

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

**February 2007**

BUDGET ACTIVITY		PE NUMBER AND TITLE							PROJECT	
<b>4 - Advanced Component Development and Prototypes</b>		<b>0603619A - Landmine Warfare and Barrier - Adv Dev</b>							<b>606</b>	
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
606 CNTRMN/BARRIER ADV DEV		8346	24737	29423	19008	19213	19800	20300	Continuing	Continuing

**A. Mission Description and Budget Item Justification:** This project provides for component development of new countermines systems for neutralizing, clearing, breaching and detection concepts that will enhance the effectiveness of the Future Force to maintain freedom of maneuver. The program includes the Ground Standoff Mine Detection System (GSTAMIDS) and the Autonomous Mine Detector (AMD). The GSTAMIDS forward looking effort will transition advanced technologies from the Army's S&T program into development to further enhance vehicle mounted mine detection capabilities for FCS. Autonomous Mine Detection System (AMDS) consist of three payloads for a robotic platform. The payloads are for mine detection and marking, Unexploded Ordnance (UXO) detection and marking, and neutralization. AMDS provides stand off detection for the dismounted soldier. Next Generation Mine Detection and Neutralization (FY11-13) will lever technologies currently in the Tech Base. The Next Generation Standoff Detection Systems (NGSOS) is a suite of advanced forward looking sensors designed to detect and confirm mines and Improvised Explosive Devices (IED) at far greater stand off distances than are achieved today. NGSOS will be designed as a payload on several vehicle platforms and robotic systems.

<u>Accomplishments/Planned Program:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Initiate GSTAMIDS GPR sensor block upgrade to Husky mine detection vehicle		7154		
Complete prototype and test of new GPR for route clearance vehicles		957		
Initiate Autonomous Mine Detection Sensors (AMDS) program			24737	
Build and test AMDS Brassboards (2)				29423
Small Business Innovative Research/Small Business Technology Transfer Program		235		
<b>Total</b>		<b>8346</b>	<b>24737</b>	<b>29423</b>

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<u><b>B. Program Change Summary</b></u>	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2007)		8439	39929	44475
Current BES/President's Budget (FY 2008/2009)		8346	24737	29423
Total Adjustments		-93	-15192	-15052
Congressional Program Reductions		-32		
Congressional Recissions				
Congressional Increases				
Reprogrammings		-61		
SBIR/STTR Transfer				
Adjustments to Budget Years			-15192	-15052

Change Summary Explanation: Funding:

FY 2008: Funds realigned (-\$15.2M) to higher priority requirements.

FY 2009: Funds realigned (-\$15.1M) to higher priority requirements.

<u><b>C. Other Program Funding Summary</b></u>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
0604808A D415 - Landmine Warfare and Barrier - Engineering Development		35780	47112	52784	43696	21516	20223	18608	Continuing	Continuing

Comment:

**D. Acquisition Strategy** Autonomous Mine Detection Sensors(AMDS) - The acquisition strategy for Component Advanced Development supports a competitive effort with one or more contractors/technology approaches. MS B is scheduled for 1st QTR FY08. Two Concept Development contract awards are scheduled for 2nd QTR FY08. AMDS will downselect to one contractor when it transitions from Concept Development (6.4) to System Development (6.5) in FY 2011.

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
4 - Advanced Component Development and Prototypes			0603619A - Landmine Warfare and Barrier - Adv Dev									606		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Ground Penetrating Radar Sensor blk upgrade	C-CPFF	BAE Systems - Austin TX				7154	2Q						7154	
Adv Mine Detection Sensors	C/CPFF	To Be Selected (1)						7094	2Q	7500	2Q	4000	18594	
Adv Mine Detection Sensors	C/CPFF	To Be Selected (2)						7093	2Q	7500	2Q	4000	18593	
Other Component Development	C/FP, T&M	Various						6000	2Q	7500	2Q	4000	17500	
Subtotal:						7154		20187		22500		12000	61841	
Remarks: Acquisition Strategy is to award two Concept Development contracts and to downselct to one System Development contract in FY2011.														
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Adv Mine Detection Sensors	MIPR	Various OGAs						1580	1Q	2020		1400	5000	
Subtotal:								1580		2020		1400	5000	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Ground Penetrating Radar for route Clr Veh	MIPR	Various OGA				957	2Q						957	
AMDS	MIPR	Various OGA						770	2Q	2500	2Q	3000	6270	
Subtotal:						957		770		2500		3000	7227	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract

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Program Management	IN-House	PM Close Combat Systems Picatinny NJ/ Ft Belvoir VA						1000	1Q	1100		1400	3500
Program Management Contractor Support	C/FP	BRTRC Fairfax VA						1200	2Q	1303		1208	3711
SBIR/STTR						235							235
Subtotal:						235		2200		2403		2608	7446
<b>Project Total Cost:</b>						<b>8346</b>		<b>24737</b>		<b>29423</b>		<b>19008</b>	<b>81514</b>

# Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY		PE NUMBER AND TITLE																PROJECT																		
<b>4 - Advanced Component Development and Prototypes</b>		<b>0603619A - Landmine Warfare and Barrier - Adv Dev</b>																<b>606</b>																		
Event Name	FY 06				FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Advanced Mine Detection Sensors Concept Development	[Redacted]								[Bar]																											
Next Generation Standoff Mine Detection and Neutralization System (NCSOS)																	[Bar]																			
AMDS Prototype Testing																									[Bar]											
AMDS Development Tests																													[Bar]							
NGSOS DT/OT																																	[Bar]			

**Schedule Detail (R4a Exhibit)**

**February 2007**

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<u>Schedule Detail</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>FY 2012</u>	<u>FY 2013</u>
Advanced Mine Detection Sensors Concept Development			1Q - 4Q	1Q - 4Q	1Q - 4Q			
Next Generation Standoff Mine Detection and Neutralization System (NCSOS)					1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q
AMDS Milestone B			1Q					
AMDS System Requirements Review			2Q					
AMDS Preliminary Design Review				2Q				
AMDS Prototype Testing					4Q			
AMDS Critical Design Review						4Q		
AMDS Development Tests							3Q	
AMDS Milestone C								3Q
NGSOS Milestone B					4Q			
NGSOS Concept Development Contract						2Q		
NGSOS Critical Design Review								4Q
NGSOS DT/OT								4Q