

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603869A - Meads Concepts - Dem/Val				PROJECT 01B		
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
01B MEDIUM EXTENDED AIR DEFENSE SYSTEM (MEADS)		0	249444	264527	268721	275545	314089	300998	Continuing	Continuing

A. Mission Description and Budget Item Justification: It is an international co-development program essential to fulfill the requirements of the U.S. Army and the U.S. Marine Corps for a low-medium Air Missile Defense (AMD) system in the 21st century. MEADS will offer a significant improvement in surveillance, target tracking, integrated fire control and target engagement, tactical mobility and strategic deployability over comparable missile systems. It will defend the maneuver force and other critical forward-deployed assets against short and medium range Theater Ballistic Missiles (TBMs), cruise missiles (CMs) and other air-breathing threats such as unmanned combat aerial vehicles (UCAVs) throughout all phases of tactical operations. MEADS will operate with upper-tier systems in areas of debarkation and assembly and provide continuous coverage alone or with Shorter Range Air Defense Systems (SHORAD) systems, such as, SLAMRAAM in the maneuver areas of the battlefield during movement to contact and decisive operations. MEADS will be interoperable with other airborne and ground-based sensors and utilize a netted and distributed architecture with modularly-configurable battle elements.

The MEADS program is currently executing a thirty-two and half month Risk Reduction Effort (RRE) phase which is scheduled to end in March 2004. The primary objectives of RRE are to develop program cost and schedule consensus, to mature critical technologies, and prepare program planning for entry into the Design and Development (D&D) Phase at Milestone B in 2004. The D&D Phase is currently planned to begin in FY2004 using a Capabilities Based Acquisition and Incremental Acquisition Approach. The D&D Phase will be executed under an International Memorandum of Understanding (MOU) between the participating nations.

A critical void remains in maneuver force defense against the current and future AMD threat of short and medium range TBMs, CMs, and low-to-medium altitude advanced air-breathing threats. This program will meet this challenge by integrating the PAC-3 missile and developing the critical technologies required for maneuver force protection, including development and testing of a Light Weight Launcher, Reloader, 360-degree Multifunction Fire Control and Surveillance Radars and a netted and distributed Battle Management/Command, Control, Communications, Computers, and Intelligence (BM/C4I) Tactical Operations Center (TOC). The PAC-3 missile is the baseline interceptor for MEADS. Sensor and battle management software technology from both U.S. and international programs will be examined to enhance and augment organic-equipment functions, reducing development cost, manpower requirements and program risk to develop a U.S. and Allied capability to counter the current and future AMD threats. The approach emphasizes prototyping of system-specific and surrogate hardware in key areas of BM/C4I, fire control radar, and light weight launcher to satisfy mobility, strategic deployability and interoperability requirements. The Army requirement for MEADS supports the Future Transition Path of the Army Transformation Campaign Plan (TCP).

The FY05 budget postures the Army to move forward with a combined PAC-3/MEADS program based on a favorable Milestone B decision 3QFY04.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY

4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE

0603869A - Meads Concepts - Dem/Val

PROJECT

01B

The Army has revised the MEADS acquisition strategy to combine management, development, and fielding of both the MEADS and PATRIOT systems. The combined aggregate program will provide for the evolution of the Patriot/PAC-3 system to the MEADS objective system through the early introduction of the MEADS Major End Items. This approach provides for earlier fielding of enhanced air and missile defense capabilities across the currently fielded force to counter the evolving threat and allow for the knowledge that was gained in the development and fielding of the Patriot System to be fused into the MEADS program. The PAC-3 missile is the baseline missile for the MEADS system. The Missile Segment Enhancement (MSE) missile, which provides for greater ranges, will be the objective missile for the system.

* On January 23, 2004, The OUSD(C) submitted to the Congressional Committees a prior approval reprogramming request to fund Patriot Modifications needed to address Operation Iraqi Freedom Lessons Learned. The reprogramming includes \$17.7 million for development efforts and \$24.0 million for procurement. The \$24.0 million is not reflected in the column above.

Accomplishments/Planned Program	FY 2003	FY 2004	FY 2005
Continue the U.S. contribution to the North Atlantic Treaty Organization (NATO) MEADS Management Agency (NAMEADSMA) International Program Office operational and management budgets to expand the MEADS Risk Reduction Effort (RRE) contract and to award the Design and Development (D&D) Phase contract to design, develop, build, test and evaluate the MEADS System.	0	160664	130546
Implement program integration efforts that will examine Department of Defense (DOD) Joint Vision and Army Transformation Future Force mix and integration issues; support MEADS in the test and evaluation of Air and Missile Defense (AMD) task force interoperability and Army Family-of-Systems; support development and maintenance of Joint Data Network interface requirements and planning with appropriate planning of MEADS manpower, training, human factors, safety issues, cost reduction initiatives, and protection of U.S. background technology.	0	48000	43030
Continue funding for government agencies and support contracts to provide technical analysis and tools in specialty areas of lethality, BM/C4I and system simulations, composite tracker capability, U.S. background technology, as well as support of conducting independent evaluations of contractor trades and analysis. Includes efforts to support U.S. unique requirements for MEADS.	0	20398	28800
Continue MEADS program management, support and salaries for both the national and international program offices.	0	6000	7100
Continued single canister and engage on remote development. Includes efforts to support Missile Segment Enhancement.	0	7400	55051
Small Business Innovative Research/Small Business Technology Transfer Program	0	6982	0
Totals	0	249444	264527

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603869A - Meads Concepts - Dem/Val

PROJECT
01B

<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	0	276259	267270
Current Budget (FY 2005 PB)	0	249444	264527
Total Adjustments	0	-26815	-2743
Congressional program reductions		-26372	
Congressional rescissions			
Congressional increases			
Reprogrammings		-443	
SBIR/STTR Transfer			
Adjustments to Budget Years			-2743

In FY03, the MEADS program was funded by the Missile Defense Agency (MDA).

FY04 funds were decremented \$24.000 million by Congress for PATRIOT-MEADS consolidation efficiencies, \$2.372 million for undistributed Congressional reductions and \$.443 million was realigned to higher Army priorities.

FY05 funds were realigned (\$2.743) million to a higher Army priority.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603869A - Meads Concepts - Dem/Val

PROJECT
01B

<u>C. Other Program Funding Summary</u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
PAC-3, PE 0604865A	0	156827	64178	21415	29386	19809	0	0	291615

D. Acquisition Strategy: The MEADS program was approved by the Defense Acquisition Executive (DAE) in an August 2000 Acquisition Decision Memorandum (ADM) to begin a Risk Reduction Effort (RRE) phase extending the Project Definition/Validation (PD/V) phase by three years in order to focus on integrating the PAC-3 missile into the MEADS system concept, identifying and reducing technical risk, developing a cost and schedule consensus among the partner nations (Germany, Italy and United States), and to refine the MEADS concept. In July 2001, MEADS International (MI) was awarded a thirty-two and half month RRE contract. Additional key elements of the RRE scope include full harmonization of the threat and requirements, a detailed plan and cost consensus for Design and Development (D&D), and developing a negotiated Memorandum of Understanding (MOU) for the D&D phase. A 29 July 03 DAB IPR endorsed pursuit of Joint Requirements Oversight Council (JROC) approval of the MEADS requirement and directed further refinement of cost and acquisition strategy development. The Army Requirements Oversight Council (AROC) met on 06 August 2003 and approved the MEADS International Common Operating Requirements (ICOR). The Army has revised the MEADS acquisition strategy to combine management, development, and fielding of both the MEADS and PATRIOT systems. The combined aggregate program will provide for the evolution of the Patriot/PAC-3 system to the MEADS objective system through the early introduction of the MEADS Major End Items. This approach provides for earlier fielding of enhanced air and missile defense capabilities across the currently fielded force to counter the evolving threat and allow for the knowledge that was gained in the development and fielding of the Patriot System to be fused into the MEADS program. The PAC-3 missile is the baseline missile for the MEADS system. The Missile Segment Enhancement (MSE) missile, which provides for greater ranges, will be the objective missile for the system.

ARMY RDT&E COST ANALYSIS(R3)

February 2004

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603869A - Meads Concepts - Dem/Val

PROJECT
01B

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 . Risk Reduction	CPFF	NAMEADSMA, Huntsville, AL	0	0		71000	2Q	0		Continue	71000	0
b . Design and Development	TBD	NAMEADSMA, Huntsville, AL	0	0		92226	3Q	128646	2Q	Continue	220872	0
c . Missile Segment Enhancement	SS-CPIF	LMFC, Dallas, TX	0	0		7400	2-3Q	55051	2-3Q	0	62451	0
Subtotal:			0	0		170626		183697		Continue	354323	0

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 . Int'l Program Office	LOE	NAMEADSMA, Huntsville, AL.	0	0		1420	2Q	1900	2Q	Continue	3320	0
b . Program Integration	LOE	Various, Huntsville, AL.	0	0		48000	2Q	41030	2-3Q	Continue	89030	0
c . U.S. Contracts	Various	Various, Huntsville, AL	0	0		3015	2Q	3300	2Q	Continue	6315	0
d . U.S. OGAs	MIPR	Various, Huntsville, AL.	0	0		11146	2Q	18000	2-3Q	Continue	29146	0

ARMY RDT&E COST ANALYSIS(R3)

February 2004

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603869A - Meads Concepts - Dem/Val

PROJECT
01B

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
e . Systems Engineering	LOE	MRDEC, Huntsville, AL.	0	0		4037	2Q	5000	2Q	Continue	9037	0
f . US Only Security	LOE	Lockheed Martin, Syracuse, NY., Dallas, TX. & Orlando, FL.	0	0		2200	3Q	2500	3Q	Continue	4700	0
Subtotal:			0	0		69818		71730		Continue	141548	0

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 . Range Support	TBD	WSMR, White Sands, NM	0	0		3000	3Q	2000	2Q	Continue	5000	0
Subtotal:			0	0		3000		2000		Continue	5000	0

ARMY RDT&E COST ANALYSIS(R3)

February 2004

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603869A - Meads Concepts - Dem/Val

PROJECT
01B

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 . Internal Operating	In-House	MEADS Prod Ofc/NAMEADSMA, Huntsville, AL.	0	0		6000	2-3Q	7100	2-3Q	0	13100	0
Subtotal:			0	0		6000		7100		0	13100	0

Project Total Cost:			0	0		249444		264527		Continue	513971	0
---------------------	--	--	---	---	--	--------	--	--------	--	----------	--------	---

Schedule Profile (R4 Exhibit)

February 2004

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603869A - Meads Concepts - Dem/Val

PROJECT
01B

Event Name	FY 02				FY 03				FY 04				FY 05				FY 06				FY 07				FY 08				FY 09			
	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
RISK REDUCTION																																
(1) RFP (Design and Development)																																
RRE Modification																																
(2) MS B																																
DESIGN AND DEVELOPMENT																																
(3) System PDR: Preliminary Design Review, (4) System CDR: Critical Design Review																																
PRODUCTION																																
Low Rate Initial Production (LRIP) - Long Lead																																

Schedule Detail (R4a Exhibit)

February 2004

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603869A - Meads Concepts - Dem/Val

PROJECT
01B

<u>Schedule Detail</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>
Demonstrate MEADS Functionality		2Q					
Program Review		2Q					
Milestone B		3Q					
Full System Demo		2Q					
Design and Development Phase Contract Award		3Q					
Systems Requirements Review		4Q					
System Preliminary Design Review (PDR)			2Q				