase two development and \$1.036 million increase for anti-jam trade study.			
Title: Blue Force Tracking (BFT)	0.662	1.208	1.644

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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 1160431BB / Warrior Systems	Project (Number/Name) S725 / Tactical Radio Systems		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
<p>Description: BFT is a family of devices used to remotely track and monitor SOF unit personnel. The capability enhances C2, threat warning, force protection, situational awareness, combat search and rescue, counter-fratricide, and battlefield visualization. This capability is unique to SOF because it requires the devices to be lightweight, portable, secure with LPI/D.</p> <p>FY 2022 Plans: Continue development and testing of new capabilities.</p> <p>FY 2023 Plans: Continues development and testing of specialized BFT and initiates personnel recovery capabilities.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.436 million is due to addressing BFT capability enhancements.</p>					
<p>Title: Remote Advise and Assist Virtual Accompany Kit (RAA/VAK)</p> <p>Description: The RAA/VAK provides operational forces a suite of tools for mission planning and execution, command and control of partnered forces, and access to real-time information for situational awareness and de-confliction. RAA/VAK utilizes available cellular networks to transmit and receive voice and data, displaying relevant information geo-spatially on Android Tactical Assault Kit. The components within the kit are commercially available, which mitigates releasability concerns and allows use by partner forces.</p> <p>FY 2023 Plans: Evaluates alternate communications methods for data back-haul that will allow the user to connect to commercial satellite networks and the internet at a lower cost to the program.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.587 million supports the evaluation of alternate communications methods for data back-haul that will allow the user to exfil data in degraded environments.</p>			-	-	0.587
Accomplishments/Planned Programs Subtotals			4.149	2.999	10.058
			FY 2021	FY 2022	
Congressional Add: STC - Software-Defined Radio Waveforms			-	10.000	
FY 2022 Plans: Begin initial development of the Mobile User Objective System (MUOS).					
Congressional Adds Subtotals			-	10.000	

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Exhibit R-2A, RDT&E Project Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) <i>S725 / Tactical Radio Systems</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems<\$5M</i>	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing

Remarks

D. Acquisition Strategy

The STC is a COTS/Non-Development Item program with ETIs. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

The BFT is a fielded program with ETIs leveraging commercial and other government agency sources for required certifications, functional and operational tests, and technology updates.

The RAA/VAK is pursuing a MTA strategy that will leverage commercial and other government agency sources for technology insertions.

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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 1160431BB / Warrior Systems				Project (Number/Name) S725 / Tactical Radio Systems					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Tactical Communications (STC) Radio Development	MIPR	Various : Various	37.237	3.487	May 2021	1.791	Jan 2022	7.827	Jan 2023	-		7.827	Continuing	Continuing	-
STC Radio Waveform Congressional Add	MIPR	Various : Various	-	-		10.000	Jan 2022	-		-		-	0.000	10.000	-
Blue Force Tracking (BFT) Rapid Prototyping, Product Development, and Device Integration	MIPR	Various : Various	3.053	0.587	Nov 2020	1.133	Nov 2021	1.569	Nov 2022	-		1.569	Continuing	Continuing	-
Remote Advise and Assist Virtual Accompany Kit (RAA/VAK) Capability Development, Rapid Prototyping, Product Development, and Device Integration	MIPR	Various : Various	-	-		-		0.399	Jan 2023	-		0.399	Continuing	Continuing	-
Subtotal			40.290	4.074		12.924		9.795		-		9.795	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
STC Testing	Option/ TBD	Various : Various	2.681	-		-		-		-		-	0.000	2.681	-
BFT SOF Assessment & Operational Testing	MIPR	Various : Various	0.207	0.075	Nov 2020	0.075	Nov 2021	0.075	Nov 2022	-		0.075	Continuing	Continuing	-
RAA/VAK SOF Assessment & Operational Testing	MIPR	Various : Various	-	-		-		0.188	Jan 2023	-		0.188	Continuing	Continuing	-
Subtotal			2.888	0.075		0.075		0.263		-		0.263	Continuing	Continuing	N/A

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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 1160431BB / Warrior Systems					Project (Number/Name) S725 / Tactical Radio Systems			
	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	43.178	4.149		12.999		10.058		-		10.058	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

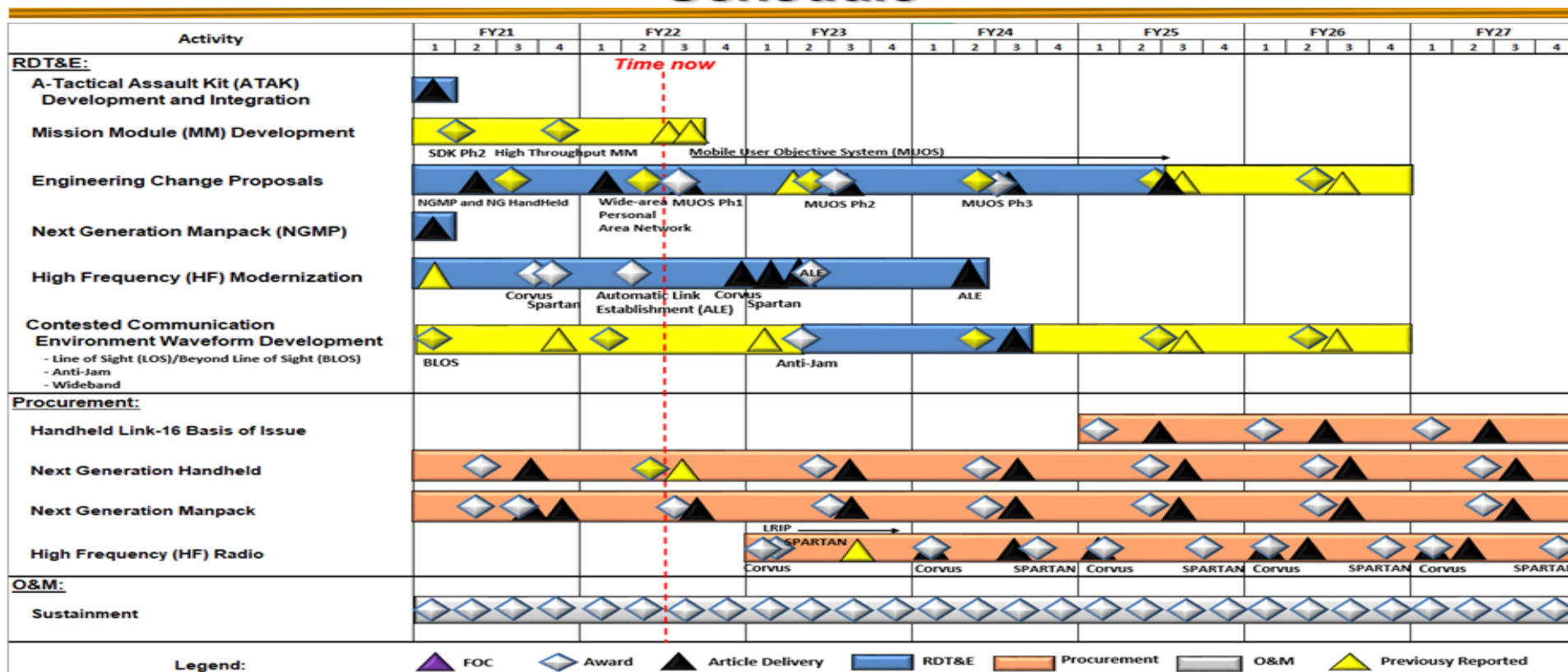
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S725 / Tactical Radio Systems

SOF Tactical Communications (STC)/ Next Generation Tactical Communications (NGTC) Schedule



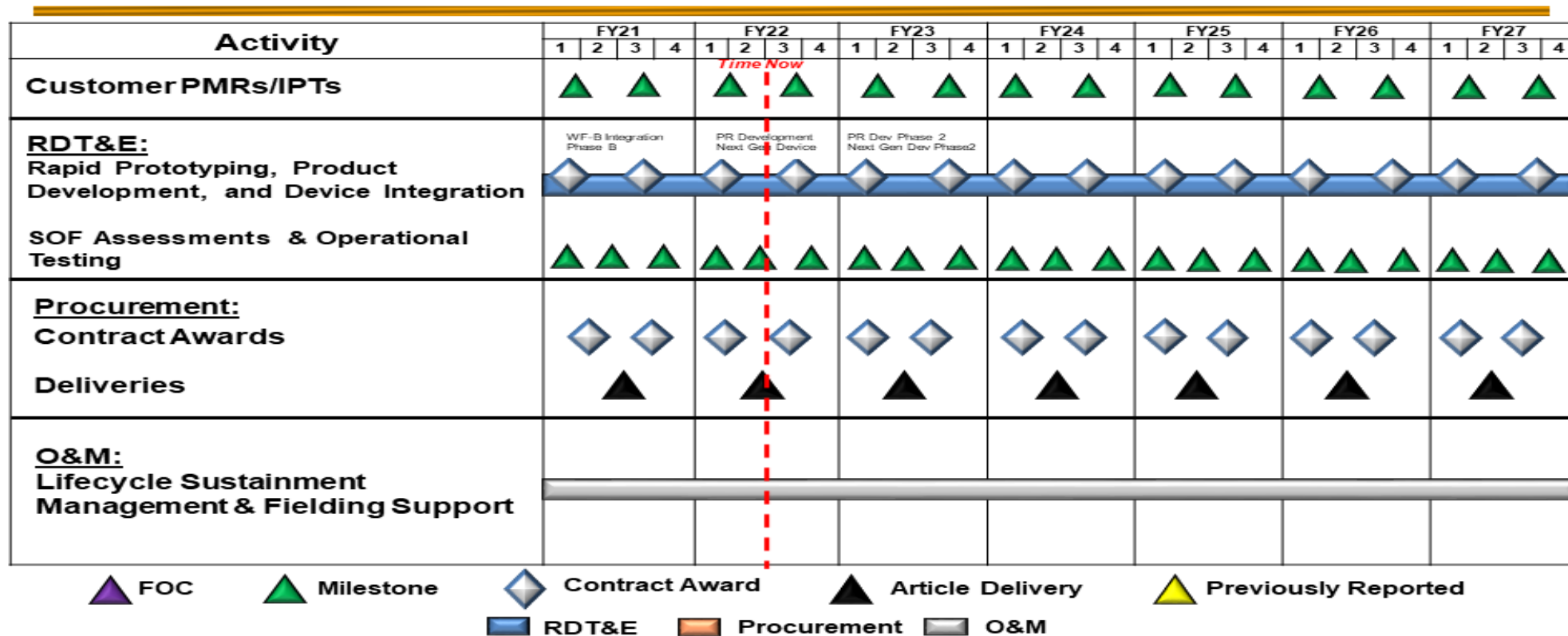
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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

Date: April 2022

Appropriation/Budget Activity
0400 / 7R-1 Program Element (Number/Name)
PE 1160431BB / Warrior SystemsProject (Number/Name)
S725 / Tactical Radio Systems

Blue Force Tracking (BFT) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

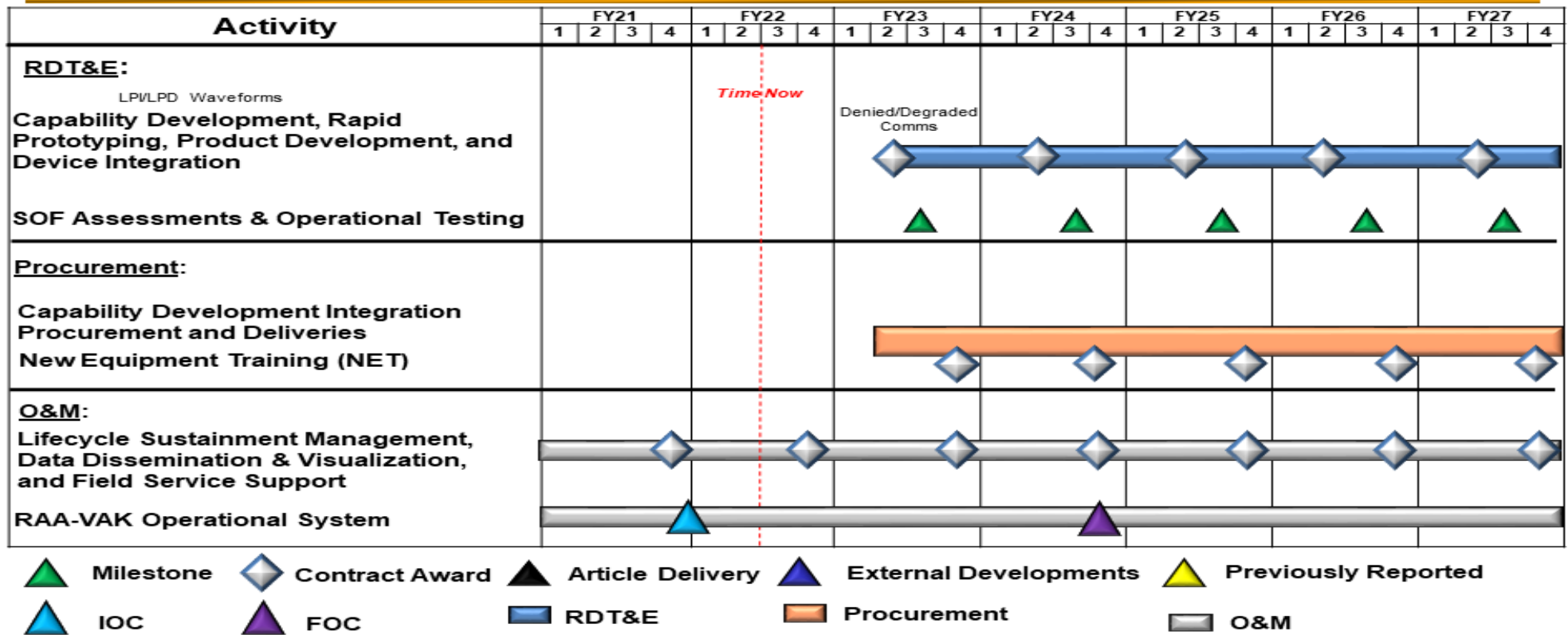
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S725 / Tactical Radio Systems

Remote Advise and Assist - Virtual Accompany Kit (RAA-VAK) Schedule



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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 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) <i>S725 / Tactical Radio Systems</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>SOF Tactical Communications Radio (STC)</i>				
A-Tactical Assault Kit (ATAK) Development and Integration	1	2021	1	2021
Engineering Change Proposals (ECPs)	1	2021	2	2025
Next Generation (NGEN) Manpack (MP) Test and Evaluation	1	2021	1	2021
High Frequency (HF) Modernization	1	2021	2	2024
Contested Communication Environment Waveform Development	2	2023	3	2024
<i>Blue Force Tracking (BFT)</i>				
Rapid Prototyping, Product Development, and Device Integration	1	2021	4	2027
SOF Assessment & Operational Testing	1	2021	4	2027
<i>Remote Advise Assist Virtual Accompany Kit (RAA/VAK)</i>				
Capability Development, Rapid Prototyping, Product Development, and Device Integration	2	2023	4	2027
SOF Assessments & Operational Testing	3	2023	4	2027

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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 1160431BB / Warrior Systems				Project (Number/Name) S800 / Munitions Advanced 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
S800: Munitions Advanced Development	118.669	11.945	41.979	18.191	-	18.191	20.541	16.560	16.469	17.146	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project funds advanced engineering, operational system development, and qualification efforts related to specialized kinetic and non-kinetic munitions and equipment to meet the unique requirements of SOF.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: Stand-Off Precision Guided Munitions (SOPGM) Description: SOPGM provides for the integration and testing of service-common and recently developed precision guided munitions on SOF-unique platforms. FY 2022 Plans: Continue the engineering, integration, and testing on various technologies (munitions and warheads) within the precision guided munitions portfolio. FY 2023 Plans: Continues the engineering, integration, and testing of various technologies (munitions and warheads) within the precision guided munitions portfolio. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.103 million will continue SOPGM integration and development efforts.	3.040	4.256	4.359
Title: Munitions Advanced Development Description: The Munitions Advanced Development program provides for Insensitive Munitions (IM) technology development and evaluations that allow SOF munitions to pass testing which includes bullet impact, sympathetic detonation, fast cook off, slow cook off and shaped charge test. Testing is in accordance with the USSOCOM IM Testing Plan. Munitions product improvements are tested in accordance with command priorities. FY 2022 Plans: Continue proof of concept development and IM testing on various munitions. Continue full scale testing to satisfy safety requirements in Military Standard 2105C (Department of Defense Test and Method Standard: Hazard Assessment Test for	1.529	1.549	0.530

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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 1160431BB / Warrior Systems	Project (Number/Name) S800 / Munitions Advanced Development		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
Non-Nuclear Munitions, 26 Sep 2006). Scalable Effects effort funding will enable developmental testing, initial operational test evaluations, and finalized safety certifications for operational approvals. FY 2023 Plans: Continues proof of concept development and IM testing on various munitions. Continues full scale testing to satisfy safety requirements in Military Standard 2105C. FY 2022 to FY 2023 Increase/Decrease Statement: Net decrease of \$1.019 million is due to \$0.009 million increase due to a miscellaneous adjustment and (\$1.028 million) decrease due to transition of technologies to the Maritime Scalable Effects project line.					
Title: Maritime Scalable Effects Description: Maritime Scalable Effects and the Maritime Disablement Program will provide Naval Special Warfare (NSW) a family of systems (FOS) to include multiple payloads delivered via combat swimmer, combat submersible and Unmanned Underwater Vehicle to disrupt, degrade and destroy enemy maritime vessels, maritime support assets, and maritime infrastructure. This FOS will include several tactical and training configurations of munitions and related equipment of explosively formed penetrators, conical shape charges, linear shaped charges, diversionary devices, demolition hand grenades, breaching devices, explosives, firing devices, underwater munitions, flares, signaling devices, along with tools, equipment, and attaching devices for constructing and emplacing a variety of demolition charges and other munitions as required. Funding will accelerate upgrades to existing capabilities while at the same time field innovative technologies and creative operational concepts to target adversary vulnerabilities. Directly supports and enables subsea seabed warfare in support of integrated deterrence. MSE was previously reported under the Munitions Advanced Development. FY 2023 Plans: Begins proof of concept development and IM testing on various munitions. Begins full scale, developmental testing, operational test evaluations, and finalized safety certifications for operational approvals. FY 2023 also includes FoS projects to include underwater explosive penetrator variants and other complimentary capabilities. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$1.812 million supports the development of innovative technologies and creative operational concepts to target near peer vulnerabilities.			-	-	1.812
Title: Maritime Precision Engagement Munition (MPE-M) / Ground Organic Precision Strike System (GOPSS) Description: Guided Rocket or propeller Systems provides for the engineering, integration and testing of service-common and recently developed precision guided munitions on SOF-unique platforms. MPE-M GOPSS is designated a MTA program which uses the rapid prototyping pathway and is executing using existing contracts, government agencies, and new contracts			7.376	15.963	-

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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 1160431BB / <i>Warrior Systems</i>		Project (Number/Name) S800 / <i>Munitions Advanced Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
competitively selected as appropriate. Beginning in FY 2023, program capabilities and funding have transitioned into the Maritime Precision Engagement Munitions (MPE-M) and Ground Organic Precision Strike System (GOPSS).					
FY 2022 Plans: Enable continued development of MPE-M by funding the following: engineering services; munition magazines; munition aircraft, launchers, and payloads; control systems; system emulators; test and evaluation events to include range time and support, testing materials, and equipment; post-event processing with revised capability and programmatic documents. These efforts will generate a Critical Design Review package and prepare the MPE-M program for fleet safety certifications, Developmental and Operational Assessments, and production. Enable development of each echelon within the GOPSS through funding the following: integration of missile launcher onto mobile platforms; purchase of developmental test articles and test equipment, test and evaluation events to include range costs; performance of critical munitions safety assessments; and post-event processing and analysis with revised capability and programmatic documents.					
FY 2022 to FY 2023 Increase/Decrease Statement: Net decrease of \$15.963 million is to support emerging critical Command requirements (\$4.473 million) and the remaining funds were realigned out of the MPE-M / GOPSS combined project line to the MPE-M (\$9.746 million) and GOPSS (\$1.744 million) project lines.					
Title: Ground Organic Precision Strike System (GOPSS) Description: Direct attack or aerial loitering munitions (ALM) provides for the engineering, integration and testing of recently developed precision guided munitions on SOF-unique platforms. GOPSS is designated as a MTA program which uses the rapid prototyping pathway and is executing using existing contracts, government agencies, and new contracts competitively selected as appropriate. GOPSS was previously reported under the MPE-M / GOPSS project line.			-	-	1.744
FY 2023 Plans: Continues the development of each echelon within GOPSS through funding the following: purchase of developmental test articles and test equipment, test and evaluation events to include range costs; performance of critical munitions safety assessments; post-event processing and analysis with revised capability and programmatic documents.					
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$1.744 million supports new technological innovations and development of direct attack or ALM and was broken out from the MPE-M project line.					
Title: Maritime Precision Engagement Munition (MPE-M) Description: Guided Rocket or propeller Systems provides for the engineering, integration and testing of service-common and recently developed precision guided munitions on SOF-unique platforms. MPE-M is designated a MTA program which uses the			-	-	9.746

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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 1160431BB / Warrior Systems			Project (Number/Name) S800 / Munitions Advanced Development				
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2021	FY 2022	FY 2023	
rapid prototyping pathway and is executing using existing contracts, government agencies, and new contracts competitively selected as appropriate. MPE-M was previously reported under the MPE-M / GOPSS project line.											
FY 2023 Plans: Begins MPE-M development and testing by funding the following: engineering services; munition magazines; aircraft munition, launchers, and payloads; control systems, system emulators; test and evaluation events to include range time and support, testing materials, and equipment; post-event processing with revised capability and programmatic documents.											
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$9.746 million supports new technologies innovation to MPE-M and was broken out from the GOPSS project line.											
Accomplishments/Planned Programs Subtotals								11.945	21.768	18.191	
							FY 2021	FY 2022			
Congressional Add: Various Effects Launcher Capability							-	16.000			
FY 2022 Plans: Develop, integrate and initially field a variable effects launcher capability that can carry a mixed load out of glide munitions, unmanned aerial systems and non-lethal standoff payload delivery systems.											
Congressional Add: Maritime Scalable Effects Acceleration							-	4.211			
FY 2022 Plans: Develop and test two additional Part B variants intended to exploit known vulnerabilities of adversaries and accelerate the transition of Project 811.											
Congressional Adds Subtotals							-	20.211			
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/0203ORDN: Ordnance Items <\$5M	287.629	162.212	151.233	-	151.233	158.672	164.729	163.159	207.908	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
SOPGM: Integration and developmental testing of precision guided munitions will be conducted using government laboratories or industry partners depending on the munitions for various SOF platforms.											

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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 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S800 / <i>Munitions Advanced Development</i>
<p>Munitions Advanced Development: Munitions and packaging redesign take place within government laboratories, as well as in industry, depending on the munitions. The IM solutions shall be tested on a small scale for proof of principle. Planned product improvements are tested at Army, Navy, and Air Force test centers leveraging MTA authorities and OTAs.</p> <p>GOPSS: Integration and developmental testing of precision strike systems with follow-on government-led integration effort leveraging lessons learned from similar rapid integration and prototype efforts on other SOF platforms. Planned product improvements are tested at Army, Navy, and Marine Corps test centers leveraging MTA authorities and OTAs.</p> <p>MPE-M: Maritime Precision Effects - Munitions take place within government laboratories and industry while leveraging existing developmental efforts and progress achieved in parallel, land-based aircraft and munitions efforts. Solutions reflect an integration of multiple platforms and shall be tested on a small scale for proof of principle. Planned product improvements are tested at Army, Navy, and Air Force test centers leveraging MTA authorities and OTAs.</p> <p>Maritime Scalable Effects: Maritime Scalable Effects munitions and packaging redesign take place within government laboratories, as well as in industry, depending on the munitions. Solutions shall be tested on a small scale for proof of principle. Planned product improvements are tested at Army, Navy, and Air Force test centers leveraging MTA authorities and OTAs.</p>		

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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 1160431BB / Warrior Systems				Project (Number/Name) S800 / Munitions Advanced Development					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Stand-off Precision Guided Munitions (SOPGM) Development	SS/ Various	Various : Various	-	3.040	Feb 2021	3.756	Mar 2022	3.859	Mar 2023	-		3.859	Continuing	Continuing	-
Various Effects Launcher Capability Cong Add	C/Various	Various : Various	-	-		16.000	Sep 2022	-		-		-	0.000	16.000	-
Maritime Scalable Effects (MSE) Variant Feasibility Study - Congressional Add	C/Various	Various : Various	-	-		0.100	Jun 2022	-		-		-	0.000	0.100	-
MSE Parts B2/B3 Variant Development - Congressional Add	C/Various	Various : Various	-	-		2.000	Aug 2022	-		-		-	0.000	2.000	-
MSE Project 811 Product Development - Congressional Add	C/Various	Various : Various	-	-		1.517	Jun 2022	-		-		-	0.000	1.517	-
MSE Parts A and B Product Development - Congressional Add	C/Various	Various : Various	-	-		0.594	Jun 2022	-		-		-	0.000	0.594	-
Ground Organic Precision Strike System (GOPSS)	C/Various	Various : Various	2.067	3.455	Mar 2021	1.775	Nov 2021	1.744	Dec 2022	-		1.744	Continuing	Continuing	-
Maritime Precision Engagement Munition (MPE-M) Aircraft Development	C/Various	Various : Various	4.723	1.516	Nov 2020	9.850	Nov 2021	8.000	Jan 2023	-		8.000	Continuing	Continuing	-
MPE-M - Payload development	C/Various	Various : Various	1.010	0.922	Nov 2020	1.200	Nov 2021	-		-		-	Continuing	Continuing	-
MPE-M Integration Development	C/Various	Various : Various	1.850	0.699	Nov 2020	0.956	Nov 2021	0.209	Jan 2023	-		0.209	Continuing	Continuing	-
Prior Year Funding - Base	C/Various	Various : Various	59.570	-		-		-		-		-	0.000	59.570	-
Prior Year Funding - Overseas Contingency Operations (OCO)	C/Various	Various : Various	0.002	-		-		-		-		-	0.000	0.002	-
Prior Year Funding - Congressional Plus Up	C/Various	Various : Various	23.957	-		-		-		-		-	0.000	23.957	-
Subtotal			93.179	9.632		37.748		13.812		-		13.812	Continuing	Continuing	N/A

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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 1160431BB / Warrior Systems				Project (Number/Name) S800 / Munitions Advanced Development					
Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year	C/Various	Various : Various	1.100	-		-		-		-		-	0.000	1.100	-
Prior Year Funding - OCO	C/Various	Various : Various	0.001	-		-		-		-		-	0.000	0.001	-
Prior Year Funding - Congressional Plus Up	C/Various	Various : Various	7.868	-		-		-		-		-	0.000	7.868	-
Subtotal			8.969	-		-		-		-		-	0.000	8.969	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOPGM Development	C/Various	Various : Various	-	-		0.500	Feb 2022	0.500	Feb 2023	-		0.500	Continuing	Continuing	-
Munitions Advanced Development AMMO Systems - Insensitive Munitions (IM) Evaluation	C/FFP	US Air Force Air Armaments Center : Eglin, AFB, FL	0.222	0.060	Dec 2020	0.067	Dec 2021	0.072	Dec 2022	-		0.072	Continuing	Continuing	-
Munitions Advanced Development AMMO Systems - IM Testing	Allot	ARDEC : Picatinny Arsenal, NJ	1.203	1.267	Dec 2020	0.268	Dec 2021	0.270	Dec 2022	-		0.270	Continuing	Continuing	-
Munitions Advanced Development AMMO Systems - Obtain Munitions Test Articles	C/FFP	General Dynamics : Canada	0.482	0.202	Dec 2020	1.214	Dec 2021	0.188	Dec 2022	-		0.188	Continuing	Continuing	-
MSE Test and Evaluation of Part A	C/Various	Various : Various	-	-		-		0.400	Jan 2023	-		0.400	Continuing	Continuing	-
MSE Test and Evaluation of Part B	Various	Various : Various	-	-		-		0.400	Jan 2023	-		0.400	Continuing	Continuing	-
MSE Test and Evaluation Project 811 and Parts B2/ B3	Various	Various : Various	-	-		-		1.012	Jun 2023	-		1.012	Continuing	Continuing	-
MPE-M - Safety	Allot	NSWC : Indian Head, MD	0.389	0.365	Jun 2021	0.419	Nov 2021	0.900	Jan 2023	-		0.900	Continuing	Continuing	-
MPE-M - Payload Test	Allot	Redstone : Various	0.450	0.141	May 2021	0.468	Feb 2022	0.300	Mar 2023	-		0.300	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S800 / <i>Munitions Advanced Development</i>
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Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MPE-M - Test Ranges	Allot	NSWC : Indian Head, MD	-	0.278	Apr 2021	1.295	Feb 2022	0.337	Jan 2023	-		0.337	Continuing	Continuing	-
Prior Year Funding - Base	C/Various	Various : Various	2.313	-		-		-		-		-	0.000	2.313	-
Prior Year Funding - OCO	C/Various	Various : Various	0.406	-		-		-		-		-	0.000	0.406	-
Prior Year Funding - Congressional Plus Up	C/Various	Various : Various	11.056	-		-		-		-		-	0.000	11.056	-
Subtotal			16.521	2.313		4.231		4.379		-		4.379	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			118.669	11.945		41.979		18.191		-		18.191	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

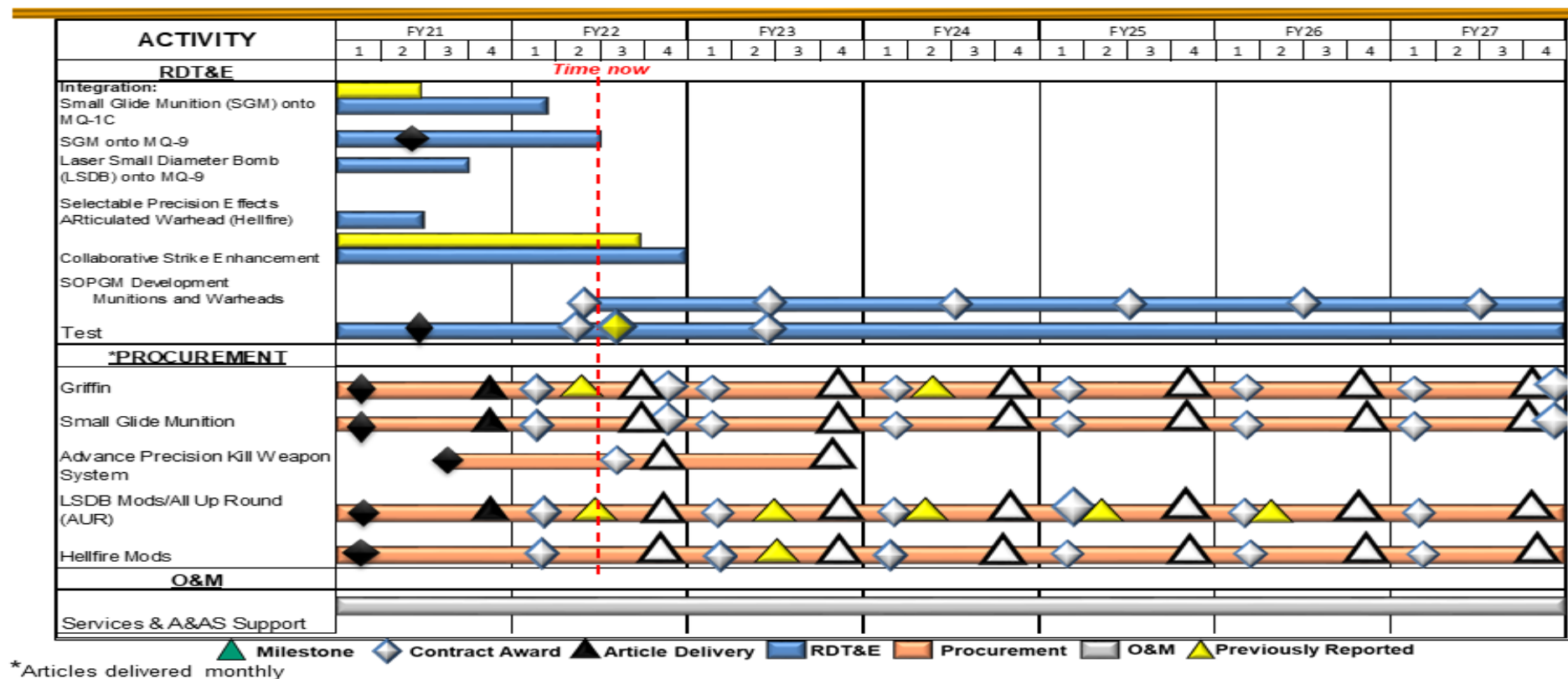
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S800 / Munitions Advanced Development

Stand-Off Precision Guided Munitions Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

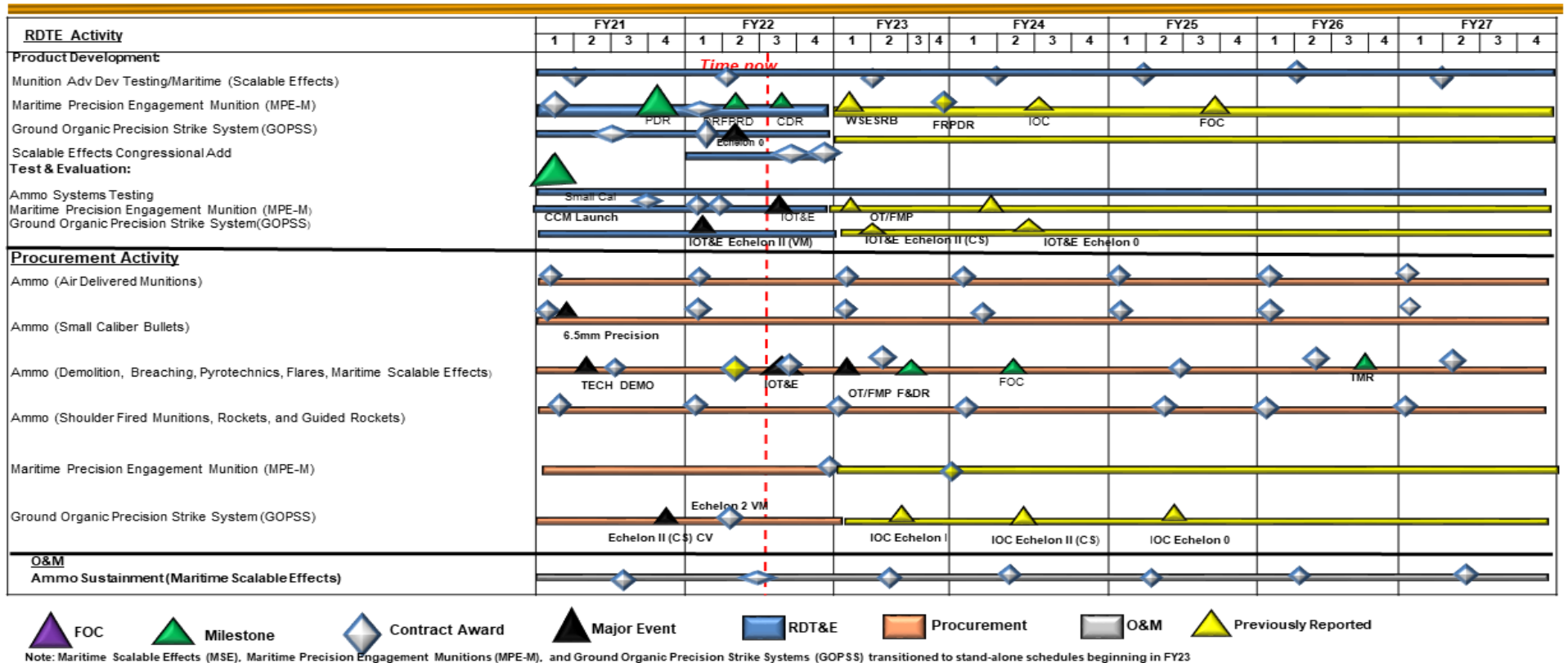
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S800 / Munitions Advanced Development

Munitions Advanced Development Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

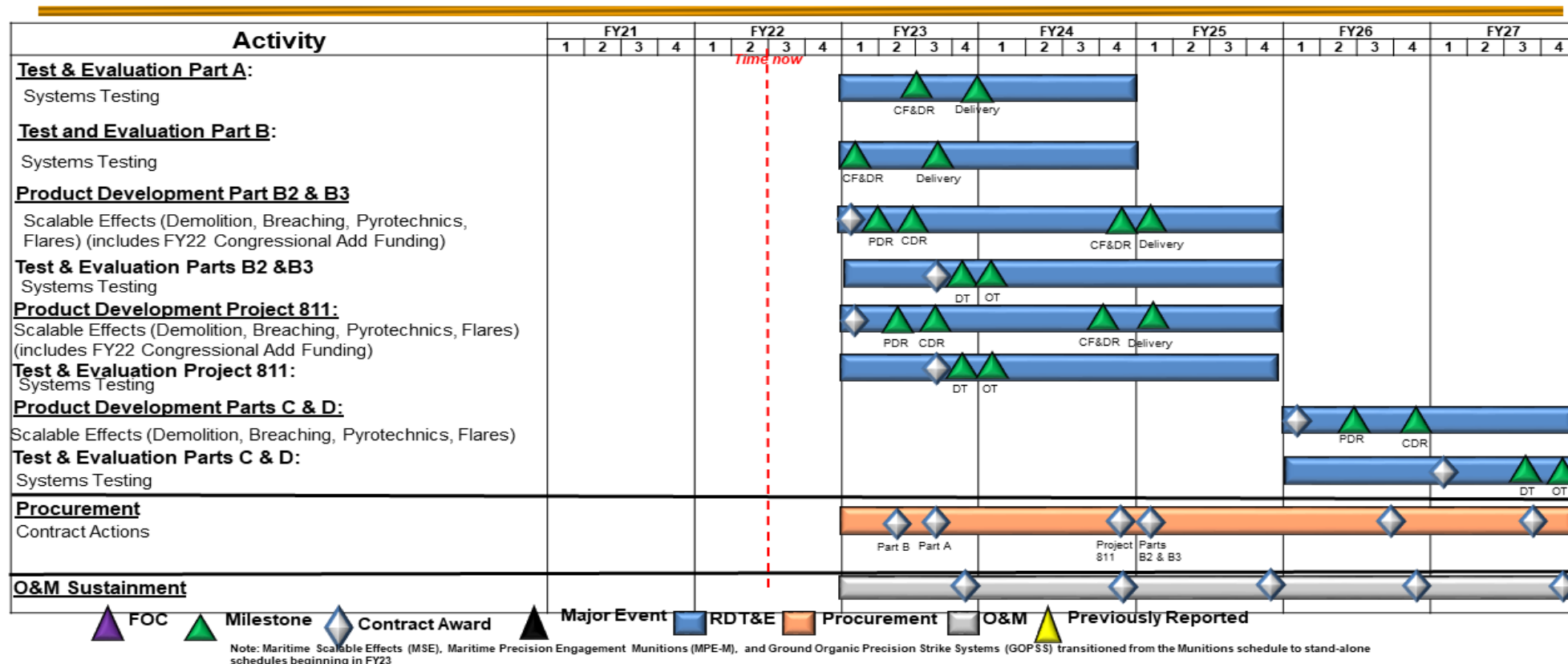
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S800 / Munitions Advanced Development

Maritime Scalable Effects Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

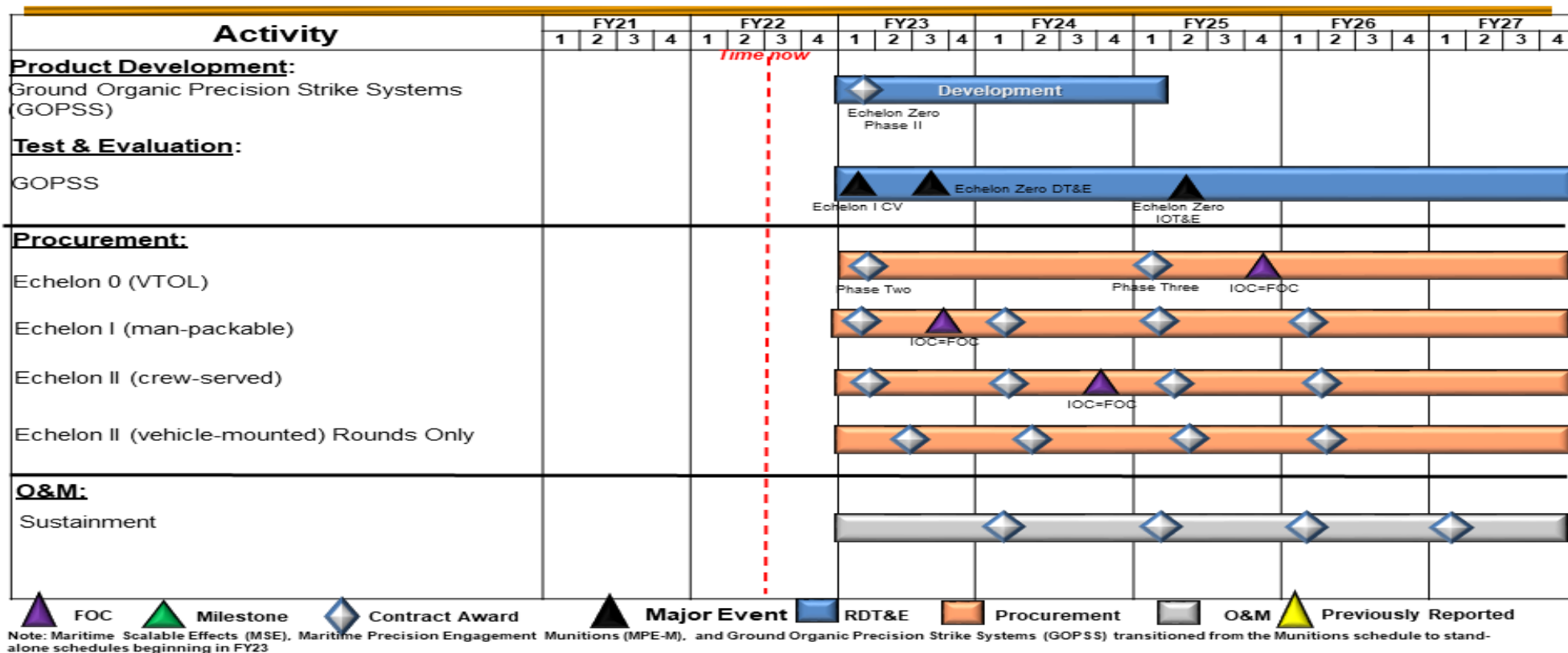
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S800 / Munitions Advanced Development

Ground Organic Precision Strike System (GOPSS) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

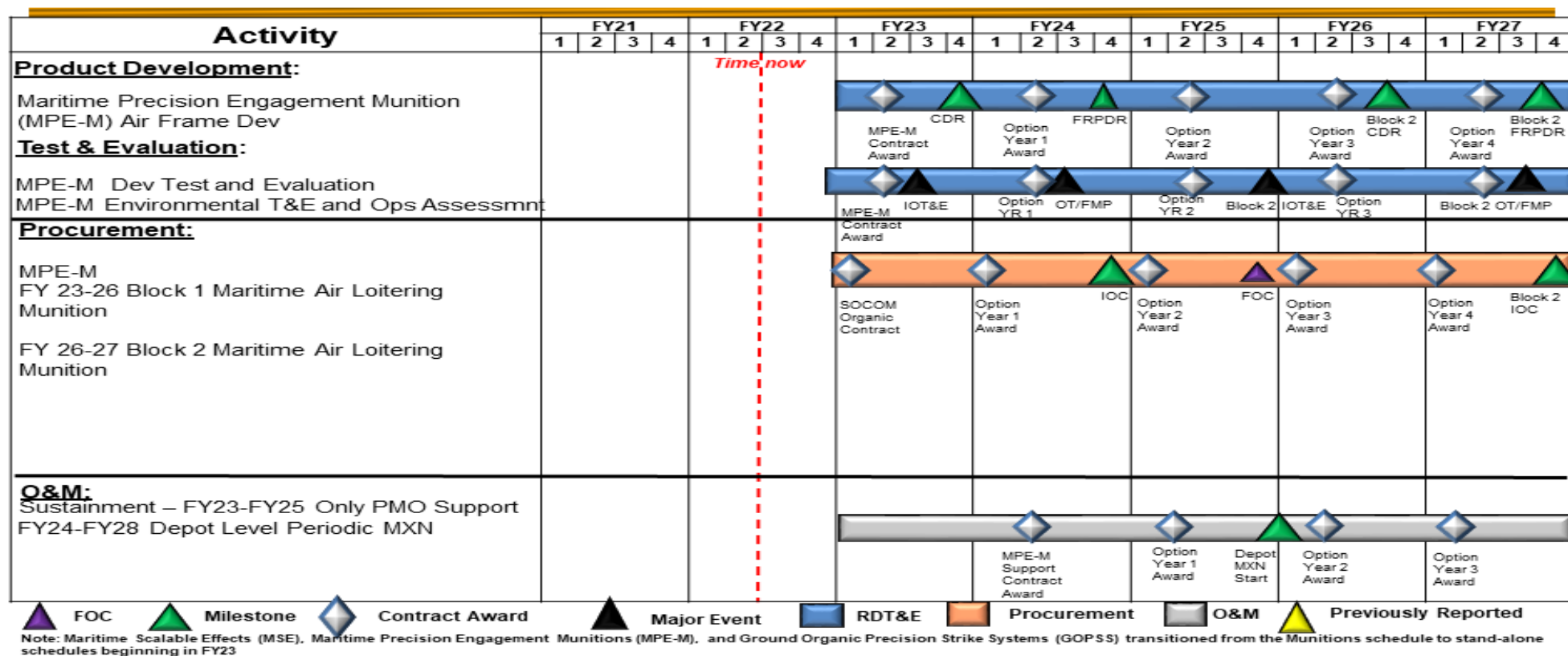
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S800 / Munitions Advanced Development

Maritime Precision Engagement – Munition (MPE-M) Schedule



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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 1160431BB / Warrior Systems	Project (Number/Name) S800 / Munitions Advanced Development	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Stand-off Precision Guided Munitions (SOPGM)				
Small Glide Munitions (SGM) onto MQ-1C Integration	1	2021	1	2022
SGM onto MQ-9 Integration	1	2021	3	2022
Laser Small Diameter Bomb (LSDB) onto MQ-9 Integration	1	2021	4	2021
Selectable Precision Effects Articulated Warhead (Hellfire)	1	2021	3	2021
SGM Collaborative Strike Enhancement	1	2021	4	2022
SOPGM Development Munitions and Warheads	2	2022	4	2027
SOPGM Testing	1	2021	4	2027
Munitions Advanced Development				
Munition Adv Dev Testing/Maritime Scalable Effects (MSE) Product Development	1	2021	4	2027
Maritime Precision Engagement Munition (MPE-M) Product Development	1	2021	4	2022
Ground Organic Precision Strike System (GOPSS) Product Development	1	2021	4	2022
Scalable Effects Congressional Add Product Development	1	2022	4	2022
Ammo Systems Test and Evaluation (T&E)	1	2021	4	2027
MPE Systems T&E	1	2021	4	2022
GOPSS Systems T&E	1	2021	4	2022
Maritime Scalable Effects (MSE)				
MSE Contract Actions Parts A and B	1	2023	4	2024
MSE Product Development Parts B2/B3	1	2023	4	2025
MSE Product Development Project 811	1	2023	4	2025
MSE T&E Parts B2/B3	1	2023	4	2025
MSE T&E Project 811	1	2023	4	2025
MSE Part C T&E	1	2026	4	2027

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S800 / <i>Munitions Advanced Development</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
MSE Part D T&E	1	2026	4	2027
<i>GOPSS</i>				
GOPSS Product Development	1	2023	1	2025
GOPSS T&E	1	2023	4	2027
<i>MPE-M</i>				
MPE-M Product Development	1	2023	4	2027
MPE-M T&E	1	2023	4	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160432BB / <i>Special Programs</i>											
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	52.779	7.220	10.486	0.518	-	0.518	0.529	0.539	0.550	0.561	Continuing	Continuing
S500E: <i>Special Programs</i>	52.779	7.220	10.486	0.518	-	0.518	0.529	0.539	0.550	0.561	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	7.494	6.486	0.000	-	0.000
Current President's Budget	7.220	10.486	0.518	-	0.518
Total Adjustments	-0.274	4.000	0.518	-	0.518
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	4.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.274	-			
• Adjustments to Budget Year	-	-	0.518	-	0.518

Change Summary Explanation

Funding:

FY 2021: Decrease of -\$0.274 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs.

FY 2022: Increase of \$4.000 million is due to a Congressional Add for overmatch visual augmentation. Details are provided under separate cover.

FY 2023: Funding increase of \$0.518 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160434BB / <i>Unmanned ISR</i>											
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	141.516	17.154	18.006	3.354	-	3.354	6.727	6.578	6.161	6.284	Continuing	Continuing
S855: <i>Unmanned ISR</i>	141.516	17.154	18.006	3.354	-	3.354	6.727	6.578	6.161	6.284	Continuing	Continuing

A. Mission Description and Budget Item Justification

This Program Element (PE) is part of the Military Intelligence Program (MIP). Unmanned Intelligence, Surveillance, and Reconnaissance (ISR) rapidly develops and deploys special capabilities to perform ISR for deployed Special Operations Forces (SOF) using non-traditional means. The United States Special Operations Command (USSOCOM) has been designated as the Department of Defense lead for planning, synchronizing, and as directed, executing global operations against terrorist networks and targets. The USSOCOM requires the capability to find, fix, and finish time-sensitive high-value fixed and fleeting targets at the unit and team level without placing personnel and units in harm's way. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This PE addresses the primary areas of ISR and Targeting capabilities for SOF. These technologies will be pursued via rapid prototyping efforts when appropriate.

Fiscal Year (FY) 2021 funding totals include \$3.000 million appropriated for Overseas Contingency Operations (OCO).
FY 2022 funding totals include \$18.006 million Base with \$0.000 million Direct War and \$5.000 million for Enduring Costs.

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	17.154	18.006	0.000	-	0.000
Current President's Budget	17.154	18.006	3.354	-	3.354
Total Adjustments	0.000	0.000	3.354	-	3.354
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	3.354	-	3.354

Change Summary Explanation

Funding:

FY 2021: None

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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 1160434BB / Unmanned ISR	
FY 2022: None		
FY 2023: FY 2023 funding increase of \$3.354 million reflects the fact that the FY 2022 President’s Budget request did not include out-year funding.		
FY 2023 funding request was reduced by \$1.335 million to account for the availability of prior year execution balances.		
Schedule: None.		
Technical: None.		

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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 1160434BB / <i>Unmanned ISR</i>				Project (Number/Name) S855 / <i>Unmanned ISR</i>			
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
S855: <i>Unmanned ISR</i>	141.516	17.154	18.006	3.354	-	3.354	6.727	6.578	6.161	6.284	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is part of the Military Intelligence Program (MIP). It rapidly develops and deploys special capabilities to perform Intelligence, Surveillance, and Reconnaissance (ISR) for deployed Special Operations Forces (SOF) using non-traditional means.

Group 1, 2, 3 and 4, Unmanned Aerial Systems (UAS) developmental efforts are to identify, develop, integrate, and test SOF-unique mission kits, mission payloads, air vehicle enhancements, and modifications to ground control stations. Based on stakeholder input and requirements, Special Applications for Contingencies (SAFC) develops and integrates UAS payloads to advance ISR capabilities that address dynamic and emergent operational needs of the SOF user. Efforts include improving imagery intelligence and electronic warfare payloads, capitalizing on developing technologies to reduce size, weight and power while addressing processing and data management challenges. This program also provides a mechanism for SOF user combat evaluation of emerging sensor technologies.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: SAFC Description: SAFC's evolutionary development projects quickly provide integrated, SOF-unique mission kits, mission payloads, air vehicle enhancements and ground control station upgrades to its user community. These efforts rapidly develop and integrate UAS air vehicles, payloads and other technologies to field ISR capabilities and address dynamic and emergent operational needs and vulnerabilities of the SOF user. Efforts include improving imagery intelligence and electronic warfare payloads, capitalizing on developing technologies to reduce size, weight and power while addressing processing and data management challenges. It also provides a mechanism for SOF user combat evaluation of emerging sensor technologies. The SAFC applies focused Research & Development (R&D) for relatively low cost solutions to provide short lead-time contingency planning requirements where focused R&D will allow for test and evaluation of leading edge solutions to emergent problem sets. FY 2022 Plans: Continue development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short-notice requirements. Continue evaluation of unique sensor technologies, persistent stare and quick reaction systems. FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$4.862 million is due to SAFC funding consolidation into EOTACS under PE 1160405BB; Project S400, Special Operations (SO) Intelligence Systems for FY 2023 and beyond.	7.349	4.862	-
Title: Expeditionary Organic Tactical Airborne ISR Capability Set (EOTACS)	0.283	0.289	-

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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 1160434BB / Unmanned ISR	Project (Number/Name) S855 / Unmanned ISR		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
<p>Description: EOTACS systems are less than 55 pounds in weight and include fixed wing, Vertical Takeoff and Landing, and tethered platforms. Provides for rapid development and prototyping efforts to identify, develop, integrate, and test SOF-unique mission kits. Leverage SAFC development efforts.</p> <p>FY 2022 Plans: Continue integration and testing of SOF unique mission kits, mission payloads, and modifications to the small tactical UAS and ground control station, to include but not limited to; improved capabilities for geo-location, collection of push-to-talk, communications, specialized tagging, tracking, and locating, and enhanced communications relay and work to miniaturize previously developed payloads.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$0.289 million is due to a transfer of EOTAC funding to PE 1160405BB; Project S400, SO Intelligence Systems for FY 2023 and beyond.</p>					
<p>Title: Multi-Mission Tactical Unmanned Aerial System (MTUAS)</p> <p>Description: MTUAS are medium tactical systems, between 21 pounds and 55 pounds in weight. Identifies, develops, integrates, and tests SOF-unique mission kits, payloads, aircraft and ground control station modifications.</p> <p>FY 2022 Plans: Continue integration and testing of SOF-unique mission capabilities to meet new medium tactical UAS requirements, to include but not limited to; signals intelligence gathering, full motion video, geo-location, communications relay, Global Positioning System (GPS) anti-jam technology, and decreased footprint. Continue development and improvement of new platform material solution in order to meet updated requirements.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$5.748 million is due to a transfer of MTUAS funding to PE 1160405BB; Project S400, SO Intelligence Systems for FY 2023 and beyond.</p>			3.505	5.748	-
<p>Title: Group 3 UAS</p> <p>Description: Group 3 UAS are systems, between 55 pounds and 1320 pounds in weight. Identifies, develops, integrates, and tests SOF-unique mission kits, payloads and ground control station modifications.</p> <p>FY 2022 Plans:</p>			3.000	6.015	-

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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 1160434BB / <i>Unmanned ISR</i>	Project (Number/Name) S855 / <i>Unmanned ISR</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Continue development and integration of SOF unique payloads and mission kits for use on the service provided RQ-21A Blackjack UAS. Focus areas in development include integration of signals intelligence payloads, reduction in ground station kit size, and operating independent of GPS. FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$6.015 million supports a deliberate approach to reinvest in modernization and advance the transition of Special Operations capabilities to support building enduring advantages while implementing the Joint Warfighting Concept.			
Title: Group 4 UAS Description: Group 4 UAS are large systems that weigh greater than 1,320 pounds and fly higher than flight level 180. Provides for development efforts to identify, develop, integrate, and test SOF-unique mission kits. FY 2022 Plans: Develop, test, and integrate SOF peculiar emerging technology mission kits, mission payloads, weapons, and modification on MQ-1C Unmanned Aerial Vehicles (UAVs), Ground Control Stations (GCS), and training systems. FY 2023 Plans: Develops, tests, and integrates SOF peculiar emerging technology mission kits, mission payloads, weapons, and modification on MQ-1C and Long Endurance Aircraft (LEA) UAVs, Ground Control Stations (GCS), and training systems. Begins initial development and integration of LEA mission kits and improved platform capabilities to include longer endurance. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$2.262 million is due to the planned development and integration of MQ-1C Airborne and Tactical Mission Networking systems resulting from Architecture, Automation, Autonomy and Interface (A3I) events as well as the initial development and integration of LEA mission kits and improved platform capabilities to include longer endurance.	3.017	1.092	3.354
Accomplishments/Planned Programs Subtotals	17.154	18.006	3.354

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0201UMNISR: <i>Unmanned ISR</i>	32.695	64.951	41.749	-	41.749	26.997	28.217	52.957	33.676	Continuing	Continuing
Remarks											

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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 1160434BB / <i>Unmanned ISR</i>	Project (Number/Name) S855 / <i>Unmanned ISR</i>
<p>D. Acquisition Strategy</p> <p>SAFC acquisition strategy is evolutionary and spiral-based for technology insertion and low volume procurement. SAFC utilizes existing competed contract vehicles to the maximum extent possible for minor development, integration and modification of Government-Off-The-Shelf (GOTS)/Commercial-Off-The-Shelf (COTS) equipment. Utilizes limited/full and open competition contracts and rapid acquisition tools for major developments.</p> <p>EOTACS is an evolutionary acquisition program that delivers, integrates, and qualifies SOF-unique mission kits, mission payloads, air vehicle enhancements, and ground control station upgrades. These capabilities are defined through a thorough stakeholder's analysis in order 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. Proprietary considerations may direct some effort to the Original Equipment Manufacturer (OEM).</p> <p>MTUAS uses evolutionary acquisition solutions that deliver, integrate, and qualify SOF-unique modular mission kits that may include; mission payloads, air vehicle enhancements, training systems, and ground control station upgrades. These capabilities are defined through available acquisition strategy that includes 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 OEM on a sole source basis.</p> <p>Group 3 UAS are evolutionary acquisition projects that deliver, integrate, and qualify SOF-unique mission kits, mission payloads, air vehicle enhancements, and ground control station upgrades. These capabilities are defined through a thorough stakeholder's analysis in order 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. Proprietary considerations may direct some efforts to the OEM.</p> <p>Group 4 UAS is an evolutionary acquisition program that develops, tests, and integrates SOF peculiar emerging technology mission kits, mission payloads, weapons, and modifications on MQ-1C UAVs, LEA, GCS, and training systems. Group 4 UAS provides rapid prototype activities and technology maturation events to increase situational awareness, lethality, and platform capability. Contract types include a mix of cost type and fixed price. Proprietary issues with the aircraft and GCS software as well as aircraft modification may require sole source contracting to the original equipment manufacturer. Where possible, Group 4 UAS leverages service common Contractor Logistics Support (CLS) and developmental activities and contracts for aircraft and ancillary equipment development, improvement, and sustainment.</p>		

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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 1160434BB / Unmanned ISR				Project (Number/Name) S855 / Unmanned ISR					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Special Applications for Contingencies (SAFC) Platform/Payload Development and Integration	MIPR	Various; Various : Various	8.421	4.570	Dec 2020	3.157	Dec 2021	-		-		-	0.000	16.148	-
Expeditionary Organic Tactical Airborne Intelligence, Surveillance, and Reconnaissance Capability Set (EOTACS) Payload Integration	MIPR	Various : Various	1.087	0.283	Mar 2021	0.289	Dec 2022	-		-		-	0.000	1.659	-
Multi-Mission Tactical Unmanned Aerial Service (MTUAS)/Payloads Development and Integration	MIPR	Various : Various	18.076	2.136	Jun 2021	3.505	Feb 2022	-		-		-	0.000	23.717	-
Group 3 UAS Platform/ Payload Development and Integration	MIPR	Various : Various	-	-		2.076	Nov 2021	-		-		-	0.000	2.076	-
Group 3 UAS Platform/ Payload Development and Integration (OCO)	MIPR	Various : Various	6.859	1.194	Mar 2021	-		-		-		-	0.000	8.053	-
Group 4 UAS Platform/ Payloads Development and Integration	Various	Various : Various	18.713	2.434	Mar 2021	0.885	Mar 2022	2.869	Mar 2023	-		2.869	Continuing	Continuing	-
Prior Year Effort	Various	Various : Various	32.428	-		-		-		-		-	0.000	32.428	-
Prior Year Effort - Congressional Add	Various	Various : Various	11.000	-		-		-		-		-	0.000	11.000	-
Subtotal			96.584	10.617		9.912		2.869		-		2.869	Continuing	Continuing	N/A

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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 1160434BB / <i>Unmanned ISR</i>	Project (Number/Name) S855 / <i>Unmanned ISR</i>
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Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SAFC Platform/Payload Integration	MIPR	Various : Various	2.132	0.500	Jan 2021	0.213	Dec 2021	-		-		-	0.000	2.845	-
MTUAS Platform/Payload Support	MIPR	Various : Various	1.418	0.976	Jan 2021	1.618	Jan 2022	-		-		-	0.000	4.012	-
Group 3 UAS Platform/Payload Mission Kits (OCO)	MIPR	Various : Various	2.003	1.276	Mar 2021	-		-		-		-	0.000	3.279	-
Group 3 UAS Platform/Payload Mission Kits	MIPR	Various : Various	-	-		2.000	Apr 2022	-		-		-	0.000	2.000	-
Subtotal			5.553	2.752		3.831		-		-		-	0.000	12.136	N/A

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SAFC Sensor Testing, Evaluation and Demonstration	MIPR	Various; Various : Various	12.998	1.279	Dec 2020	0.965	Dec 2021	-		-		-	0.000	15.242	-
MTUAS Platform/Payload Test and Evaluation	MIPR	Various : Various	1.577	0.393	Dec 2021	0.625	Mar 2022	-		-		-	0.000	2.595	-
Group 3 UAS Test and Evaluation	MIPR	Various Vendors During Integrations : Various : Various	-	-		1.939	Jan 2022	-		-		-	0.000	1.939	-
Group 3 UAS Test and Evaluation (OCO)	MIPR	Various Vendors During Integrations : Various	1.138	0.530		-		-		-		-	0.000	1.668	-
Group 4 UAS Test and Evaluation	Various	Various : Various Vendors During Integration	0.675	0.583	Mar 2021	0.207	Mar 2022	0.485	Mar 2023	-		0.485	Continuing	Continuing	-
Prior Year	Various	Various : Various	10.593	-		-		-		-		-	0.000	10.593	-
Subtotal			26.981	2.785		3.736		0.485		-		0.485	Continuing	Continuing	N/A

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PE 1160434BB: *Unmanned ISR* **UNCLASSIFIED** Volume 5 - 237
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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

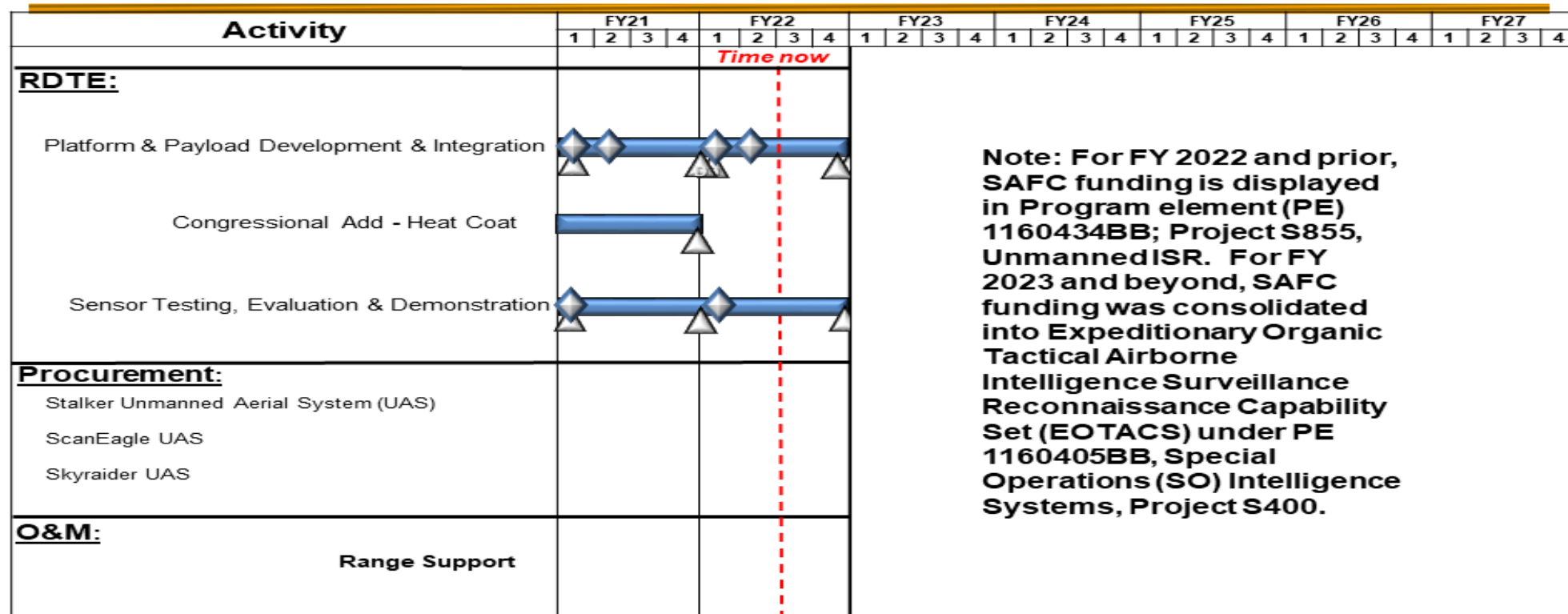
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160434BB / Unmanned ISR

Project (Number/Name)
S855 / Unmanned ISR

Special Applications for Contingencies (SAFC) Schedule



Note: For FY 2022 and prior, SAFC funding is displayed in Program element (PE) 1160434BB; Project S855, Unmanned ISR. For FY 2023 and beyond, SAFC funding was consolidated into Expeditionary Organic Tactical Airborne Intelligence Surveillance Reconnaissance Capability Set (EOTACS) under PE 1160405BB, Special Operations (SO) Intelligence Systems, Project S400.

Milestone
 Article Award
 Article Delivery
 RDT&E
 Procurement
 O&M
 Previously Reported

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

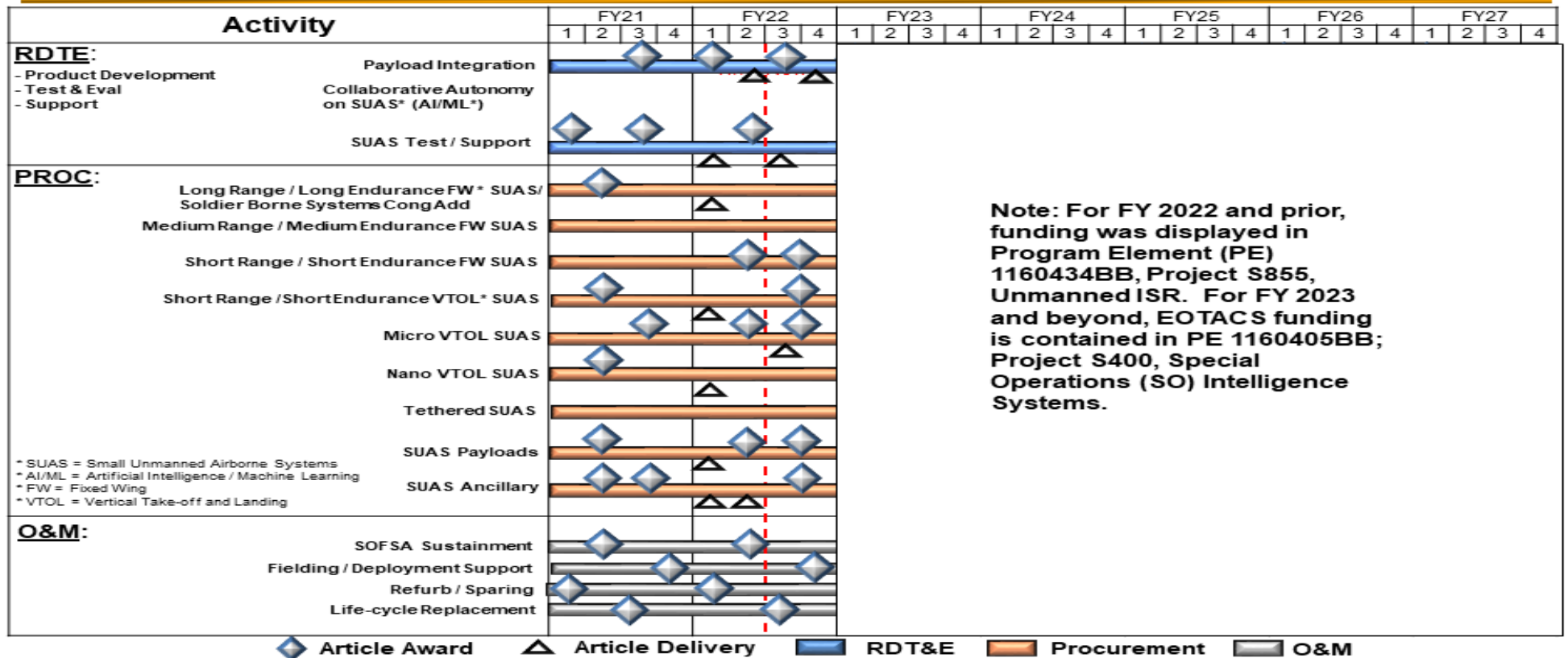
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160434BB / Unmanned ISR

Project (Number/Name)
S855 / Unmanned ISR

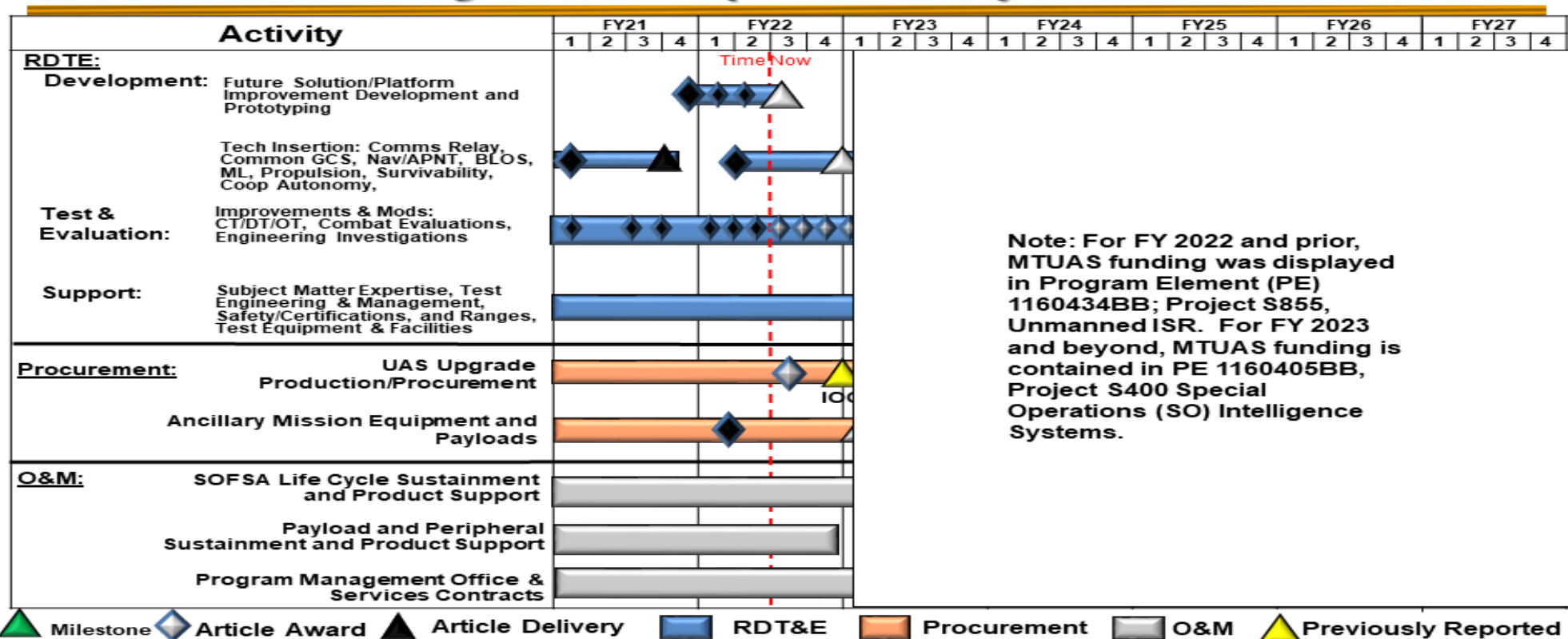
Expeditionary Organic Tactical Airborne Intelligence Surveillance Reconnaissance Capability Set (EOTACS) Schedule



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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 1160434BB / Unmanned ISR	Project (Number/Name) S855 / Unmanned ISR	

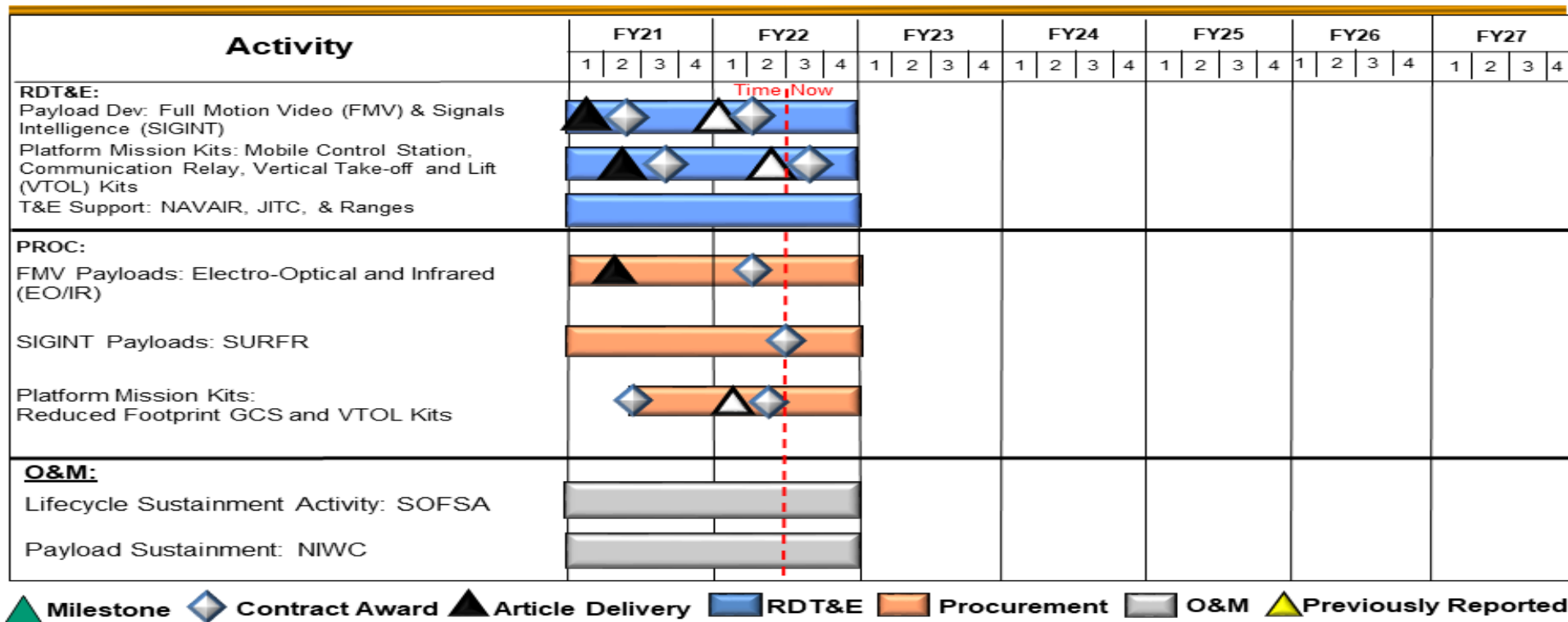
Multi-Mission Tactical Unmanned Aerial Systems (MTUAS) Schedule



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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 1160434BB / <i>Unmanned ISR</i>	Project (Number/Name) S855 / <i>Unmanned ISR</i>	

Group 3 Unmanned Aerial Systems (UAS) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

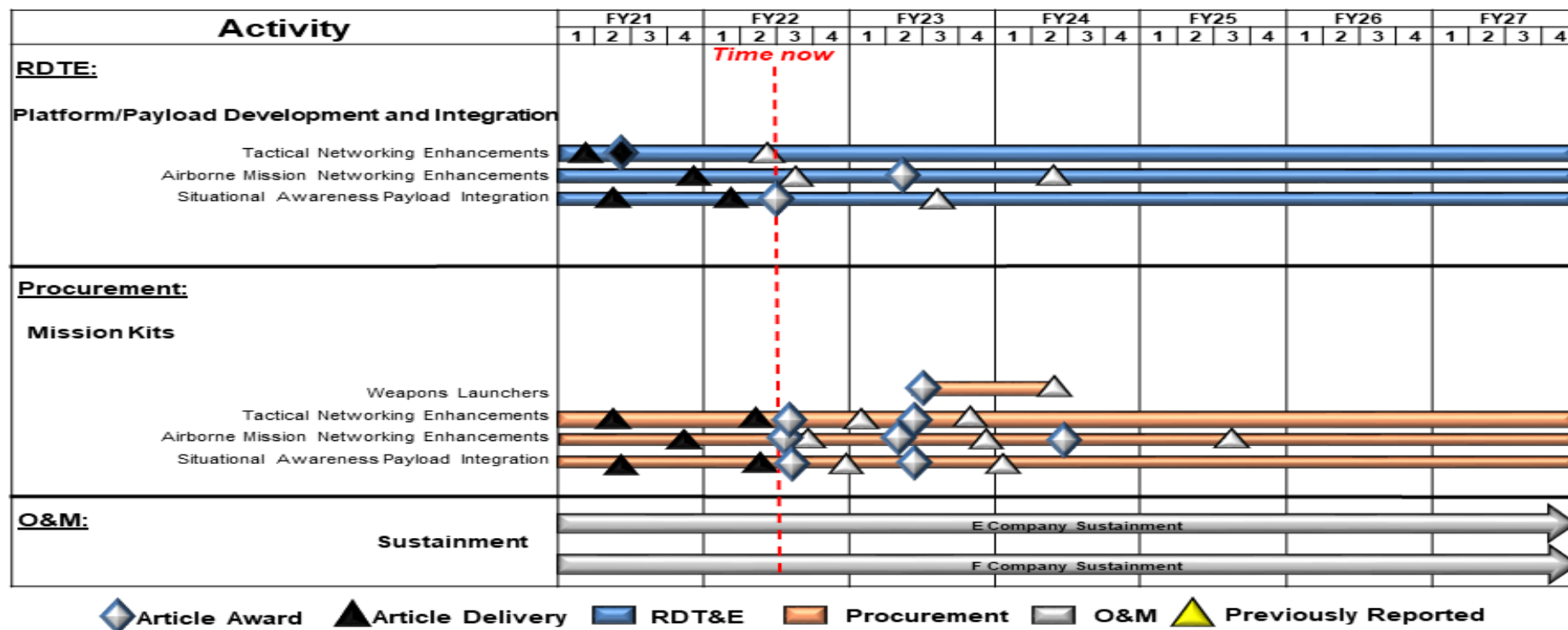
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160434BB / Unmanned ISR

Project (Number/Name)
S855 / Unmanned ISR

Group 4 UAS: MQ-1C Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

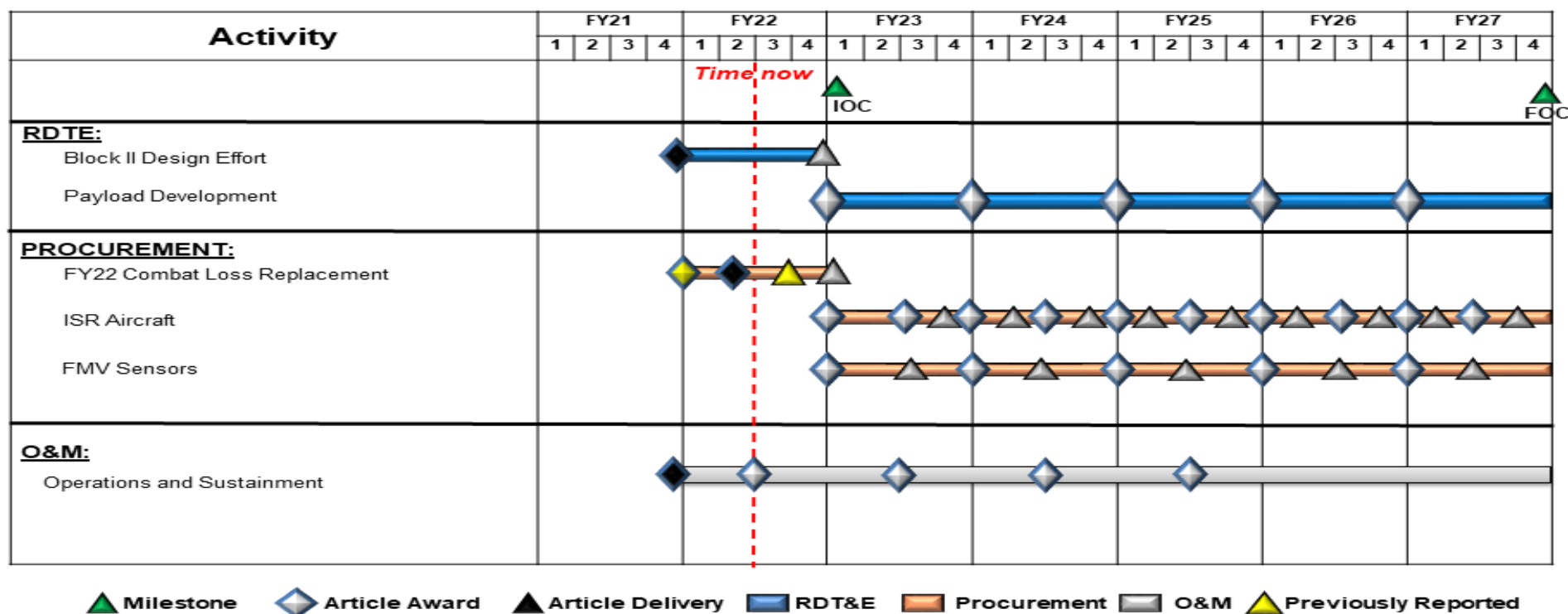
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160434BB / Unmanned ISR

Project (Number/Name)
S855 / Unmanned ISR

Group 4 UAS: LEA Schedule



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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 1160434BB / <i>Unmanned ISR</i>	Project (Number/Name) S855 / <i>Unmanned ISR</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Special Application for Contingencies (SAFC)</i>				
Platform and Payload Product Development, Support, and Management	1	2021	4	2022
Anti-Icing Development on TigerShark (Congressional Add)	1	2021	4	2021
Sensor Testing, Evaluation, and Demonstration	1	2021	4	2022
<i>Group 1 Unmanned Aerial System (UAS)/Expeditionary Organic Tactical Airborne ISR Capability Set (EOTACS)</i>				
Payload Integration; Test Range Support	1	2021	4	2022
<i>Group 2 Multi-Mission Tactical Unmanned Aerial System (MTUAS)</i>				
Platform/Payload Development and Integration	1	2021	4	2022
Platform/Payload Test & Evaluation	1	2021	4	2022
<i>Group 3 UAS</i>				
Payload Developmment	1	2021	4	2022
Platform/Mission Kits Development and Integration	1	2021	4	2022
Platform/Payload Test & Evaluation	1	2021	4	2022
<i>Group 4 UAS</i>				
Tactical Networking Enhancements	1	2021	4	2027
Airborne Mission Networking Enhancements	1	2021	4	2027
Situational Awareness Sensor Integration	1	2021	4	2027
Long Endurance Aircraft Block II Design Effort	4	2021	4	2022
Long Endurance Aircraft Payload Development	1	2023	4	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1160480BB / <i>SOF Tactical Vehicles</i>											
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	46.082	13.736	7.703	13.594	-	13.594	6.025	6.112	5.840	5.957	Continuing	Continuing
S910: <i>SOF Tactical Vehicles</i>	46.082	13.736	7.703	13.594	-	13.594	6.025	6.112	5.840	5.957	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element provides for the development and testing of a variety of capability upgrades to Special Operations Forces (SOF) Vehicles and ancillary equipment. Current SOF tactical vehicles are categorized into Light, Medium, Heavy, and Commercial, and include the following: Ground Mobility Vehicle (GMV 1.1); Non-Standard Commercial Vehicle (NSCV); Light Tactical All-Terrain Vehicle (LTATV); Mine Resistant Ambush Protected (MRAP) Vehicle; Joint Light Tactical Vehicle (JLTV); and SOF Communication kits for multiple platforms. The SOF mission mandates that SOF vehicles remain technologically superior, operate in multiple environments, and be able to meet any threat to provide a maximum degree of survivability. These technologies will be pursued via rapid prototyping efforts when appropriate.

The total cost of the MRAP - Stryker Command, Control, Computers, Communications, Cyber-defense Intelligence, Surveillance, and Reconnaissance (C5ISR) Middle Tier of Acquisition effort is \$11.336 million, including RDT&E and procurement of prototype units. This effort was funded \$6.336 million in FY 2022 and will conclude prior to FY 2023.

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	14.256	7.703	0.000	-	0.000
Current President's Budget	13.736	7.703	13.594	-	13.594
Total Adjustments	-0.520	0.000	13.594	-	13.594
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.520	-			
• Adjustments to Budget Year	-	-	13.594	-	13.594

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: S910: *SOF Tactical Vehicles*

Congressional Add: *Next Generation Combat Vehicles*

Congressional Add Subtotals for Project: S910

	FY 2021	FY 2022
4.818	4.818	-
4.818	4.818	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command		Date: April 2022	
Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1160480BB / <i>SOF Tactical Vehicles</i>	
<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2021	FY 2022
Congressional Add Totals for all Projects		4.818	-
<u>Change Summary Explanation</u> Funding: FY 2021: Net decrease of -\$0.520 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR) / Small Business Technology Transfer (STTR) programs. FY 2022: None. FY 2023: Funding increase of \$13.594 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding. Schedule: None. Technical: None.			

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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 1160480BB / SOF Tactical Vehicles				Project (Number/Name) S910 / SOF Tactical Vehicles			
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
S910: SOF Tactical Vehicles	46.082	13.736	7.703	13.594	-	13.594	6.025	6.112	5.840	5.957	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Family of Special Operations Vehicles (FSOV) program develops, tests, and evaluates Special Operations Forces (SOF) Tactical Vehicles and associated modifications. FSOV engages in annual technology insertion efforts, to include rapid prototyping/fielding efforts targeted at ground vehicle capability enhancements across the mobility, survivability, payload, and durability spectrum. The SOF mission mandates that SOF vehicles remain technologically superior, operate in multiple environments and be able to meet any threat to provide a maximum degree of survivability. The current family of SOF tactical vehicles include: light mobility vehicles; medium mobility vehicles; non-standard commercial vehicles; and heavy mobility vehicles.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: FSOV	8.918	7.703	13.594
Description: Funding provides for design/engineering, test, and evaluation costs related to capability upgrades in the following areas: Survivability; Lethality; Signature Management; Mobility/Performance; Communications; and Product Development. These capability upgrades and Engineering Change Proposals (ECPs) are incorporated across the FSOV portfolio of vehicles: Ground Mobility Vehicle (GMV 1.1); Non-Standard Commercial Vehicle (NSCV); Light Tactical All-Terrain Vehicle (LTATV); Mine Resistant Ambush Protected (MRAP) Vehicle; and the Joint Light Tactical Vehicle (JLTV).			
FY 2022 Plans: Continue the design/development and integration of ECPs that implement capability upgrades and improves the performance of the NSCV, GMV 1.1, LTATV, MRAP, and JLTV platforms. Continue integration and testing of designated Counter-Unmanned Aerial System (C-UAS)/Precision Strike System (PSS) on vehicles platforms. In addition, initiate development and Test and Evaluation phase of autonomous integration into LTATV. FY 2022 funding also includes the technology development and/or insertion efforts for Alternative Position Navigation Timing (A-PNT), Signature Reduction, 360 degree situational awareness (SA), NSCV Blast Vulnerability study, and other SOF mobility platform efforts.			
FY 2023 Plans: Continues the development and integration of ECPs that implement capability upgrades and improves the performance of NSCV, GMV 1.1, LTATV, MRAP and JLTV platforms. Continues the development, integration and testing of C-UAS/PSS, Signature Reduction, and 360 degrees SA on vehicle platforms. FY 2023 funding also includes the development, integration and testing of Autonomous Capabilities, Test and Evaluation of LTATV Hybrid/Electric, and JLTV SOF Mods and other SOF mobility platforms. Completes A-PNT and NSCV Blast Vulnerability Study.			
FY 2022 to FY 2023 Increase/Decrease Statement:			

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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 1160480BB / <i>SOF Tactical Vehicles</i>	Project (Number/Name) S910 / <i>SOF Tactical Vehicles</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Increase of \$5.891 million will support GMV 1.1, LTATV, and NSCV test and evaluation validation efforts for Automotive Command, Control, Communications, Computers, and Intelligence (C4I). Increase will also allow for continued modernization of FSOV fleet, development of SOF JLTV ECPs, development and testing of Signature Management ECPs, development of integrated battlefield 360 SA systems, communication kit ECPs, and performance improvements.			
Accomplishments/Planned Programs Subtotals	8.918	7.703	13.594

	FY 2021	FY 2022
Congressional Add: Next Generation Combat Vehicles	4.818	-
FY 2021 Accomplishments: Funding was used to demonstrate the applicability of carbon fiber and graphitic carbon foam and their potential to reduce overall vehicle weight, while simultaneously reducing maintenance and sustainment activities that are normally associated with traditional vehicle designs. Program increase was used to collaborate with the Army on carbon fiber and lightweight carbon foam materials, as well as enhance our existing efforts.		
Congressional Adds Subtotals	4.818	-

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204TACVEH: <i>Tactical Vehicles</i>	33.148	36.806	51.605	-	51.605	58.386	58.654	60.075	24.605	Continuing	Continuing

Remarks

D. Acquisition Strategy

Apply SOF-Peculiar modifications to service common or Commercial Off The Shelf (COTS) vehicles whenever possible. Otherwise, incorporate purpose-built, Non-Developmental Item, or modified COTS vehicles if/when service solution is unavailable.

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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 1160480BB / SOF Tactical Vehicles				Project (Number/Name) S910 / SOF Tactical Vehicles					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Family of Special Operations Vehicles (FSOV) Ground Mobility Vehicle (GMV) 1.1 Capability Enhancements / Engineering Change Proposal (ECP) Development	Various	Various : Various	15.594	1.350	Nov 2020	1.222	Feb 2022	1.000	May 2023	-		1.000	Continuing	Continuing	-
FSOV Non-Standard Commercial Vehicle (NSCV) Capability Enhancements / ECP Development	Various	Various : Various	6.804	1.650	Nov 2020	-		0.594	Jul 2023	-		0.594	Continuing	Continuing	-
FSOV Light Tactical All-Terrain Vehicle (LTATV) Capability Enhancements / ECP Development	Various	Various : Various	0.985	0.700	Jul 2021	3.031	Dec 2021	0.500	Nov 2022	-		0.500	Continuing	Continuing	-
Mine Resistant Ambush Protected (MRAP) Vehicle Capability Enhancements/ ECP Development	Various	Various : Various	0.586	1.100	Nov 2020	2.300	Jan 2022	1.000	Mar 2023	-		1.000	Continuing	Continuing	-
FSOV Joint Light Tactical Vehicle (JLTV) Capability Enhancements / ECP Development	Various	Various : Various	0.750	1.000	Nov 2020	-		4.000	Dec 2022	-		4.000	Continuing	Continuing	-
FSOV GMV 1.1 and NSCV Survivability Enhancement/ Improvement Efforts	Various	Various : Various	1.586	0.450	Feb 2021	0.650	Apr 2022	0.750	Mar 2023	-		0.750	Continuing	Continuing	-
Next Generation Combat Vehicles Congressional Plus-Up	Various	Various : Various	-	4.818	May 2021	-		-		-		-	0.000	4.818	-
Prior Year Funding	Various	Various : Various	0.385	-		-		-		-		-	0.000	0.385	-
Prior Year Funding (OCO)	C/Various	Various : Various	0.725	-		-		-		-		-	0.000	0.725	-
Subtotal			27.415	11.068		7.203		7.844		-		7.844	Continuing	Continuing	N/A

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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 1160480BB / SOF Tactical Vehicles				Project (Number/Name) S910 / SOF Tactical Vehicles					
Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Funding	Various	Various : Various	4.476	-		-		-		-		-	0.000	4.476	-
Subtotal			4.476	-		-		-		-		-	0.000	4.476	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GMV 1.1 Test and Evaluation Validation Efforts (Automotive, Command, Control, Communications, Computers, and Intelligence (C4I), Ballistics, Operator Events)	Various	Various : Various	0.721	1.363	Jan 2021	0.250	Mar 2022	1.500	Mar 2023	-		1.500	Continuing	Continuing	-
NSCV Test and Evaluation Validation Efforts (Automotive, C4I, Ballistics, Operator Events)	Various	Various : Various	2.600	1.305	Nov 2020	0.250	Mar 2022	2.000	Jan 2023	-		2.000	Continuing	Continuing	-
LTATV Test and Evaluation Efforts	Various	Various : Various	1.181	-		-		2.250	Jan 2023	-		2.250	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	9.689	-		-		-		-		-	0.000	9.689	-
Subtotal			14.191	2.668		0.500		5.750		-		5.750	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			46.082	13.736		7.703		13.594		-		13.594	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

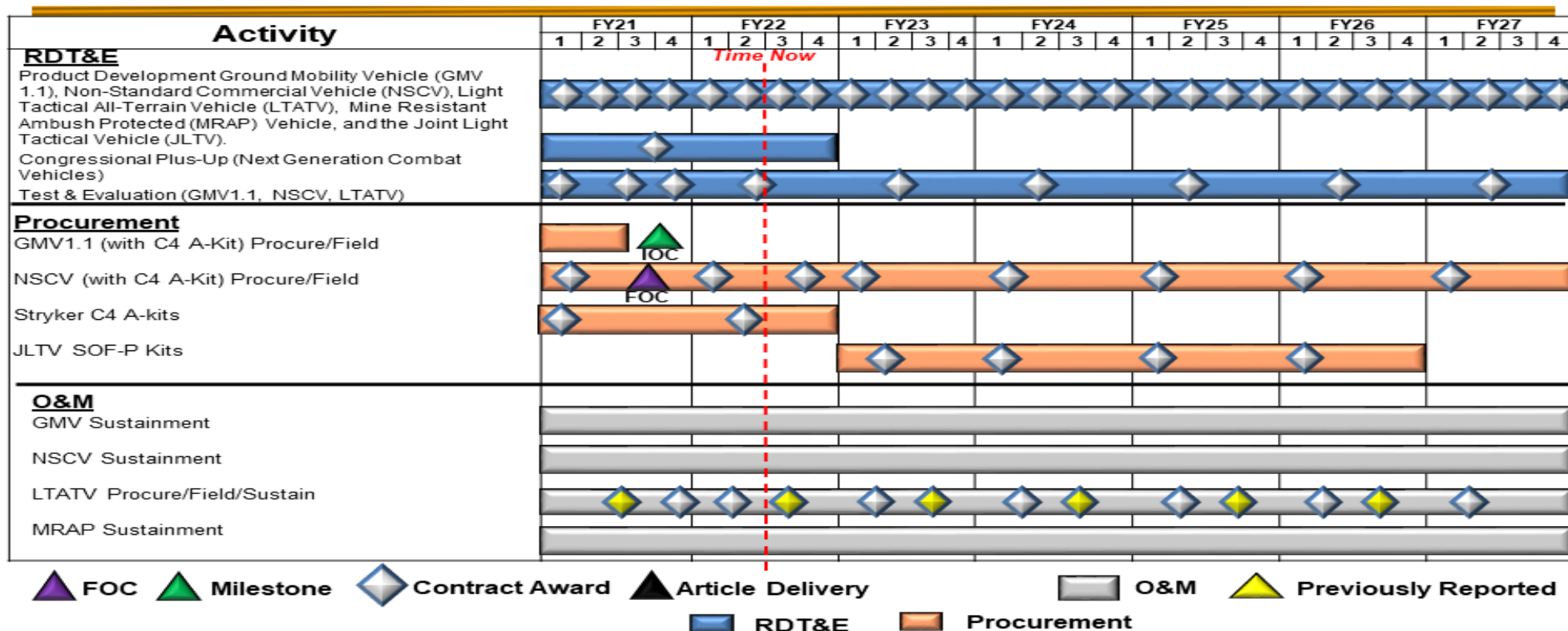
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160480BB / SOF Tactical Vehicles

Project (Number/Name)
S910 / SOF Tactical Vehicles

Family of Special Operations Vehicles (FSOV) Schedule



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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 1160480BB / SOF Tactical Vehicles	Project (Number/Name) S910 / SOF Tactical Vehicles	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Family of Special Operations Vehicles (FSOV)				
Ground Mobility Vehicle (GMV) 1.1 Product Development	1	2021	4	2027
Non-Standard Commercial Vehicle (NSCV) Product Development	1	2021	4	2027
Light Tactical All-Terrain Vehicle (LTATV) Product Development	1	2021	4	2027
Mine Resistant Ambush Protected (MRAP) Vehicle Product Development	1	2021	4	2027
Joint Light Tactical Vehicle (JLTV) Product Development	1	2021	4	2027
Next Generation Combat Vehicles Congressional Plus-Up	1	2021	4	2022
GMV 1.1 Test & Evaluation	1	2021	4	2027
NSCV Test & Evaluation	1	2021	4	2027
LTATV Test & Evaluation	1	2021	4	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>					R-1 Program Element (Number/Name) PE 1160483BB / <i>Maritime Systems</i>							
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	578.657	66.037	62.630	82.645	-	82.645	136.731	219.661	271.385	238.813	Continuing	Continuing
S0417: <i>Underwater Systems</i>	504.687	49.219	45.324	58.309	-	58.309	113.141	194.512	155.378	122.689	Continuing	Continuing
S1684: <i>Surface Craft</i>	73.970	16.818	17.306	24.336	-	24.336	23.590	25.149	116.007	116.124	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element provides for the Engineering and Manufacturing Development (EMD) of Special Operations Forces (SOF) Surface and Undersea Mobility platforms. This program element also provides for pre-acquisition activities to quickly respond to new requirements for SOF surface and undersea mobility, looking at multiple alternatives to include cross-platform technical solutions, service-common solutions, Commercial-Off-The-Shelf technologies, and new development efforts. These technologies will be pursued via rapid prototyping efforts when appropriate.

The Underwater Systems project provides for the EMD of combat submersibles, SOF combat diving systems, underwater support systems, and underwater equipment. This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component, prototype development, and exploitation of emerging technology opportunities to deliver enhanced capabilities) to respond to emerging requirements. These submersibles, equipment, and diving systems are used by SOF in the conduct of infiltration/extraction, personnel/material recovery, hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other missions. The capabilities of the submersible systems, diving systems, and unique equipment provide small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF maritime missions.

The Surface Craft project provides for the EMD for all combatant craft, combatant craft mission equipment, pre-planned product improvement, and technology insertion to meet the unique requirements of SOF. This project element also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to quickly respond to new requirements for maritime craft and subsystems. The craft capabilities and unique equipment provide small, highly trained forces the ability to successfully engage the enemy and conduct operations associated with SOF maritime missions.

The total cost of the Combat Diving Middle Tier of Acquisition effort is \$22.237 million (FY 2023 - FY 2027), including RDT&E and procurement of prototype units. The Combat Diving effort is fully funded across the Future Years Defense Program.

The total cost of the Maritime Precision Engagement (MPE) Middle Tier of Acquisition effort is \$11.703 million (FY 2023 - FY 2027), including Research, Development, Test, and Evaluation (RDT&E) and procurement of prototype units. The MPE effort is fully funded across the Future Years Defense Program.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1160483BB / <i>Maritime Systems</i>
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B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	68.538	58.430	0.000	-	0.000
Current President's Budget	66.037	62.630	82.645	-	82.645
Total Adjustments	-2.501	4.200	82.645	-	82.645
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	4.200			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.501	-			
• Adjustments to Budget Year	-	-	82.645	-	82.645

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: S0417: *Underwater Systems*

Congressional Add: *SOF Combat Diving Diver Propulsion*

Congressional Add Subtotals for Project: S0417

Congressional Add Totals for all Projects

FY 2021	FY 2022
8.383	4.200
8.383	4.200
8.383	4.200

Change Summary Explanation

Funding:

FY 2021: Net decrease of \$2.501 million is due to a reprogramming of funds to the Congressionally mandated Small Business Innovative (SBIR)/Small Business Technology Transfer (STTR) programs.

FY 2022: Net increase of \$4.200 million is due to a Congressional Add for diver propulsion.

FY 2023: Funding increase of \$82.465 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

FY 2023 funding request was reduced by \$1.820 million to account for the availability of prior year execution balances.

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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 1160483BB / Maritime Systems				Project (Number/Name) S0417 / Underwater 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
S0417: Underwater Systems	504.687	49.219	45.324	58.309	-	58.309	113.141	194.512	155.378	122.689	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the Engineering and Manufacturing Development (EMD) of combat underwater submersibles, Special Operations Forces (SOF) combat diving systems, underwater support systems, and underwater equipment. This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to respond to emerging requirements. These submersibles, equipment, and diving systems are used by SOF in the conduct of infiltration/extraction, personnel/material recovery, hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other missions. The capabilities of the submersible systems, diving systems, and unique equipment provides small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF maritime missions. These technologies will be pursued via rapid prototyping efforts when appropriate.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: Sea, Air, and Land (SEAL) Delivery Vehicle (SDV MK 11)/Shallow Water Combat Submersible (SWCS)	2.110	4.348	1.070
Description: The SDV MK 11 (Acquisition program name: SWCS) provides for the design, development and test of one EDM and 10 production units to replace the legacy MK 8 MOD 1 SDV system. The SDV MK 11 is a free-flooding combat submersible mobility platform suitable for transporting and deploying SOF and their payloads for a variety of SOF missions. The SDV MK 11 will be deployable from a Dry Deck Shelter (DDS), surface ships, and land. The MK 11 system includes the MK 11 vehicle and MK 11 support equipment, comprised of Mission Support Equipment (MSE), Pack-Up Kit (PUK), and Transportation and Handling (T&H). It also includes integration efforts with the current DDS and development of product improvements accomplished throughout the lifecycle of the system. The SWCS line item transitioned to SDV beginning in FY 2022 to better align with historical terminology and material solution.			
FY 2022 Plans: Continue SDV MK 11 Pre-Planned Product Improvement (P3I). P3I enhancements include, but are not limited to: Power and Energy; Acoustic and Radio Frequency indicators and warning capabilities; Electro-Optical Infrared (EO/IR) sensor; payload improvements; and self recovery.			
FY 2023 Plans: Continues SDV MK 11 P3I. P3I enhancements include, but are not limited to: Power and Energy; Acoustic and Radio Frequency indicators and warning capabilities; EO/IR sensor, payload improvements; and self recovery.			
FY 2022 to FY 2023 Increase/Decrease Statement:			

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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 1160483BB / Maritime Systems	Project (Number/Name) S0417 / Underwater Systems		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
Decrease of \$3.278 million is due to the transition of advanced sensors and propulsion enhancements from development to production.					
<p>Title: Dry Combat Submersible (DCS) Now</p> <p>Description: The DCS provides for the advanced development, engineering, manufacturing, and testing efforts for a surface-launched, dry, diver lock-in/lock-out vessel capable of inserting and extracting SOF and/or payloads into denied areas of one EDM and two production units. The USSOCOM tested one submersible prototype to validate test methodologies, commercial classification, and SOCOM safety certification processes and will continue to use the prototype to evaluate capability enhancing technologies and reduce risk in the DCS program. This program includes funding for enhanced warfighter capabilities such as Mid-Water Column Lock-In/Lock-Out, depressurization pump, and submarine interoperability.</p> <p>FY 2022 Plans: Continue the incorporation of P3I to increase the operational capability of DCS to include Navy submarine/grey hull interoperability, efforts to address obsolescence, and the continued insertion of Undersea Craft Mission Equipment (UCME) developed technologies. Begin government acceptance testing of DCS 3.</p> <p>FY 2023 Plans: Continues the incorporation of P3I of DCS to include Navy submarine/grey hull interoperability, efforts to address obsolescence, and the continued insertion of UCME developed technologies. Conducts Follow On Operational Test and Evaluation (FOT&E).</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$2.639 million is due to reduced DCS test and evaluation as well as management services.</p>			10.907	6.988	4.349
<p>Title: Classified Sub-Project</p> <p>Description: Details provided under separate cover.</p> <p>FY 2022 Plans: Details provided under separate cover</p> <p>FY 2023 Plans: Details provided under separate cover.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$27.794 million. Details will be provided under separate cover.</p>			7.455	6.055	33.849
<p>Title: Dry Deck Shelter (DDS) Modernization</p> <p>Description: DDS provides for the P3I, testing, and integration of specialized underwater systems to meet the unique requirements of SOF, and compatibility with the submarine fleet. The current DDS is a certified diving system, which attaches to</p>			1.162	1.057	3.081

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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 1160483BB / Maritime Systems	Project (Number/Name) S0417 / Underwater Systems		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
modified host submarines that provides for insertion of SOF forces and platforms. Funding supports product improvements to the current DDS, as well as associated diver equipment for in-service submarine support systems, unmanned underwater vehicles, and follow on development efforts for future SOF payloads. FY 2022 Plans: Continue development of field changes necessary to extend the useful life of the DDS and increase capacity to carry larger payloads. FY 2023 Plans: Continues development of field changes necessary to extend the useful life of the DDS and increase capacity to carry larger payloads. Begins studies and analysis for future DDS. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$2.024 million is due to continued development of field changes to address equipment obsolescence and required studies to support future DDS.				
Title: SOF Combat Diving (CBDIV) Description: SOF Combat Diving provides the EMD, testing, and rapid prototyping of SOF peculiar diving equipment providing the SOF combat diver the ability to engage the enemy and conduct operations. SOF Combat Diving will support the SDV, SWCS, DCS, and surface craft with the conduct of infiltration/extraction, material recovery, underwater ship attack, beach clearance, and other missions. Technologies include, but are not limited to, commercial and developmental life support, maneuverability and propulsion, diver navigational accuracy and situational awareness, environmental protection, and communications between dive teams as well as between divers and external vessels/craft. SOF Combat Diving is designated a Middle Tier of Acquisition (MTA) program, which uses the rapid prototyping pathway. FY 2022 Plans: Continue development capabilities, prototyping, to include test and evaluation of environmental protection, navigation, communication and propulsion, and an excursion capable underwater breathing apparatus equipment material solution analysis and advanced component prototype development. FY 2023 Plans: Continues development, prototyping and advanced development to include testing and evaluation of environmental protection, navigation, communication and propulsion equipment as well as an underwater breathing apparatus equipment material solution analysis. FY 2022 to FY 2023 Increase/Decrease Statement:		2.080	3.183	3.249

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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 1160483BB / <i>Maritime Systems</i>		Project (Number/Name) S0417 / <i>Underwater Systems</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
Increase of \$0.066 million is due to the testing of multiple diver systems.					
Title: Undersea Craft Mission Equipment (UCME)			15.824	18.525	12.711
Description: The UCME provides a rapid response capability to support SOF underwater craft and diver systems, subsystems, and their emerging requirements. The UCME provides technology refresh efforts to correct system deficiencies, improve asset life, and enhance mission capability to leverage and exploit emerging technologies within the maritime SOF undersea capability portfolio. UCME focuses on spearheading specific Technology Readiness Level (TRL) 6 technology for compatibility, maturity, marinization, and successful transition to SOF undersea craft programs.					
FY 2022 Plans: Continue development of undersea survivability enhancements; underwater and maritime domain communications; enhanced Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) and Situational Awareness (C5ISR/SA); unique power and energy capabilities; other capability enhancements and enabling technologies for assured access and building enduring advantage, aligning to National Defense Strategy (NDS) priorities.					
FY 2023 Plans: Continues development of undersea survivability enhancements; underwater and maritime domain communications; enhanced C5ISR/SA; unique power and energy capabilities; other capability enhancements and enabling technologies for assured access and building enduring advantage, aligning to NDS priorities.					
FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$5.814 million is due to the planned completion and transition of first increment enhanced Maritime Navigation technology projects, which provides enhanced capability to Maritime programs.					
Title: MK18 Mod 1 Unmanned Underwater Vehicle (UUV)			0.963	0.968	-
Description: MK 18 Mod 1 UUV enables access to contested/denied areas in the maritime domain, provides maritime special reconnaissance capabilities and reduces risk to personnel and manned platforms. This program develops and integrates SOF-peculiar (SOF-P) modifications to the Service Common, Service resourced, Mark 18 Mod 1 UUV.					
FY 2022 Plans: Continue payload development and integration to service common system for Naval Special Warfare specific (SOF-peculiar) requirements. Technology and payload development of Acoustic Intercept Receiver (AIR), Cognitive Router (CR), and Advanced Undersea Mission Autonomy (AUMA) for Beyond Line Of Sight (BLOS) capability.					
FY 2022 to FY 2023 Increase/Decrease Statement: Decrease of \$0.968 million is to support emerging critical command requirements.					
Title: Combatant Craft Light (CCL)			0.335	-	-

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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 1160483BB / <i>Maritime Systems</i>	Project (Number/Name) S0417 / <i>Underwater Systems</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Description: CCL is a small combatant craft that supports deployment of six combat equipped SOF operators and their payloads for selected missions in multiple threat environments. Its compact form factor provides SOF with versatile mission transportability, deployment, and utility capabilities.			
Accomplishments/Planned Programs Subtotals	40.836	41.124	58.309

	FY 2021	FY 2022
Congressional Add: SOF Combat Diving Diver Propulsion	8.383	4.200
FY 2021 Accomplishments: Continued development of SOF Diver propulsion. Specific efforts target development, testing, certification, shore based use, Submarine and Surface craft carry-on approval of multiple battery subsystems supporting Collective and Individual diver propulsion devices. Continued development of SOF Diver communication. Unique system design improvements required for SOF diver use, developmental testing, and evaluation of resulting engineering development model systems. Specific efforts target development of Command, Control, and Communications Situational Awareness diver underwater communication, diver-to-diver voice communication and the development and testing of battery certification.		
FY 2022 Plans: Continued development of SOF Diver propulsion. Specific efforts target development, testing, certification, shore based use, Submarine and Surface craft carry-on approval of multiple battery subsystems supporting Collective and Individual diver propulsion devices.		
Congressional Adds Subtotals	8.383	4.200

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/0210US: <i>Underwater Systems</i>	20.556	23.327	45.631	-	45.631	72.705	66.759	180.899	369.549	Continuing	Continuing

Remarks

D. Acquisition Strategy

- The SDV MK 11/SWCS uses full and open competition with a down select to a single contractor. The full spectrum of contracting activities are being employed for subsystem and utilized for any integration and subsystem requirements, using existing contracts where appropriate, government agencies, and new contracts as necessary. Sole source Justification and Approval (J&A) was approved and awarded to deliver final production articles to meet Full Operational Capability (FOC).

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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 1160483BB / <i>Maritime Systems</i>	Project (Number/Name) S0417 / <i>Underwater Systems</i>
<ul style="list-style-type: none"> • The DCS Block I uses full and open competition, resulting in the selection of a single prime contractor and award of a Fixed Price Incentive Firm Target contract for three vessels. • The DDS is currently in sustainment through a maintenance and service contract which was competitively sourced, and awarded for a five-year period. The modernization and engineering/change efforts for the six DDS in inventory are executed utilizing the existing services contract. • SOF Combat Diving is designated an MTA program which supports rapid prototyping and is executed using existing contracts, government agencies, and new contracts competitively selected as appropriate. • The UCME will use streamlined Federal Acquisition Regulation (FAR) contracting with existing or planned Indefinite Delivery, Indefinite Quantity, Blanket Order Agreement, University Affiliated Research Center, and Federally Funded Research and Development Center contracts and use Non-FAR Acquisition Authorities and Other Transaction Authority agreements, where appropriate. • The UUV Program will augment a Navy service common man-portable UUV with purpose built, modular, plug-and-play sensors and payloads to meet SOF requirements. • The CCL engineering and manufacturing development was sole source. Additional development efforts will be sole source. 		

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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 1160483BB / <i>Maritime Systems</i>				Project (Number/Name) S0417 / <i>Underwater Systems</i>					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SEAL Delivery Vehicle (SDV)/Shallow Water Combat Submersible (SWCS) Engineering Changes	C/Various	Various : Various	1.786	1.902	Jan 2021	4.348	Jan 2022	1.070	Jan 2023	-		1.070	Continuing	Continuing	-
Dry Combat Submersible (DCS) Enhancements / Pre-Planned Product Improvement (P3I) Changes	C/Various	Various : Various	17.569	6.830	Nov 2020	3.404	Nov 2021	2.199	Nov 2022	-		2.199	Continuing	Continuing	-
Classified Sub-Project	C/TBD	TBD : TBD	-	6.355		3.755		26.900		-		26.900	Continuing	Continuing	-
Dry Deck Shelter (DDS) Field Changes/ Enhancements	C/Various	Various : Various	-	0.828	Jan 2021	0.991	Jan 2022	2.814	Jan 2023	-		2.814	Continuing	Continuing	-
Special Operation Forces (SOF) Combat Diving-Unique Diving Technologies	Various	Various : Various	8.125	1.377	Feb 2021	1.876	Nov 2021	1.914	Feb 2023	-		1.914	Continuing	Continuing	-
SOF Combat Diving (Congressional Add)	C/Various	Various : Various	3.000	8.383	Mar 2021	4.200	Apr 2021	-		-		-	0.000	15.583	-
Undersea Craft Mission Equipment (UCME) Survivability, Navigation, C5ISR/SA, Power & Energy enhancements and other assured access technologies	C/Various	Various : Various	15.965	15.233	Dec 2020	17.948	Nov 2021	11.916	Nov 2022	-		11.916	Continuing	Continuing	-
MK18 Mod 1 Unmanned Underwater Vehicle (UUV)	C/Various	Various : Various	-	0.963	Feb 2021	0.968	Mar 2022	-		-		-	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	358.311	-		-		-		-		-	0.000	358.311	-
Prior Year Funding (Congressional Add)	C/Various	Various : Various	14.100	-		-		-		-		-	0.000	14.100	-
Subtotal			418.856	41.871		37.490		46.813		-		46.813	Continuing	Continuing	N/A

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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 1160483BB / Maritime Systems				Project (Number/Name) S0417 / Underwater Systems					
Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Funding	Various	Various : Various	9.094	-		-		-		-		-	0.000	9.094	-
Subtotal			9.094	-		-		-		-		-	0.000	9.094	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SDV/SWCS	Various	PSU ARL / JHU-APL : Laurel, MD / State College, PA	3.946	0.208	Nov 2020	-		-		-		-	0.000	4.154	-
DCS	C/Various	Various : Various	27.119	3.527	Oct 2020	1.945	Oct 2021	1.250	Nov 2022	-		1.250	Continuing	Continuing	-
SOF Combat Diving	Various	Various : Various	2.151	0.520	Oct 2020	1.119	Oct 2021	1.129	Oct 2022	-		1.129	Continuing	Continuing	-
CCL	C/Various	Various : Various	-	0.335	Dec 2020	-		-		-		-	0.000	0.335	-
Prior Year Funding	Various	Various : Various	9.320	-		-		-		-		-	0.000	9.320	-
Subtotal			42.536	4.590		3.064		2.379		-		2.379	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DCS	Various	Apogee : Tampa, FL	21.353	0.550	Feb 2021	1.639	Aug 2022	0.900	Aug 2023	-		0.900	Continuing	Continuing	-
Classified Sub-Project	Various	Various : Various	-	1.100		2.300		6.949		-		6.949	Continuing	Continuing	-
DDS	Various	NAVSEA : Washington, DC	2.472	0.334	Jan 2021	0.066	Jan 2022	0.267	Jan 2022	-		0.267	Continuing	Continuing	-
SOF Combat Diving	C/Various	Apogee : Tampa, FL	0.530	0.183	Dec 2020	0.188	Dec 2021	0.206	Dec 2022	-		0.206	Continuing	Continuing	-
UCME	C/Various	Various : Various	0.515	0.591	Dec 2020	0.577	Dec 2021	0.795	Dec 2022	-		0.795	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	9.331	-		-		-		-		-	0.000	9.331	-
Subtotal			34.201	2.758		4.770		9.117		-		9.117	Continuing	Continuing	N/A

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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 1160483BB / Maritime Systems					Project (Number/Name) S0417 / Underwater Systems			
	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	504.687	49.219		45.324		58.309		-		58.309	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

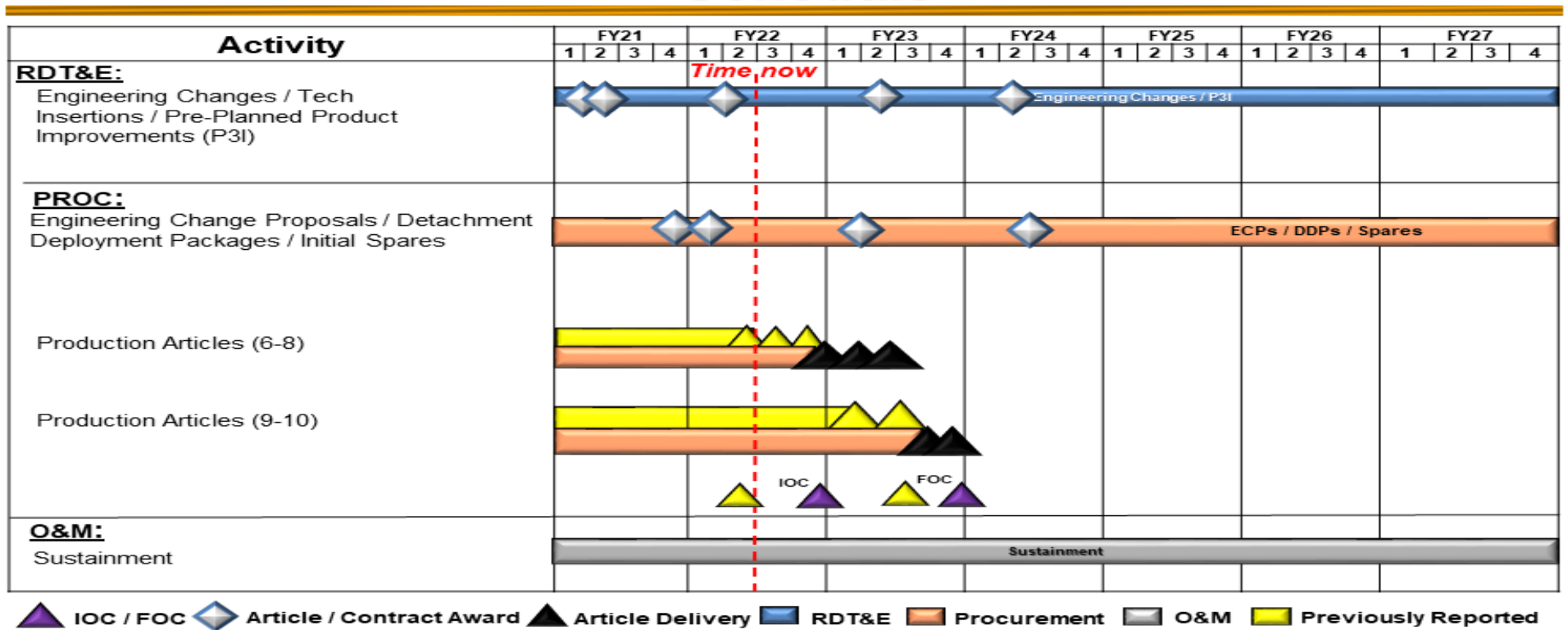
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160483BB / Maritime Systems

Project (Number/Name)
S0417 / Underwater Systems

SEAL Delivery Vehicle MK 11 Shallow Water Combat Submersible Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

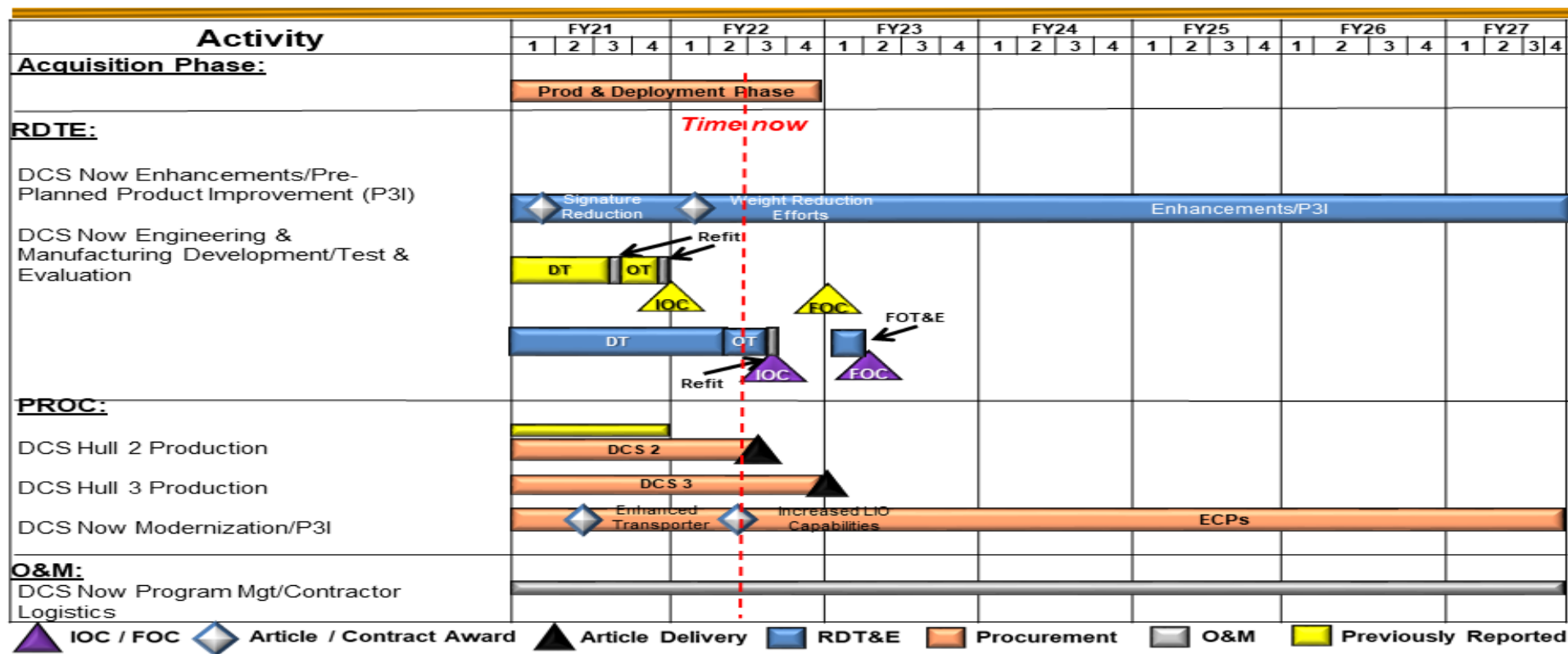
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160483BB / Maritime Systems

Project (Number/Name)
S0417 / Underwater Systems

Dry Combat Submersible (DCS) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

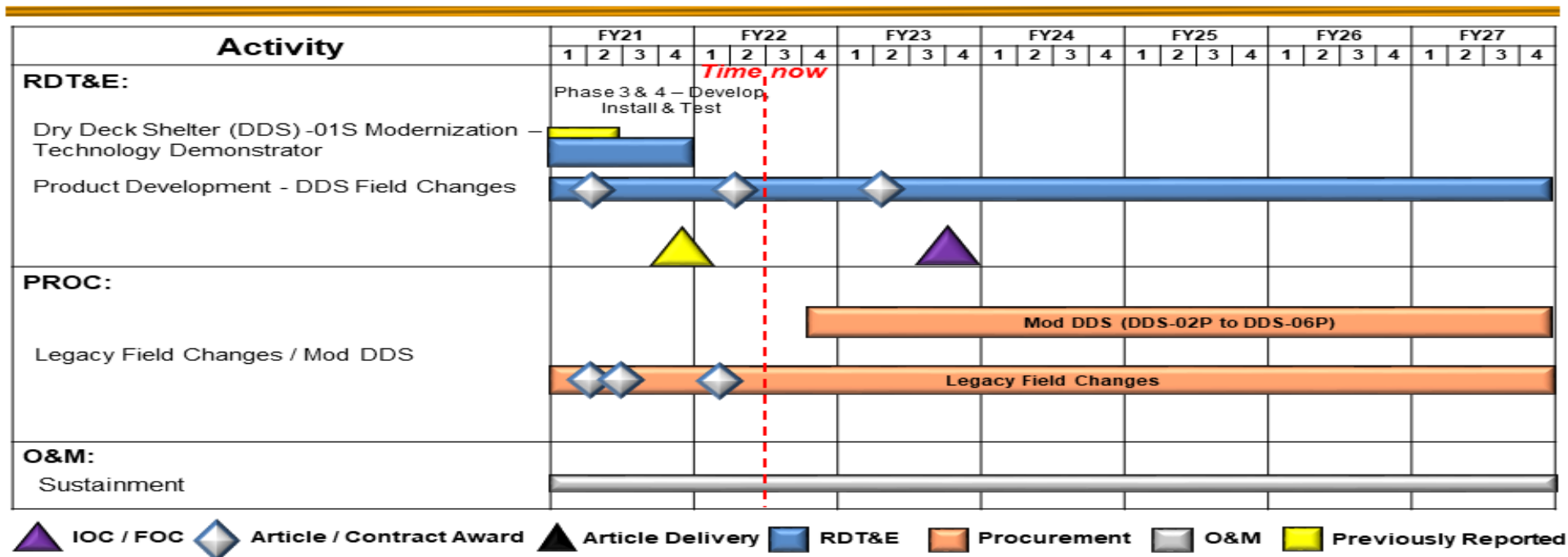
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160483BB / Maritime Systems

Project (Number/Name)
S0417 / Underwater Systems

Dry Deck Shelter (DDS) Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

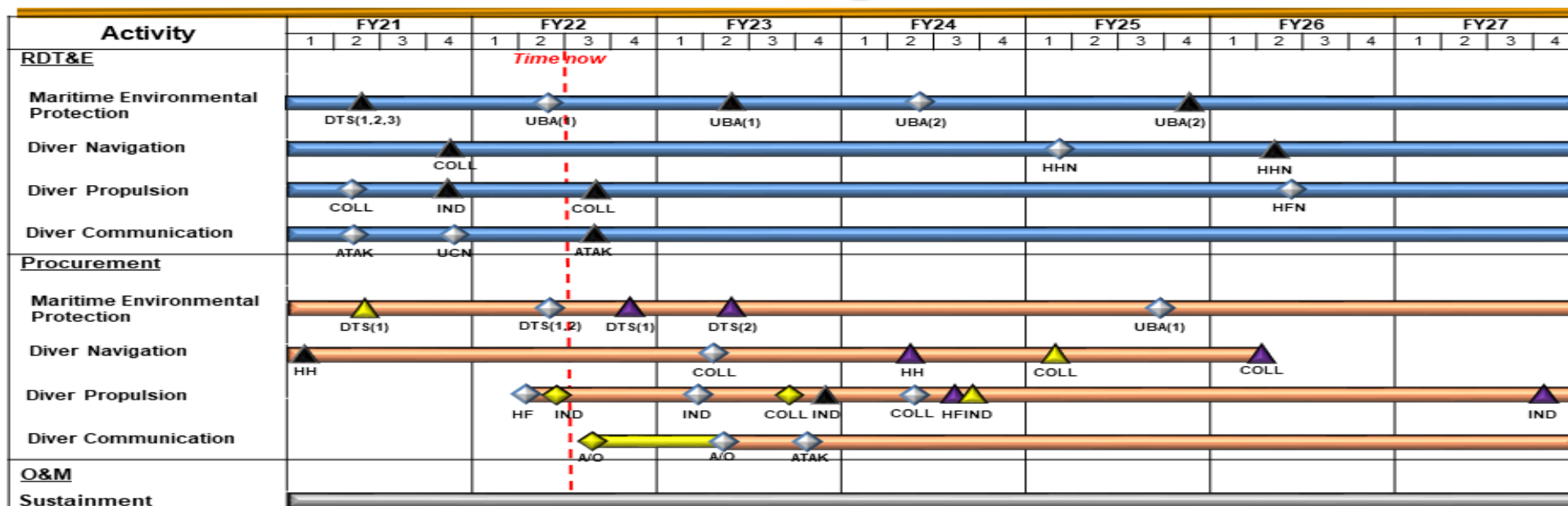
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160483BB / Maritime Systems

Project (Number/Name)
S0417 / Underwater Systems

Special Operations Forces Combat Diving Schedule



■ RDT&E
 ■ Procurement
 ■ O&M
 ■ Previously Reported
 ▲ Article Delivery
 ◆ Article / Contract Award
 ▲ FOC

MEP: Diver Thermal System (DTS) (1) Tube Suits (2) Electrical Systems (3) Chemical Systems	Underwater Breathing Apparatus (UBA) (1) Excursion UBA (2) HEO2 UBA	Navigation: Handheld (HH) Collective (COLL) Handheld Next (HHN)	Propulsion: Handsfree Next (HFN) Handsfree (HF) Individual (IND) Collective (COLL)	Communication: Android Tactical Assault Kit (ATAK) Acoustic / Optical (A/O) U/W Comms Network (UCN)
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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

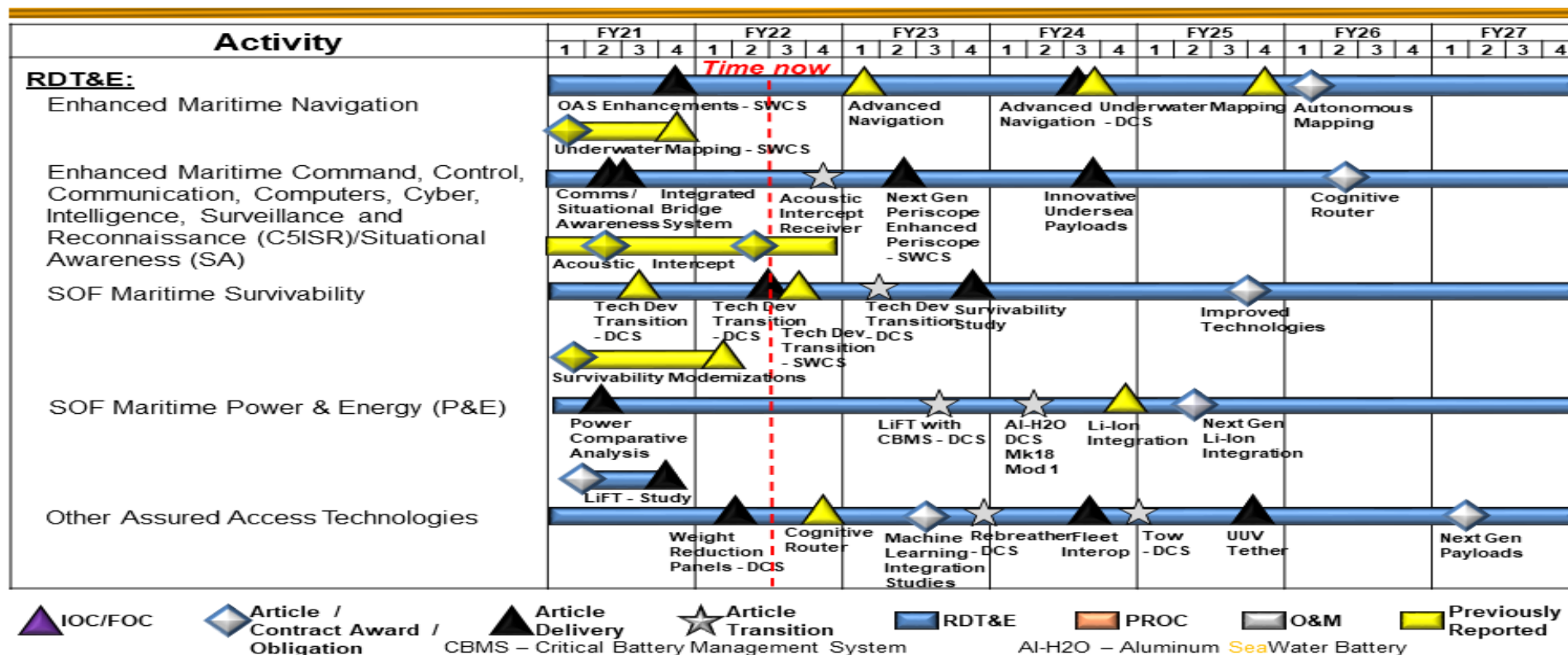
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160483BB / Maritime Systems

Project (Number/Name)
S0417 / Underwater Systems

Undersea Craft Mission Equipment Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

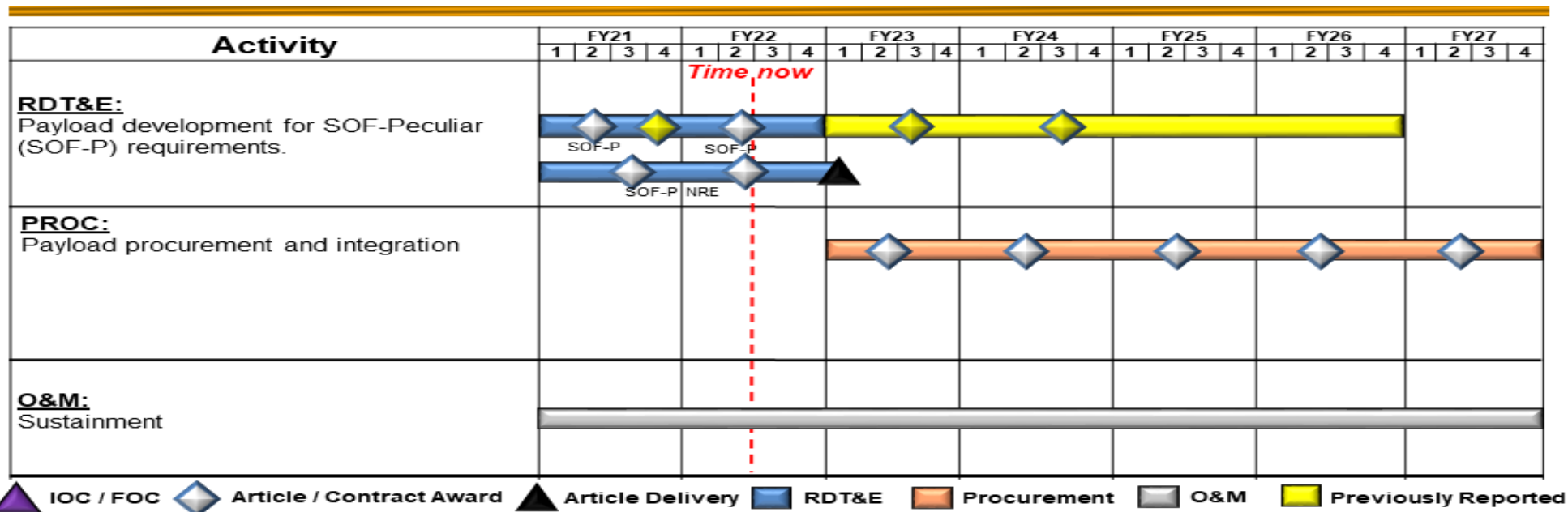
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160483BB / Maritime Systems

Project (Number/Name)
S0417 / Underwater Systems

MK 18 Mod 1 Unmanned Underwater Vehicle Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

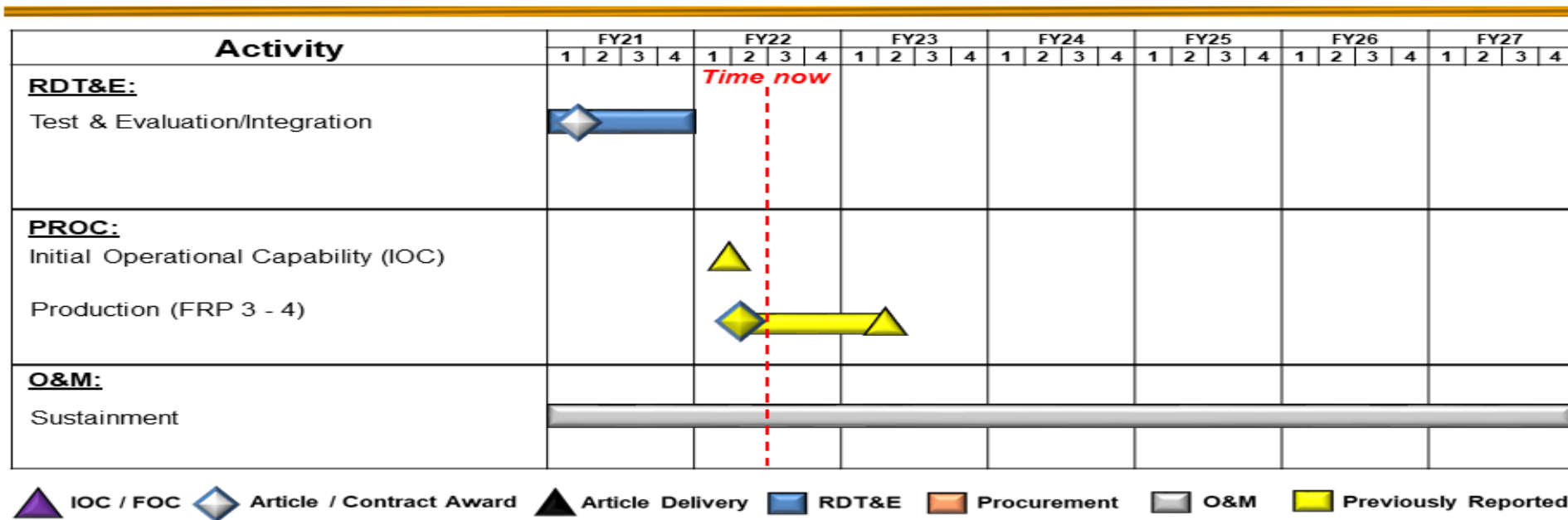
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160483BB / Maritime Systems

Project (Number/Name)
S0417 / Underwater Systems

Combatant Craft Light Schedule



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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 1160483BB / <i>Maritime Systems</i>	Project (Number/Name) S0417 / <i>Underwater Systems</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>SEAL Delivery Vehicle (SDV)/Shallow Water Combat Submersible (SWCS)</i>				
Engineering Changes/Technology Insertions/Pre-planned Product Improvements (P3I)	1	2021	4	2027
<i>Dry Combat Submersibles (DCS)</i>				
Block I Enhancements/P3I	1	2021	4	2027
Block I Developmental Test and Evaluation	1	2021	2	2022
Block I Operational Test and Evaluation	2	2022	3	2022
<i>Dry Deck Shelter Modernization (DDS)</i>				
Phase 3 & 4 Development, Install, and Test - Modernization Technology Demonstrator	1	2021	4	2021
Product Development DDS Field Changes	1	2021	4	2027
<i>Special Operation Forces (SOF) Combat Diving</i>				
Maritime Environmental Protection Rapid Prototyping, Test, and Integration	1	2021	4	2027
Diver Navigation Rapid Prototyping, Test, and Integration	1	2021	4	2027
Diver Propulsion Rapid Prototyping, Test, and Integration	1	2021	4	2027
Diver Communication Rapid Prototyping, Test, and Integration	1	2021	4	2027
<i>Undersea Craft Mission Equipment (UCME)</i>				
Enhanced Maritime Navigation	1	2021	4	2027
Enhanced Maritime Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR)/Situational Awareness (SA)	1	2021	4	2027
Special Operations Forces (SOF) Maritime Survivability	1	2021	4	2027
SOF Maritime Power & Energy (P&E)	1	2021	4	2027
Other Assured Access Technologies	1	2021	4	2027
<i>MK18 Mods 1 Unmanned Underwater Vehicle (UUV)</i>				
MK18 Mods 1 UUV Pre-Planned Product Improvement - Payload Development	1	2021	4	2022

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / <i>Maritime Systems</i>	Project (Number/Name) S0417 / <i>Underwater Systems</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Combatant Craft Light (CCL)</i>				
Test and Evaluation/Integration	1	2021	4	2021

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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 1160483BB / <i>Maritime Systems</i>				Project (Number/Name) S1684 / <i>Surface Craft</i>			
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
S1684: <i>Surface Craft</i>	73.970	16.818	17.306	24.336	-	24.336	23.590	25.149	116.007	116.124	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for Engineering and Manufacturing Development of combatant craft, combatant craft mission equipment, Pre-Planned Product Improvement (P3I), and technology insertion to meet the unique requirements of Special Operations Forces (SOF). This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to quickly respond to new requirements for maritime craft and subsystems. The craft capabilities and unique equipment provide small, highly trained forces the ability to successfully conduct operations associated with SOF maritime missions.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2021	FY 2022	FY 2023
Title: Combatant Craft Medium (CCM) Description: The CCM is a semi-enclosed multi-mission combatant craft for platoon-size maritime mobility in maritime contested environments. It is multi-mission capable, including Maritime Interdiction, Insert/Extract, and Visit, Board, Search, and Seizure (VBSS) Operations. The CCM is Naval Special Warfare's (NSW) craft-of-choice for long-range, high-payload SOF mobility operations in contested environments. The CCM has NSW's best Iron Triangle: 40 knot (kt) speed; 4 crew + 19 passengers (pax)/10,000 pound (lb) payload; and 600 nautical miles (nm) range. The CCM payload capacity enables inclusion of shock mitigating seats, which is critical for ride quality, operator tactical readiness, and operator health. At 60 feet long, CCM is C-17/ C-5 transportable and can launch/recover by well deck or shore based trailer. FY 2022 Plans: Begin aft enclosure craft integration and testing. Continue survivability enhancements, and Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) upgrades. Complete Joint Threat Warning System (JTWS) integration. FY 2023 Plans: Completes aft enclosure integration and testing. Continues development and testing of craft and C5ISR upgrades. Continues focus on survivability enhancements. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$2.611 million due to extensive survivability testing, design of service life enhancing capabilities, and interoperability testing.	2.161	0.989	3.600
Title: Combatant Craft Heavy (CCH) Description: The CCH provides platoon-size maritime surface mobility. The current CCH is the Sea, Air, Land Insertion, Observation and Neutralization (SEALION) craft. The SEALION is a fully-enclosed, climate-controlled, semi-submersible craft	1.228	0.933	3.953

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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 1160483BB / Maritime Systems	Project (Number/Name) S1684 / Surface Craft		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
that operates in contested environments. The SEALION is NSW’s most versatile and survivable combatant craft and the craft-of-choice for sensitive maritime intelligence, surveillance, and reconnaissance missions. Iron Triangle: 40 kt speed; 7 crew + 12 pax / 3,300 lb payload; and 400 nm range. The SEALION payload capacity enables inclusion of shock mitigating seats, which is critical for ride quality, operator tactical readiness, and operator health. At 77+ feet long, the SEALION is C-17/C-5 transportable and can launch/recover by well deck, shore based mobile travel lift, or crane. FY 2022 Plans: Continue development and integration of C5ISR/SA and survivability enhancements. Complete JTWS integration. FY 2023 Plans: Continues development and integration of C5ISR/SA and survivability enhancements. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$3.020 million is to supports increased test range costs and support through NSW Capability Development Document, to include development for Technical Data Package for CCH-IV.					
Title: Combatant Craft Mission Equipment (CCME) Description: The CCME provides a rapid response capability to support SOF combatant craft systems, subsystems, and their emerging requirements. The CCME provides technology refresh efforts to correct system deficiencies, improve asset life, and enhance mission capability to leverage and exploit emerging technologies within the maritime SOF surface capability portfolio. CCME focuses on spearheading specific Technology Readiness Level (TRL) 6 technology for compatibility, maturity, design for the marine environment, and successful transition to SOF combatant craft programs. FY 2022 Plans: Continue evaluation and development of surface survivability enhancements; enhanced C5ISR/SA capabilities; unique power and energy capabilities such as hybrid electric propulsion; Assured Positioning, Navigation and Timing (A-PNT); and enabling technologies for assured access and against near peer threats, aligning to National Defense Strategy (NDS) priorities. FY 2023 Plans: Continues evaluation and development of surface survivability enhancements; enhanced C5ISR/SA capabilities; unique power and energy capabilities such as hybrid electric propulsion; Assured PNT; and enabling technologies for assured access and building enduring advantage, aligning to NDS priorities. FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.168 million is due to increased complexity of technology focus areas.			6.574	7.788	7.956
Title: Combatant Craft Assault (CCA)			0.714	1.049	3.284

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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 1160483BB / Maritime Systems	Project (Number/Name) S1684 / Surface Craft		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2021	FY 2022	FY 2023
<p>Description: The CCA is a combatant craft for squad-size maritime mobility operations in contested environments. The CCA is NSW’s best craft for Visit, Board, Search, Seizure operations. It is the craft-of-choice for maritime interdiction and boarding operations because of the open deck space, maneuverability, and interoperability with an Afloat Forward Staging Base. Iron Triangle: 40 kt speed; 5 crew + 10 pax/5,000 lb payload; and 300 nm range. At 41 feet long, CCA is air transportable by C-130/ C-17/C-5 and can launch/recover by crane, davit, well deck, or shore based trailer.</p> <p>FY 2022 Plans: Continue integration and testing of Combatant Craft Forward Looking Infrared 2 (CCFLIR2) mast design and Communications box/Tactical Operations Center Network (TOCNET).</p> <p>FY 2023 Plans: Completes integration and testing of CCFLIR2 mast design and Communications box/TOCNET. Begins integration and testing of JTWS. Begins integration of Maritime Tactical Mission Networking (MTMN).</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$2.235 million begins the JTWS integration and testing requirements and MTMN integration.</p>					
<p>Title: Maritime Precision Engagement (MPE)</p> <p>Description: The MPE is a family of standoff, loitering, man-in-the-loop weapons systems deployed on combatant craft and capable of targeting individuals, groups, vehicles, high value targets, and small oceangoing craft with low collateral damage. The MPE consists of combatant craft alterations, integration of the MK 50 Remote Weapon System (RWS), and munition launcher systems. Munitions for this effort are funded through PEO SOF Warrior.</p> <p>FY 2022 Plans: Continue development of craft modifications and operator control station to refine a fully integrated operational capability. Continue development and testing of the munition launcher B-kit to refine the EDM-2 MPE launcher and EDM-2 MK 50 RWS B-Kit. Continue development of CCM A-kit modifications and testing in preparation for transition to production. Begin planned product improvements.</p> <p>FY 2023 Plans: Continues development of craft modifications and operator control station to refine a fully integrated operational capability. Continues development and testing of the munition launcher B-kit to refine the EDM-2 MPE launcher and EDM-2 MK 50 RWS B-Kit. Continues development of CCM A-kit modifications and testing in preparation for transition to production. Continues planned product improvements.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement:</p>			6.141	6.547	4.943

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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 1160483BB / <i>Maritime Systems</i>	Project (Number/Name) S1684 / <i>Surface Craft</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Decrease of \$1.604 million is due to completion of MK 50 RWS testing and transitioning to full production.			
Title: Special Operations Craft Riverine (SOCR)	-	-	0.600
Description: SOCR is an aluminum-hull mobility platform for use in riverine and littoral areas for short range insertion of SOF in low to medium threat environments.			
FY 2023 Plans: Begins C5ISR and situational awareness system enhancements. Begins study for Next-Generation Riverine capability.			
FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$0.600 million is due to initial technology enhancement efforts and Next-Generation Riverine Capability study.			
Accomplishments/Planned Programs Subtotals	16.818	17.306	24.336

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/0204SCCS: <i>Combatant Craft Systems</i>	33.278	17.080	85.566	-	85.566	72.033	70.414	54.544	50.676	Continuing	Continuing

Remarks

N/A

D. Acquisition Strategy

- The CCM was a two-phase source selection process. Phase I involved a Small Business Set-Aside competition for two vendors to design, build and deliver test articles. Phase II selected a single vendor to provide a fully integrated baseline craft system for test and evaluation with options for production, engineering support, and contractor logistics support.
- The CCH SEALION I & II were transitioned from United States Navy advanced technology demonstrator craft to USSOCOM. Sustainment for the SEALION I & II is conducted via Special Operations Forces Support Activity (SOFSA). The SEALION III is Sole Source to the Original Equipment Manufacturer (OEM) in order to take advantage of previous Government investments in manufacturing infrastructure for the SEALION I & II.
- The CCME will use streamlined Federal Acquisition Regulation (FAR) contracting with existing or planned Indefinite Delivery, Indefinite Quantity (IDIQ), Blanket Order Agreement (BOA), University Affiliated Research Center (UARC), and Federally Funded Research and Development Center (FFRDC) contracts and use Non-FAR Acquisition Authorities and Other Transaction Authority (OTA) agreements and MIPRs, where appropriate.

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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 1160483BB / <i>Maritime Systems</i>	Project (Number/Name) S1684 / <i>Surface Craft</i>
<ul style="list-style-type: none">• The CCA will continue to develop, test, and integrate C5ISR capability enhancements required to increase the crafts performance characteristics, reliability, and survivability. Exercised ordering period one (1) of the five-year indefinite delivery - IDIQ contract supporting Capital Equipment Replacement Program (CERP).• The MPE will employ Government engineering expertise and lessons learned to develop a common launch system for NSW combatant craft. Low inventory of production units will be procured through Naval Surface Warfare Center (DAHLGREN).• The SOCR will conduct pre-award preliminary studies for next generation SOF riverine craft to include hybrid electric propulsion options.		

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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 1160483BB / Maritime Systems				Project (Number/Name) S1684 / Surface Craft					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Combatant Craft Medium (CCM)	C/Various	Various : Various	19.478	2.161	Nov 2020	0.989	Nov 2021	3.600	Nov 2022	-		3.600	Continuing	Continuing	-
Combatant Craft Heavy (CCH)	C/Various	Various : Various	10.568	1.228	Jan 2021	0.933	Jan 2022	3.953	Jan 2023	-		3.953	Continuing	Continuing	-
Combatant Craft Mission Equipment (CCME)	C/Various	Various : Various	13.948	6.574	Nov 2020	7.788	Nov 2021	7.956	Nov 2022	-		7.956	Continuing	Continuing	-
Combatant Craft Assault (CCA)	C/Various	Various : Various	3.395	0.714	Nov 2020	1.049	Nov 2021	3.284	Nov 2022	-		3.284	Continuing	Continuing	-
Maritime Precision Engagement (MPE)	C/Various	NSWC : Dahlgren, VA	15.225	5.931	Dec 2020	6.301	Dec 2021	4.685	Dec 2022	-		4.685	Continuing	Continuing	-
Special Operations Craft Riverine (SOCR)	C/Various	Various : Various	-	-		-		0.600	Mar 2023	-		0.600	Continuing	Continuing	-
Prior Year Costs	C/Various	Various : Various	4.215	-		-		-		-		-	0.000	4.215	-
Subtotal			66.829	16.608		17.060		24.078		-		24.078	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Costs	C/Various	Various : Various	3.646	-		-		-		-		-	0.000	3.646	-
Subtotal			3.646	-		-		-		-		-	0.000	3.646	N/A
Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MPE	C/Various	Various : Various	0.161	0.210	Dec 2020	0.246	Dec 2021	0.258	Dec 2022	-		0.258	Continuing	Continuing	-
Prior Year Costs	C/Various	Various : Various	3.334	-		-		-		-		-	0.000	3.334	-
Subtotal			3.495	0.210		0.246		0.258		-		0.258	Continuing	Continuing	N/A

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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 1160483BB / Maritime Systems					Project (Number/Name) S1684 / Surface Craft			
	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	73.970	16.818		17.306		24.336		-		24.336	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

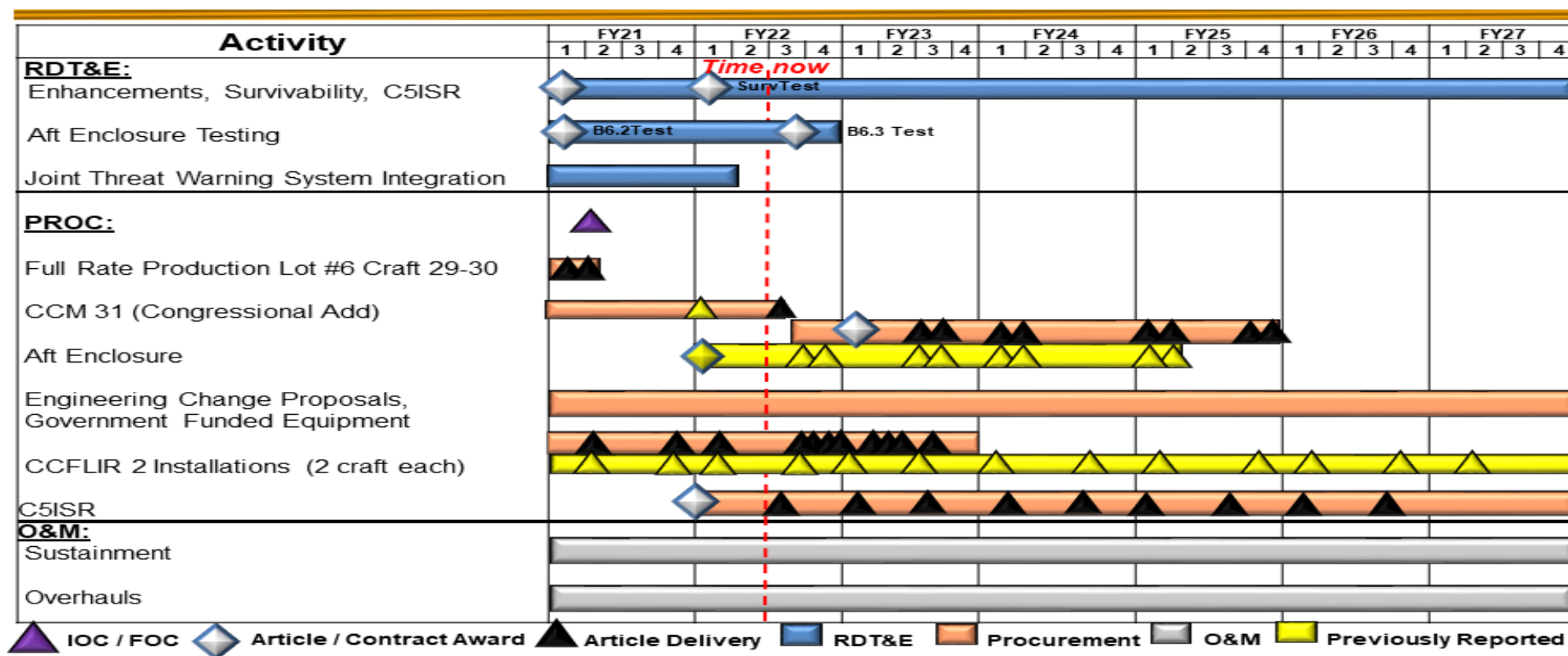
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160483BB / Maritime Systems

Project (Number/Name)
S1684 / Surface Craft

Combatant Craft Medium (CCM) MK1 Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

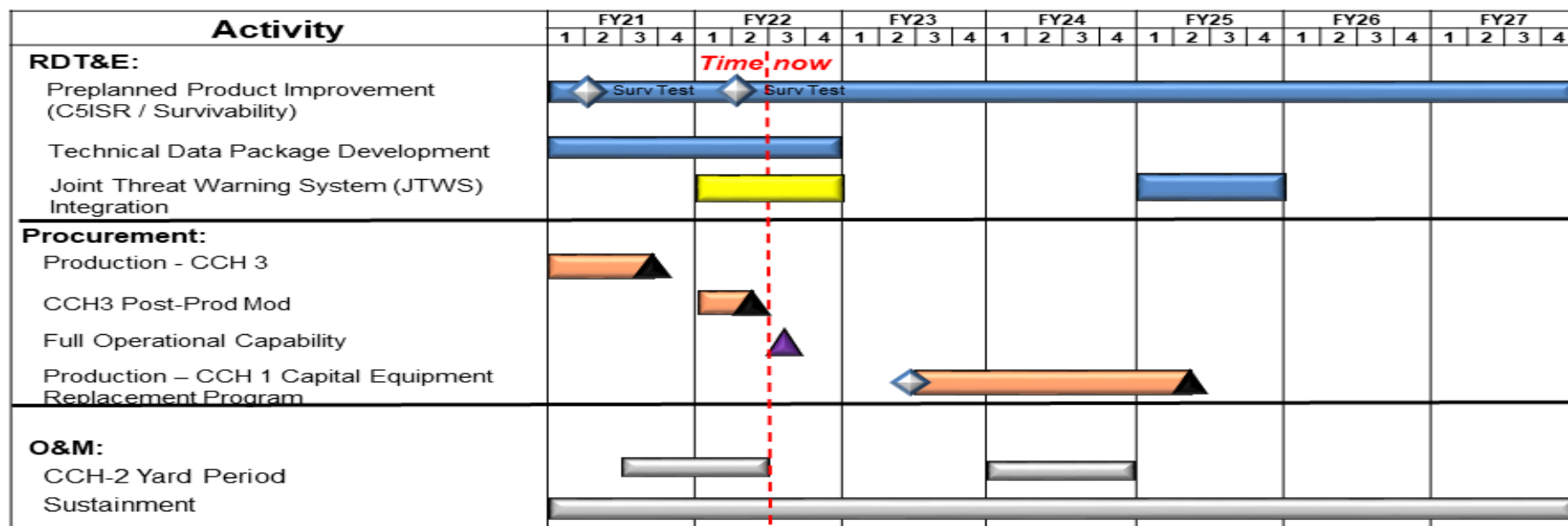
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160483BB / Maritime Systems

Project (Number/Name)
S1684 / Surface Craft

Combatant Craft Heavy (CCH) Schedule



 IOC / FOC
  Article / Contract Award
  Article Delivery
  RDT&E
  Procurement
  O&M
  Previously Reported

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

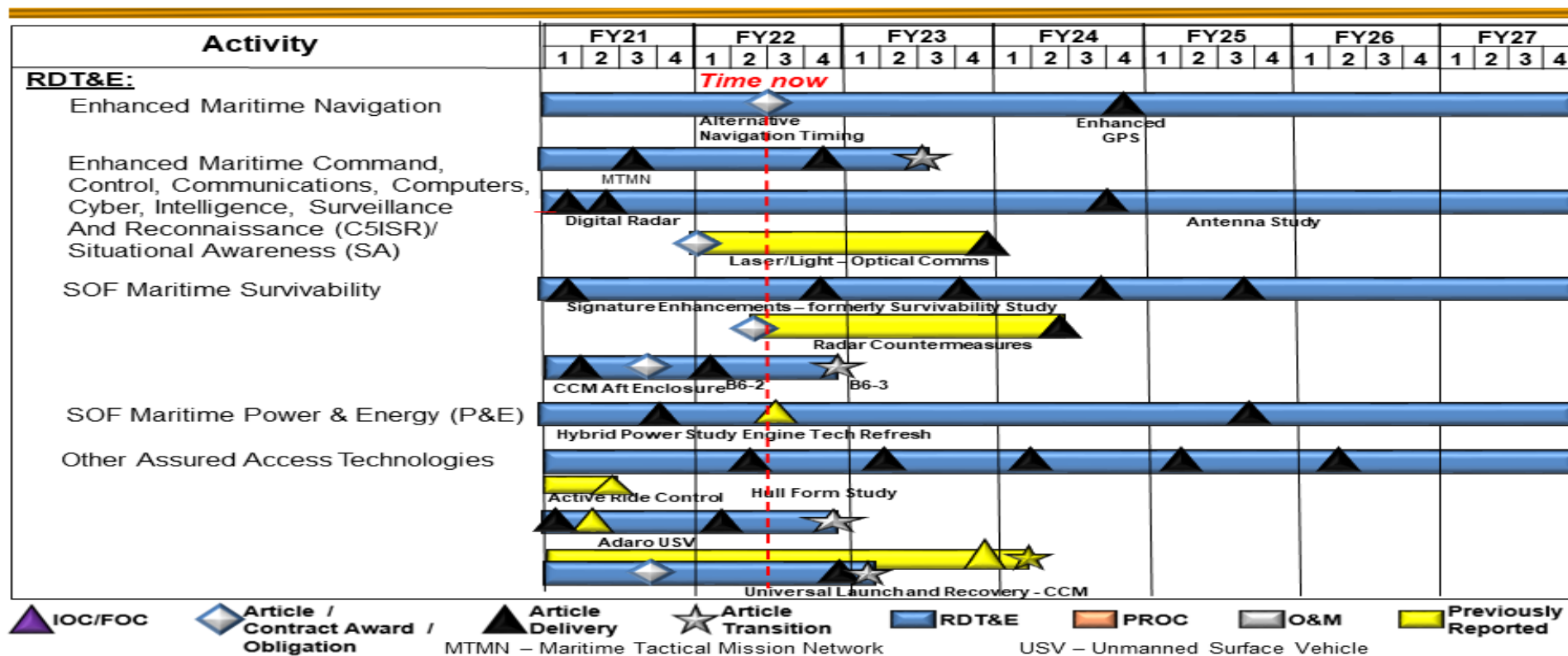
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160483BB / Maritime Systems

Project (Number/Name)
S1684 / Surface Craft

Combatant Craft Mission Equipment Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

Date: April 2022

Appropriation/Budget Activity

0400 / 7

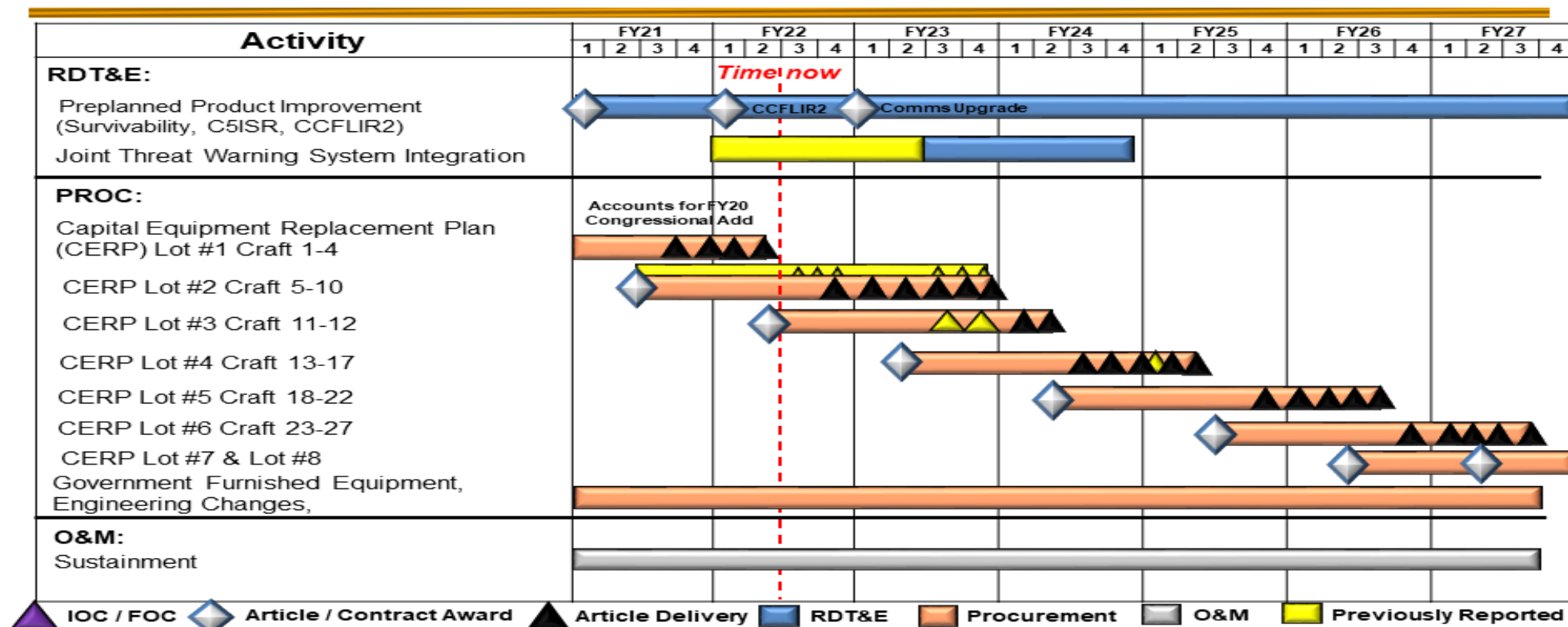
R-1 Program Element (Number/Name)

PE 1160483BB / Maritime Systems

Project (Number/Name)

S1684 / Surface Craft

Combatant Craft Assault Schedule



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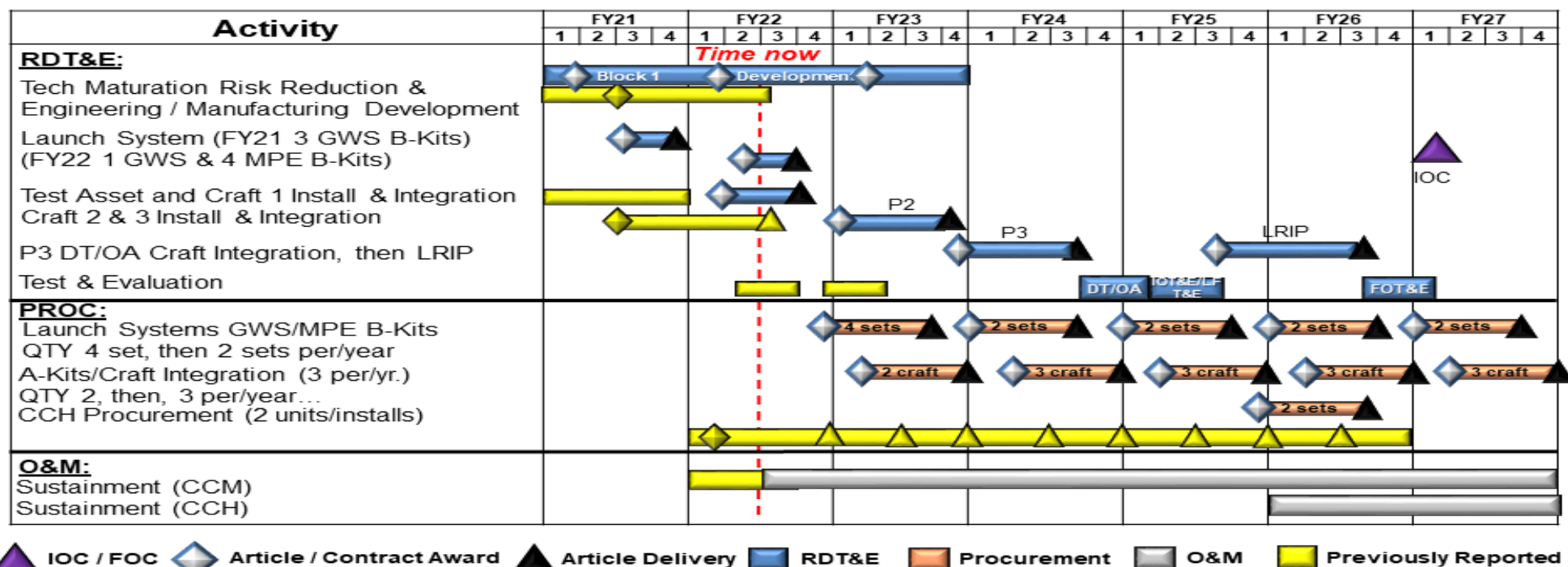
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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

Date: April 2022

Appropriation/Budget Activity
0400 / 7R-1 Program Element (Number/Name)
PE 1160483BB / Maritime SystemsProject (Number/Name)
S1684 / Surface Craft

Maritime Precision Engagement (MPE) Schedule



GWS – Gun Weapon System

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

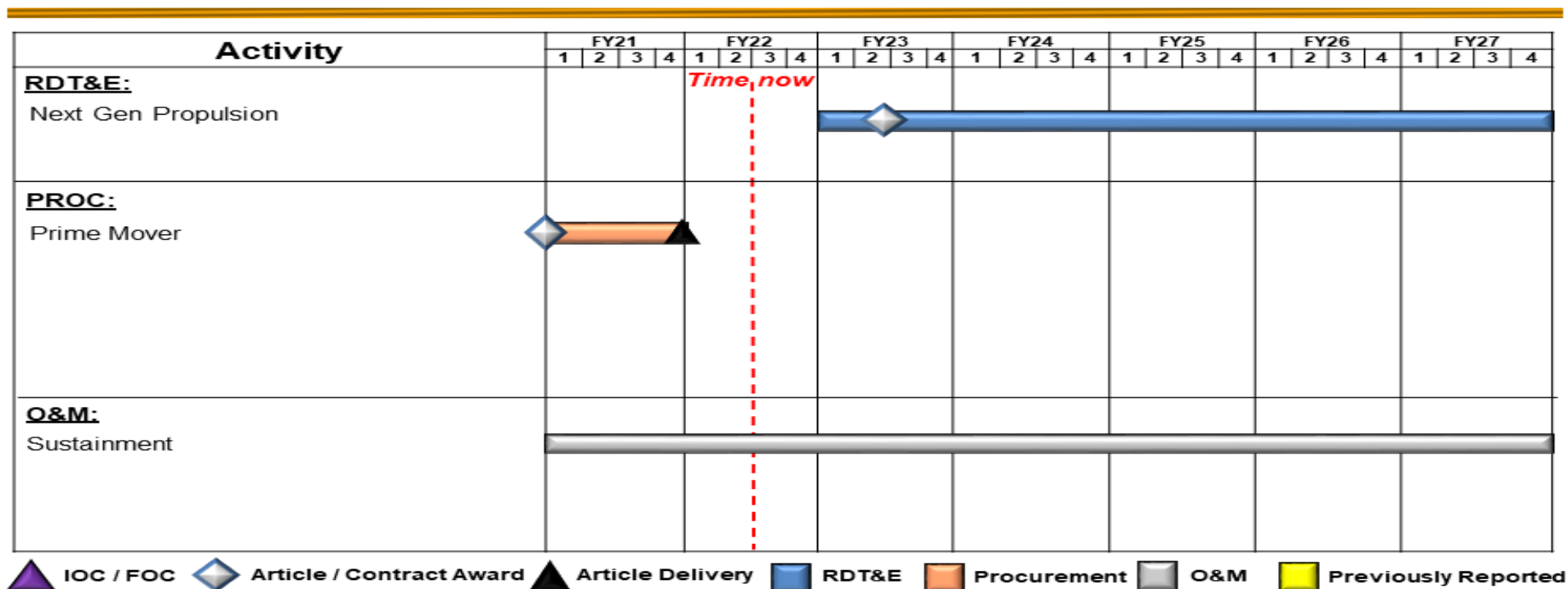
Date: April 2022

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160483BB / Maritime Systems

Project (Number/Name)
S1684 / Surface Craft

Special Operations Craft Riverine Schedule



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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 1160483BB / <i>Maritime Systems</i>	Project (Number/Name) S1684 / <i>Surface Craft</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Combatant Craft Medium (CCM)				
Weapons, Survivability, Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) and Combatant Craft Forward Looking Infrared (CCFLIR2)	1	2021	4	2027
Aft Enclosure Testing	1	2021	4	2022
Joint Threat Warning System (JTWS) integration	1	2021	2	2022
Combatant Craft Heavy (CCH)				
Preplanned Product Improvement (Weapons / C5ISR / Survivability)	1	2021	4	2027
Technical Data Package Development	1	2021	4	2022
JTWS integration	1	2025	4	2025
Combatant Craft Mission Equipment (CCME)				
Enhanced Maritime Navigation	1	2021	4	2027
Enhanced Maritime C5ISR/Situational Awareness	1	2021	4	2027
SOF Maritime Survivability	1	2021	4	2027
SOF Maritime Power & Energy (P&E)	1	2021	4	2027
Assured Access Technologies	1	2021	4	2027
Combatant Craft Assault (CCA)				
Preplanned Product Improvement (Survivability, Weapons, C5ISR, CCFLIR2)	1	2021	4	2027
JTWS Integration	3	2023	4	2024
Maritime Precision Engagement (MPE)				
Tech Maturation risk Reduction& Engineering / Manufacturing Development	1	2021	4	2023
Launch Systems	3	2021	4	2021
Craft 1 Install & Integration	2	2022	4	2022

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / <i>Maritime Systems</i>	Project (Number/Name) S1684 / <i>Surface Craft</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Craft 2 & 3 Install & Integration	1	2023	4	2023
P3 Development Test / Operational Assessment Craft Integration, then Low Rate Initial Production	4	2023	3	2026
Test & Evaluation	3	2023	3	2025
<i>Special Operations Riverine Craft (SOCR)</i>				
Next Gen Propulsion	1	2023	4	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>					R-1 Program Element (Number/Name) PE 1160489BB / <i>Global Video Surveillance Activities</i>							
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	68.619	4.602	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	73.221
S500C: <i>Global Video Surveillance Activities</i>	68.619	4.602	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	73.221

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program. Details are provided under separate cover.

B. Program Change Summary (\$ in Millions)	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	4.602	0.000	0.000	-	0.000
Current President's Budget	4.602	0.000	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command	Date: April 2022
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160490BB / <i>Operational Enhancements Intelligence</i>											
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	131.798	11.603	15.990	7.583	-	7.583	7.760	9.084	9.151	9.335	Continuing	Continuing
S500D: <i>Operational Enhancements Intelligence</i>	131.798	11.603	15.990	7.583	-	7.583	7.760	9.084	9.151	9.335	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project is part of the Military Intelligence Program. This project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	11.603	10.990	0.000	-	0.000
Current President's Budget	11.603	15.990	7.583	-	7.583
Total Adjustments	0.000	5.000	7.583	-	7.583
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	5.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	7.583	-	7.583

Change Summary Explanation

Funding:

FY 2021: None.

FY 2022: Increase of \$5.000 million is due to a Congressional Add for carbon fiber and graphitic foam. Details are provided under separate cover.

FY 2023: Funding increase of \$7.583 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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