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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Army									DATE: February 2010		
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							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	13.789	17.445	15.596	0.000	15.596	19.293	19.724	17.433	17.901	Continuing	Continuing
606: CNTRMN/BARRIER ADV DEV	13.789	17.445	15.596	0.000	15.596	19.293	19.724	17.433	17.901	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)**

	<b><u>FY 2009</u></b>	<b><u>FY 2010</u></b>	<b><u>FY 2011 Base</u></b>	<b><u>FY 2011 OCO</u></b>	<b><u>FY 2011 Total</u></b>
Previous President's Budget	14.186	17.536	17.618	0.000	17.618
Current President's Budget	13.789	17.445	15.596	0.000	15.596
Total Adjustments	-0.397	-0.091	-2.022	0.000	-2.022
• Congressional General Reductions		-0.091			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.001	0.000			
• SBIR/STTR Transfer	-0.398	0.000			
• Adjustments to Budget Years	0.000	0.000	-2.022	0.000	-2.022

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603619A: <i>Landmine Warfare and Barrier - Adv Dev</i>				<b>PROJECT</b> 606: <i>CNTRMN/BARRIER ADV DEV</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
606: <i>CNTRMN/BARRIER ADV DEV</i>	13.789	17.445	15.596	0.000	15.596	19.293	19.724	17.433	17.901	Continuing	Continuing
Quantity of RDT&E Articles											
<b>A. Mission Description and Budget Item Justification</b> <p>This project provides for component development of new countermine and counter Improvised Explosive Device (IED) systems for neutralizing, clearing, and detection concepts that will enhance the effectiveness of the Route Clearance Family of Systems capabilities. Two of these programs are planned for FY2011; they are the Autonomous Mine Detector 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 remote mine detection and marking, explosive hazard detection and marking, and neutralization. Additional technologies are planned to transition from on-going Advance Technology (ATOs) efforts in FY12 and beyond. The HMDS will transition advanced technologies from the Army's S&amp;T program into development to further enhance vehicle mounted mine 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 IEDs and anti-tank mines for route clearance missions. HMDS is a mission equipment package on manned and unmanned route clearance vehicles. Next Generation Mine Detection and Neutralization (FY12 -15) will leverage technologies, currently in the Tech Base, designed to detect and confirm mines and Improvised Explosive Devices (IED) at far greater stand off distances than are achieved today. These will be designed as a payload on several vehicle platforms and robotic systems.</p>											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
						<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	
Program #1						13.789	16.957	7.877	0.000	7.877	
Build and test AMDS Brassboards (2)											
<i>FY 2009 Accomplishments:</i>											
FY 2009											
<i>FY 2010 Plans:</i>											
FY 2010											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: February 2010		
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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #2 AMDS Brassboard Testing  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO		0.000	0.000	2.323	0.000	2.323
Program #3 HMDS PM Transition  FY 2009 Accomplishments: FY 2009		0.000	0.000	5.396	0.000	5.396

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: FY 2010						
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #4  Small Business Innovative Research/Small Business Technology Transfer Program		0.000	0.488	0.000	0.000	0.000
FY 2009 Accomplishments: FY 2009						
FY 2010 Plans: FY 2010						
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Accomplishments/Planned Programs Subtotals		13.789	17.445	15.596	0.000	15.596

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army									DATE: February 2010		
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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• Ord. #1: 654808/D415 Mine Neutralization and Detection	39.108	32.953	36.272	0.000	36.272	19.986	18.389	26.441	24.018	Continuing	Continuing
D. Acquisition Strategy											
Autonomous Mine Detection Sensors (AMDS) - The AMDS is currently in a risk reduction effort that started in FY08 and will be completed in FY10. 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 FY12.											
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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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603619A: <i>Landmine Warfare and Barrier - Adv Dev</i>				<b>PROJECT</b> 606: <i>CNTRMN/BARRIER ADV DEV</i>					
<b>Product Development (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Adv Mine Detection Sensors - BAAs	C/CPFF	Various Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
Adv Mine Detectio Sensors Tech Dev	C/CPFF	To Be Selected Location could not be determined.	0.000	12.667		7.657		0.000		7.657	Continuing	Continuing	0
AMDS Other Component Development	C	Various Location could not be determined.	0.000	1.162		0.000		0.000		0.000	Continuing	Continuing	0
Husky Mounted Detection System	C	To Be Selected Location could not be determined.	0.000	0.000		3.835		0.000		3.835	Continuing	Continuing	0
<b>Subtotal</b>			0.000	13.829		11.492		0.000		11.492			0.000
<b>Remarks</b>													
<b>Support (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Adv Mine Detection Sensors	C	Various OGAs Location could not be determined.	0.000	1.834		1.555		0.000		1.555	Continuing	Continuing	0

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<b>Support (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Husky Mounted Detection System	C	To Be Determined Location could not be determined.	0.000	0.000		0.750		0.000		0.750	Continuing	Continuing	0
<b>Subtotal</b>			0.000	1.834		2.305		0.000		2.305			0.000
<b>Remarks</b>													
<b>Test and Evaluation (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
AMDS	C	Various OGA Location could not be determined.	0.000	0.020		0.311		0.000		0.311	Continuing	Continuing	0
<b>Subtotal</b>			0.000	0.020		0.311		0.000		0.311			0.000
<b>Remarks</b>													

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<b>Management Services (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Program Management	C	PM Close Combat Systems Picatinny NJ/ Ft Belvoir VA Location could not be determined.	0.900	0.639		0.568		0.000		0.568	Continuing	Continuing	0
Program Management Contractor	C/FP	Millenium Arlington VA	0.000	0.350		0.370		0.000		0.370	Continuing	Continuing	0
Program Management Contractor Support	C/FP	FALCON Fairfax VA	0.122	0.285		0.550		0.000		0.550	Continuing	Continuing	0
SBIR/STTR	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.488		0.000		0.000		0.000	Continuing	Continuing	0
<b>Subtotal</b>			1.022	1.762		1.488		0.000		1.488			0.000
<b>Remarks</b>													
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			1.022	17.445		15.596		0.000		15.596			0.000
<b>Remarks</b>													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Army																				DATE: February 2010			
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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Army			DATE: February 2010	
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Schedule Details				
	Start		End	
Event	Quarter	Year	Quarter	Year
Advanced Mine Detection Sensors Technology Development	1	2009	2	2012
AMDS Milestone A	1	2009	1	2009
Build Multiple Brassboards	3	2009	1	2010
Test Brassboards	1	2011	3	2011
AMDS MS A Preliminary Design Review	3	2010	3	2010
AMDS MS A Critical Design Review	3	2011	3	2011
AMDS Milestone B	3	2012	3	2012
HMDS Milestone C	3	2012	3	2012
HMDS LRIP	1	2013	1	2013

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