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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				PE 0603619A: <i>Landmine Warfare and Barrier - Adv Dev</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	29.399	15.596	35.383	-	35.383	22.114	26.067	29.219	26.504	Continuing	Continuing
606: <i>CNTRMN/BARRIER ADV DEV</i>	29.399	15.596	35.383	-	35.383	22.114	26.067	29.219	26.504	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element provides for advanced development of all landmine and counter landmine technologies. It also covers other close combat systems to include demolitions, grenades and pyrotechnics. Currently only one project line is funded: Project 606 - Countermine/Barrier Advanced Development. It provides for component development of new countermine systems for neutralizing, clearing, and detection concepts that will enhance the effectiveness of the Route Clearance Family of Systems Capabilities Development Document.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	17.445	15.596	19.293	-	19.293
Current President's Budget	29.399	15.596	35.383	-	35.383
Total Adjustments	11.954	-	16.090	-	16.090
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	12.551	-			
• SBIR/STTR Transfer	-0.597	-			
• Adjustments to Budget Years	-	-	16.090	-	16.090

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603619A: <i>Landmine Warfare and Barrier - Adv Dev</i>				PROJECT 606: <i>CNTRMN/BARRIER ADV DEV</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
606: <i>CNTRMN/BARRIER ADV DEV</i>	29.399	15.596	35.383	-	35.383	22.114	26.067	29.219	26.504	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
<p>This project provides for component development of new explosive hazard (countermine and counter Improvised Explosive Device (IED)) systems for neutralizing, clearing, and detection capabilities that will enhance the effectiveness of the Route Clearance Platoon within both the Engineer Company, and the Brigade Combat Team. Two of these programs are planned for FY2012; they are the Autonomous Mine Detection System (AMDS) and the Husky Mounted Detection System (HMDS). AMDS provides stand-off detection for the dismounted soldier. AMDS consist of three payloads for a robotic platform. The payloads are for surface laid and buried threat detection and marking, explosive hazards trace detection and marking, and neutralization. Additional technologies are planned to transition from on-going Advance Technology Objectives (ATOs) efforts in FY2012 and beyond. The HMDS will transition advanced technologies from the Army's S&T program into development to further enhance vehicle mounted explosive hazard detection capabilities. This project provides for component development and program transition from JUONS requirement to Army Acquisition Program. HMDS provides state of the art detection of surface laid and shallow buried explosive hazards, deep buried cache detection, and semi-autonomous operation in support of route clearance missions. HMDS is a mission equipment package mounted on HUSKY route clearance vehicles.</p>											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2010	FY 2011	FY 2012	
Title: Build and test AMDS Brassboards (2)								29.399	9.572	-	
Articles:								0	0		
Description: Funding is provided for the following effort											
FY 2010 Accomplishments:											
FY10: Build and test AMDS Brassboards (2).											
FY 2011 Plans:											
FY11: Build and test AMDS Brassboards (2).											
Title: AMDS Brassboard Testing								-	3.628	-	
Articles:									0		
Description: AMDS Brassboard Testing											
FY 2011 Plans:											

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
FY11: AMDS Brassboard Testing.					
Title: AMDS Mission Package Design and Development Description: AMDS Mission Package Design and Development FY 2012 Plans: FY12: AMDS Mission Package Design and Development			-	-	29.854
Title: AMDS Platform Integration Description: AMDS Platform Integration FY 2012 Plans: FY12: AMDS Platform Integration			-	-	3.829
Title: AMDS Tech Demo, Operational Assessment and Test Report Description: AMDS Tech Demo, Operational Assessment and Test Report FY 2012 Plans: FY12: AMDS Tech Demo, Operational Assessment and Test Report			-	-	1.200
Title: AMDS MS C Review Preparation Description: AMDS MS C Review Preparation FY 2012 Plans: AMDS MS C Review Preparation			-	-	0.500
Title: HMDS Material Development Decision and MS C Preparation Description: HMDS Material Development Decision and MS C Preparation FY 2011 Plans: HMDS Material Development Decision and MS C Preparation			-	2.396 0	-
Articles:					
Accomplishments/Planned Programs Subtotals			29.399	15.596	35.383

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APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603619A: <i>Landmine Warfare and Barrier - Adv Dev</i>	PROJECT 606: <i>CNTRMN/BARRIER ADV DEV</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 654808/D415: <i>Mine Neutralization and Detection</i>	31.952	36.272	78.446		78.446		32.527	23.542	45.081	Continuing	Continuing

D. Acquisition Strategy

Autonomous Mine Detection System (AMDS) - The AMDS is currently in a risk reduction effort that started in FY2008 and will be completed in FY2012. Future technical development effort will occur leading to a transition from Concept Development (6.4) to Engineering Manufacturing Development (6.5).

HMDS - The acquisition strategy for HMDS supports a competitive effort. System maturity will be extremely high after combat fielding and real world mission accomplishment. Program should rapidly transition to MS C production in FY 2014.

E. Performance Metrics

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603619A: Landmine Warfare and Barrier - Adv Dev				PROJECT 606: CNTRMN/BARRIER ADV DEV					
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Various	PM Close Combat Systems:Picatinny, NJ/ Ft Belvoir, VA	1.740	1.500		2.800		-		2.800	Continuing	Continuing	Continuing
Program Management Contractor Support	MIPR	FALCON:Fairfax, VA	1.100	0.285		0.800		-		0.800	Continuing	Continuing	Continuing
Program Management Contractor	MIPR	Millenium:Arlington, VA	0.693	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			3.533	1.785		3.600		-		3.600			
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AMDS Tech Dev	TBD	To Be Selected:To Be Selected	12.667	5.915		16.304		-		16.304	Continuing	Continuing	Continuing
AMDS - BAAs	Various	Various:Various	4.552	-		-		-		-	Continuing	Continuing	Continuing
AMDS Other Component Development	Various	Various:Various	2.371	-		11.550		-		11.550	Continuing	Continuing	Continuing
Subtotal			19.590	5.915		27.854		-		27.854			
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AMDS	MIPR	Various:Various	8.625	5.040		3.229		-		3.229	Continuing	Continuing	Continuing
Husky Mounted Detection System	MIPR	Various:Various	-	2.356		-		-		-	2.356	4.712	2.356
Subtotal			8.625	7.396		3.229		-		3.229			

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Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AMDS	MIPR	Various:Various	0.020	0.500		0.700		-		0.700	Continuing	Continuing	Continuing
Subtotal			0.020	0.500		0.700		-		0.700			

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	31.768	15.596		35.383		-		35.383			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army			DATE: February 2011		
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
Test Brassboards																												
AMDS Milestone B																												
HMDS MDD																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army			DATE: February 2011
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Test Brassboards	2	2011	3	2011
AMDS Milestone B	3	2012	3	2012
HMDS MDD	1	2011	1	2011

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