

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)							February 2003				
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603619A - Landmine Warfare and Barrier - Adv Dev							
COST (In Thousands)		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost		20300	9716	36976	42262	21757	20359	60096	67964	0	297234
005	CLOSE COMBAT CAPABILITIES ADV DEV	8842	0	27026	30507	12704	12105	21081	24511	0	144926
606	CNTRMN/BARRIER ADV DEV	11458	9716	9950	11755	9053	8254	39015	43453	0	152308
<p><u>A. Mission Description and Budget Item Justification:</u> This program element provides for component development of new mine, countermine, demolition, non-lethal, and shoulder launched munitions/systems by prototyping modern munitions technology, sensors, logic networks, fuzes, power sources, warhead components and modules into complete systems. The program provides for development of grenades, munition simulators, and pyrotechnic devices. The Acquisition Strategy was synchronized with the Future Combat Systems (FCS) resulting in a program restructure. The Program Element (PE) provides for the Intelligent Munitions System (IMS). The IMS provides the FCS Objective Force with capability of intelligent mines, both lethal and non-lethal, demolitions and sensors used by the US Army. It will enhance the effectiveness of the Objective Force by providing situational understanding, real time targeting data and networked fire capabilities. The IMS will significantly enhance minefield effectiveness through coordinated attack/tactics and elimination of overwatch forces. This PE also provides for the initiation and/or continuation of component development of the Airborne Stand-off Minefield Detection System (ASTAMIDS), and Ground Stand-off Mine Detection System (GSTAMIDS) also Objective Force capability systems.</p> <p>These Systems support the Objective Force Block I of the Transformation Campaign Plan (TCP).</p>											

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<u>B. Program Change Summary</u>	FY 2002	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2003)	19877	20286	19295	21133
Current Budget (FY 2004/2005 PB)	20300	9716	36976	42262
Total Adjustments	423	-10570	17681	21129
Congressional program reductions		-10116		
Congressional rescissions		-111		
Congressional increases				
Reprogrammings	976	-63		
SBIR/STTR Transfer	-553	-280		
Adjustments to Budget Years			17681	21129

FY03:

Funding: Program reduced by \$10.1M due to Congress cancelling the RAPTOR program.

FY04:

Funding: Received increase of \$17.7M from 0604808A D016 to support the Intelligent Munitions System.

FY05:

Funding: Received increase of \$21.1M from 0604808A D016 to support the Intelligent Munitions System.

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BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT		
4 - Advanced Component Development and Prototypes				0603619A - Landmine Warfare and Barrier - Adv Dev				005		
COST (In Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
005 CLOSE COMBAT CAPABILITIES ADV DEV	8842	0	27026	30507	12704	12105	21081	24511	0	144926
<p>A. Mission Description and Budget Item Justification: This project provides for component development of mine, demolition and non-lethal systems. Intelligent Munitions System (IMS) is an integrated system of sensors, lethal and non-lethal munitions, software and communications that may be emplaced by multiple means and is capable of autonomous, unattended employment for the detection, classification, identification, tracking and engagement of selected targets in accordance with the commander's intent. IMS will enhance the effectiveness of the Objective Force by providing situational understanding, real time targeting data and networked fire capabilities while eliminating the need for overwatch forces. The Intelligent Munitions System is an Objective Force Block I system.</p>										
Accomplishments/Planned Program						FY 2002	FY 2003	FY 2004	FY 2005	
Design/Development of Communications, Sensor, and Munition Components for IMS Block I						2885	0	21491	3907	
IMS Concept Exploration Activities						3407	0	0	0	
Source selection preparation						1200	0	0	0	
Component Advanced Development Phase Testing for IMS						0	0	1035	3000	
IMS Modeling and Simulation						1350	0	3000	3000	
Prepare Documentation and conduct MS B review						0	0	0	100	
Prepare IMS Block II procurement package						0	0	1500	1500	
Design/Development of Communications, Sensor, and Munition Components for IMS Block II						0	0	0	19000	
Totals						8842	0	27026	30507	

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BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603619A - Landmine Warfare and Barrier - Adv Dev				PROJECT 005		
<u>B. Other Program Funding Summary</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>To Compl</u>	<u>Total Cost</u>
Future Combat Systems PE 654645, Project Number 470	0	157649	1245118	1967611	1853885	1074551	1046145	807495	0	8152454
<p><u>C. Acquisition Strategy:</u>Award up to two contracts for Component Advanced Development (CAD). Conduct CAD. Downselect to one contractor for the system development and demonstration phase.</p>										

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes					PE NUMBER AND TITLE 0603619A - Landmine Warfare and Barrier - Adv Dev					PROJECT 005		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IMS Component Advanced Development	C-CPIF	TBD	10126	0		21078	1Q	3452	1Q	0	34656	29570
b . IMS Block II Component Advcanced Development	C-CPIF	TBD	0	0		0		19000	2Q	Continue	19000	Continue
Subtotal:			10126	0		21078		22452		Continue	53656	Continue
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Eng. support (IMS)	MIPR	TACOM/ARDEC, Picatinny Arsenal NJ	6290	0		1913	1Q	2200	1Q	Continue	10403	Continue
b . Eng. support (IMS)	C-CPIF	CECOM, Ft monmouth, NJ	310	0		500		500		Continue	1310	Continue
c . IMS-Other OGAs/contracts	Various	Various	6999	0		2200		1955		Continue	11154	Continue
Subtotal:			13599	0		4613		4655		Continue	22867	Continue

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes					PE NUMBER AND TITLE 0603619A - Landmine Warfare and Barrier - Adv Dev					PROJECT 005		
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Test support (IMS)	MIPR	ATEC, Virginia	1400	0		1035	1Q	3000	1Q	Continue	Continue	Continue
Subtotal:			1400	0		1035		3000		Continue	Continue	Continue
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Program Management	In-house	PM-CCS, Picatinny Arsenal, New Jersey	1113	0	1Q	300		400		Continue	1813	Continue
Subtotal:			1113	0		300		400		Continue	1813	Continue
Project Total Cost:			26238	0		27026		30507		Continue	Continue	Continue

Schedule Profile Detail (R-4a Exhibit)							February 2003	
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603619A - Landmine Warfare and Barrier - Adv Dev			PROJECT 005	
<u>Schedule Detail</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
IMS CAD Decision Review		2Q						
IMS Component Prototype Testing			4Q	1Q				
IMS Milestone B				2Q				
IMS SDD Interim Progress Review					3Q			
IMS Milestone C						4Q		
IMS Full Rate Production review							3Q	
IMS First Unit Equipped (FUE)							4Q	
IMS DT					4Q			
IMS IOTE						2Q		

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)								February 2003			
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603619A - Landmine Warfare and Barrier - Adv Dev				PROJECT 606			
COST (In Thousands)		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
606	CNTRMN/BARRIER ADV DEV	11458	9716	9950	11755	9053	8254	39015	43453	0	152308
<p>A. Mission Description and Budget Item Justification: This project provides for component development of new countermine systems by prototyping sensors for neutralizing, clearing, breaching and detection concepts which will enhance the effectiveness of the Objective Force to maintain freedom of maneuver. The program includes the Airborne Standoff Minefield Detection System (ASTAMIDS), and Ground Stand-off Mine Detection System (GSTAMIDS). These Systems are Objective Force Block I systems.</p>											
Accomplishments/Planned Program							FY 2002	FY 2003	FY 2004	FY 2005	
Contractor Technical Testing and Integration Risk Reduction of GSTAMIDS Quadruple Resonance Sensors.							6856	0	0	0	
Conduct Source Selection and award ASTAMIDS System Component Development.							0	700	0	0	
Develop GSTAMIDS Block I Systems (Virtual Prototype) Concept.							3022	0	0	0	
ASTAMIDS System Component Development.							0	6969	6278	8483	
Test planning, preparation ,and support for ASTAMIDS.							980	809	1000	600	
Plants Detecting Minefields.							400	0	0	0	
Procure Mine Marking Foam							200	0	0	0	
ASTAMIDS Modeling, Analysis and Engineering support							0	1238	2672	2672	
Totals							11458	9716	9950	11755	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2003

BUDGET ACTIVITY

4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE

**0603619A - Landmine Warfare and Barrier - Adv
Dev**

PROJECT

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B. Other Program Funding Summary	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
PE 0604808A, Project 415, Mine Neutralization/Detection	39459	44185	33706	13234	19933	28906	48003	66876	Continuing	Continuing
R68101, GSTAMIDS Block 0	8180	20359	0	0	0	0	0	0	0	28539
R68102, GSTAMIDS Block 1	0	0	0	0	0	7201	20932	20226	Continuing	Continuing
S11500, ASTAMIDS	0	0	0	0	0	0	11486	12290	Continuing	Continuing

C. Acquisition Strategy: Airborne Stand-off Minefield Detection System (ASTAMIDS) will competitively select a system component development contractor and award a sole source System Development and Demonstration (SDD) contract upon completion of System Component Development phase and Milestone Decision Authority (MDA) approval. A sole source production contract with multiple options are anticipated for the successful SDD contractor. Ground Stand-off Minefield Detection System (GSTAMIDS) program is a spiral development and acquisition program designed to field vehicle mounted mine detection and neutralization capabilities in successive block upgrades (Blocks 0,1, and 2). The Block I confirmation sensor is being developed under the Quadrupole Resonance Contract that was awarded on a sole source basis. The Block I Systems Concept Contract was competitively awarded for the Concept and Technology Development and Demostration Phase.

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes					PE NUMBER AND TITLE 0603619A - Landmine Warfare and Barrier - Adv Dev					PROJECT 606		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . GSTAMIDS, Blk I ; System concept Contract	C-CPFF	BAE Systems	2487	0		0		0		0	2487	4012
b . GSTAMIDS BLK I QR	C-CPFF	Quantum Magnetics, San Diego, CA	13936	0		0		0		0	13936	13986
c . ASTAMIDS	C-CPIF	TBD	0	6694	2Q	6378	1Q	8483	1Q	Continue	Continue	Continue
d . Plants Detecting Landmines			309	0		0		0		0	309	309
Subtotal:			16732	6694		6378		8483		Continue	Continue	Continue
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . GSTAMIDS Blk I Eng. Support	MIPR	Various	2870	0		0		0		0	2870	2870
b . ASTAMIDS	MIPR	Various	750	1313	1Q	1637	1Q	1637	1Q	Continue	Continue	Continue
Subtotal:			3620	1313		1637		1637		Continue	Continue	Continue

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . GSTAMIDS Blk I Test Support	MIPR	ATEC, Virginia	1192	0		0		0		0	1192	1192
b . ASTAMIDS	MIPR	ATEC, Virginia	430	346	2-3Q	900	1-3Q	600	2Q	Continue	2276	Continue
Subtotal:			1622	346		900		600		Continue	3468	Continue
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Prog Mgmt GSTAMIDS	In-house	PM-CCS, Picatinny, NJ	679	0		0		0		0	679	679
b . Prog Mgmt GSTAMIDS	C-FP	Various	1558	0		0		0		0	1558	1558
c . ASTAMIDS	In-house	PM-CCS	0	655	1-4Q	335	1-4Q	335	1-4Q	Continue	1325	Continue
d . Prog Mgmt ASTAMIDS	C-FP	Various	0	708		700	1Q	700	1Q	Continue	Continue	Continue
Subtotal:			2237	1363		1035		1035		Continue	Continue	Continue

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Project Total Cost:			24211	9716		9950		11755		Continue Continue Continue

Schedule Profile Detail (R-4a Exhibit)							February 2003				
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603619A - Landmine Warfare and Barrier - Adv Dev				PROJECT 606			
<u>Schedule Detail</u>				<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
GSTAMIDS Block I MS B					4Q						
GSTAMIDS Block I MS C									4Q		
ASTAMIDS BlockI MS B					1Q						