Exhibit R-2, RDT&E Budget Item Justification: PB 2022 United States Special Operations Command	Date: May 2021
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*

COST ($ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	507.919	70.738	68.538	58.430	-	58.430	-	-	-	-	-	-
S0417: *Underwater Systems*	456.711	47.976	51.810	41.124	-	41.124	-	-	-	-	-	-
S1684: *Surface Craft*	51.208	22.762	16.728	17.306	-	17.306	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This program element provides for 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 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 emergent 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 EMD of medium and heavy surface combatant craft, combatant craft mission equipment, and pre-planned product improvement and technology insertion engineering changes 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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2022 United States Special Operations Command	Date: May 2021
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*

B. Program Change Summary ($ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	72.626	59.882	51.099	-	51.099
Current President's Budget	70.738	68.538	58.430	-	58.430
Total Adjustments	-1.888	8.656	7.331	-	7.331
• Congressional General Reductions	-	-0.044			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	8.700			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.700	-			
• SBIR/STTR Transfer	-2.588	-			
• Other Adjustments	-	-	7.331	-	7.331

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2020	FY 2021
Project: S0417: *Underwater Systems*		
Congressional Add: *SOF Combat Diving*	3.000	8.700
Congressional Add Subtotals for Project: S0417	3.000	8.700
Congressional Add Totals for all Projects	3.000	8.700

Change Summary Explanation

Funding:

FY 2020: Net decrease of $1.888 million is due to transfer of funds to Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) reductions (-$2.588 million) and an increase was to support DDS modernization efforts and testing ($0.700 million).

FY 2021: Net increase of $8.656 million to support of SOF Combat Diving Propulsion ($4.200 million) and Communication ($4.500 million) and Congressional direction reduction for excess to need ($-0.044 million).

FY 2022: Net increase of $7.331 million is due to an increase to support SOF Combat Diving prototyping, developmental testing/operational testing (DT/OT), and technical management of the increased prototyping efforts for new capabilities aligning with Component requirements ($0.750 million), an increase to support SEAL Delivery Vehicle (SDV) MK 11 development enhancements ($3.027 million), an increase to support continued development and testing of Maritime Precision Engagement (MPE) on Combatant Craft Medium (CCM) ($4.500 million) and funding made available to support emerging critical Command requirements ($-0.946 million).

Exhibit R-2, RDT&E Budget Item Justification: PB 2022 United States Special Operations Command	Date: May 2021
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command			Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
S0417: *Underwater Systems*	456.711	47.976	51.810	41.124	-	41.124	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for 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 emergent 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 2020	FY 2021	FY 2022
Title: Shallow Water Combat Submersible (SWCS) / SEAL Delivery Vehicle Mark 11 (SDV MK 11)	1.143	1.411	-
Description: SWCS provides for the design, development, and test of one EDM and 10 production units to replace the legacy MK 8 MOD 1 SEAL Delivery Vehicle (SDV) system. The material solution for SWCS is the SDV MK 11. SWCS is a free-flooding combat submersible mobility platform suitable for transporting and deploying SOF and their payloads for a variety of SOF missions. SWCS will be deployable from a Dry Deck Shelter (DDS), surface ships, and land. The SWCS system includes the SWCS vehicle and SWCS 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. SWCS line item is transitioning to SDV in FY22 to better align with historical terminology and material solution.			
FY 2021 Plans: Continue Pre-Planned Product Improvement (P3I). P3I enhancements include, but are not limited to, Propulsor, Power and Energy, Acoustic and Radio Frequency indicators and warning capabilities, Electro-Optical Infrared (EO/IR) sensor development, payload improvements, and self recovery.			
FY 2021 to FY 2022 Increase/Decrease Statement: Decrease of $1.411 million is due to transfer of funding line to SEAL Delivery Vehicle (SDV).			
Title: SEAL Delivery Vehicle (SDV MK 11)	-	-	4.348
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			

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command		Date: May 2021
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 2020	FY 2021	FY 2022
11 will be deployable from a 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. ***FY 2022 Plans:*** Continues 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 2021 to FY 2022 Increase/Decrease Statement:*** Increase of $4.348 million is due to transfer of funding line from SWCS.			
Title: Dry Combat Submersible (DCS) ***Description:*** 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 Engineering Development Model (EDM) and two production units. 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. ***FY 2021 Plans:*** Continue incorporation of Pre-Planned Product Improvement (P3I) to increase the operational capability of DCS. Continue government acceptance testing on DCS 2. Continue DCS Next Engineering and Manufacturing Development efforts. ***FY 2022 Plans:*** Continues 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. Begins government acceptance testing of DCS 3. Continues DCS Next requirements development, modeling, and simulation efforts. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Decrease of $4.249 million is due to DCS 1 completing operational testing in FY 2021 as well as continuing the transition of DCS Block I to sustainment.	15.606	17.292	13.043
Title: Dry Deck Shelter (DDS) Modernization	9.167	1.206	1.057

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command		Date: May 2021
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021	FY 2022
Description: DDS provides for the Pre-Planned Product Improvement (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 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 2021 Plans:*** Continue development of field changes necessary to extend the useful life of the DDS and increases capacity to carry larger payloads. Continue the transition study of the Ship, Submersible, Guided Missile, Nuclear (SSGN) to Virginia (VA) Class host platform. ***FY 2022 Plans:*** Continues development of field changes necessary to extend the useful life of the DDS and increases capacity to carry larger payloads. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Decrease of $0.149 million is due to transition study completion of the SSGN to VA Class host platform.			
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 2021 Plans:*** Continue development, to include test and evaluation for environmental protection, navigation, communication and propulsion capabilities, and begin shallow water underwater breathing apparatus development. ***FY 2022 Plans:*** Continues 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 2021 to FY 2022 Increase/Decrease Statement:***	2.580	2.161	3.183

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command		Date: May 2021
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021	FY 2022
Increase of $1.022 million supports the material solution analysis and advanced component prototype development of five underwater breathing apparatus, provides for development test of the prototypes, and funds initial manned testing and evaluation activities.			
Title: Undersea Craft Mission Equipment (UCME) ***Description:*** UCME provides a rapid response capability to support SOF underwater craft and diver systems, subsystems, and their emerging requirements. 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 2021 Plans:*** Continue development of undersea survivability enhancements; underwater and maritime domain communications; enhanced situational awareness and Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) unique power and energy capabilities; other capability enhancements and enabling technologies for assured access, which supports the Interim National Security Strategic Guidance (INSSG). ***FY 2022 Plans:*** Continues development of undersea survivability enhancements; underwater and maritime domain communications; enhanced C5ISR and Situational Awareness (C5ISR/SA); unique power and energy capabilities; other capability enhancements and enabling technologies for assured access and against near peer threats, which supports the INSSG. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Decrease of $1.167 million is due to anticipated maturation of the Acoustic Intercept Receiver (AIR) for Unmanned Underwater Vehicle (UUV) (MK 18 Mod 1) within the C5ISR/SA technology focus area to a readiness level for effective transition to a program of record.	16.480	19.692	18.525
Title: MK18 Mod 1 Unmanned Underwater Vehicle (UUV) ***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, MFP-2 funded, Mark 18 Mod 1 UUV. ***FY 2021 Plans:***	-	1.000	0.968

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command		Date: May 2021
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021	FY 2022
Begin payload development/integration for Beyond Line Of Sight (BLOS) capability via cognitive router effort, encrypted communications, underwater launch and recovery, and artificial intelligence. Begin development/integration for Acoustic Intercept Receiver. ***FY 2022 Plans:*** Continues payload development/integration for Beyond Line Of Sight (BLOS) capability via cognitive router effort, encrypted communications, underwater launch and recovery, and artificial intelligence. Continues development/integration for Acoustic Intercept Receiver. Conducts non-recurring engineering (NRE) of the Block C SOF-P UUV. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Decrease of $0.032 million is due to funding made available to support emerging critical Command requirements.			
Title: Combatant Craft Light (CCL) ***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. ***FY 2021 Plans:*** Complete integration and testing of Low Rate Initial Production (LRIP) craft. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Decrease of $0.348 million is due to the completion of integration and testing and the shift to full rate production.	-	0.348	-
Accomplishments/Planned Programs Subtotals	44.976	43.110	41.124

	FY 2020	FY 2021
Congressional Add: SOF Combat Diving	3.000	8.700
FY 2020 Accomplishments: Continue development of SOF Diver propulsion. Specific development on STIDD's Diver Propulsion Device (DPD) in areas of increased battery capacity with improvements to Battery Status Indicator, cabling and connectors, increased depth rating and development improvements to battery charging time of the STIDD DPD. ***FY 2021 Plans:*** Continues 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. Continues 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 C3SA		

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command		Date: May 2021
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	FY 2020	FY 2021
diver underwater communication, diver-to-diver voice communication and the development and testing of battery certification.		
Congressional Adds Subtotals	3.000	8.700

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
• PROC/0210US: *Underwater Systems*	58.942	20.556	17.227	-	17.227	-	-	-	-	-	-

Remarks

D. Acquisition Strategy

• SWCS uses full and open competition with a down select to a single contractor. The full spectrum of contracting activities are being 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).

• SDV MK 11 uses full and open competition to award to a single contractor. The full spectrum of contracting activities are being employed for subsystem and integration 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 FOC.

• 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. DCS Next continues market research in FY21.

• 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.

• 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.

• 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.

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command		Date: May 2021
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• CCL engineering and manufacturing development was sole source. Program Management Office is evaluating limited competition for follow-on production contract contingent on cost tradeoffs and completeness of technical data.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 United States Special Operations Command			Date: May 2021
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Shallow Water Combat Submersible (SWCS) Engineering Changes	C/Various	Various : Various	1.197	0.589	Jan 2020	1.203	Jan 2021	-		-		-	Continuing	Continuing	-
SEAL Delivery Vehicle (SDV)	C/Various	Various : Various	-	-		-		4.348	Jan 2022	-		4.348	Continuing	Continuing	-
Dry Combat Submersible (DCS) Next Engineering and Manufacturing Development (EMD)	C/Various	Various : Various	-	1.912	Feb 2020	5.500	Feb 2021	6.000	Jan 2022	-		6.000	Continuing	Continuing	-
DCS Enhancements / Pre-Planned Product Improvement (P3I) Changes	C/Various	Various : Various	11.416	4.241	Nov 2019	7.242	Nov 2020	3.404	Nov 2021	-		3.404	Continuing	Continuing	-
Dry Deck Shelter (DDS) Modernization	C/CPFF	Oceaneering International Inc. Marine Services Division : Chesapeake, VA	34.898	8.696	Jan 2020	-		-		-		-	0.000	43.594	-
DDS Field Changes	C/Various	Oceaneering International Inc. Marine Services Division : Chesapeake, VA	-	-		0.872	Jan 2021	0.991	Jan 2022	-		0.991	Continuing	Continuing	-
Special Operation Forces (SOF) Combat Diving-Unique Diving Technologies	Various	Various : Various	6.244	1.881	Nov 2019	1.458	Feb 2021	1.876	Nov 2021	-		1.876	Continuing	Continuing	-
SOF Combat Diving (Congressional Add)	C/Various	Various : Various	-	3.000	Nov 2019	8.700	Mar 2021	-		-		-	0.000	11.700	-
Undersea Craft Mission Equipment (UCME) Survivability, Navigation, C5ISR/SA, Power & Energy enhancements and other assured access technologies	C/Various	Various : Various	-	15.965	Feb 2020	19.101	Dec 2020	17.948	Nov 2021	-		17.948	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 United States Special Operations Command			Date: May 2021
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MK18 Mod 1 Unmanned Underwater Vehicle (UUV)	C/Various	Various : Various	-	-		1.000	Aug 2021	0.968	Mar 2022	-		0.968	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	314.717	-		-		-		-		-	0.000	314.717	-
Prior Year Funding (Congressional add)	C/Various	Various : Various	14.100	-		-		-		-		-	0.000	14.100	-
		Subtotal	382.572	36.284		45.076		35.535		-		35.535	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
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)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SWCS	Various	PSU ARL / JHU-APL : Laurel, MD / State College, PA	3.392	0.554	Nov 2019	0.208	Nov 2020	-		-		-	Continuing	Continuing	-
DCS	C/Various	Various : Various	19.600	7.519	Nov 2019	4.000	Oct 2020	2.000	Oct 2021	-		2.000	Continuing	Continuing	-
SOF Combat Diving	Various	Various : Various	1.621	0.530	Oct 2019	0.520	Oct 2020	1.119	Oct 2021	-		1.119	Continuing	Continuing	-
CCL	C/Various	Various : Various	-	-		0.348	Dec 2020	-		-		-	0.000	0.348	-
Prior Year Funding	Various	Various : Various	9.320	-		-		-		-		-	0.000	9.320	-
		Subtotal	33.933	8.603		5.076		3.119		-		3.119	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 United States Special Operations Command			Date: May 2021
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DCS	Various	Apogee : Tampa, FL	19.419	1.934	Apr 2020	0.550	Feb 2021	1.639	Aug 2021	-		1.639	Continuing	Continuing	-
DDS	Various	NAVSEA : Washington, DC	2.001	0.471	Jan 2020	0.334	Jan 2021	0.066	Jan 2022	-		0.066	Continuing	Continuing	-
UCME	C/Various	Various : Various	-	0.515	Dec 2019	0.591	Dec 2020	0.577	Dec 2021	-		0.577	Continuing	Continuing	-
SOF Combat Diving	C/Various	Apogee : Tampa, FL	0.361	0.169	Dec 2019	0.183	Dec 2020	0.188	Dec 2021	-		0.188	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	9.331	-		-		-		-		-	0.000	9.331	-
		Subtotal	31.112	3.089		1.658		2.470		-		2.470	Continuing	Continuing	N/A

	Prior Years	FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	456.711	47.976		51.810		41.124		-		41.124	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
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SEAL Delivery Vehicle MK 11 Shallow Water Combat Submersible Schedule

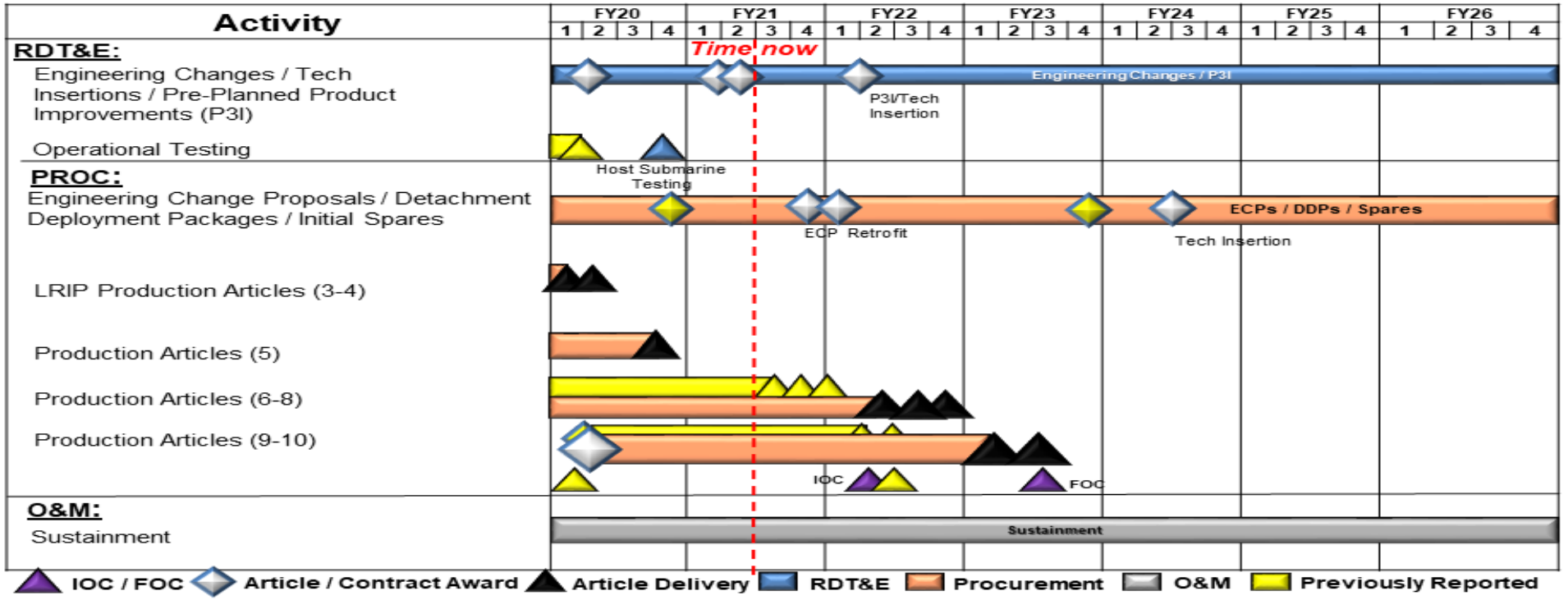


Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

Dry Combat Submersible Schedule

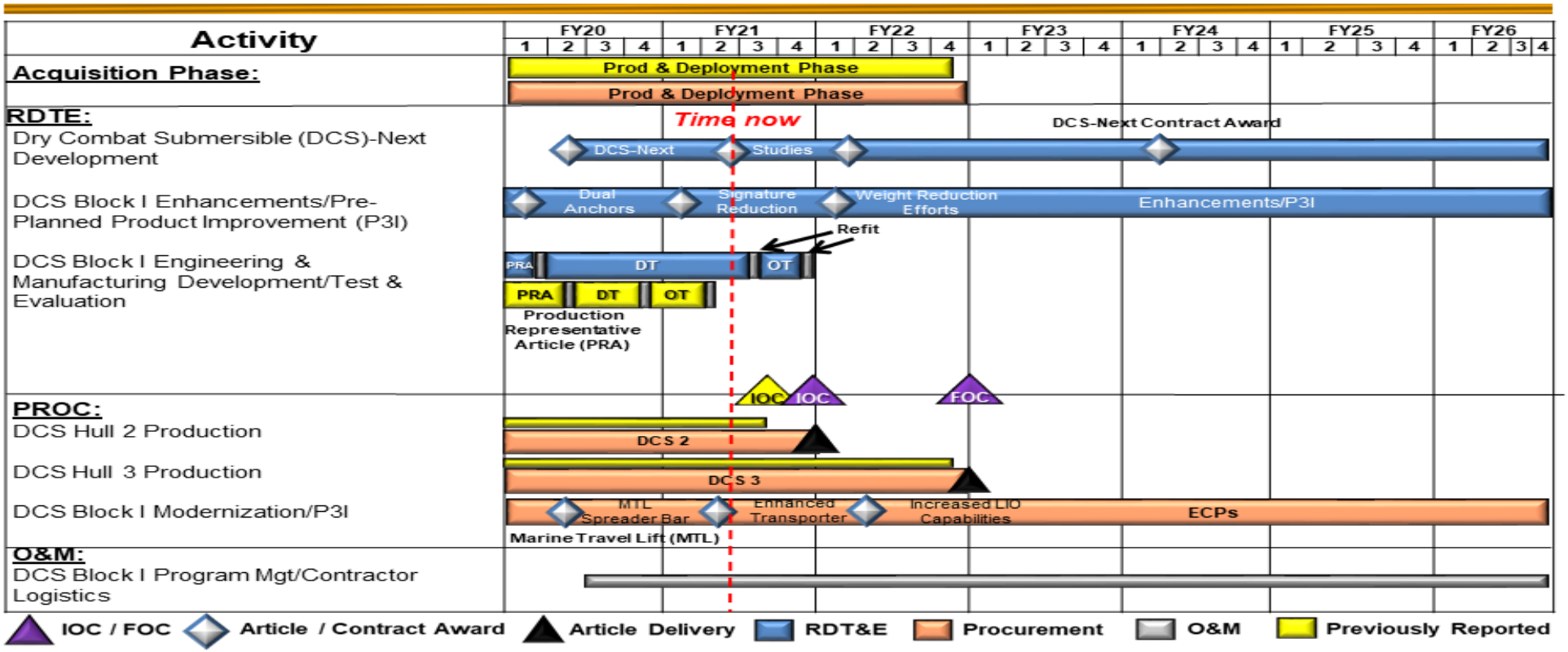


Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

Dry Deck Shelter Schedule

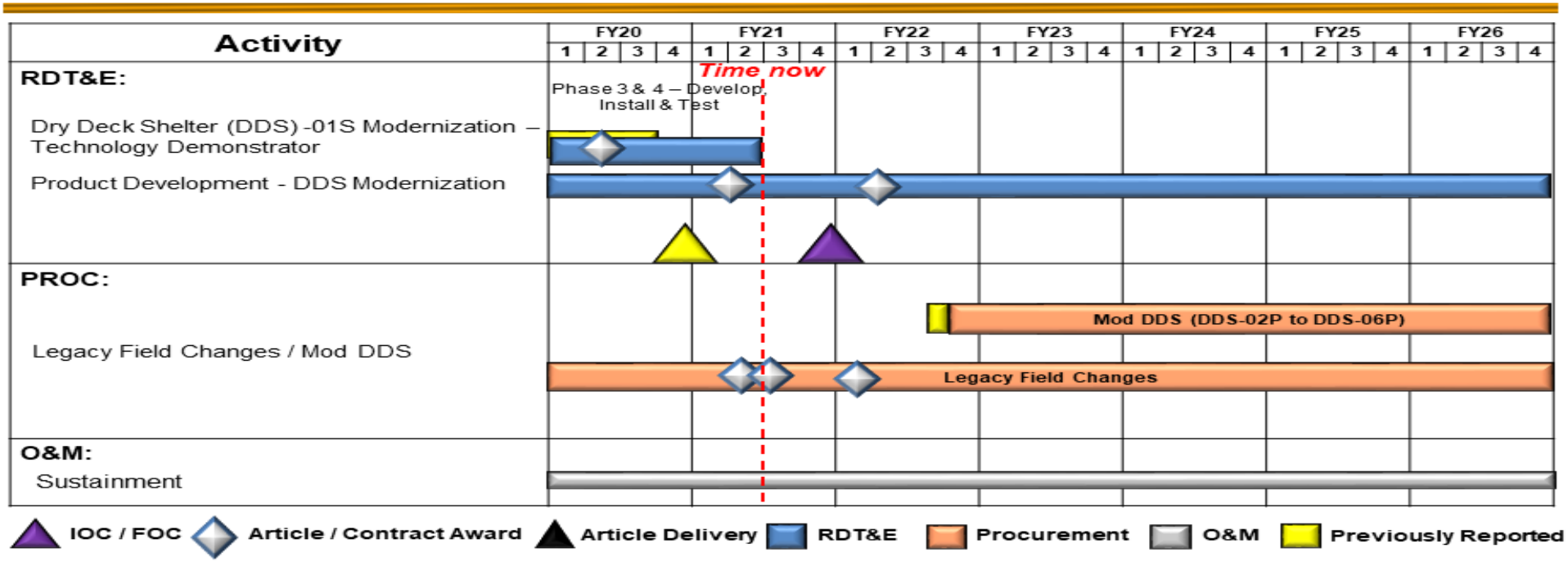
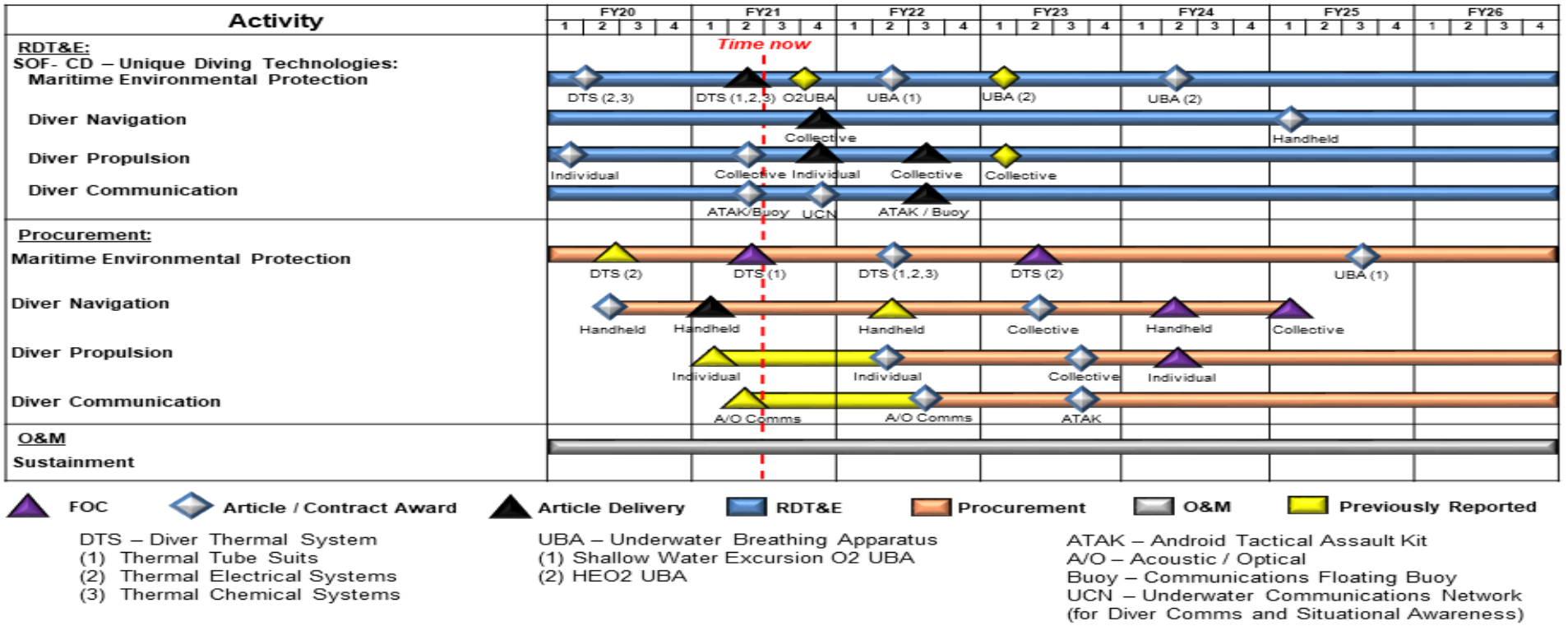


Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

Special Operations Forces (SOF) Combat Diving (CD) Schedule



DTS – Diver Thermal System
(1) Thermal Tube Suits
(2) Thermal Electrical Systems
(3) Thermal Chemical Systems

UBA – Underwater Breathing Apparatus
(1) Shallow Water Excursion O2 UBA
(2) HEO2 UBA

ATAK – Android Tactical Assault Kit
A/O – Acoustic / Optical
Buoy – Communications Floating Buoy
UCN – Underwater Communications Network
(for Diver Comms and Situational Awareness)

Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
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Undersea Craft Mission Equipment Schedule

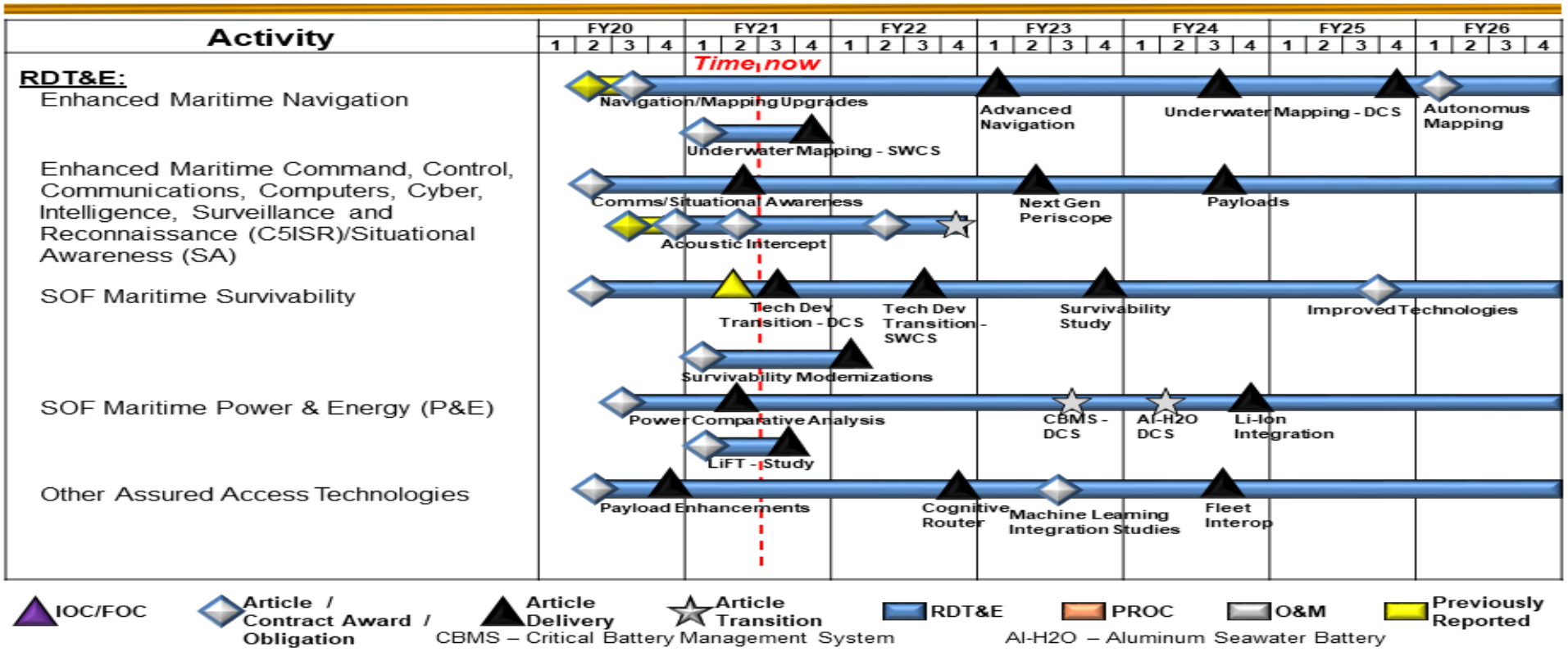

Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

MK 18 Mod 1 Unmanned Underwater Vehicle Schedule

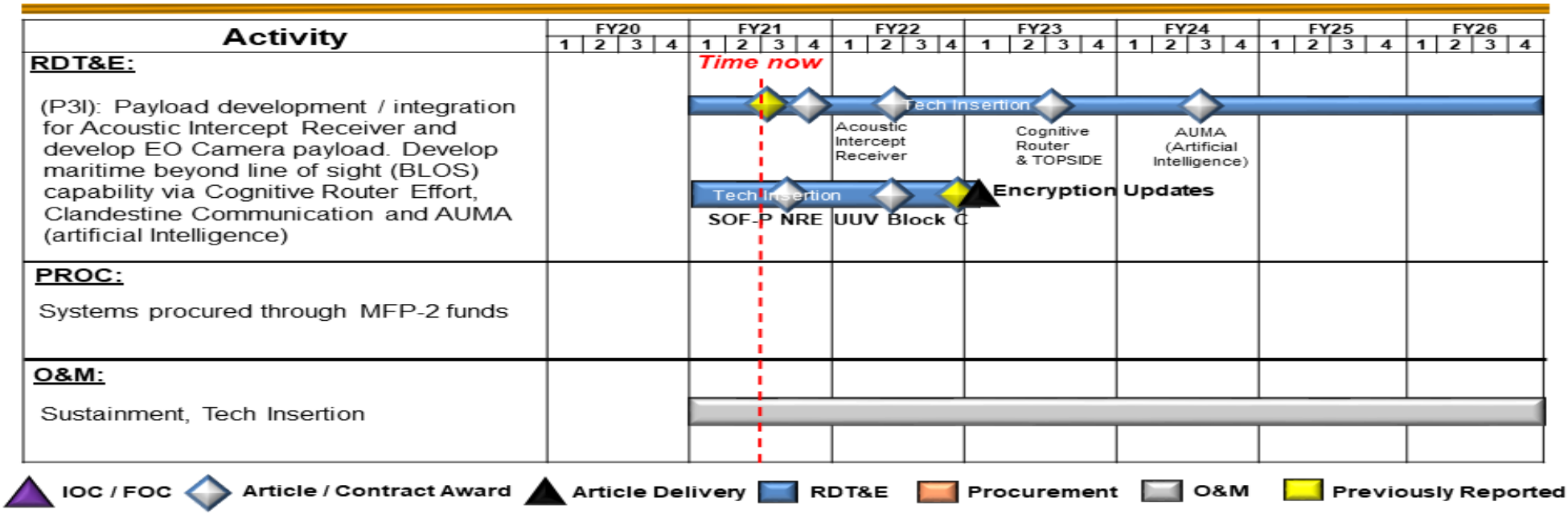

Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

Combatant Craft Light Schedule

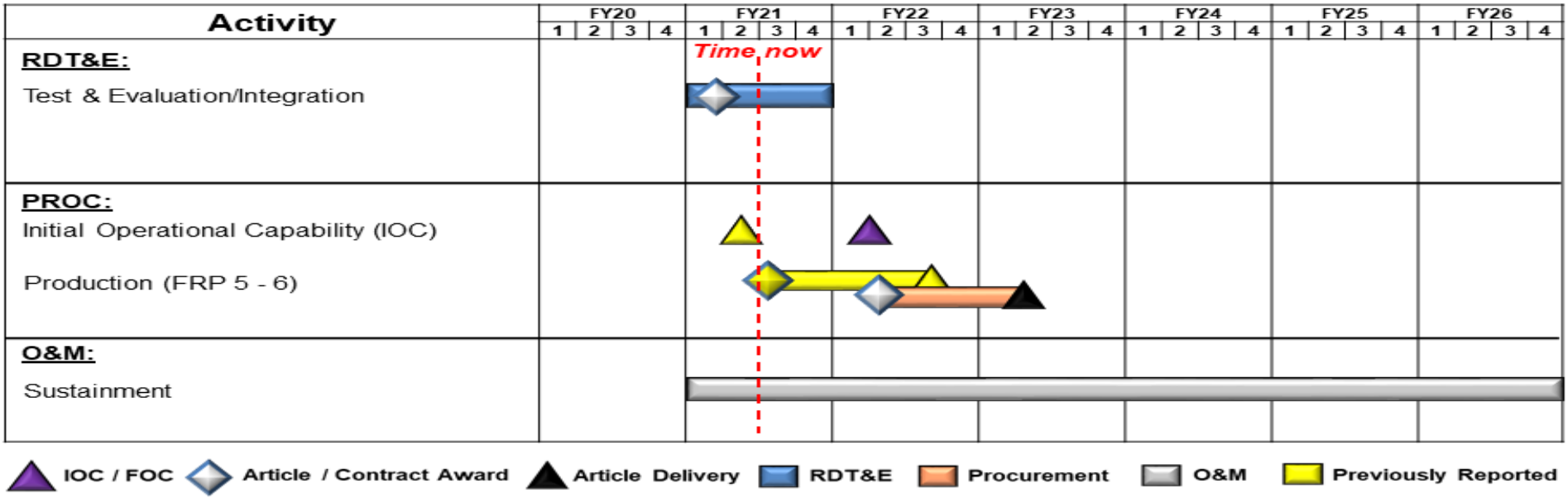

Exhibit R-4A, RDT&E Schedule Details: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Shallow Water Combat Submersible (SWCS)				
Enhancements/Pre-planned Product Improvements (P3I)	1	2020	4	2021
Operational Testing	3	2020	4	2020
SEAL Delivery Vehicle (SDV)				
Enhancements/P3I	1	2022	4	2026
Dry Combat Submersibles (DCS)				
DCS Next	2	2020	4	2026
Enhancements/P3I	1	2020	4	2026
Production Representative Article (Engineering and Manufacturing Development)	1	2020	1	2020
Developmental Test and Evaluation	2	2020	2	2021
Operational Test and Evaluation	3	2021	4	2021
Dry Deck Shelter Modernization (DDS)				
Phase 3 & 4 Development	1	2020	2	2021
Product Development DDS Modernization	1	2020	4	2026
Special Operation Forces (SOF) Combat Diving				
Maritime Environmental Protection Rapid Prototyping, Test, and Integration	1	2020	4	2026
Diver Navigation Rapid Prototyping, Test, and Integration	1	2020	4	2026
Diver Propulsion Rapid Prototyping, Test, and Integration	1	2020	4	2026
Diver Communication Rapid Prototyping, Test, and Integration	1	2020	4	2026
Undersea Craft Mission Equipment (UCME)				
Enhanced Maritime Navigation	3	2020	4	2026
Enhanced Maritime Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR)/Situational Awareness (SA)	2	2020	4	2026

Exhibit R-4A, RDT&E Schedule Details: PB 2022 United States Special Operations Command		Date: May 2021
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SOF Maritime Survivability	2	2020	4	2026
SOF Maritime Power & Energy (P&E)	3	2020	4	2026
Other Assured Access Technologies	2	2020	4	2026
MK18 Mods 1 Unmanned Underwater Vehicle (UUV)				
MK18 Mods 1 UUV P3I	1	2021	4	2026
Tech Insertion	1	2021	1	2023
Combatant Craft Light (CCL)				
Test and Evaluation/Integration	1	2021	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command			Date: May 2021
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S1684 / *Surface Craft*	

COST ($ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
S1684: *Surface Craft*	51.208	22.762	16.728	17.306	-	17.306	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for engineering and manufacturing development of small, medium, heavy and assault surface combatant craft, combatant craft mission equipment, and Pre-Planned Product Improvement (P3I) and technology insertion engineering changes 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 2020	FY 2021	FY 2022
Title: Combatant Craft Medium (CCM)	2.809	2.243	0.989
Description: 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. CCM is Naval Special Warfare's (NSW) craft-of-choice for long-range, high-payload SOF mobility operations in contested environments. 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. 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 2021 Plans:*** Continue survivability enhancements, and Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) upgrades. Continue aft enclosure development and testing. ***FY 2022 Plans:*** Begins aft enclosure craft integration and testing. Continues survivability enhancements, and C5ISR upgrades. Completes JTWS integration. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Decrease of $1.254 million reflects completion of Combatant Craft Forward Looking Infrared Radar (CCFLIR) integration effort and delay of craft-specific Maritime Precision Engagement (MPE) efforts.			
Title: Combatant Craft Heavy (CCH)	3.788	0.925	0.933
Description: CCH provides platoon-size maritime surface mobility. The current CCH is the Sea, Air, Land Insertion, Observation and Neutralization (SEALION) craft. SEALION is a fully-enclosed, climate-controlled, semi-submersible craft that operates in			

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command		Date: May 2021
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021	FY 2022
contested environments. 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. 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, SEALION is C-17/C-5 transportable and can launch/recover by well deck, shore based mobile travel lift, or crane. ***FY 2021 Plans:*** Continue development and integration of upgraded situational awareness enhancement and completes integration of Joint Threat Warning System (JTWS). Completes development of tech data package for CCH Capital Equipment Replacement Program (CERP) (replacement of CCH-1). ***FY 2022 Plans:*** Continues development and integration of upgraded situational awareness enhancement. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Increase of $0.008 million is due to capability maturity and technology integration planning for CCH replacement scheduled for FY23.			
Title: Combatant Craft Mission Equipment (CCME)	6.249	7.381	7.788
Description: CCME provides a rapid response capability to support SOF combatant craft systems, subsystems, and their emerging requirements. 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 2021 Plans:*** Continue evaluation of candidate solutions for technology development including shock mitigation, family of antennas, situational awareness, Maritime Tactical Mission Network (MTMN) and enhanced Global Positioning System (GPS). Continue development, to include test and evaluation of solution for Digital Radar. Expand investment in enhanced survivability, navigation, C5ISR and Situational Awareness (SA), power & energy, and other assured access technologies. Continue Link 16 integration. ***FY 2022 Plans:*** Continues evaluation and development of surface survivability enhancements; enhanced C5ISR/SA capabilities; unique power and energy capabilities such as hybrid electric propulsion; Assured Position, Navigation, and Timing (PNT); and enabling			

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command		Date: May 2021
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 2020	FY 2021	FY 2022
technologies for assured access and against near peer threats, which supports the Interim National Security Strategic Guidance (INSSG). ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Increase of $0.407 million is due to increased investment in enhanced survivability, C5ISR/SA, and other assured access technologies.			
Title: Combatant Craft Assault (CCA) ***Description:*** CCA is a combatant craft for squad-size maritime mobility operations in contested environments. 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. ***FY 2021 Plans:*** Continue integration and testing of CCFLIR2 mast design and Communications box/Tactical Operations Center Network (TOCNET). ***FY 2022 Plans:*** Continues integration and testing of CCFLIR2 mast design and Communications box/TOCNET. Begins and completes JTWS integration. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Increase of $0.517 million is due to the JTWS emerging capability.	1.273	0.532	1.049
Title: Maritime Precision Engagement (MPE) ***Description:*** 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. 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. ***FY 2021 Plans:*** Continue detailed design and development of craft modifications, a MK 50 RWS B-Kit production representative article, and operator control station to develop a fully integrated operational capability. Continue prototype development and initial testing of the munition launcher B-Kit to produce an MPE launcher Engineering Development Model (EDM) for installation on the CCM test	8.643	5.647	6.547

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command		Date: May 2021
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021	FY 2022
article. Additional work will be performed in the design and subsequent integration of similar MPE launcher capabilities into the CCH platform. ***FY 2022 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. Begins planned product improvements. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Increase of $0.900 million is due to comprehensive integration and testing requirements.			
Accomplishments/Planned Programs Subtotals	22.762	16.728	17.306

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
• PROC/0204SCCS: *Combatant Craft Systems*	48.462	33.278	17.080	-	17.080	-	-	-	-	-	-

Remarks

N/A

D. Acquisition Strategy

• 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.

• CCH SEALION I & II were transitioned from United States Navy advanced technology demonstrator craft to USSOCOM. Sustainment for SEALION I & II is conducted via Special Operations Forces Support Activity (SOFSA). SEALION III is Sole Source to the Original Equipment Manufacturer (OEM) in order to take advantage of previous Government investments in manufacturing infrastructure for SEALION I & II.

• 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.

Exhibit R-2A, RDT&E Project Justification: PB 2022 United States Special Operations Command		Date: May 2021
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• CCA will continue to develop, test, and integrate C5ISR capability enhancements required to increase the crafts performance characteristics, reliability, and survivability. Recently awarded five-year indefinite delivery - IDIQ contract supporting Capital Equipment Replacement Program.

• 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).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 United States Special Operations Command			Date: May 2021
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)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Combatant Craft Medium (CCM)	C/Various	Various : Various	16.669	2.809	Nov 2019	2.243	Nov 2020	0.989	Nov 2021	-		0.989	Continuing	Continuing	-
Combatant Craft Heavy (CCH)	C/Various	Various : Various	6.780	3.788	Jan 2020	0.925	Jan 2021	0.933	Jan 2022	-		0.933	Continuing	Continuing	-
Combatant Craft Mission Equipment (CCME)	C/Various	Various : Various	8.459	5.489	Nov 2019	7.381	Nov 2020	7.788	Nov 2021	-		7.788	Continuing	Continuing	-
Combatant Craft Assault (CCA)	C/Various	NSWC-Carderock : Norfolk, VA	2.122	1.273	Nov 2019	0.532	Nov 2020	1.049	Nov 2021	-		1.049	Continuing	Continuing	-
Maritime Precision Engagement (MPE)	C/Various	NSWC : Dahlgren, VA	6.743	8.482	Dec 2019	5.437	Dec 2020	6.301	Dec 2021	-		6.301	Continuing	Continuing	-
Prior Year Costs	C/Various	Various : Various	4.215	-		-		-		-		-	0.000	4.215	-
		Subtotal	44.988	21.841		16.518		17.060		-		17.060	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CCME	C/Various	Various : Various	1.735	0.239	Nov 2019	-		-		-		-	0.000	1.974	-
Prior Year Costs	C/Various	Various : Various	1.672	-		-		-		-		-	0.000	1.672	-
		Subtotal	3.407	0.239		-		-		-		-	0.000	3.646	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CCME	C/Various	Various : Various	-	0.521	Nov 2019	-		-		-		-	0.000	0.521	-
MPE	C/Various	Various : Various	-	0.161	Dec 2019	0.210	Dec 2020	0.246	Dec 2021	-		0.246	Continuing	Continuing	-
Prior Year Costs	C/Various	Various : Various	2.813	-		-		-		-		-	0.000	2.813	-
		Subtotal	2.813	0.682		0.210		0.246		-		0.246	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 United States Special Operations Command			Date: May 2021
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S1684 / *Surface Craft*	

	Prior Years	FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	51.208	22.762		16.728		17.306		-		17.306	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Combatant Craft Medium MK 1 Schedule

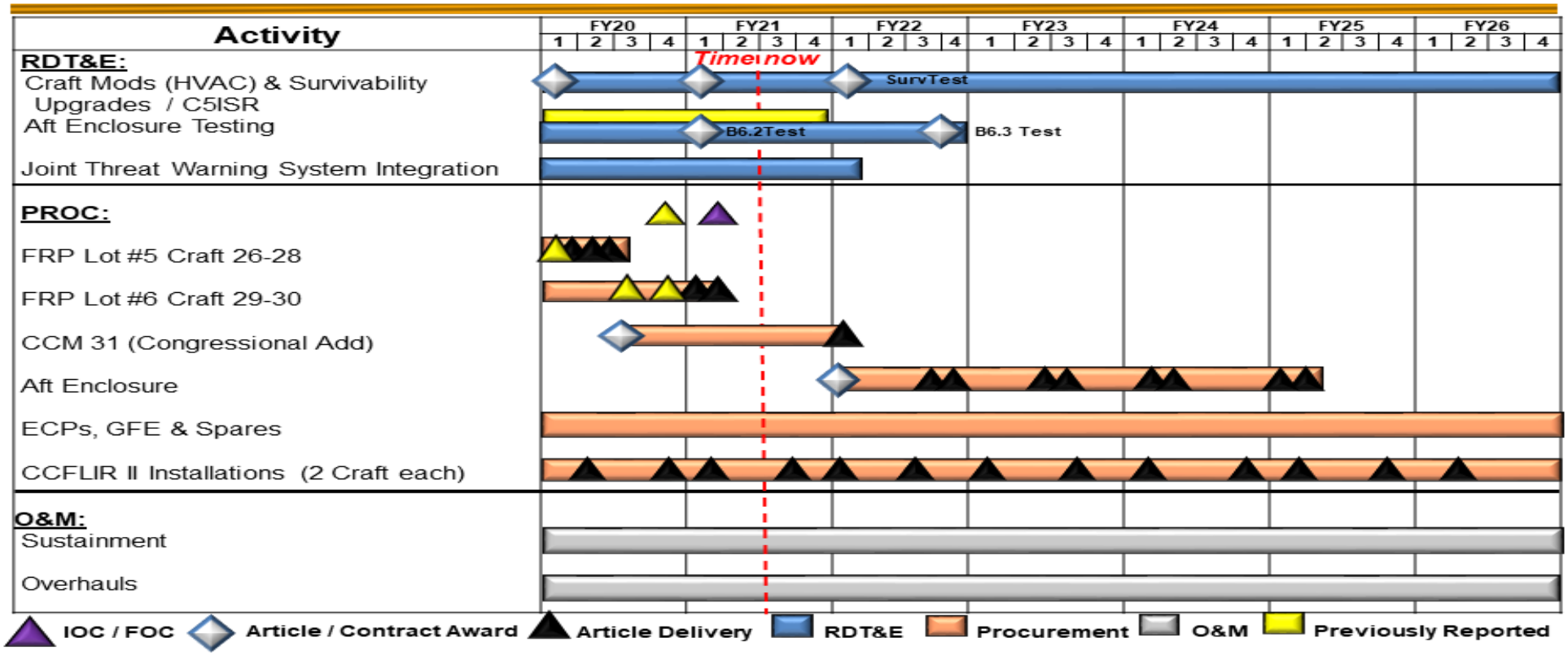


Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Combatant Craft Heavy
PEO-Managed Schedule

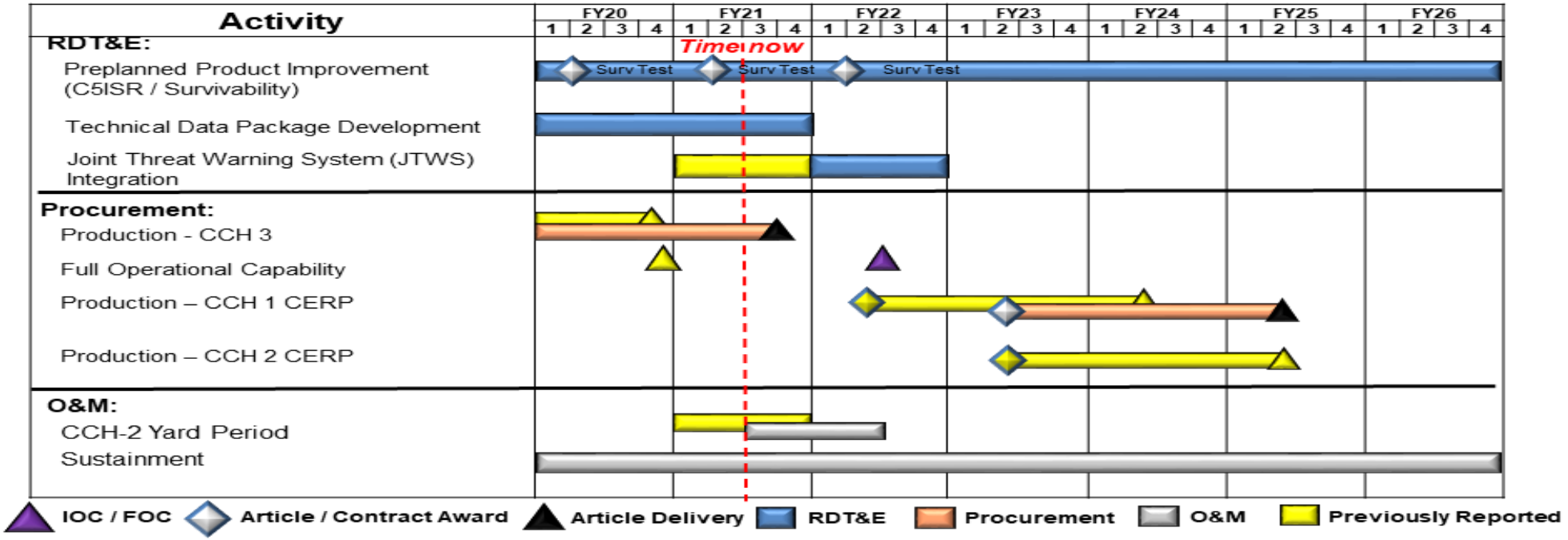


Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Combatant Craft Mission Equipment Schedule

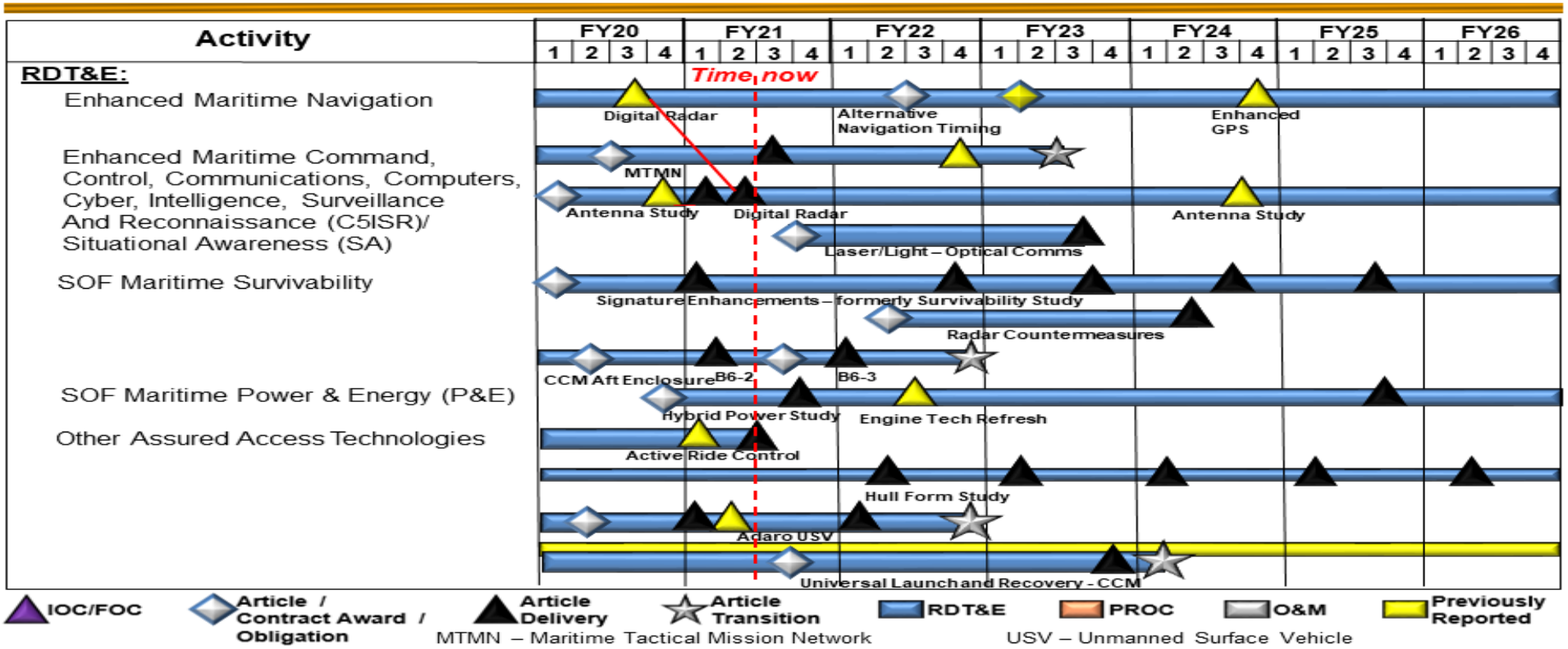


Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Combatant Craft Assault Schedule

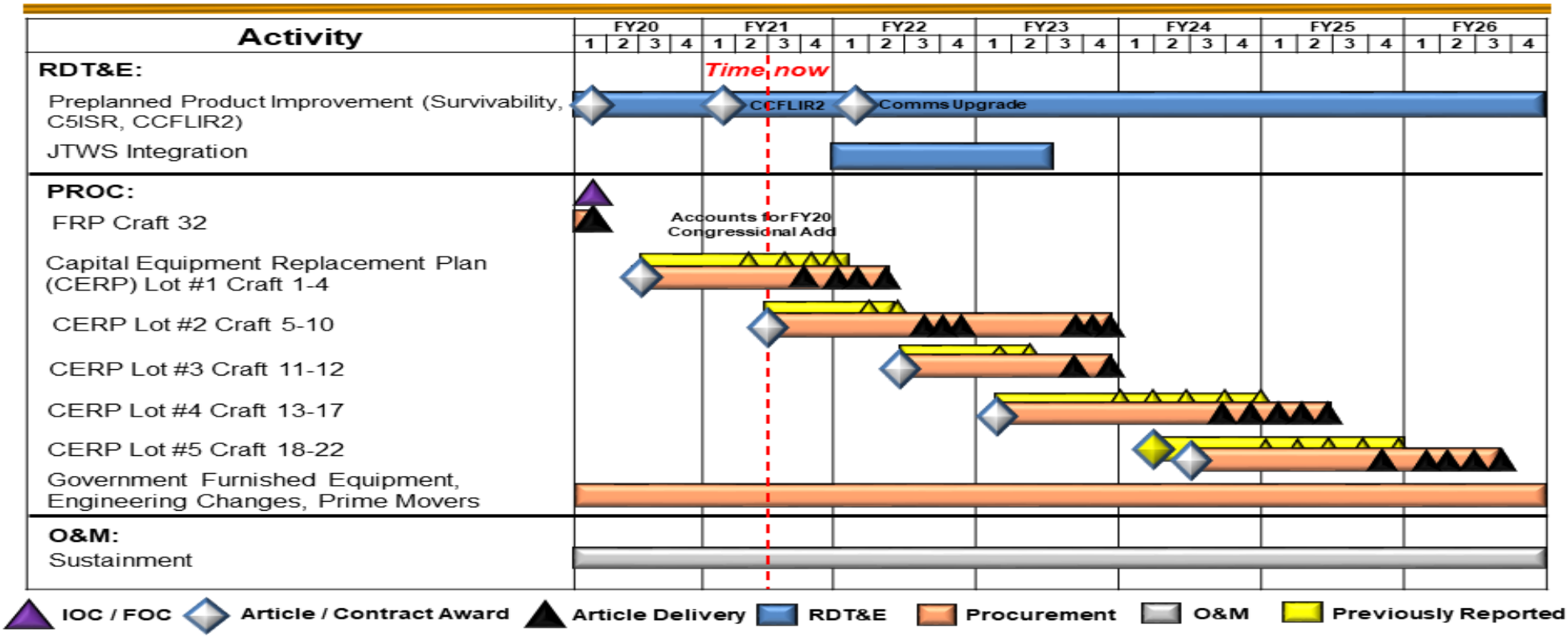
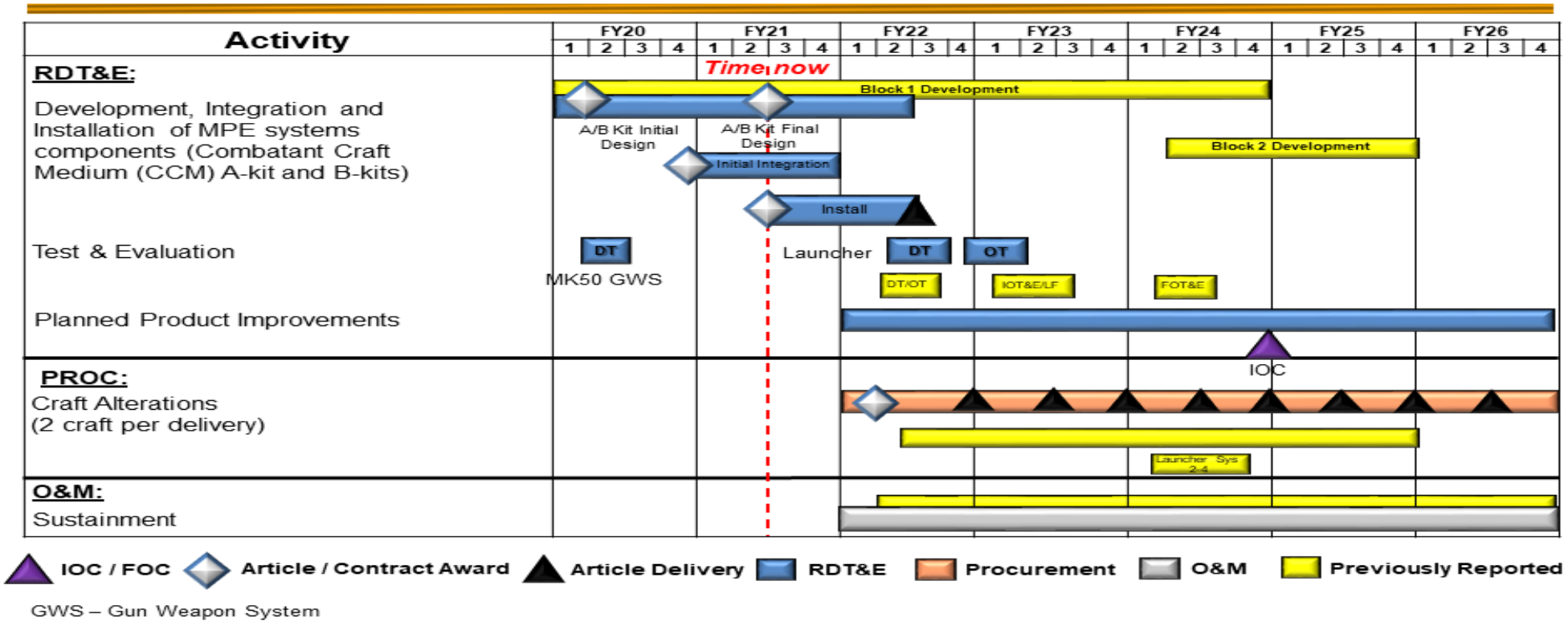


Exhibit R-4, RDT&E Schedule Profile: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Maritime Precision Engagement Schedule



GWS – Gun Weapon System

Exhibit R-4A, RDT&E Schedule Details: PB 2022 United States Special Operations Command		Date: May 2021
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Schedule Details

	Start		End	
Events by Sub Project	**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	2020	4	2026
Aft Enclosure Development	1	2020	4	2022
Joint Threat Warning System (JTWS) integration	1	2020	1	2022
Combatant Craft Heavy (CCH)				
Preplanned Product Improvement (Weapons / C5ISR / Survivability)	1	2020	4	2026
Technical Data Package Development	1	2020	4	2021
Joint Threat Warning System (JTWS) integration	1	2022	4	2022
Combatant Craft Mission Equipment (CCME)				
Enhanced Maritime Navigation	1	2020	4	2026
Enhanced Maritime C5ISR/SA	1	2020	4	2026
SOF Maritime Survivability	1	2020	4	2026
SOF Maritime Power & Energy (P&E)	3	2020	4	2026
Other Assured Access Technologies	1	2020	4	2026
Combatant Craft Assault (CCA)				
Preplanned Product Improvement (Survivability, Weapons, C5ISR, CCFLIR2)	1	2020	4	2026
Joint Threat Warning System (JTWS) Integration	1	2022	3	2023
Maritime Precision Engagement (MPE)				
Development, Integration and Installation of MPE systems components	1	2020	2	2022
Developmental Test/Operational Test	4	2020	2	2023
Pre-Planned Product Improvements (P3I)	1	2022	4	2026