Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy

Date: February 2015

**Appropriation/Budget Activity** 

1319: Research, Development, Test & Evaluation, Navy I BA 4: Advanced

Component Development & Prototypes (ACD&P)

R-1 Program Element (Number/Name)
PE 0603611M / Marine Corps Assault Vehicles

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	95.182	34.956	105.749	219.082	-	219.082	160.691	179.554	62.252	38.095	Continuing	Continuing
0025: New Amphibious Vehicle	95.182	34.956	105.749	219.082	-	219.082	160.691	179.554	62.252	38.095	Continuing	Continuing

#### Note

ACV Increment 1.1 leverages and continues the work that was previously accomplished under the Marine Personnel Carrier (MPC) program, funded in PE 0206623M; Project 9C85.

# A. Mission Description and Budget Item Justification

The New Amphibious 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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	122.967	105.749	199.239	-	199.239
Current President's Budget	34.956	105.749	219.082	-	219.082
Total Adjustments	-88.011	-	19.843	-	19.843
Congressional General Reductions	-	-			
Congressional Directed Reductions	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
Congressional Adds	-	-			
Congressional Directed Transfers	-	-			
Reprogrammings	-4.979	-			
SBIR/STTR Transfer	-4.232	-			
Program Adjustments	-	-	46.600	-	46.600
Rate/Misc Adjustments	-	-	-26.757	-	-26.757
<ul> <li>Congressional Rescission Adjustments</li> </ul>	-78.800	-	-	-	-

# **Change Summary Explanation**

The FY16 increase will properly fund ACV Increment 1.1 Engineering, Manufacturing and Development (EMD) contracts as well as associated program support.

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Exhibit R-2A, RDT&E Project Ju	Date: February 2015											
Appropriation/Budget Activity 1319 / 4							t (Number/ e Corps As:		ct (Number/Name) I New Amphibious Vehicle			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0025: New Amphibious Vehicle	95.182	34.956	105.749	219.082	-	219.082	160.691	179.554	62.252	38.095	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-					

### A. Mission Description and Budget Item Justification

The New Amphibious 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. The increase in funding from FY15 to FY16 will support ACV Increment 1.1 Engineering, Manufacturing and Development (EMD) contracts and associated program support.

Note: ACV Increment 1.1 leverages and continues the work that was previously accomplished under the Marine Personnel Carrier (MPC) program, funded in PE 0206623M; Project 9C85.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Product Development	15.229	67.708	203.959	-	203.959
Articles:	-	32	-	-	-
<b>Description:</b> System Design and Development					
FY 2014 Accomplishments: -Initiated award of Technology Exploration contracts to assess the technical and cost impacts of requirements that require modularity and also conduct experiments of the proposed designs submitted during the					
Requirements Refinement phase.					
FY 2015 Plans: -Funding will support the EMD contract award for two vendors to build 16 test vehicles each (32 total) for drive-off competition, blast testing, and Tactics, Techniques, and Procedures (TTP) development. The contract will award in 1QFY16 and will combine FY15 and FY16 funding per the approved acquisition strategy.					
FY 2016 Base Plans: -Initiate award of EMD contracts to two vendors to build 16 test vehicles each (32 total) for drive-off competition, blast testing, and Tactics, Techniques, and Procedures (TTP) development. This effort will combine FY15 and FY16 funding per the approved acquisition strategy.					
FY 2016 OCO Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: Febr	uary 2015		
Appropriation/Budget Activity 1319 / 4  R-1 Program Element (Number/I PE 0603611M / Marine Corps Ass Vehicles			roject (Number/Name) 025 / New Amphibious Vehicle			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	
N/A						
Title: Engineering Technical Support  Articles:	16.577 -	37.016 -	8.076 -	-	8.076	
Description: Engineering Technical Support						
FY 2014 Accomplishments: -Initiated new amphibious vehicle innovation efforts to reduce vehicle weight, technical risk and cost. Pursued technology development and other studies to advance high water speed capabilityContinued engineering and technical services in support of technology integration and demonstration activities, and concept development effortsContinued engineering and management support for program planning, analysis, and executionContinued Digital Integration Facility (DIF) Architecture support.						
FY 2015 Plans:  -Continue evaluation of technology development efforts and other studies to advance high water speed capability.  -Continue engineering and technical services in support of technology integration and demonstration activities, and concept development efforts.  -Continue engineering and management support for program planning, analysis, and execution.  -Continue Digital Integration Facility (DIF) Architecture support.  -Continue engineering efforts in support of Request for Proposal (RFP) development and analysis, System Readiness Review (SRR) support, and support for requirements analysis and finalization. Additionally, Aft Lifting Body Full Scale testing of promising high water speed concepts will be conducted.  -Initiate procurement of EMD Government Furnished Equipment (GFE) for contractor integration.						
FY 2016 Base Plans: -Initiate detailed planning efforts in support of ACV Increment 1.1 test activities related to EMDContinue Digital Integration Facility (DIF) Architecture supportContinue engineering and technical services in support of technology integration and demonstration activities, and concept development efforts.						
FY 2016 OCO Plans:						

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PE 0603611M: Marine Corps Assault Vehicles Navy Page 3 of 10 R-1 Line #54

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Exhibit R-2A, RDT&E Project Justification: PB 20	S Navy			Date: Febr	uary 2015					
Appropriation/Budget Activity 1319 / 4	R-1 Program Element PE 0603611M / Marine Vehicles		Project (Number/Name) 0025 / New Amphibious Vehicle							
B. Accomplishments/Planned Programs (\$ in Mill	ons, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total				
N/A	A									
Title: Program Management Support		3.150 <i>Articles:</i>	1.025	7.047 -	- -	7.047 -				
<b>Description:</b> Program Management Support										
FY 2014 Accomplishments: -Continued transportation/shipment of government e (HSD) test activitiesContinued travel in support of program requirements-Continued program management support for acquise		ator								
FY 2015 Plans: -Initiate program management support for acquisition development in support of Request for Proposal (RF-Initiate acquisition documentation support in prepara-Continue providing transportation/shipment of gover-Continue to travel in support of program requirement	) release. ion for Milestone B decision. ment equipment.	k								
FY 2016 Base Plans: -Initiate and provide program management support for acquisition documentation support in preposign Review (PDR) and Capability Design Review -Continue providing transportation/shipment of government of travel in support of program requirement.	ration for Milestone B decision as well as Prelimir CDR) support. ment equipment.	nary								
<b>FY 2016 OCO Plans:</b> N/A										
	Accomplishments/Planned Programs	Subtotals 34.956	105.749	219.082		219.082				
C. Other Program Funding Summary (\$ in Million:										
	FY 2016 FY 2016 FY 2016	<b>7 2017 FY 2018</b> - 167.900	<b>FY 2019</b> 191.200		Cost To Complete Continuing					

PE 0603611M: Marine Corps Assault Vehicles

Navy

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R-1 Line #54

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy	Date: February 2015		
1319 / 4		- , (	umber/Name) v Amphibious Vehicle

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

			FY 2016	FY 2016	FY 2016					<b>Cost To</b>	
Line Item	FY 2014	FY 2015	<b>Base</b>	OCO	<u>Total</u>	FY 2017	FY 2018	FY 2019	FY 2020	Complete 1	Total Cost

#### Remarks

### **D. Acquisition Strategy**

Acquisition strategy is to award competitive Engineering, Manufacturing and Development (EMD) contracts to two vendors to build 16 test vehicles each (32 total). The ACV Increment 1.1 will enter the acquisition cycle at Milestone B in FY16 which will lead to a down select to one vendor in FY18 entering into Low Rate Initial Production (LRIP).

#### E. Performance Metrics

Milestone Reviews

					UN	ICLASS	SIFIED											
Exhibit R-3, RDT&E F	Project C	ost Analysis: PB 2	016 Navy	,								Date:	February	2015				
Appropriation/Budge 1319 / 4	t Activity	1											Number/Name) ew Amphibious Vehicle					
Product Developmen	nt (\$ in M	illions)		FY 2	2014	FY 2	2015		2016 ise		2016 CO	FY 2016 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	Total Cost	Target Value of Contract			
System Design & Development	C/CPFF	TBD : TBD	60.865	-		67.708	Nov 2015	203.959	Nov 2015	-		203.959	113.395	445.927	-			
Technology Exploration	SS/CPFF	BAE : Arlington, VA	0.000	7.882	Jun 2014	-		-		-		-	-	7.882	-			
Technology Exploration	SS/CPFF	GDLS : Woodbridge, VA	0.000	7.347	Jun 2014	-		-		-		-	-	7.347	-			
		Subtotal	60.865	15.229		67.708		203.959		-		203.959	113.395	461.156	-			
Support (\$ in Millions	s)			FY 2	2014	FY 2	2015	FY 2	2016 ise		2016 CO	FY 2016 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	Total Cost	Target Value of Contract			
Engineering and Technical Services	TBD	Various : Various	25.362	16.577	Jan 2015	16.816	Apr 2015	6.592	Apr 2016	-		6.592	Continuing	Continuing	Continuin			
Test and Evaluation - EMD Detailed Planning	TBD	Various : Various	1.069	-		-		1.484	Apr 2016	-		1.484	Continuing	Continuing	Continuing			
Propulsion System Demonstrator	WR	NSWC Carderock - SSES Philly : Philadelphia, PA	1.193	-		-		-		-		-	Continuing	Continuing	Continuing			
Remote Weapon Station GFE	C/FP	Kongsberg : Johnstown, PA	0.000	-		9.000	May 2015	-		-		-	-	9.000	-			
C3 GFE	Various	Various : Various	0.000	-		11.200	May 2015	-		-		-	-	11.200	-			
		Subtotal	27.624	16.577		37.016		8.076		-		8.076	-	-	-			
Management Service	es (\$ in M	lillions)		FY 2	2014	FY 2	2015		2016 ise		2016 CO	FY 2016 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	Total Cost	Target Value of Contract			
Integrated Logistics Support	Various	Various : Various	1.037	0.075	Apr 2014	0.075	Apr 2015	0.100	Apr 2016	-		0.100	-	1.287	-			
Program Management Support	SS/FFP	TBD : TBD	5.057	3.000	Apr 2015	0.750	Apr 2015	6.847	Apr 2016	-		6.847	Continuing	Continuing	Continuing			

PE 0603611M: Marine Corps Assault Vehicles Navy

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R-1 Line #54

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy	Date: February 2015		
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603611M / Marine Corps Assault	-,	umber/Name) v Amphibious Vehicle
1319 / 4	PE 0603611M I Marine Corps Assault Vehicles	0025 / New	v Amphibious Vehicle

Management Service	es (\$ in M	illions)		FY 2014		FY 2014 FY 201		FY 20 2015 Bas			FY 2016 OCO				
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	Total Cost	Target Value of Contract
Travel	Various	Various : Various	0.599	0.075	Jan 2015	0.200	Jan 2015	0.100	Jan 2016	-		0.100	Continuing	Continuing	Continuing
		Subtotal	6.693	3.150		1.025		7.047		-		7.047	-	-	-
		1													

	Prior Years	FY 2	2014	FY 2	2015	FY 2 Ba		2016 CO	FY 2016 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	95.182	34.956		105.749		219.082	-		219.082	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity

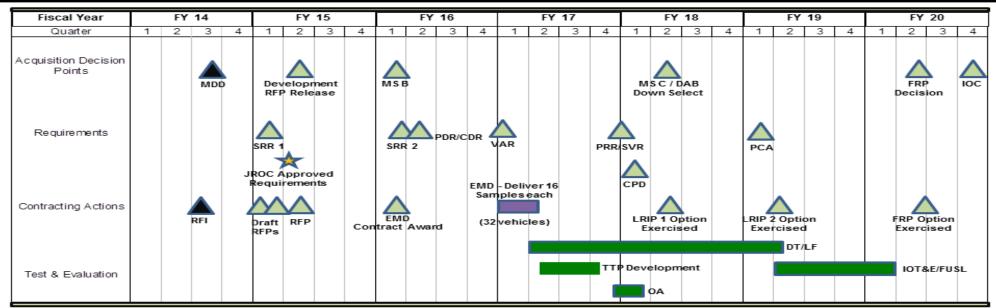
1319 / 4

R-1 Program Element (Number/Name)
PE 0603611M I Marine Corps Assault
Vehicles

**Project (Number/Name)** 0025 *I New Amphibious Vehicle* 

# **ACV Program Schedule**

As of 19 Nov 14



Unclassified(U)

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
11 1	, ,	- , (	umber/Name) v Amphibious Vehicle

# Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 0025				
MDD	3	2014	3	2014
Request for Information (RFI)	3	2014	3	2014
Draft Request for Proposal (RFP) 1	1	2015	1	2015
Draft Request for Proposal (RFP) 2	1	2015	1	2015
System Readiness Review 1	1	2015	1	2015
JROC Approved Requirements	2	2015	2	2015
Development RFP Release	2	2015	2	2015
MS B	1	2016	1	2016
EMD Contract Award	1	2016	1	2016
System Readiness Review 2	1	2016	1	2016
Preliminary Design Review/Critical Design Review	2	2016	2	2016
EMD Vehicle Delivery (32 Vehicles)	1	2017	2	2017
Vehicle Acceptance Review	1	2017	1	2017
Development Test/Live Fire Test	2	2017	2	2019
TTP Development	2	2017	4	2017
Operational Assessment (OA)	4	2017	1	2018
PRR/System Verification Review (SVR)	1	2018	1	2018
Capabilities Production Document (CPD)	1	2018	1	2018
LRIP Option 1 Exercised	2	2018	2	2018
MS C/DAB Down Select	2	2018	2	2018
PCA	1	2019	1	2019

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy	Date: February 2015	
, · · · · · · · · · · · · · · · · · · ·	,	Project (Number/Name) 0025 I New Amphibious Vehicle

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Initial Operational Test & Evaluation (IOT&E)/Full Up System Level (FUSL)	2	2019	1	2020
LRIP Option 2 Exercised	2	2019	2	2019
FRP Decision	2	2020	2	2020
FRP Option Exercised	2	2020	2	2020
IOC	4	2020	4	2020