

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

February 2002

BUDGET ACTIVITY 4 - Demonstration/validation		PE NUMBER AND TITLE 0603869A - Meads Concepts - Dem/Val					PROJECT 01B			
COST (In Thousands)		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
01B MEDIUM EXTENDED AIR DEFENSE SYSTEM (MEADS)		0	527	117745	280580	272070	277115	281890	0	1229927

A. Mission Description and Budget Item Justification: The Medium Extended Air Defense System (MEADS) is an Objective Force system. It is an international cooperative program essential to fulfill the requirements of the U.S. Army and the U.S. Marine Corps for a low-medium air defense system in the 21st century. MEADS will offer a significant improvement in 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 and other air-breathing threats throughout all phases of tactical operations. MEADS will operate both in an enclave with upper-tier systems in areas of debarkation and assembly and provide continuous coverage alone, or with SHORAD systems in the division area 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 and modularly-configurable battle elements to provide a robust, 360-degree defense against short and medium range TBMs, cruise missiles, unmanned-aerial-vehicles, tactical air to surface missiles, rotary-wing and fixed-wing threats.

The MEADS program has been restructured to leverage the interceptor from the PATRIOT Advanced Capability-3 (PAC-3) program and to extend the Program Definition/Validation (PD/V) phase with a three-year Risk Reduction Effort (RRE) that focuses on developing the critical technologies required for maneuver force protection and overall risk reduction. U.S. funded bridging effort commenced on 14 August 2000 to begin work on the highest risk and long-lead items in the RRE Scope of Work. The International Memorandum of Understanding (MOU) was signed 27 Jun 2001, and the RRE contract was awarded 10 July 2001.

There remains a critical void in maneuver force defense against short and medium range TBMs, cruise missiles, 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 of a prototype lightweight launcher, 360-degree radar and tactical operation center. 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 and risk. Improvements will be balanced against costs and the projected threat to develop a U.S. and allied capability to counter the maneuver force threat. The approach emphasizes prototyping of system-specific and surrogate hardware in key areas of Battle Management/Command, Control, Communications, Computers, and Intelligence (BM/C4I), fire control radar, and light weight launcher to satisfy mobility, strategic deployability and interoperability requirements. The Army requirement for MEADS supports the Objective transition path of the Army Transformation Campaign Plan (TCP).

All FY02 funds were transferred to BMDO per Congressional direction. \$527K of Army funding reflected in FY02 will be properly aligned to the correct PE for execution.

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FY 2003 Planned Program

- 60652 Continue U.S. contribution to the NATO MEADS Management Agency (NAMEADSMA) International Program Office operational and administrative budgets for the MEADS RRE contract and continued development of digital end-to-end simulation, continue development of prototype launcher, fire control radar and BMC4I hardware/ software and test planning. Initiates tri-national ramp-up for seamless transition to Development and Demonstration.
- 40823 Conduct program integration efforts that will examine DOD Joint Vision and Army transformation objective force mix and integration issues; support MEADS in the test and evaluation of AMD task force interoperability and Army family-of-systems; support development and maintenance of Joint Data Network interface requirements and planning and appropriate planning of MEADS manpower, training, human factors, safety issues, modeling and simulation support.
- 9740 Continue funding for government agencies and support contracts to provide technical analysis and tools in specialty areas of lethality, BMC4I and system simulations, as well as support of conducting independent evaluations of contractor trades and analysis.
- 6530 Continue MEADS program management, support and salaries for both the national and international program offices. Includes U.S. efforts tied to national support of executing the replanned program.

Total 117745

<u>B. Program Change Summary</u>	FY 2001	FY 2002	FY 2003
President's Previous Budget (FY 2002 PB)	0	73645	131553
Appropriated Value	0	-73645	0
Adjustments to Appropriated Value	0	0	0
a. Congressional General Reductions	0	0	0
b. SBIR / STTR	0	0	0
c. Omnibus or Other Above Threshold Reductions	0	0	0
d. Below Threshold Reprogramming	0	0	0
e. Rescissions	0	0	0
Adjustments to Budget Years Since (FY 2002 PB)	0	0	-13808
Current Budget Submit (FY 2003 PB)	0	0	117745

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FY 2001 program was included in the Ballistic Missile Defense Organization (BMDO) Budget.
 FY 2002 program was transferred from the Army to BMDO (Missile Defense Agency).
 FY 2003 funds (\$13.5M) realigned to FY04 in accordance with Risk Reduction Effort (RRE) requirements.

C. Other Program Funding Summary: Not applicable for this item.

D. Acquisition Strategy: The MEADS acquisition strategy includes competition between two transatlantic industrial teams in the PD-V phase. These two international entities prepared and competed for the Program Definition/Validation (PD/V) phases. As the Department of Defense and partner nations restructured the program, the PD/V phase was extended with the selection of a single contractor team to conduct a three-year risk reduction effort (RRE). In August 2000, the Defense Acquisition Executive (DAE) approved entry in the RRE. In this phase, technology from Germany, Italy and the United States, including the PAC-3 missile, will be leveraged to define the most cost-effective solution to meet the MEADS operational requirements. The MEADS Product Office is also pursuing integration of MEADS BMC4I with the Project Manager, Air & Missile Defense Command and Control Systems (AMDCCS), to take advantage of other Army developments that can be incorporated into the MEADS program. A U.S. funded bridging effort commenced on 14 August 2000 to work on the high-risk areas and long-lead items within the scope of the RRE effort. The International MOU was signed 27 Jun 2001 and the RRE contract was awarded 10 Jul 2001. In consideration of future RRE costs, participatory nations at the 18th Steering Committee Meeting agreed to share the value of the effort which is recognized as applicable services. Per the 2 Jan 02 SECDEF missile defense direction memo, the U.S. national unique requirements of the MEADS program will be developed in consultation with the MDA. The international requirements of the MEADS program will be directed per the International MOU and as modified in the future for international participation in the BMDS. The U.S. national unique MEADS development will follow the MDA's capability-based acquisition strategy that emphasizes testing, spiral development, and evolutionary acquisition through the use of two-year capability blocks.

<u>E. Schedule Profile</u>	<u>FY 2001</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>
RRE Contract Award	4Q						

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E. Schedule Profile (continued)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
System Level Interface Demo			4Q				
Demonstrate MEADS functionality				2Q			
Program review		1-4Q	4Q	2Q			
Milestone B				2Q			
Design and development phase contract award				2Q			

ARMY RDT&E COST ANALYSIS(R-3)

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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Risk Reduction	CPEFF	NAMEADSMA, Huntsville, AL	0	0		0		59152	2Q	0	59152	0
b . MultiBand Spectral Radar Frequency Data Link	TBD	LMMS, Orlando, FL.	0	0		0		3210	1Q	0	3210	0
Subtotal:			0	0		0		62362		0	62362	0

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Int'l Program Office	LOE	NAMEADSMA, Huntsville, AL.	0	0		0		1500	2Q	0	1500	0
b . Program Integration	LOE	PEO AMD, Huntsville, AL.	0	0		0		23713	2Q	0	23713	0
c . U.S. Contracts	LOE	MEADS Prod Ofc, Huntsville, AL.	0	0		0		3096	2Q	0	3096	0
d . U.S. OGAs	MIPR	MEADS Prod Ofc, Huntsville, AL.	0	0		0		6644	2Q	0	6644	0
e . Modeling/Simulation	LOE	MRDEC, Huntsville, AL.	0	0		0		6800	2Q	0	6800	0

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II. Support Cost (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		41753		0	41753	0

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Range Support	LOE	WSMR, White Sands, NM.	0	0		0		7100	2Q	0	7100	0
Subtotal:			0	0		0		7100		0	7100	0

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Internal Operating	In-House	MEADS Prod Ofc/NAMEADSMA, Huntsville, AL.	0	0		0		6530	2Q	0	6530	0
Subtotal:			0	0		0		6530		0	6530	0

Project Total Cost:			0	0		0		117745		0	117745	0
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