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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration							
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	0.000	150.381	66.137	77.322	-	77.322	59.517	43.940	8.202	8.498	Continuing	Continuing
0025: Amphibious Combat Vehicle 1.1	0.000	150.381	42.448	23.299	-	23.299	0.060	0.000	0.000	0.000	0.000	216.188
0026: Amphibious Combat Vehicle 1.2	0.000	0.000	23.689	54.023	-	54.023	59.457	43.940	8.202	8.498	Continuing	Continuing
Program MDAP/MAIS Code: Project MDAP/MAIS Code(s): P472												
Note Beginning in FY 2018, the program funding transitions from Program Element 0603611M Marine Corps Assault Vehicles to Program Element 0605611M MC AVS Development and Demonstration as the program proceeds through the acquisition process.												
A. Mission Description and Budget Item Justification The Amphibious Combat Vehicle is an armored personnel carrier, balanced in performance, protection, and payload for employment within the Ground Combat Element (GCE) and throughout the range of military operations, to include a swim capability.												
B. Program Change Summary (\$ in Millions)				FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total				
Previous President's Budget				178.993	98.223	77.681	-	77.681				
Current President's Budget				150.381	66.137	77.322	-	77.322				
Total Adjustments				-28.612	-32.086	-0.359	-	-0.359				
• Congressional General Reductions				-	-							
• Congressional Directed Reductions				-	-32.086							
• Congressional Rescissions				-	-							
• Congressional Adds				-	-							
• Congressional Directed Transfers				-	-							
• Reprogrammings				-1.589	0.000							
• SBIR/STTR Transfer				-6.023	0.000							
• Program Adjustments				0.000	0.000	-0.355	-	-0.355				
• Rate/Misc Adjustments				0.000	0.000	-0.004	-	-0.004				
• Congressional Directed Reductions				-21.000	-	-	-	-				
Adjustments												

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Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration	
<u>Change Summary Explanation</u> The FY2020 funding request was reduced by \$3.30M to account for the availability of prior year execution balances. The increase from FY 2019 to FY 2020 of \$11.185M is primarily attributed to a decrease in ACV 1.1 based on completion of corrective action modifications and the transition to Full Up System Level (FUSL) testing and Initial Operational Test & Evaluation (IOT&E) and an increase in ACV 1.2 associated with procurement of ACV Mission Role Variant test articles, associated GFE, and initiation of a Vehicle Protective System trade study and integration efforts.		

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy										Date: March 2019		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration				Project (Number/Name) 0025 / Amphibious Combat Vehicle 1.1			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
0025: Amphibious Combat Vehicle 1.1	0.000	150.381	42.448	23.299	-	23.299	0.060	0.000	0.000	0.000	0.000	216.188
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Project MDAP/MAIS Code: P472												
Note Beginning in FY 2018, the program funding transitions from Program Element 0603611M Marine Corps Assault Vehicles to Program Element 0605611M MC AVS Development and Demonstration as the program proceeds through the acquisition process.												
A. Mission Description and Budget Item Justification The Amphibious Combat Vehicle (ACV) will be a partial and complementary replacement for the legacy Assault Amphibious Vehicle (AAV) battalions within the Marine Divisions. ACV-equipped AA companies will provide protected mobility and general support lift to elements of Marine Infantry Battalions. The ACV, an advanced generation, eight-wheeled armored personnel carrier, will mitigate current and projected capability gaps by providing improved lethality against dismounted enemy troops, more effective land and water tactical mobility, and increased force protection and survivability from blast, fragmentation, and kinetic energy threats. ACV is structured to be executed in multiple increments, with the first increment designed to provide an initial operational capability of personnel carriers. Subsequent increments are planned to provide additional personnel carriers and to develop Mission Role Variants (MRVs), such as command and control and tactical recovery capabilities. The decrease in ACV 1.1 from FY 2019 to FY 2020 is primarily attributed to completion of corrective action modifications and the transition to Full Up System Level (FUSL) testing and Initial Operational Test & Evaluation (IOT&E).												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Product Development								104.730	13.844	1.764	0.000	1.764
Articles:								4	-	-	-	-
Description: System Design and Development; Engineering and Manufacturing Development (EMD) test vehicle manufacturing; prime contractor Developmental and Operational test support, and development of Logistics Management Information (LMI) data.												
FY 2019 Plans:												
- Complete corrective action modifications which resulted from Reliability Growth Testing (RGT).												

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy				Date: March 2019		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0605611M I (U) MC AVS Development & Demonstration		Project (Number/Name) 0025 I Amphibious Combat Vehicle 1.1		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
- Continue Advance Capabilities Improvements for the down-selected contractor.						
FY 2020 Base Plans: - Complete Advance Capabilities improvements, Developmental Test (DT), and LFT&E support for the down-selected vendor.						
FY 2020 OCO Plans: N/A						
FY 2019 to FY 2020 Increase/Decrease Statement: The decrease in System Design and Development between FY2019 and FY2020 (\$12.080) is attributed to completion of the design and development phase of the program in FY2020.						
Title: Management Services		14.018	2.000	2.533	0.000	2.533
Articles:		-	-	-	-	-
Description: Contract Advisory and Assistance Services (Engineering and Technical Support, Management Support Services, and Studies and Analyses).						
FY 2019 Plans: - Continue business, acquisition, logistics, and engineering related activities for program document development, program analysis, acquisition logistics management, and financial management support. - Continue engineering and technical services for logistical, maintenance support, and integration. - Continue force protection modeling and simulation activities. - Continue analyses of product support elements to support Maintenance Plan development, Support and Test Equipment, Calibration, and other logistics elements.						
FY 2020 Base Plans: - Continue business, acquisition, logistics, and engineering related activities for program document development, program analysis, acquisition logistics management, and financial management support. - Continue engineering and technical services for logistical, maintenance support, and integration. - Continue force protection modeling and simulation activities. - Continue analyses of product support elements to support Maintenance Plan development, Support and Test Equipment, Calibration, and other logistics elements.						
FY 2020 OCO Plans:						

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
N/A						
FY 2019 to FY 2020 Increase/Decrease Statement: The increase in Management Services between FY 2019 and FY 2020 (\$0.533M) is due to a decrease in Engineering and Technical Services (\$0.555), an increase in Management Services (\$0.788) and an increase in Studies & Analyses (\$0.300M). The decrease in Engineering and Technical Services is attributed to completion of engineering services in support of the development program in FY 2020; the increase in Management Services (\$0.788) is attributed to continued business, acquisition, logistics and engineering related support during conduct of IOT&E in FY 2020; the increase in Studies & Analyses (\$0.300) is due to logistics-related analyses in support of system fielding.						
Title: Program Support		8.635	4.591	2.326	0.000	2.326
Articles:		-	-	-	-	-
Description: Government labor, material, and travel for Integrated Logistics Support, Technical Publications, Support Equipment development, In-house Technical Support, and Program Management Support.						
FY 2019 Plans: - Continue Engineering Support for communication suite integration efforts documented during technical information and review meetings. - Continue procurement, inventory, checkout, kitting, shipment, and troubleshooting of ACV 1.1 communications suite GFP - Continue Reliability, Availability, Maintainability, and Durability (RAM-D), and Human Systems Integration (HSI) activities for ACV 1.1. - Continue Digital Integrated Facility (DIF) architecture support. - Continue technical support for training packages.						
FY 2020 Base Plans: - Complete Engineering Support for communication suite integration efforts documented during technical information and review meetings. - Complete procurement, inventory, checkout, kitting, shipment, and troubleshooting of ACV 1.1 communications suite GFP - Complete RAM-D, and HSI for ACV 1.1. - Complete DIF architecture support.						

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Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration	Project (Number/Name) 0025 / Amphibious Combat Vehicle 1.1				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
- Complete technical support for training packages. FY 2020 OCO Plans: N/A FY 2019 to FY 2020 Increase/Decrease Statement: The decrease in Program Support between FY2019 and FY2020 (\$2.265) is attributed to completion of armor life/durability characterization; decreased field service representatives, and spares support for communications suites and remote weapon stations.						
Title: Test & Evaluation Articles: Description: Government Developmental Test (DT), Operational Assessment (OA), and Live Fire Test and Evaluation (LFT&E) activities. FY 2019 Plans: - Continue LFT&E activities (armor coupon testing, exploitation shots, fire survivability, system level testing, etc.) for down-selected contractor. - Continue Developmental Testing for down-selected contractor. FY 2020 Base Plans: - Complete DT&E Reliability Growth Testing (EMD) - Complete Production Qualification Test/Reliability Qualification Testing (PQT/RQT) development testing execution. - Complete LFT&E modeling and simulation for Full Up System Level (FUSL) Live Fire Testing. - Initiate and complete Initial Operational Test and Evaluation (IOT&E) FY 2020 OCO Plans: N/A FY 2019 to FY 2020 Increase/Decrease Statement: The decrease in Test & Evaluation between FY2019 and FY2020 (\$5.337) is attributed to completion of Reliability Growth Testing (RGT), PQT/RQT, FUSL, and IOT&E in FY2020.		22.998 -	22.013 -	16.676 -	0.000 -	16.676 -
Accomplishments/Planned Programs Subtotals		150.381	42.448	23.299	0.000	23.299

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Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration				Project (Number/Name) 0025 / Amphibious Combat Vehicle 1.1			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• PMC/2025: Amphibious Combat Vehicle 1.1	156.693	167.478	317.935	-	317.935	493.300	0.000	0.000	0.000	0.000	1,135.406
• PMC/7000/ACV 1.1: Initial Spares - ACV 1.1	5.569	6.145	13.954	-	13.954	13.634	0.000	0.000	0.000	0.000	39.302
• RDTE/0605611M/0026: Amphibious Combat Vehicle 1.2	0.000	23.689	54.023	-	54.023	59.457	43.940	8.202	8.498	Continuing	Continuing
• PMC/2026: Amphibious Combat Vehicle 1.2	0.000	0.000	0.000	-	0.000	0.000	710.289	697.264	708.684	Continuing	Continuing
• PMC/7000/ACV 1.2: Initial Spares - ACV 1.2	0.000	0.000	0.000	-	0.000	0.000	19.337	19.763	20.158	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
The program office awarded two competitive Engineering and Manufacturing Development (EMD) contracts to two vendors to build 16 vehicles each (32 total). ACV Increment 1.1 entered the acquisition cycle at Milestone B in FY 2016 and down-selected to one vendor at Milestone C in 3Q FY 2018; the program entered into Low Rate Initial Production (LRIP) at Milestone C. Full Rate Production (FRP) will begin in FY 2020. The contract includes competitively priced options for the development phase through Full Rate Production (FRP).											
E. Performance Metrics											
Milestone Reviews Milestone B: 1QFY16 Milestone C: 3QFY18 FRP Decision: 3QFY20											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy												Date: March 2019			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0605611M I (U) MC AVS Development & Demonstration				Project (Number/Name) 0025 I Amphibious Combat Vehicle 1.1					
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
System Design &Development	C/FPIF	Various : Various	0.000	96.301	Jan 2018	13.844	Jan 2019	1.764	Jan 2020	-		1.764	0.000	111.909	-
Other Product Devolpment	C/FFP	SPAWAR : New Jersey/Charleston/ Picatinny	0.000	8.429	Jan 2018	0.000		0.000		-		0.000	0.000	8.429	-
Subtotal			0.000	104.730		13.844		1.764		-		1.764	0.000	120.338	N/A
Remarks - The decrease in System Design & Development between FY 2019 & FY 2020 (\$12.080) is attributed to the completion of the design and development phase of the program in FY2020.															
Support (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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 Logistics Support	WR	Various : Various	0.000	0.300	Apr 2018	0.946	Apr 2019	1.013	Apr 2020	-		1.013	0.000	2.259	-
Technical Data & Pubs Development	WR	NSWC CD : Carderock, MD	0.000	0.100	Sep 2018	0.100	Sep 2019	0.100	Apr 2020	-		0.100	0.000	0.300	-
In-House Technical Support	WR	Various : Various	0.000	7.807	Apr 2018	3.445	Apr 2019	1.066	Apr 2020	-		1.066	0.000	12.318	-
Training Devices/ Simulators	WR	NAWC : Orlando, FL	0.000	0.366	Apr 2018	0.000		0.000		-		0.000	0.000	0.366	-
Travel	Various	Various : Various	0.000	0.062	Sep 2018	0.100	Sep 2019	0.147	Sep 2020	-		0.147	0.000	0.309	-
Subtotal			0.000	8.635		4.591		2.326		-		2.326	0.000	15.552	N/A
Remarks - The decrease in In-House Technical Support between FY2019 and FY2020 (\$2.265) is attributed to the completion of Armor Life/Durability Characterization, decreased field service representatives, and spares support for communications suites and remote weapon stations.															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy												Date: March 2019			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration				Project (Number/Name) 0025 / Amphibious Combat Vehicle 1.1					
Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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 Test & Evaluation	WR	Various : Various	0.000	14.072	Jan 2018	12.559	Jan 2019	4.931	Jan 2020	-		4.931	0.000	31.562	-
Operational Test & Evaluation	WR	MCOTEA : Quantico,VA	0.000	6.041	Jan 2018	1.849	Jan 2019	9.104	Jan 2020	-		9.104	0.000	16.994	-
Live Fire Test & Evaluation	WR	Various : Various	0.000	2.885	Jan 2018	7.605	Jan 2019	2.641	Jan 2020	-		2.641	0.000	13.131	-
Subtotal			0.000	22.998		22.013		16.676		-		16.676	0.000	61.687	N/A
Remarks															
- The decrease in Developmental Test & Evaluation between FY2019 & FY2020 (\$7.628) is attributed to the completion of Reliability Growth Testing (RGT), Production Qualification Testing (PQT) and Reliability Qualification Testing (RQT) in FY2020.															
- The increase in Operational Test & Evaluation between FY2019 and FY2020 (\$7.255) is attributed to the initiation and completion of IOT&E.															
- The decrease in Live Fire Test & Evaluation between FY2019 & FY2020 (\$4.964) is primarily attributed to completion of the Full Up System Level (FUSL) Live Fire test event in FY2020.															
Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Engineering & Technical Services	Various	Various : Various	0.000	5.357	Mar 2018	0.911	Mar 2019	0.356	Mar 2020	-		0.356	0.000	6.624	-
Management Support Services	Various	Various : Various	0.000	8.661	Mar 2018	1.089	Mar 2019	1.877	Mar 2020	-		1.877	0.000	11.627	-
Studies and Analyses	TBD	TBD : TBD	0.000	0.000		0.000		0.300	Apr 2020	-		0.300	0.000	0.300	-
Subtotal			0.000	14.018		2.000		2.533		-		2.533	0.000	18.551	N/A
Remarks															
- The decrease in Engineering and Technical Services (\$0.555) is attributed to completion of engineering services in support of the development program in FY2020.															
- The increase in Management Services between FY2019 and FY2020 (\$0.788) is attributed to continued business, acquisition, logistics and engineering related support during conduct of IOT&E in FY2020.															
-The increase in Studies & Analyses between FY 2019 and FY 2020 (\$0.300) is due to logistics-related analyses in support of system fielding.															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy										Date: March 2019			
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration					Project (Number/Name) 0025 / Amphibious Combat Vehicle 1.1			
	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	150.381		42.448		23.299		-		23.299	0.000	216.128	N/A
Remarks													

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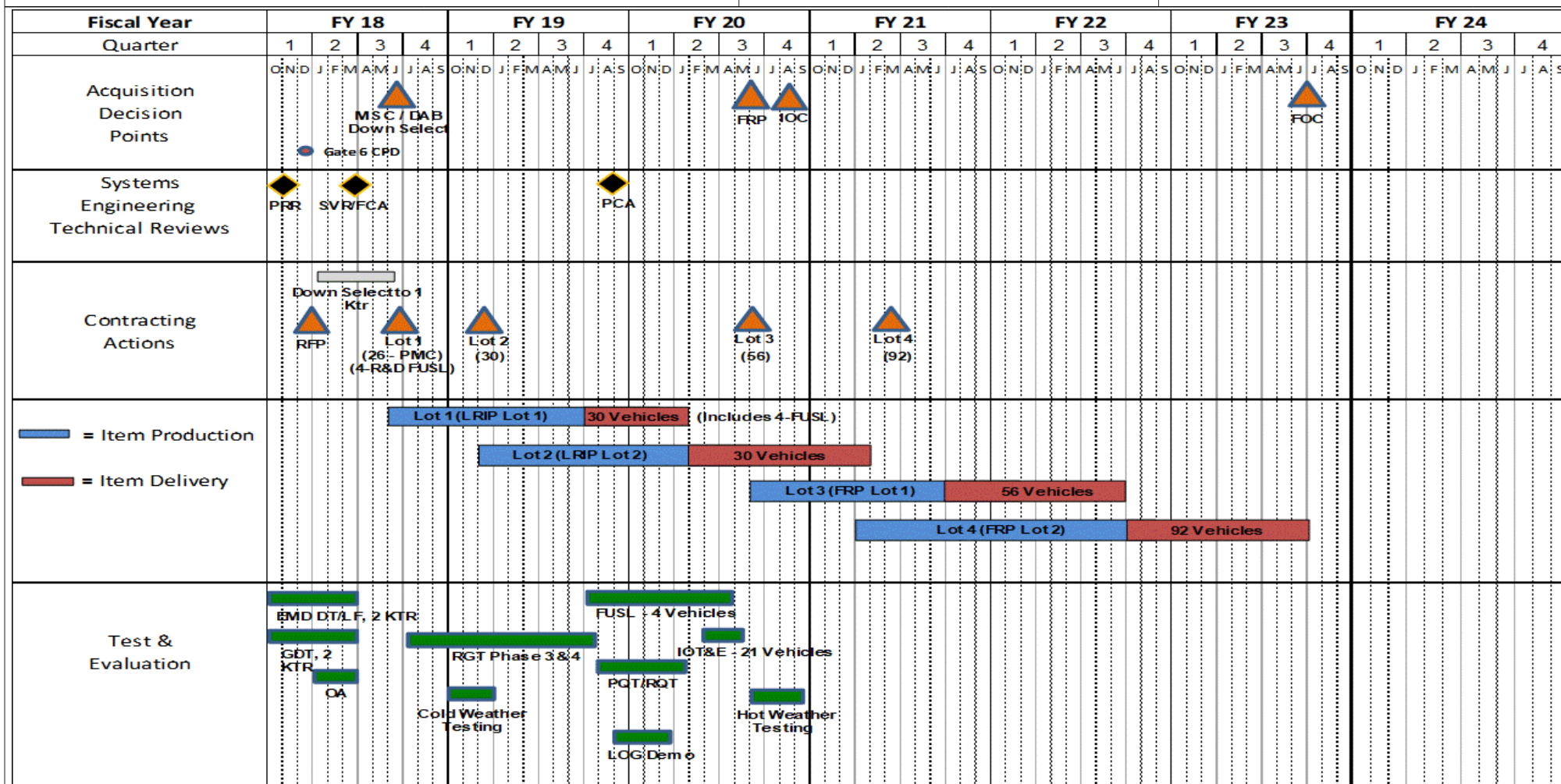
Exhibit R-4, RDT&E Schedule Profile: PB 2020 Navy

Date: March 2019

Appropriation/Budget Activity
1319 / 5

R-1 Program Element (Number/Name)
PE 0605611M / (U) MC AVS Development
& Demonstration

Project (Number/Name)
0025 / Amphibious Combat Vehicle 1.1



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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration	Project (Number/Name) 0025 / Amphibious Combat Vehicle 1.1	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 0025				
Operational Assessment (OA)	2	2018	2	2018
MS C/DAB Down Select	3	2018	3	2018
LRIP Option 1 Exercised	3	2018	3	2018
LRIP Option 2 Exercised	1	2019	1	2019
Initial Operational Test & Evaluation (IOT&E)	2	2020	3	2020
Full Rate Production (FRP) Decision	3	2020	3	2020
FRP #1 Option Exercised	3	2020	3	2020
Initial Operational Capability (IOC)	4	2020	4	2020
FRP #2 Option Exercised	2	2021	2	2021
Full Operational Capability (FOC)	4	2023	4	2023
FUSL Test and Evaluation	4	2019	3	2020
RGT Phase 3/4 Test and Evaluation	4	2018	4	2019
PQT/RQT	4	2019	2	2020
Cold Weather Testing	1	2019	1	2019
Hot Weather Testing	3	2020	4	2020
Logistic Demo	4	2019	1	2020

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Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration				Project (Number/Name) 0026 / Amphibious Combat Vehicle 1.2			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
0026: Amphibious Combat Vehicle 1.2	0.000	0.000	23.689	54.023	-	54.023	59.457	43.940	8.202	8.498	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Amphibious Combat Vehicle (ACV) will be a partial and complementary replacement for the legacy Amphibious Assault Vehicle (AAV) battalion's within the Marine Divisions. ACV-equipped AA companies will provide protected mobility and general support lift to elements of Marine Infantry Battalions. The ACV, an advanced generation, eight-wheeled armored personnel carrier, will mitigate current and projected capability gaps by providing improved lethality against dismounted enemy troops, more effective land and water tactical mobility, and increased force protection and survivability from blast, fragmentation, and kinetic energy threats. The ACV program is structured to be executed in multiple increments, with the first increment designed to provide an initial operational capability of personnel carriers. Subsequent increments are planned to provide additional personnel variants and to develop Mission Role Variants (MRVs), such as command and control and tactical recovery capabilities. ACV 1.2 will provide the Marine Corps with armored protected land mobility to effectively maneuver with the rest of the armored Marine Air Ground Task Force (MAGTF) and the water mobility to self-deploy from amphibious shipping.

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

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Product Development	0.000	23.144	50.375	0.000	50.375
Articles:	-	-	3	-	3
Description: System Design and Development; Engineering and Manufacturing Development (EMD) test vehicle manufacturing; prime contractor Developmental and Operational test support, and development of Logistics Management Information (LMI) data.					
FY 2019 Plans: - Initiate design and development of two of three ACV Mission Role Variants: Command Variant (ACV-C) and Gun Variant (ACV-30). - Initiate software development for CROWS-II Multi-User/Multi-Station (MUMS) and CROWS-II Embedded Trainer (ET) capabilities.					
FY 2020 Base Plans: - Continue ACV MRV design and development activities for ACV-C and ACV-30. - Initiate design and development activities for the Recovery Variant, ACV-R. - Initiate test article procurement for three (3) ACV-C command variants and associated Government Furnished Equipment (GFE).					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
- Initiate Vehicle Protective System (VPS) trade study and integration efforts.								
FY 2020 OCO Plans: N/A								
FY 2019 to FY 2020 Increase/Decrease Statement: The increase in Product Development from FY2019 to FY2020 (\$27.231) is attributed to procurement of three ACV MRV test articles, associated GFE, and initiation of VPS trade study and integration efforts.								
Title: Program Support				0.000	0.545	3.648	0.000	3.648
Articles:				-	-	-	-	-
Description: Government Labor, material, and travel for Integrated Logistics Support, Technical Publications, Support Equipment development, In-house Technical Support, and Program Management support.								
FY 2019 Plans: - Initiate and complete technical support for Armor Characterization efforts. - Initiate development of technical data and publications.								
FY 2020 Base Plans: - Initiate operator and maintainer training devices and simulators design and development (e.g., Gunnery Trainer and Maintenance Task Trainer (MTT)), which are required in advance of system fielding in order to provide this capability to the OpFor for their use of this new vehicle. - Continue development of technical data and publications for ACV Command and Gun variants; initiate development of technical data and publications for ACV Recovery variant. - Initiate support for procurement, inventory, and shipping of GFE.								
FY 2020 OCO Plans: N/A								
FY 2019 to FY 2020 Increase/Decrease Statement: The increase in Program Support from FY2019 to FY2020 (\$3.103M) is attributed to support for technical data and publications development, initiation of required training devices and simulators design and development, and GFE support.								
Accomplishments/Planned Programs Subtotals				0.000	23.689	54.023	0.000	54.023

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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• PMC/2025: Amphibious Combat Vehicle 1.1	156.693	167.478	317.935	-	317.935	493.300	0.000	0.000	0.000	0.000	1,135.406
• PMC/2025/7000: Initial Spares ACV 1.1	5.569	6.145	13.954	-	13.954	13.634	0.000	0.000	0.000	0.000	39.302
• RDTE/0025: Amphibious Combat Vehicle 1.1	150.381	42.448	23.299	-	23.299	0.060	0.000	0.000	0.000	0.000	216.188
• PMC/2026: Amphibious Combat Vehicle 1.2	0.000	0.000	0.000	-	0.000	0.000	710.289	697.264	708.684	0.000	2,116.237
• PMC/2026/7000: Initial Spares ACV 1.2	0.000	0.000	0.000	-	0.000	0.000	19.337	19.763	20.158	0.000	59.258
Remarks											
D. Acquisition Strategy											
The ACV Program Increment 1.2 will deliver additional ACV 1.1 Personnel Variants (currently in production); and Command and Control (ACV-C), Recovery (ACV-R), and 30-mm (ACV-30) Mission Role Variants (MRV). The development acquisition approach for ACV 1.2 MRVs will be streamlined by modifying baseline ACV 1.1 Personnel Vehicles to the MRV configurations. This strategy maximizes use of the ACV 1.1 design currently in production, and provides for integration of the latest standard government furnished communications, weapons, and sensors. This approach will minimize program cost, schedule, and performance risk, minimize development costs, and provide rapid fielding of current capabilities to meet operational requirements.											
E. Performance Metrics											
ACV-C ECP Approval: 3QFY20											
ACV-30 ECP Approval: 3QFY21											
ACV-R ECP Approval: 3QFY22											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy												Date: March 2019			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration				Project (Number/Name) 0026 / Amphibious Combat Vehicle 1.2					
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
System Design & Development	C/FPIF	BAE : York PA	0.000	0.000		23.144	Mar 2019	41.701	Dec 2019	-		41.701	Continuing	Continuing	Continuing
Other Product Development	WR	SPAWAR : Charleston SC	0.000	0.000		0.000		8.674	Dec 2019	-		8.674	0.000	8.674	-
Subtotal			0.000	0.000		23.144		50.375		-		50.375	Continuing	Continuing	N/A
Remarks															
The increase in system design and development between FY2019 and FY2020 (\$18.557) is attributed to continued MRV design activities, and procurement of three (3) MRV test articles. The increase in other product development between FY2019 and FY2020 (\$8.674) is attributed to procurement of GFE communications suites for test articles and initiation of vehicle protection system design and development in FY2020.															
Support (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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 Logistics Support	C/BA	TBD : TBD	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Training Decives/ Simulators	TBD	TACOM : Warren MI	0.000	0.000		0.000		2.201	Apr 2020	-		2.201	Continuing	Continuing	Continuing
Technical Data & Pubs Development	TBD	TBD : TBD	0.000	0.000		0.213	Jan 2019	0.613	Jan 2020	-		0.613	Continuing	Continuing	Continuing
In-House Technical Support	Various	Various : Various	0.000	0.000		0.245	May 2019	0.745	May 2020	-		0.745	Continuing	Continuing	Continuing
Travel	Various	Various : Various	0.000	0.000		0.087	Sep 2019	0.089	Sep 2020	-		0.089	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.545		3.648		-		3.648	Continuing	Continuing	N/A
Remarks															
The increase in training devices and simulators between FY2019 and FY2020 (\$2.201) reflects initiation of operator and maintainer training systems which are required in advance of system fielding in order to provide this capability to the OpFor for their use of this new vehicle. The increase in pubs and tech data (\$0.400) reflects the normal progression in the continuation of technical data development required to operate and maintain the new vehicle. The increase in In-House Technical Support (\$0.500) between FY2019 and FY2020 is attributed to support required for GFE management.															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy												Date: March 2019			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration				Project (Number/Name) 0026 / Amphibious Combat Vehicle 1.2					
Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Developmental Test & Evaluation	WR	Various : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Operational Test & Evaluation	WR	Various : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Live Fire Test & Evaluation (LFT&E)	WR	Various : Various	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Engineering and Technical Services	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Management Support Services	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Studies and Analysis	TBD	TBD : TBD	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A
			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	0.000		23.689		54.023		-		54.023	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Navy

Date: March 2019

Appropriation/Budget Activity

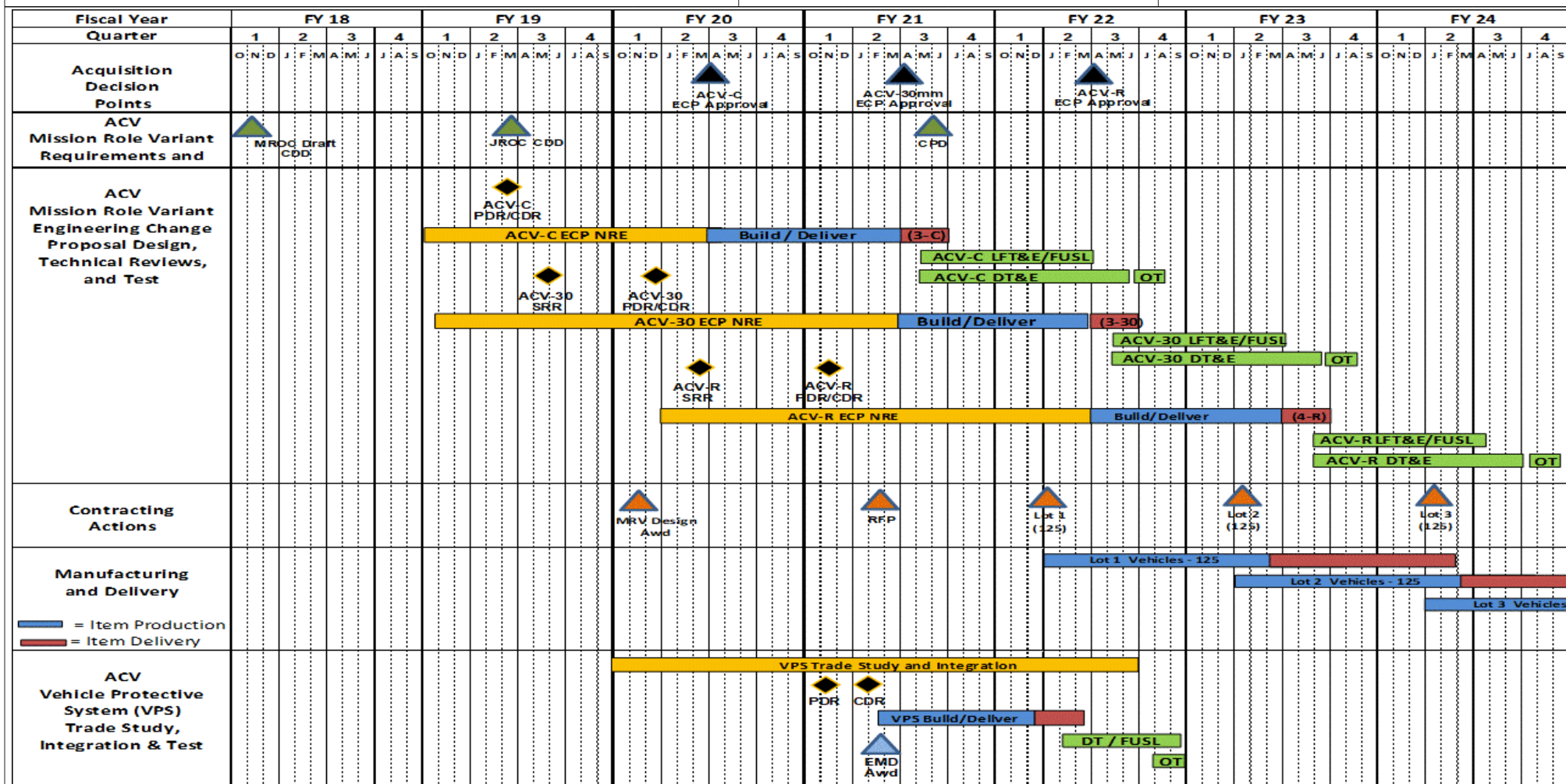
1319 / 5

R-1 Program Element (Number/Name)

PE 0605611M / (U) MC AVS Development
& Demonstration

Project (Number/Name)

0026 / Amphibious Combat Vehicle 1.2



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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605611M / (U) MC AVS Development & Demonstration	Project (Number/Name) 0026 / Amphibious Combat Vehicle 1.2	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 0026				
PDR/CDR (ACV-C)	2	2019	2	2019
MRV Design Award	1	2020	1	2020
PDR/CDR (ACV-30)	1	2020	1	2020
ECP Approval (ACV-C)	3	2020	3	2020
PDR/CDR (ACV-R)	1	2021	1	2021
ECP Approval (ACV-30)	3	2021	3	2021
DT, LFT&E, OT (ACV-C)	3	2021	4	2022
Lot 1 Contract Award	2	2022	2	2022
ECP Approval (ACV-R)	3	2022	3	2022
DT, LFT&E, OT (ACV-30)	3	2022	4	2023
Lot 2 Contract Award	2	2023	2	2023
DT, LFT&E, OT (ACV-R)	3	2023	4	2024
Lot 3 Contract Award	2	2024	2	2024