

# UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification					DATE:			
					February 2006			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME			
RDT&E, N /BA-4 Advanced Component Dev & Prototypes (ADCP&P)		0603612M Marine Corps Mine/Countermeasures Systems			C2106 Advance Mine Detector			
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		5.827	3.216	3.777	0.653	0.000	0.000	0.000
RDT&E Articles Qty								
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
The Advance Mine Detector (AMD) will be a man-portable system capable of detecting both metallic and nonmetallic buried mines regardless of fuse type. The AMD will alleviate a critical deficiency for detection of buried metallic and semi-metallic mines. Current mine detection technologies are only able to detect metallic mines. The Family of Explosive Ordnance Disposal (FEOD) mission is to provide a capability to neutralize the hazards associated with explosive ordnance that are beyond the normal capabilities of other specialties and present a threat to operations, installations, personnel and material. The FEOD Equipment accomplishes this mission by detecting, identifying, rendering safe, recovering, evacuating and disassembling, and/or disposing of unexploded ordnance with a variety of tools.								
(U) ACCOMPLISHMENTS/PLANNED PROGRAM:								
COST (\$ in Millions)		FY 2005		FY 2006		FY 2007		
Accomplishment/Effort Subtotal Cost		1.136		0.500		0.500		
RDT&E Articles Qty								
AMD: Facilitate program transition to Marine Corps Systems Command (MARCORSYSCOM) from Office of Naval Research (ONR). Provide program management, technical support, and travel.								
COST (\$ in Millions)		FY 2005		FY 2006		FY 2007		
Accomplishment/Effort Subtotal Cost		1.000		1.700		2.716		
RDT&E Articles Qty								
AMD: Conduct initial developmental testing and follow-up developmental testing and operational testing in various soil types and environmental conditions of the AMD prototype to determine system capabilities.								
COST (\$ in Millions)		FY 2005		FY 2006		FY 2007		
Accomplishment/Effort Subtotal Cost		0.706		0.585		0.561		
RDT&E Articles Qty								
AMD: Update programmatic documentation and technical drawings. Development of technical manuals and training packages.								
COST (\$ in Millions)		FY 2005		FY 2006		FY 2007		
Accomplishment/Effort Subtotal Cost		0.520		0.431		0.000		
RDT&E Articles Qty								
AMD: Conduct Trade Studies to reduce power consumption/weight, improve detection depths, and sweep rate. Engineering and design studies to improve ergonomic characteristics, integrate human factors and finalize overall system design.								
COST (\$ in Millions)		FY 2005		FY 2006		FY 2007		
Accomplishment/Effort Subtotal Cost		0.410		0.000		0.000		
RDT&E Articles Qty								
ICE: Conduct testing of Hard to Kill Cards (H2K) for the IED Countermeasures Equipment (ICE) system.								
COST (\$ in Millions)		FY 2005		FY 2006		FY 2007		
Accomplishment/Effort Subtotal Cost		2.055		0.000		0.000		
RDT&E Articles Qty								
OPAL (TSWG): Reimburse the Joint Command Technical Support Workin Group (TSWG) for the purchase of OPAL Thermal Imagers.								
(U)Total \$		5.827		3.216		3.777		

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APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-4 Advanced Component Dev &amp; Prototypes (ADCP&amp;P)</b>			PROGRAM ELEMENT NUMBER AND NAME <b>0603612M Marine Corps Mine/Countermeasures Systems</b>			PROJECT NUMBER AND NAME <b>C2106 Advance Mine Detector</b>					
<b>PROJECT CHANGE SUMMARY:</b>			<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>						
<b>(U) FY 2006 President's Budget:</b>			4.478	3.265	3.760						
(U) Adjustments from the President's Budget:											
(U) Congressional/OSD Program Reductions											
(U) Congressional Rescissions											
(U) Congressional Increases											
(U) Reprogrammings			1.055								
(U) SBIR/STTR Transfer			-0.114								
(U) Minor Affordability Adjustment			0.408	-0.049	0.017						
<b>(U) FY 2007 President's Budget:</b>			<b>5.827</b>	<b>3.216</b>	<b>3.777</b>						
CHANGE SUMMARY EXPLANATION:											
(U) Funding: See above.											
(U) Schedule: Not Applicable.											
(U) Technical: Not Applicable.											
<b>(U) C. OTHER PROGRAM FUNDING SUMMARY:</b>											
<u>Line Item No. &amp; Name</u>			<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Compl</u>	<u>Total Cost</u>
PMC BLI 632500 Demo Support Sys			3.302	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.302
Advanced Mine Detector											
PMC BLI 652000 EOD Sys Advanced Mine Detector			0.000	1.039	2.449	2.609	1.068	0.000	0.000	0.000	7.165
 <b>(U) Related RDT&amp;E:</b> Not Applicable.											
 <b>(U) D. ACQUISITION STRATEGY:</b> By leveraging an exploratory technology program for mine detection, the Marine Corps will maintain active involvement in the Advanced Mine Detector (AMD) development during concept and technology development. A backpack prototype, configured to detect Trinitrotoluene (TNT), Hexahydro-Trinitro-Triazine (RDX), tetryl and metallic and semi-metallic mines, will be delivered 2nd quarter FY 05 for test and evaluation. The demonstrated technology will then transition into system development and demonstration phase for further development. A cost plus contract with negotiated contractor incentives in the areas of weight, sweep rate, and power consumption will be awarded. After completion of Milestone B, the program enters Low Rate Initial Production (LRIP). LRIP items will undergo Initial Operational Test and Evaluation in preparation for full rate production. The production phase will employ a fixed price production contract.											
 <b>(U) SCHEDULE PROFILE:</b> Not Applicable.											
 <b>(U) E. MAJOR PERFORMERS:</b>											
FY04 - Aberdeen Test Center, Aberdeen, MD, Test Activity											
FY05 - Aberdeen Test Center, Aberdeen, MD, Test Activity											
FY06 - Anniston Army Depot, Anniston Alabama/ Aberdeen Test Center, Aberdeen, MD, Test Activity/MCAS, Yuma Arizona											
FY07 - Aberdeen Test Center, Aberdeen, MD, Test Activity											

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Exhibit R-3 Cost Analysis				DATE: February 2006								
APPROPRIATION/BUDGET ACTIVITY				PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
RDT&E, N /BA-4 Advanced Component Dev & Prototypes (ADCP&P)				0603612M Marine Corps Mine/Counterme			C2106 Advance Mine Detector					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Engineering & Design	MIPR	CECOM Alexandria, VA	0.000	1.132	2Q/05	0.434	1Q/06			Cont	Cont	
Systems Engineering	MIPR	CECOM Alexandria, VA	0.000	0.505	3Q/05	0.231	3Q/06	0.194	2Q/06	Cont	Cont	
<b>Subtotal Product Dev</b>			<b>0.000</b>	<b>1.637</b>		<b>0.665</b>		<b>0.194</b>		<b>Cont</b>	<b>Cont</b>	
Remarks:												
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Engineering Spt	RCP	MCSC Quantico, VA	0.403	0.518	1Q/05	0.351	1Q/06	0.367	1Q/06	Cont	Cont	
Engineering Spt	MIPR	CECOM Alexandria, VA	0.283								0.283	0.283
Engineering Spt	MIPR	CECOM Alexandria, VA	0.042								0.042	0.042
Engineering Spt	RCP	MCSC Quantico, VA	0.036								0.036	0.036
Engineering Spt (FEOD)	RCP	MCSC Quantico, VA	0.025								0.025	0.025
Engineering Spt	RCP	MCSC Quantico, VA	0.000	2.056	2Q/05							
<b>Subtotal Support</b>			<b>0.789</b>	<b>2.574</b>		<b>0.351</b>		<b>0.367</b>		<b>Cont</b>	<b>Cont</b>	
Remarks:												
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Testing	MIPR	Aberdeen Prvg Grnd, MD	0.446	0.800	1Q/05	0.700	1Q/06	1.600	1Q/07	Cont	Cont	
Testing	MIPR	MCAS Yuma, AZ	0.000	0.000		1.000	2Q/06	1.116	2Q/07	Cont	Cont	
Testing	MIPR	Army Research Lab	0.000	0.410	2Q/05							
<b>Subtotal T&amp;E</b>			<b>0.446</b>	<b>1.210</b>		<b>1.700</b>		<b>2.716</b>		<b>Cont</b>	<b>Cont</b>	
Remarks:												
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Management Spt	RCP	BAE, Stafford, VA	0.000	0.406	1Q/05	0.500	1Q/06	0.500	2Q/06	Cont	Cont	
<b>Subtotal Management</b>			<b>0.000</b>	<b>0.406</b>		<b>0.500</b>		<b>0.500</b>		<b>Cont</b>	<b>Cont</b>	
Remarks:												
<b>Total Cost</b>			<b>1.235</b>	<b>5.827</b>		<b>3.216</b>		<b>3.777</b>		<b>Cont</b>	<b>Cont</b>	