

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY

4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE

0603619A - Landmine Warfare and Barrier - Adv Dev

COST (In Thousands)	FY 2003 Actual	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	9719	36563	11634	0	8167	38606	42975	Continuing	Continuing
005 CLOSE COMBAT CAPABILITIES ADV DEV	0	26724	0	0	0	0	0	0	43716
606 CNTRMN/BARRIER ADV DEV	9719	9839	11634	0	8167	38606	42975	Continuing	Continuing

A. Mission Description and Budget Item Justification: This program element provides for component development of new mine, counter mine, demolition, non-lethal, and shoulder launched munitions/systems by prototyping modern munitions technology, 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 Program Element (PE) provides for the Intelligent Munitions System (IMS). The IMS provides the Future Combat System (FCS) unit of action with capability of intelligent mines, both lethal and non-lethal, demolitions includes sensors/seekers used by the US Army. It will enhance the effectiveness of the unit of action by providing networked munitions and real time targeting data 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) a Future Combat System complementary system.

These Systems supports the Future Force of the Transformation Campaign Plan (TCP). IMS is an FCS Block I Core program. GSTAMIDS and ASTAMIDS are FCS Complementary programs.

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<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	9716	36976	42262
Current Budget (FY 2005 PB)	9719	36563	11634
Total Adjustments	3	-413	-30628
Congressional program reductions			
Congressional rescissions			
Congressional increases			
Reprogrammings	3	-413	
SBIR/STTR Transfer			
Adjustments to Budget Years			-30628

In FY05 the Army reprogrammed \$11.9M to 604808/D016 which provides for the System Demonstration and Development (SDD) phase of the IMS program. This was done to keep the Intelligent Munitions System (IMS) program in phase with the Future Combat System

In FY05 the Army reprogrammed \$18.5M to 654645/D470 Future Combat Systems.

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PROJECT

005

COST (In Thousands)	FY 2003 Actual	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	0	26724	0	0	0	0	0	0	43716

A. Mission Description and Budget Item Justification: This project provides for component development of mine, demolition and non-lethal systems. The Intelligent Munitions System is one of the 18 core programs that make up the Future Combat Systems(FCS)Family of Systems. IMS is an integrated system of effects (lethal, non-lethal, anti-vehicle, anti-personnel, demolitions), software, sensors/seekers and communications that may be emplaced by multiple means and is capable of 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 FCS unit of action spiral development.

<u>Accomplishments/Planned Program</u>	FY 2003	FY 2004	FY 2005
Continue Concept development - component and system level.	0	22661	0
Continue Modeling, simulation and analysis.	0	2500	0
Execute FCS integration activities into the System Integration Lab (SIL).	0	800	0
Small Business Innovative Research/Small Business Technology Transfer Programs.	0	763	0
Totals	0	26724	0

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B. Other Program Funding Summary

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
Future Combat Systems PE 654645, Project Number 470	157649	1245118	1967611	1853885	1074551	1046145	807495	0	8152454
APLA-A, (Mixed Systems), PE 654808, Project Number 443	30591	31471	67059	98042	99742	0	0	0	326905
Close Combat Systems - Engineering Development PE 654808 Project Number D016	21483	2697	12000	12700	12105	21073	24499	0	106557

C. Acquisition Strategy: The IMS effort will awarded two cost plus incentive fee, incrementally funded Technology Development (TD) phase contracts. There will be a downselect to one TD phase contractors for the System Development and Demonstration (SDD) phase, and award a cost plus incentive fee, incrementally funded contract for SDD and low rate initial production. Will achieve an Initial Operational Capability as part of the Future Combat Systems Full Operational Capability.

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
4 - Advanced Component Development and Prototypes					0603619A - Landmine Warfare and Barrier - Adv Dev					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 Technology Development	C-CPIF	GDAIS, Bloomington, MN	8842	0		9468	1Q	0		0	18310	Continue
b . IMS Technology Development	C-CPIF	Textron Systems Corp, Wilmington, MA	0	0		9467	1Q	0		0	9467	Continue
c . Small Business Innovative Research/Small Business Technology Transfer Programs			0	0		763		0		0	763	0
Subtotal:			8842	0		19698		0		0	28540	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	0	0		3500	1Q	0	1Q	Continue	3500	Continue
b . Eng. support (IMS)	MIPR	CECOM, Ft Monmouth, NJ	0	0		380	1Q	0		Continue	380	Continue
c . IMS-Other OGAs/contracts	Various	Various	0	0		1546	1Q	0		Continue	1546	Continue

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
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II. Support Cost (continued)	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
			0	0		5426		0		Continue	5426	Continue
Subtotal:												
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, MD	0	0		300	1Q	0		0	300	0
Subtotal:			0	0		300		0		0	300	0
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	0	0		1000	1Q	0		Continue	1000	Continue
b . Program Management Support	T.O. Contract	Robbin-Gioia, Picatinny Arsenal, NJ	0	0		300	1Q	0		Continue	300	Continue

ARMY RDT&E COST ANALYSIS(R3)									February 2004				
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT			
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IV. Management Services (continued)	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	
			0	0		1300		0		Continue	1300	Continue	
Subtotal:													
Project Total Cost:													
			8842	0		26724		0		Continue	35566	Continue	

Schedule Detail (R4a Exhibit)						February 2004	
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>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
IMS System Requirements Review		2Q					
IMS Component Prototype Testing			1Q				
IMS Preliminary Design Review		4Q					
IMS Milestone B*					1Q		
The IMS program will use 6.5 funding beginning in FY2004 to synchronize the program with the overall Future Combat System program. Milestone B will be funded from 654802/D016.							

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PROJECT

606

COST (In Thousands)	FY 2003 Actual	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	9719	9839	11634	0	8167	38606	42975	Continuing	Continuing

A. Mission Description and Budget Item Justification: This project provides for component development of new countermining 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). This System is a Future Combat Systems Increment I Complementary systems.

Advanced Mine Detection start in FY07.

Accomplishments/Planned Program	FY 2003	FY 2004	FY 2005
Conduct Source Selection and award ASTAMIDS System Component Development.	700	0	0
ASTAMIDS System Development and Demonstration.	6969	5881	7962
Test planning, preparation, and support for ASTAMIDS.	812	1795	1795
ASTAMIDS Modeling, Analysis and Engineering support.	1238	1877	1877
Small Business Innovative Research/Small Business Technology Transfer Programs.	0	286	0
Totals	9719	9839	11634

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B. Other Program Funding Summary

	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	52852	33685	14768	28853	28278	48659	68240	Continuing	Continuing
S11500, ASTAMIDS	0	0	0	0	0	11486	12290	Continuing	Continuing

C. Acquisition Strategy: Airborne Stand-off Minefield Detection System (ASTAMIDS) was competitively selected a system component development contractor selected and awarded a competitive System Development and Demonstration (SDD) contract after completion of the System Component Development phase and Milestone Decision Authority (MDA) approval. A sole source production contract with multiple options is anticipated.

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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 . ASTAMIDS	C-CPIF	Northrup Grumman, Melbourne, FL	10278	7440	2Q	5539	1Q	7139	1Q	Continue	30396	Continue
b . Landmine Test Assets Procurement	C-FP	To Be Selected	0	0		350	4Q	0		0	350	350
c . Small Business Innovative Research/Small Business Technology Transfer Programs			0	0		0		0		0	0	0
Subtotal:			10278	7440		5889		7139		Continue	30746	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 . ASTAMIDS	MIPR	NVESD Ft Belvoir VA	750	898	1Q	625	1Q	890	1Q	Continue	3163	Continue
b . ASTAMIDS	MIPR	Various	0	550	1-4Q	486	1Q	590	1-4Q	0	1626	0
Subtotal:			750	1448		1111		1480		Continue	4789	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 . ASTAMIDS	MIPR	DTC, MD	430	35	2-3Q	1795	1-3Q	1795	2Q	Continue	4055	Continue
Subtotal:			430	35		1795		1795		Continue	4055	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 . ASTAMIDS	In-house	PM-CCS Picatinny NJ / Ft Belvoir VA	0	157	1-4Q	513	1-4Q	520	1-4Q	Continue	1190	Continue
b . Prog Mgmt ASTAMIDS	C-FP	BRTRC Farifax VA	0	639	1-2Q	531	1Q	700	1Q	Continue	1870	Continue
Subtotal:			0	796		1044		1220		Continue	3060	Continue

Project Total Cost:			11458	9719		9839		11634		Continue	42650	Continue
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Schedule Detail (R4a Exhibit)									
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<u>Schedule Detail</u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
ASTAMIDS SDD Contract Award	2Q						
ASTAMIDS MS B	1Q						
ASTAMIDS Transition from SI to SD portion of SDD			4Q				