

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 1997		
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603869C CORPS SAM/Medium Extended Air					PROJECT 1262	
				Defense System - TMD						
<i>COST (\$ In Thousands)</i>	FY 1996 Actual	FY 1997 Estimate	FY 1998 Estimate	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	Cost to Complete	Total Cost
1262 CORPS SAM/MEADS Concepts	20,123	56,232	47,956	9,509	0	0	0	0	TBD	TBD
<p>A. <u>Mission Description and Budget Item Justification</u></p> <p>The CORPS SAM/Medium Extended Air Defense System (MEADS) is an advanced air and missile defense system. CORPS SAM/MEADS is designed to fill a critical void providing highly mobile defense of maneuver forces from ballistic and cruise missiles and unmanned aerial vehicles (UAVs). In May 1996 the Memorandum of Understanding (MOU) among the U.S., Germany, and Italy was signed. Subsequently, in June 1996, the Charter for the North Atlantic Treaty Organization (NATO) MEADS Design and Development, Production, and Logistics Management Organization (NAMEADSMO) was approved. In accordance with these directives, the NATO MEADS Management Agency (NAMEADSMA) is responsible for the accomplishment of the Project Definition-Validation Phase (PD-V). The objective of the PD-V Phase is 1) to define and validate through engineering analyses, simulations and demonstrations a MEADS which is compliant with the commonly agreed requirements of the Participants while taking maximum advantage of the technology existing in the countries of the Participants and 2) to define a balanced cooperative Program to develop, produce in single source and support MEADS which has acceptable technical and financial risks for the Participants. The CORPS SAM/MEADS National Product Office has also been established and will be responsible for planning, budgeting, and coordinating all U.S. national efforts in support of the MEADS program as well as executing national specific tasks related to satisfying the CORPS SAM requirements.</p> <p>The CORPS SAM/MEADS mission and consequently its design is a function of the assets that CORPS SAM/MEADS must protect, the threat against these assets, and the depth and nature of the battlefield. CORPS SAM/MEADS will be designed to deal with shorter range Tactical Ballistic Missiles (TBMs), cruise missiles, UAVs, and other air breathing threats. It will be required to protect critical maneuver force assets throughout all phases of tactical operations and it will be operating in the division area of the battlefield outside the umbrella of an upper tier system. CORPS SAM/MEADS will be designed to provide: 1) defense against multiple and simultaneous attacks by Short Range Ballistic Missiles (SRBMs), low cross-section cruise missiles, and other air-breathing threats to the force; 2) immediate deployment for early entry operations with as few as six C-141 sorties; 3) mobility to move rapidly and protect maneuver force assets during offensive operations; 4) a distributed architecture and modular components to increase survivability and flexibility of employment in a number of operational configurations; 5) a significant increase in firepower while greatly reducing manpower and logistics requirements. Given these characteristics, CORPS SAM/MEADS will be able to rapidly respond to a variety of crisis situations and satisfy the needs of the joint operational and tactical commanders.</p> <p><u>FY 1996 (\$ in Thousands)</u></p> <ul style="list-style-type: none"> - \$9,605 Conducted International Teaming. - \$5,600 Awarded prime contracts to initiate PD-V Phase. - \$400 Support contracts to provide technical analysis and tools in specialty areas (e.g. lethality, BM/C4I, system simulations, FAAD/CORPS SAM/MEADS integration) 										
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4 - Demonstration and Validation	0603869C CORPS SAM/Medium Extended Air Defense System - TMD	1262
- \$1,530	Overall management/support to execute the cooperative program in accordance with the NATO Charter and MOU for PD-V (includes travel and other administrative expenses).	
- \$2,988	CORPS SAM/MEADS National Product Office management/support (including contracts) to conduct assigned tasks in support of and directly related to both national and MEADS international efforts (e.g. user coordination, national oversight and review activities, technology transfer, and technology assessment efforts; threat/scenario, modeling/simulation, cost estimating, Cost and Operational Effectiveness Analysis (COEA), etc.). Includes all U.S. personnel salaries and benefits.	
- \$20,123	Total	
<u>FY 1997 (\$ in Thousands)</u>		
- \$45,070	Prime contracts for PD-V Phase.	
- \$4,920	Support contracts to provide technical analysis and tools in specialty areas (e.g. lethality, BM/C4I, system simulations, FAAD/CORPS SAM/MEADS integration) and support in conducting independent evaluations of contractor trades and analysis.	
- \$1,378	Overall management and administrative support to execute the cooperative program in accordance with the NATO Charter and MOU for PD-V (includes travel and other administrative expenses).	
- \$4,864	CORPS SAM/MEADS National Product Office management/support (including contracts) to conduct assigned tasks in support of and directly related to both national and MEADS international efforts (e.g. user coordination, national oversight and review activities, technology transfer, and technology assessment efforts; threat/scenario, modeling/simulation, cost estimating, COEA, etc.). Includes all U.S. personnel salaries and benefits.	
- \$56,232	Total	
<u>FY 1998 (\$ in Thousands)</u>		
- \$36,660	Prime contracts for PD-V Phase.	
- \$6,380	Support contracts to provide technical analysis and tools in specialty areas (e.g. lethality, BM/C4I, system simulations, FAAD/CORPS SAM/MEADS integration), support in conducting independent evaluations of contractor trades and analysis, and provide additional technical analysis of contractor competitive proposals for design and development (D&D).	
- \$1,392	Overall management and administrative support to execute the cooperative program in accordance with the NATO Charter and MOU for PD-V (includes travel and other administrative expenses).	
- \$3,524	CORPS SAM/MEADS National Product Office management/support (including contracts) to conduct assigned tasks in support of and directly related to both national and MEADS international efforts (e.g. user coordination, national oversight and review activities, technology transfer, and technology assessment efforts; threat/scenario, modeling/simulation, cost estimating, COEA, etc.). Includes all U.S. personnel salaries and benefits.	
- \$47,956	Total	
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<p><u>FY 1999 (\$ in Thousands)</u></p> <ul style="list-style-type: none"> - \$8,670 Prime contractors complete PD-V Phase. - \$300 Support contracts to provide technical analysis and tools in specialty areas (e.g. lethality, BMC4I, system simulations, FAAD/CORPS SAM/MEADS integration), support in conducting independent evaluations of contractor trades and analysis, and provide additional technical analysis of contractors competitive proposals for D&D. - \$200 Overall management and administrative support to execute the cooperative program in accordance with the NATO Charter and MOU for PD-V (includes travel and other administrative expenses). - \$339 CORPS SAM/MEADS National Product Office management/support (including contracts) to conduct assigned tasks in support of and directly related to both national and MEADS international efforts (e.g. user coordination, national oversight and review activities, technology transfer, and technology assessment efforts; threat/scenario, modeling/simulation, cost estimating, COEA, etc.). Includes all U.S. personnel salaries and benefits. - \$9,509 Total <p><u>Acquisition Strategy</u></p> <p>At this time MEADS is accepted as the acquisition strategy to meet the Army CORPS SAM requirement. The acquisition strategy was developed based on having two competitive transatlantic industrial teams conduct the PD-V phase in which technology among the nations would be leveraged to define the most cost-effective solution to meet the requirements. In Oct 95, following a formal U.S. source selection process, the U.S. Army announced the selection of Lockheed-Martin Integrated Systems, Inc. and H&R Company (joint venture between Hughes Aircraft and Raytheon Company) as U.S. industrial participants. Following a random selection process, each team was paired with a European team with the goal of creating two equal transatlantic industrial entities. Both European teams consist of the following firms: Alenia, DASA, and Siemens. Contracts to conduct a four month international industrial teaming phase were awarded on 1 May 96. Following the teaming phase, the international teams were awarded two contracts on 4 Oct 96 to execute PD-V. During PD-V the contractors will be required to define/develop a total system concept based upon the International Technical Requirements Document; conduct requirements analysis/flowdown; establish baseline system concept; conduct concurrent engineering design trades; perform simulations/modeling; provide life cycle cost estimates; and establish integrated program plans to include a risk assessment/abatement plan. The effort will also include demonstration of critical functions associated with integrated system performance and resolution of key technical issues for the proposed system design concept through use of end-to-end digital simulation. Also, during the PD-V phase the two international entities will compete for selection as the sole contractor to conduct the Design and Development and Production phases. The CORPS SAM/MEADS National Product Office is pursuing integration of CORPS SAM BM/C4I with the Project Manager, Air Defense Command and Control Systems (ADCCS), to take advantage of previous Army developments that can be incorporated into the MEADS program.</p>		
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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603869C CORPS SAM/Medium Extended Air Defense System - TMD			PROJECT 1262						
B. <u>Program Change Summary (\$ in Thousands)</u>										
	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>Total</u> <u>Cost</u>					
Previous President's Budget	19,675	56,232	48,113	9,553	133,573					
Appropriated Value		56,232								
Adjustment to Appropriated Value:										
a. MEADS below threshold reprogramming		26,232								
Current Budget Submit/President's Budget	20,123	56,232	47,956	9,509	133,820					
Change Summary Explanation:										
Funding: Background: This project was funded under PE 0603216C project 2212 prior to FY 95, PE 0603869C project 2262 in FY 95, and PE 0603869C project 1262 in FY 96 and beyond.										
Funding: FY 1996 (-319): Undistributed Defense-Wide Reduction.										
FY 1998 (-157): Undistributed Defense-Wide Reduction.										
FY 1999 (-44): Undistributed Defense-Wide Reduction.										
Schedule: None										
Technical: None										
C. <u>Other Program Funding Summary (\$ in Thousands)</u>										
	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>To</u> <u>Compl</u>	<u>Total</u> <u>Cost</u>
N/A										
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D. <u>Schedule Profile</u>																
		<u>FY 1996</u>				<u>FY 1997</u>				<u>FY 1998</u>				<u>FY 1999</u>		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<u>Engineering Milestone:</u>																
System Requirements Review																
								X								
System Design Review																
											X					
<u>Contract Milestone:</u>																
Int'l Teaming Contract Award																
			*													
PD-V Contract Award																
					*											
Release RFP for Design and Dev																
											X					
Complete PD-V																
															X	
<u>Other Program Events:</u>																
Rqmts Harmonization w/GE/IT																
	*															
Sign MOU																
			*													
Establish NATO Agency																
				*												
Conduct SC Review1																
			*													
Conduct SC Review2																
				*												
Conduct SC Review3																
				*												
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 1997				
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603869C CORPS SAM/Medium Extended Air Defense System - TMD					PROJECT 1262		
A. <u>Project Cost Breakdown (\$ in Thousands)</u>											
Project Cost Category				<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>				
CORPS SAM/MEADS Concepts				20,123	56,232	47,956	9,509				
Total				20,123	56,232	47,956	9,509				
B. <u>Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
Performing Organizations:											
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1996	Budget FY 1996	Budget FY 1997	Budget FY 1998	Budget FY 1999	Budget to Complete	Total Program
<u>Product Development Organizations</u>											
Lockheed Team	FFP	May-96			0	5,533	0	0	0	TBD	5,533
Raytheon Team	FFP	May-96			0	4,072	0	0	0	TBD	4,072
Project Def/Val	FFP	Oct-96			0	5,600	45,070	36,660	8,670	TBD	96,000
<u>Support and Management Organizations</u>											
NAMEADSMA	I-H Support				0	400	4,920	6,380	300	TBD	12,000
NAMEADSMA	I-H Support				0	1,530	1,378	1,392	200	TBD	4,500
U.S. Product Ofc	I-H SPT/IOB				0	2,988	4,864	3,524	339	TBD	11,715
<u>Test and Evaluation Organizations</u>											
B. <u>Budget Acquisition History and Planning Information Continued (\$ in Thousands)</u>											

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BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT		
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Government Furnished Property:										
<u>Item Description</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Delivery Date</u>	<u>Total Prior to FY 1996</u>	<u>Budget FY 1996</u>	<u>Budget FY 1997</u>	<u>Budget FY 1998</u>	<u>Budget FY 1999</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Product Development Property</u>										
TBD										
<u>Support and Management Property</u>										
TBD										
<u>Test and Evaluation Property</u>										
TBD										
Subtotal Product Development					15,205	45,070	36,660	8,670		105,605
Subtotal Support and Management					4,918	11,162	11,296	839		28,215
Subtotal Test and Evaluation										
Total Project					20,123	56,232	47,956	9,509		133,820
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