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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy	Date: February 2015
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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>					R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>							
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	31.102	1.362	1.342	0.623	-	0.623	1.444	1.436	1.358	1.383	Continuing	Continuing
1964: <i>Anti-Armor Weapon System</i>	1.925	1.057	1.005	0.378	-	0.378	1.025	1.032	0.987	1.005	Continuing	Continuing
2614: <i>SMAW Follow-On</i>	29.177	0.305	0.337	0.245	-	0.245	0.419	0.404	0.371	0.378	Continuing	Continuing

Note

The Joint Light Tactical Vehicle (JLTV) program, Project number 3209 transitioned to BA 04 PE 0605812M beginning in FY 2013.

A. Mission Description and Budget Item Justification

This PE supports the demonstration and validation of Marine Corps Ground/Supporting Arms Systems for utilization in Marine Air-Ground Expeditionary Force amphibious operations. This program is funded under Demonstration & Validation because it develops and integrates hardware for experimental tests related to specific ground weapon systems.

B. Program Change Summary (\$ in Millions)	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	1.489	1.342	1.271	-	1.271
Current President's Budget	1.362	1.342	0.623	-	0.623
Total Adjustments	-0.127	-	-0.648	-	-0.648
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.123	-			
• SBIR/STTR Transfer	-0.004	-			
• Program Adjustments	-	-	-0.093	-	-0.093
• Rate/Misc Adjustments	-	-	-0.555	-	-0.555

Change Summary Explanation

The FY 2016 funding request was reduced by \$0.549M to account for the availability of prior year execution balances. The decrease from FY15 to FY16 reflects re-phasing of development funds to better align with the revised program development schedules.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/ Supt Sys				Project (Number/Name) 1964 / Anti-Armor Weapon System			
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
1964: Anti-Armor Weapon System	1.925	1.057	1.005	0.378	-	0.378	1.025	1.032	0.987	1.005	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The M41A4 Saber system is the primary heavy, anti-armor launch system for the TOW Missile within the Ground Combat Element of the Marine Corps. The Anti-Armor Weapons System-Heavy (AAWS-H) program, working in concert with the U.S. Army, will develop and integrate technology improvements into the Improved Target Acquisition System (ITAS) to meet Increment II system requirements as jointly agreed. Improvements centered on integration of sight image enhancements were concluded in FY13. Other efforts have focused on providing engineering and technical support such as the study of densified propellant and Saber battery replacement for the Saber system (far-target location accuracy improvements). Battlefield networking communications capability and a laser designation capability have been postponed due to prioritization of Saber battery upgrade/replacement efforts.

The decrease in funding from FY15 to FY16 reflects re-phasing of development funds to better align with the revised program development schedules.

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

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Densified Propellant	0.498	0.200	-	-	-
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Continued investigation and qualification to use densified propellant.					
FY 2015 Plans: Continue the qualification of densified propellant.					
FY 2016 Base Plans: N/A					
FY 2016 OCO Plans: N/A					
Title: Saber Battery Replacement	0.385	0.805	0.378	-	0.378
Articles:	-	-	-	-	-
FY 2014 Accomplishments:					

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Appropriation/Budget Activity 1319 / 4		R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/ Supt Sys		Project (Number/Name) 1964 / Anti-Armor Weapon System		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Initiated research of a replacement battery for Saber to address safety concerns, while maintaining the same or increased capabilities for power and longevity. FY 2015 Plans: -Continue research of a replacement battery for Saber to address safety concerns, while maintaining the same or increased capabilities for power and longevity. -Initiate testing of replacement battery. FY 2016 Base Plans: -Continue research of a replacement battery for Saber to address safety concerns, while maintaining the same or increased capabilities for power and longevity. -Continue testing of replacement battery. FY 2016 OCO Plans: N/A						
Title: Test Launch Stand Articles:		0.174 -	- -	- -	- -	- -
FY 2014 Accomplishments: Initiated investigation and qualification of a missile launch testing capability to qualify missiles without user or system error being introduced into the test. FY 2015 Plans: NA FY 2016 Base Plans: N/A FY 2016 OCO Plans: N/A						
Accomplishments/Planned Programs Subtotals		1.057	1.005	0.378	-	0.378

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Appropriation/Budget Activity 1319 / 4				R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/ Supt Sys</i>				Project (Number/Name) 1964 / <i>Anti-Armor Weapon System</i>			
C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2016</u>	<u>FY 2016</u>	<u>FY 2016</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Complete</u>	<u>Total Cost</u>
• PMC/3017: <i>Anti-Armor Weapon Systems-Heavy</i>	1.125	1.589	0.668	-	0.668	1.437	1.334	1.376	1.260	-	144.270
Remarks											
D. Acquisition Strategy											
The Saber system is a joint program with the U.S. Army. In FYs14-16 funding supports the development, integration, and qualification of incremental improvements to meet objective requirements and assesses emergent technologies.											
E. Performance Metrics											
N/A											

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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 0603635M / <i>Marine Corps Grnd Cmbt/ Supt Sys</i>				Project (Number/Name) 1964 / <i>Anti-Armor Weapon System</i>					

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		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 Complete	Total Cost	Target Value of Contract
Anti Armor	WR	NSWC Indian Head : Indian Head, MD	1.925	0.498	Nov 2013	0.200	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Anti Armor	WR	NSWC Crane : Crane, IN	0.000	0.385	Apr 2014	0.805	Oct 2014	0.378	Oct 2015	-		0.378	-	1.568	-
Anti Armor	WR	Yumas Test Ground : Yuma, AZ	0.000	0.174	Feb 2014	-		-		-		-	-	0.174	-
Subtotal			1.925	1.057		1.005		0.378		-		0.378	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.925	1.057	1.005	0.378	-	0.378	-	-	-

Remarks

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PE 0603635M: *Marine Corps Grnd Cmbt/Supt Sys*
Navy

R-1 Line #55

R-1 Program Element (Number/Name)
PE 0603635M / Marine Corps Grnd Cmbt/
Supt Sys

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/ Supt Sys</i>	Project (Number/Name) 1964 / <i>Anti-Armor Weapon System</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 1964</i>				
Densified Propellant: Densified Propellant	1	2014	4	2015
Saber Battery Replacement: Saber Battery Replacement	1	2014	1	2017
Test Launch Stand: Test Launch Stand	1	2014	4	2014
Battlefield Network: Battlefield Network	1	2017	4	2019
PADS GPS Improvement: PADS GPS Improvement	1	2018	4	2020

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Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/ Supt Sys				Project (Number/Name) 2614 / SMAW Follow-On			
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
2614: SMAW Follow-On	29.177	0.305	0.337	0.245	-	0.245	0.419	0.404	0.371	0.378	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
The mission of the SMAW Mod 2 is to provide short-range assault fires in support of infantry forces attacking fortified positions and urban structures under all field and environmental conditions. This includes employment under Mission Oriented Protective Posture (MOPP) IV Level Chemical, Biological, Radiological and Nuclear (CBRN) conditions. The SMAW Mod 2 consists of a new SMAW launcher that will be physically and functionally compatible with all current SMAW ammunition variants. Additionally, work is being performed to develop new propellant technologies for an enhanced rocket motor.												
In FY15, Full Rate Production of the SMAW Mod 2 launcher will begin and work will continue on the Densified Propellant. In FY16, work will be continued on the further development and integration of Densified Propellant into the SMAW rocket motor in support of future fire from enclosure capability.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Engineer and technical support. Articles: FY 2014 Accomplishments: Initiated engineering support for the development and testing of the Densified Propellant. FY 2015 Plans: Continue engineering support for the development and testing of the Densified Propellant. FY 2016 Base Plans: Continue engineering support for the development and testing of the Densified Propellant. FY 2016 OCO Plans: N/A								0.205	0.337	0.245	-	0.245
								-	-	-	-	-
								FY 2014 Accomplishments: Initiated engineering support for the development and testing of the Densified Propellant.				
								FY 2015 Plans: Continue engineering support for the development and testing of the Densified Propellant.				
								FY 2016 Base Plans: Continue engineering support for the development and testing of the Densified Propellant.				
Title: Operational test support planning and document preparation Articles: FY 2014 Accomplishments: Conducted and reported the results of the SMAW Mod 2 launcher IOT&E; provided operational test expertise to all programmatic and technical reviews. FY 2015 Plans:								0.100	-	-	-	-
								-	-	-	-	-
								FY 2014 Accomplishments: Conducted and reported the results of the SMAW Mod 2 launcher IOT&E; provided operational test expertise to all programmatic and technical reviews.				
								FY 2015 Plans:				

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Appropriation/Budget Activity 1319 / 4		R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/ Supt Sys		Project (Number/Name) 2614 / SMAW Follow-On							
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											
FY 2016 Base Plans:											
N/A											
FY 2016 OCO Plans:											
N/A											
Accomplishments/Planned Programs Subtotals		0.305	0.337	0.245	-	0.245					
C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• PMC/301600: Follow on to SMAW	0.105	4.867	4.872	-	4.872	24.907	25.245	-	-	-	124.203
Remarks											
D. Acquisition Strategy											
FY14-16 strategy is to complete development and qualification of the SMAW MOD 2 system (i.e. new SMAW Launcher).											
E. Performance Metrics											
Milestone Reviews; Technical Reviews.											

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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 0603635M / Marine Corps Grnd Cmbt/ Supt Sys						Project (Number/Name) 2614 / SMAW Follow-On			
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		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 Complete	Total Cost	Target Value of Contract
Prior Year Cumulative Funding	Various	various : various	1.748	-		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			1.748	-		-		-		-		-	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		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 Complete	Total Cost	Target Value of Contract
Prior Year Cumulative Funding	Various	various : various	16.300	-		-		-		-		-	Continuing	Continuing	Continuing
Engineering & Technical Support	WR	NSWC Indian Head : Indian Head, VA	0.324	0.205	Aug 2014	0.337	Dec 2014	0.245	Dec 2015	-		0.245	-	1.111	-
Subtotal			16.624	0.205		0.337		0.245		-		0.245	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		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 Complete	Total Cost	Target Value of Contract
Operational Testing & Support	WR	Marine Corps Operational Test & Eval Activity : Quantico, VA	5.064	0.100	Jan 2014	-		-		-		-	Continuing	Continuing	Continuing
Prior year cumulative funding	Various	various : various	0.326	-		-		-		-		-	-	0.326	-
Subtotal			5.390	0.100		-		-		-		-	-	-	-

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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 0603635M / Marine Corps Grnd Cmbt/ Supt Sys				Project (Number/Name) 2614 / SMAW Follow-On				

Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		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 Complete	Total Cost	Target Value of Contract
Prior year cumulative funding	Various	various : various	5.415	-		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			5.415	-		-		-		-		-	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	29.177	0.305	0.337	0.245	-	0.245	-	-	-

Remarks

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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 0603635M / Marine Corps Grnd Cmbt/ Supt Sys								Project (Number/Name) 2614 / SMAW Follow-On												
Proj 2614	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020							
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
SMAW Operational Test Support	_____																															
Densified Propellant Development	_____																															
Densified Propellant Qualification																	◆															
Densified Propellant System Verification Review																			◆													
Densified Propellant Developmental Testing																																
Densified Propellant Engineering Change Proposal																											◆					
Acquisition Milestone Events											▲			▲	▲					▲												
Major Contract Events		■			■			■			■																					
Deliverables										▼																						
Test and Evaluation	●																															
	●	●		●																												
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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/ Supt Sys</i>	Project (Number/Name) 2614 / <i>SMAW Follow-On</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 2614</i>				
SMAW Operational Test Support: SMAW Operational Test Support	1	2014	3	2014
Densified Propellant Development: Densified Propellant Development	1	2014	4	2017
Densified Propellant Qualification: Densified Propellant Qualification	1	2018	1	2018
Densified Propellant System Verification Review: Densified Propellant System Verification Review	1	2019	1	2019
Densified Propellant Developmental Testing: Densified Propellant Developmental Testing	3	2019	4	2019
Densified Propellant Engineering Change Proposal: Densified Propellant Engineering Change Proposal	2	2020	2	2020
Acquisition Milestone Events: Milestone C	2	2016	2	2016
Acquisition Milestone Events: Full Rate Production	1	2017	1	2017
Acquisition Milestone Events: Initial Operational Capability	2	2017	2	2017
Acquisition Milestone Events: Full Operational Capability	1	2019	1	2019
Major Contract Events: Request for Information Release	2	2014	2	2014
Major Contract Events: Request for Proposal	1	2015	1	2015
Major Contract Events: Contract Award	4	2015	4	2015
Major Contract Events: Final Contractor Award Downselect	3	2016	3	2016
Deliverables: Production Representative Articles	2	2016	2	2016
Deliverables: First Article Test	4	2016	4	2016
Deliverables: Lot 1	2	2017	1	2018
Deliverables: Lot 2	2	2018	1	2019
Test and Evaluation: Operational Test Readiness Review	1	2014	1	2014

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015		
Appropriation/Budget Activity 1319 / 4		R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/ Supt Sys		Project (Number/Name) 2614 / SMAW Follow-On	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
Test and Evaluation: Developmental Test/Operation Test		1	2014	1	2014
Test and Evaluation: Initial Operational Test and Evaluation		2	2014	2	2014
Test and Evaluation: Test and Evaluation Master Plan Update		4	2014	4	2014