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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0205632N / MK-48 ADCAP
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	299.480	152.420	213.165	164.935	-	164.935	149.484	132.838	125.143	127.701	Continuing	Continuing
0366: MK 48 ADCAP	299.480	152.420	213.165	164.935	-	164.935	149.484	132.838	125.143	127.701	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Office of Naval Research (ONR) Afterbody Upgrades Future Naval Capability (FNC) program started in FY 2022 with program office funding contributions beginning in FY 2023. The ONR Afterbody Upgrades FNC will develop technologies to improve torpedo effectiveness that will transition to the MK 48 MOD 7, MOD 8, and MOD 9 upgrades.

The MK 48 ADCAP (Advanced Capability) Research, Development, Test and Evaluation (RDT&E) program executes incremental development of weapon performance improvements in two development product areas: (1) Advanced Processor Builds (APBs) (operational software), and (2) Torpedo Technology Insertions (TIs) (hardware). This Program Element (0205632N/0366) is tied to development programs that leverage a joint United States/Australia Armaments Cooperative Project (ACP) and develop MK 48 ADCAP technologies developed by the ONR and SCO.

The Torpedo APB development testing and implementation process is being utilized to address shallow water as a critical operating area to counter near-peer adversaries and third world diesel electric submarines. In-water testing, in conjunction with laboratory simulation efforts, has shown that significant performance improvements can be made by implementing changes to weapon tactics and software algorithms. The TAPB program also leverages the RAN joint torpedo program and technologies developed by ONR and SCO in the areas of torpedo broadband signal processing, tactics processing, and alertment.

Torpedo Technology Insertions (TIs) will provide for significant torpedo hardware improvements and upgrades, including the transition and testing of advanced technologies from the R&D community. This approach will incorporate manufacturing development, integration and testing of transitioning technologies from ONR and SCO for ADCAP upgrades in the areas of torpedo sensors, energetics, propulsion, weapon/platform connectivity, and improved fusing. These efforts will continue torpedo development investment at a lower cost and shorter term than traditional torpedo programs.

The MK 48 MOD 8 (APB 6/TI-1) Heavyweight Torpedo (HWT) program is a significant upgrade to the MK 48 MOD 7 HWT which will consist of an operational software upgrade referred to as APB 6 and a hardware upgrade referred to as TI-1. TI-1 will include a Guidance and Control (G&C) section upgrade including a new Sonar Assembly (higher density array, transmitter, receiver), and an Improved Post Launch Communications System (IPLCS). IPLCS will replace the existing copper guidance wire with fiber optics. These improvements are needed for increased performance in the presence of advanced countermeasures, shallow water, low Doppler targets, Very Shallow Water (VSW), improve fusing, and Anti Surface Warfare (ASuW). TI-1 will also include features from three ONR FNC programs.

The MK 48 MOD 9 (APB 7/TI-2) program provides extensive and important capability improvements to the MK 48 MOD 7 and MOD 8 heavyweight torpedo (HWT) including new propulsion system for increased range and advance sensing capabilities against surface and subsurface targets. MK 48 MOD 8 (APB 6/TI-1) and MK 48 MOD 9 (APB 7/TI-2) provide two distinctly different capabilities and are operationally intended for different mission sets. The MK 48 MOD 9 improvements consist of the APB 7 software and algorithm upgrades for advance sensing and processing capabilities and Technology Insertion 2 (TI-2) hardware upgrades to include the Stored Chemical Energy Propulsion System (SCEPS) engine developed under OSD SCO, and ONR FNC research and development programs.

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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0205632N / MK-48 ADCAP
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B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	155.868	213.165	142.815	-	142.815
Current President's Budget	152.420	213.165	164.935	-	164.935
Total Adjustments	-3.448	0.000	22.120	-	22.120
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-3.448	0.000			
• Program Adjustments	0.000	0.000	22.642	-	22.642
• Rate/Misc Adjustments	0.000	0.000	-0.522	-	-0.522

Change Summary Explanation

FY 2025 total adjustment of \$22.120M to support development Proof-of Design (POD) and Low-Rate Initial Production (LRIP) of MK 48 MOD 8 G&C kits.

Funding decreased by (-\$48.230M) from FY 2024 to FY 2025 for:

MK 48 MOD 8 (APB 6/TI-1) funding decreased by (-\$29.184M) from FY 2024 to FY 2025:

- Decreased TI-1 material procurements by the contractor for G&C hardware development (-\$10.065M).
- Decreased requirement for APB 6 product development and support development (-\$18.248M)
- Increase in at-sea Engineering and Development Test and Evaluation of APB 6 on MK 48 MOD 7 and MOD 8 (+\$5.521M).
- Decreased requirement for TI-1 IPLCS subsystem in water test and evaluation (-\$6.392M)

MK 48 MOD 9 (APB 7/TI-2) funding decreased by (-\$7.306M) from FY 2024 to FY 2025:

- Decreased requirement for MK 48 MOD 9 TI-2 hardware development as a result of a shift of development effort towards integration, material procurements and testing of new Afterbody with SCEPS prototype engine. (-\$9.667M)
- Increase in industry Contractor Hardware Development (+\$2.361M)

MK 48 APB 8 funding increased by (\$1.218M) from FY 2024 to FY 2025:

- APB 8 algorithm development as part of Step 1 of the TAPB process (+\$1.218M).

MK 48 Afterbody Upgrade funding decreased by (-\$12.958M) from FY 2024 to FY 2025:

- Result of reduced Afterbody Upgrade Kit material procurements, as well as shifting efforts to land-based and in-water tests.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0205632N / MK-48 ADCAP				Project (Number/Name) 0366 / MK 48 ADCAP			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
0366: MK 48 ADCAP	299.480	152.420	213.165	164.935	-	164.935	149.484	132.838	125.143	127.701	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The MK 48 ADCAP (Advanced Capability) Research, Development, Test and Evaluation (RDT&E) program executes incremental development of weapon performance improvements in two development product areas: (1) Advanced Processor Builds (APBs) (operational software), and (2) Torpedo Technology Insertions (TIs) (hardware). This Program Element (0205632N/0366) is tied to development programs that leverage a joint United States/Australia Armaments Cooperative Project (ACP) and develop MK 48 ADCAP technologies developed by the ONR and SCO.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: TORPEDO APB / TEST & EVALUATION	152.420	213.165	164.935	0.000	164.935
Articles:	-	-	-	-	-
FY 2024 Plans:					
Continue APB 6 - Software development. Continue TI-1 Hardware development.					
Continue APB 6 - Modeling & Simulation development.					
Continue APB 6/TI-1 - Engineering testing of G&C section and IPLCS. TI-1 - IPLCS Proof of Design Hardware (POD) delivery. G&C Proof of Design Hardware (POD) delivery.					
Conduct APB 6 on MK 48 MOD 7 Critical Design Review (CDR).					
Continue APB 7 - Software prototype development.					
Continue TI-2 - Hardware prototype development.					
Continue APB 7 /TI-2 - In-water prototype testing.					
APB 7/TI-2 - Modeling & Simulation Verification, Validation, and Accreditation (VV&A) TI-2 - Award TI-2 Industry hardware development contract.					
Continue After body Upgrade development.					
FY 2025 Base Plans:					
Continue APB 6 - Software development. Continue TI-1 Hardware development.					
Continue APB 6 - Modeling & Simulation development.					
TI-1 - IPLCS Proof of Manufacturing Hardware (POM) delivery.					
Conduct APB 6 on MK 48 MOD 7 Developmental Testing (DT) and Integrated Testing (IT).					
Begin APB 6 on MK 48 MOD 8 Engineering Testing.					
Continue MK 48 MOD 9 (APB 7/TI-2) software and hardware development and integration.					
Develop MK 48 MOD 9 APB 7 Software In-the-Loop (SWIL) Modeling & Simulation (M&S).					

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0205632N / MK-48 ADCAP	Project (Number/Name) 0366 / MK 48 ADCAP
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Develop MK 48 MOD 9 TI-2 Hardware-In-the-Loop (HWIL) Modeling & Simulation (M&S). Conduct first MK 48 MOD 9 configuration in-water test and commence engineering testing (ENG) phase. FY 2025 OCO Plans: N/A FY 2024 to FY 2025 Increase/Decrease Statement: Funding decreased by (-\$48.230M) from FY 2024 to FY 2025 for: MK 48 MOD 8 (APB 6/TI-1) funding decreased by (-\$29.184M) from FY 2024 to FY 2025: - Decreased TI-1 material procurements by the contractor for G&C hardware development (-\$10.065M). - Decreased requirement for APB 6 product development and support development (-\$18.248M) - Increase in at-sea Engineering and Development Test and Evaluation of APB 6 on MK 48 MOD 7 and MOD 8 (+\$5.521M). - Decreased requirement for TI-1 development and test and evaluation (-\$6.392M). MK 48 MOD 9 (APB 7/TI-2) funding decreased by (-\$7.306M) from FY 2024 to FY 2025: - Decreased requirement for MK 48 MOD 9 TI-2 hardware development as a result of a shift of development effort towards integration, material procurements and testing of new Afterbody with SCEPS prototype engine. (-\$9.667M) - Increase in industry Contractor Hardware Development (+\$2.361M) MK 48 APB 8 funding increased by \$1.218M from FY 2024 to FY 2025: - APB 8 algorithm development as part of Step 1 of the TAPB process (+\$1.218M) MK 48 Afterbody Upgrade funding decreased by (-\$12.958M) from FY 2024 to FY 2025: - Result of reduced Afterbody Upgrade Kit material procurements, as well as shifting efforts to land-based and in-water tests.					
Accomplishments/Planned Programs Subtotals	152.420	213.165	164.935	0.000	164.935

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• WPN/3225: MK-48 Torpedo ADCAP Mods	18.500	20.714	17.363	-	17.363	62.303	63.294	64.511	65.865	0.000	1,700.541

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Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0205632N / MK-48 ADCAP	Project (Number/Name) 0366 / MK 48 ADCAP
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• WPN/3117: MK-48 Torpedo	151.128	308.497	333.147	-	333.147	327.631	307.323	394.015	402.290	Continuing	Continuing

Remarks

D. Acquisition Strategy

The MK 48 MOD 8 (APB 6/TI-1) acquisition strategy is to continue incrementally funding Progeny and L3Harris TI-1 hardware development contracts in support of engineering, developmental and operational testing. Future LRIP and FRP hardware contracts will be awarded to upgrade to complete operational testing and convert the entire inventory of MK 48 MOD 7 to MOD 8.

The MK 48 MOD 9 (APB 7/TI-2) acquisition strategy is to continue to fund the Penn State University Applied Research Laboratory to complete prototype builds, testing and design refinements supporting industry transition. The program will also continue to fund industry manufacturing contracts, providing test articles for engineering and developmental testing. Future LRIP and FRP hardware contracts will be awarded to produce hardware to support operational testing and MK 48 MOD 9 upgrade kits.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0205632N / MK-48 ADCAP	Project (Number/Name) 0366 / MK 48 ADCAP
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Software Development - APB 6	WR	NUWC NPT : Newport RI	89.705	21.209	Nov 2022	25.860	Nov 2023	14.018	Nov 2024	-		14.018	Continuing	Continuing	Continuing
Software Development - APB 6	WR	NUWC KPT : Keyport WA	0.905	0.438	Nov 2022	0.549	Nov 2023	0.400	Nov 2024	-		0.400	0.000	2.292	-
Software Development - APB 6	WR	ARL / PSU : State College PA	2.450	2.680	Nov 2022	2.060	Nov 2023	0.000	Nov 2024	-		0.000	0.000	7.190	-
Hardware Development - TI-1	WR	NUWC NPT : Newport RI	35.195	2.750	Nov 2022	3.397	Nov 2023	3.465	Nov 2024	-		3.465	Continuing	Continuing	Continuing
Hardware Development - TI-1	C/CPIF	Progeny : Manassas, VA	71.908	29.765	Jan 2023	45.859	Jan 2024	35.794	Jan 2025	-		35.794	Continuing	Continuing	Continuing
Hardware Development - TI-1 IPLCS	C/CPFF	Harris Corp. : Melbourne, FL	20.135	4.375	Nov 2022	4.375	Nov 2023	3.050	Nov 2024	-		3.050	Continuing	Continuing	Continuing
Hardware Development - IM	WR	Indian Head : Indian Head, MD	3.326	0.450	Nov 2022	0.450	Nov 2023	0.450	Nov 2024	-		0.450	Continuing	Continuing	Continuing
Software Development - APB 7	C/CPFF	ARL / PSU : State College PA	2.840	2.897	Nov 2022	2.955	Nov 2023	3.570	Nov 2024	-		3.570	0.000	12.262	-
Software Development - APB 7	WR	NUWC NPT : Newport RI	1.962	3.600	Nov 2022	3.700	Nov 2023	3.495	Nov 2024	-		3.495	0.000	12.757	-
Hardware Development - TI-2	C/CPFF	ARL / PSU : State College PA	26.849	34.974	Dec 2022	35.673	Dec 2023	30.526	Dec 2024	-		30.526	0.000	128.022	-
Hardware Development - TI-2	WR	NUWC NPT : Newport RI	2.840	13.073	Nov 2022	13.334	Nov 2023	5.571	Nov 2024	-		5.571	0.000	34.818	-
Hardware Development - TI-2	WR	NSWC, IH : Indian Head, MD	1.759	3.223	Nov 2022	3.287	Nov 2023	1.823	Nov 2024	-		1.823	0.000	10.092	-
Hardware Development - TI-2	C/CPIF	TBD : TBD	0.000	0.000		21.467	Jan 2024	23.828	Jan 2025	-		23.828	0.000	45.295	-
Software Development - APB 8	WR	NUWC NPT : Newport RI	0.000	0.000	Nov 2022	0.000		1.218	Nov 2024	-		1.218	0.000	1.218	-
Hardware Development - Afterbody Upgrades	WR	NUWC NPT : Newport RI	0.000	3.500	Nov 2022	18.080	Nov 2023	5.122	Nov 2024	-		5.122	0.000	26.702	-
Subtotal			259.874	122.934		181.046		132.330		-		132.330	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

Remarks

- Decreased funding in FY 2025 for APB 6 to shift effort to Test and Evaluation of APB 6 on MK 48 MOD 7 and MOD 8.
- Decreased funding in FY 2025 for TI-1 is due reduced material procurement requirements by the contractor in FY 2025.
- Decreased funding in FY 2025 for IPLCS is due reduced material procurement requirements by the contractor in FY 2025.
- Increased funding in FY 2025 for APB 7 due to increased software algorithm development.
- Decreased funding in FY 2025 for MK 48 MOD 9 TI-2 hardware to shift development effort towards integration, material procurements and testing of new SCEPS prototype engine.
- Decreased funding in FY 2025 for Afterbody Upgrade materials and shifting efforts to land-based and in-water tests.
- Increased Funding in FY 2025 for APB 8 for algorithm development as part of Step 1 of the TAPB process.

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Software Development - APB 6	WR	NUWC NPT : Newport RI	11.665	5.900	Nov 2022	5.946	Nov 2023	2.000	Nov 2024	-		2.000	Continuing	Continuing	Continuing
Software Development - APB 6	WR	NUWC KPT : Keyport WA	6.163	3.210	Nov 2022	2.210	Nov 2023	2.007	Nov 2024	-		2.007	Continuing	Continuing	Continuing
Software Development - APB 6	C/CPFF	ARL / PSU : State College PA	0.048	0.048	Dec 2022	0.048	Nov 2023	0.000	Nov 2024	-		0.000	0.000	0.144	-
Software Development - APB 7	WR	NUWC NPT : Newport RI	0.000	0.000	Nov 2022	0.000		4.079	Nov 2024	-		4.079	0.000	4.079	-
Software Development - APB 7	WR	NUWC KPT : Keyport WA	0.000	0.000	Nov 2022	0.000		0.126	Nov 2024	-		0.126	0.000	0.126	-
Hardware Development - TI-1 IPLCS	C/CPFF	ARL / PSU : State College PA	1.200	0.600	Nov 2022	0.300	Nov 2023	0.300	Nov 2024	-		0.300	0.000	2.400	-
Subtotal			19.076	9.758		8.504		8.512		-		8.512	Continuing	Continuing	N/A

Remarks

- Decreased funding in FY 2025 for TI-1/APB 6 as efforts shift from to Development to Test and Evaluation for engineering test events for APB 6 on MK 48 MOD 7 and MK 48 MOD 8.
- Increased funding in FY 2025 for APB 7 for increased MK 48 MOD 9 software development.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0205632N / MK-48 ADCAP	Project (Number/Name) 0366 / MK 48 ADCAP
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Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation (DT&E)	WR	NUWC KPT : Keyport WA - APB 6	2.723	2.840	Nov 2022	4.252	Nov 2023	9.135	Nov 2024	-		9.135	0.000	18.950	-
Developmental Test & Evaluation (DT&E)	WR	NUWC NPT : Newport RI - APB 6	2.274	2.495	Nov 2022	4.281	Nov 2023	4.919	Nov 2024	-		4.919	0.000	13.969	-
Developmental Test & Evaluation (DT&E)	WR	OPTEVFOR : Norfolk VA - APB 6	0.546	0.700	Dec 2022	0.900	Nov 2023	0.900	Nov 2024	-		0.900	0.000	3.046	-
Developmental Test & Evaluation (DT&E)	WR	NUWC NPT : Newport RI - TI-1	0.715	2.150	Nov 2022	2.276	Nov 2023	1.477	Nov 2024	-		1.477	0.000	6.618	-
Developmental Test & Evaluation (DT&E)	WR	NUWC KPT : Keyport WA -TI-1	0.858	6.390	Nov 2022	6.661	Nov 2023	2.325	Nov 2024	-		2.325	0.000	16.234	-
Developmental Test & Evaluation (DT&E)	WR	NUWC KPT : Keyport WA - TI-2	3.924	4.546	Nov 2022	4.637	Nov 2023	4.729	Nov 2024	-		4.729	0.000	17.836	-
Subtotal			11.040	19.121		23.007		23.485		-		23.485	0.000	76.653	N/A

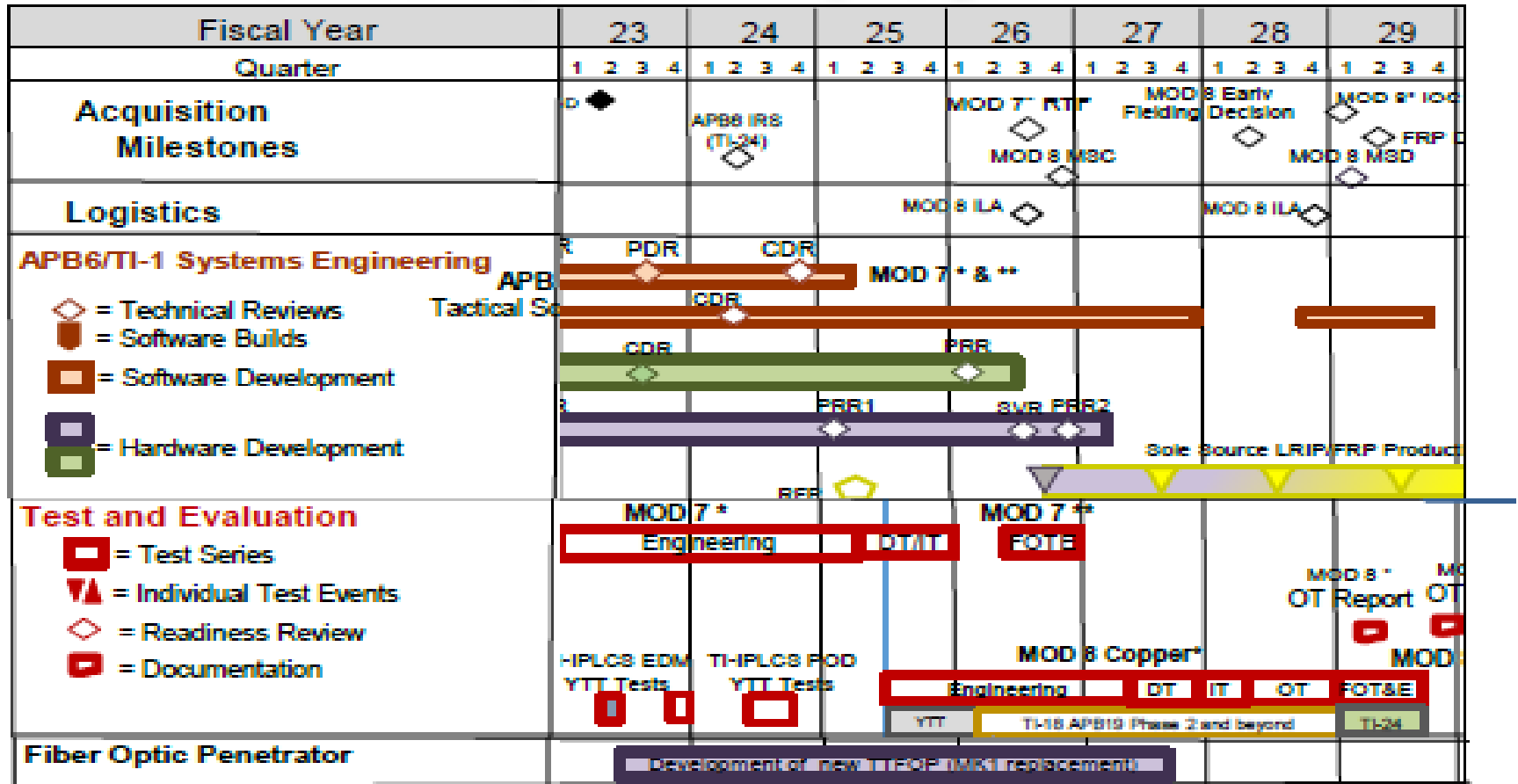
Remarks
 - Increased funding in FY 2024 for TI-1/APB 6 for engineering Tests and Evaluation of the G&C section, IPLCS, and APB 6 on MK 48 MOD 7 hardware.
 - Increased funding in FY 2024 for TI-2 to support MK 48 MOD 9 Prototype in-water test events.

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management	C/CPFF	Serco : Mclean VA	7.971	0.571	Nov 2022	0.571	Nov 2023	0.571	Nov 2024	-		0.571	0.000	9.684	-
Travel	WR	NAVSEA : Washington DC	1.519	0.036	Nov 2022	0.037	Nov 2023	0.037	Nov 2024	-		0.037	0.000	1.629	-
Subtotal			9.490	0.607		0.608		0.608		-		0.608	0.000	11.313	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		299.480	152.420	213.165	164.935	164.935	Continuing	Continuing	N/A

Remarks

MK 48 MOD 8 (APB 6/TI-1) Acquisition Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy

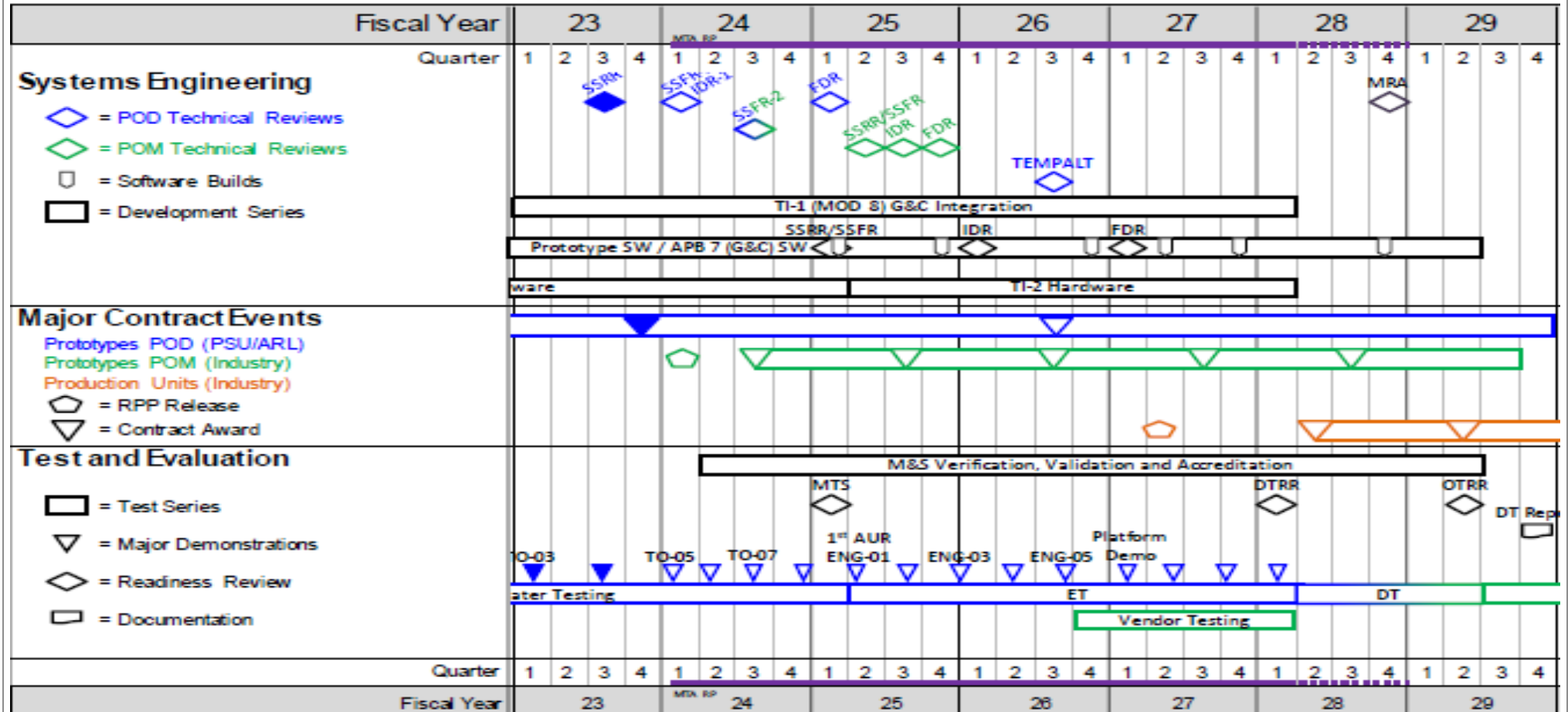
Date: March 2024

Appropriation/Budget Activity
1319 / 7

R-1 Program Element (Number/Name)
PE 0205632N / MK-48 ADCAP

Project (Number/Name)
0366 / MK 48 ADCAP

MK 48 MOD 9 (APB 7/TI-2) Acquisition Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0205632N / MK-48 ADCAP	Project (Number/Name) 0366 / MK 48 ADCAP
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 0366				
APB 6 Software / TI-1 Hardware Development: APB 6 Development	1	2023	4	2027
APB 6 Software / TI-1 Hardware Development: TI-1 Development	1	2023	2	2027
APB 6 Software / TI-1 Hardware Development: APB 6 on MK 48 MOD 7 Developmental Test (DT)	2	2025	4	2025
APB 6 Software / TI-1 Hardware Development: APB 6 on MK 48 MOD 7 Operational Test (OT)	2	2026	4	2026
APB 6 Software / TI-1 Hardware Development: APB 6/TI-1 Developmental Test (DT)	2	2027	4	2027
APB 6 Software / TI-1 Hardware Development: APB 6/TI-1 Operational Test (OT)	2	2028	4	2028
APB 7 Software / TI-2 Hardware Development: APB 7 / TI-2 Prototype Testing and Demonstration	1	2023	2	2028
APB 7 Software / TI-2 Hardware Development: APB 7 Development	1	2023	2	2029
APB 7 Software / TI-2 Hardware Development: TI-2 Development	1	2023	2	2028