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BMDO RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)								DATE June 2001		
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604861C THAAD System - EMD				PROJECT 2260		
COST (In Thousands)	FY2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY2005 Estimate	FY2006 Estimate	FY2007 Estimate	Cost to Complete	Total Cost
2260 Theater High Altitude Area Defense (THAAD)	81614	540998								
<p>A. <u>Mission Description and Budget Item Justification</u></p> <p>The Theater High Altitude Area Defense (THAAD) program has been transferred to PE 0603881C Terminal Defense. The THAAD System Engineering and Manufacturing Development (EMD) phase will refine and mature the Program Definition and Risk Reduction (PDRR) system design to ensure component and system performance, producibility, and supportability. The mission of the THAAD System is to defend against short and medium range Theater Ballistic Missiles (TBMs) at long ranges and high altitudes. THAAD's long range capability will protect U. S. and allied Armed Forces, broadly dispersed assets and population centers against TBM attacks. THAAD's capability to intercept at high altitudes allows multiple intercept opportunities and will significantly mitigate the effects of weapons of mass destruction. The THAAD System consists of missiles, launchers, and radar(s), Battle Management/Command, Control, Communications, and Intelligence (BM/C³I) units, and support equipment.</p> <p>The acquisition philosophy for Engineering and Manufacturing Development (EMD) results in a First Unit Equipped (FUE) for an initial configuration (C1) in FY 2007. C1 will include the capability to defeat all expected upper tier threats in that timeframe, and will meet the key performance parameters outlined in the Operational Requirements Document. Enhanced survivability and battalion operational software are deferred to the next configuration (C2).</p> <p>FY 2000 Accomplishments:</p> <ul style="list-style-type: none"> • 81614 Awarded EMD prime contract, (Aug 2000), and brought on major subcontracts and suppliers. <p>Total 81614</p> <p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 459763 Continue hardware and software development for the missile, radar, BM/C³I, and launcher. Conduct radar hardware Critical Design Review (CDR); conduct breadboard testing, conduct Preliminary Design Reviews (PDRs) for launcher and BMC³I. • 18100 In-house support: Fund government salaries and benefits, travel, training, etc. • 1307 Establish operational test & evaluation (OT&E) support. • 3700 Test Planning • 33971 Support contracts: Continue software independent verification and validation. Continue hardware in the loop (HWIL), general engineering analysis and independent assessment, simulation over live driver (SOLD). Continue nuclear environment survivability analysis. Continue discrimination, navigation and control algorithm development. • 24157 Other Government Agencies (OGAs), Government Furnished Equipment (GFE)/other: Continue integration and testing of Joint Tactical Information Distribution System (JTIDS) radios. Continue BM/C³I, and simulation efforts. Continue system threat vulnerability assessment. Maintain integrated logistics and product assurance efforts. Continue support for development of adaptive algorithms with BMDO. <p>Total 540998</p>										
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B. Program Change Summary	<u>FY2000</u>	<u>FY2001</u>	<u>FY 2002</u>	<u>FY 2003</u>
Previous President's Budget (<u>FY 2001 PB</u>)	79462	549945		
Congressional Adjustments				
Appropriated Value		549945		
BMDO Adjustments				
Adjustments to Appropriated Value				
a. Congressional Reductions	-208	-8947		
b. OSD Reductions	-1750			
c. Gov't wide Realignment (OSD)	4110			
Adjustments to Budget Years Since <u>FY 2001 PB</u>				
Current Budget Submit (<u>FY 2002 PB</u>)	81614	540998		

Change Summary Explanation:

FY2001 (-7447): Congressional general reductions.
 (-1500): SIAP Reprogramming.

C. Other Program Funding Summary	<u>FY 2000</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>	<u>To Compl</u>	<u>Total Cost</u>
THAAD Dem/Val – 0603861C	506221									
THAAD SYS PROCUREMENT – 0208861C										

D. Acquisition Strategy: The EMD contract was a sole source award to the Dem/Val contractor team (as approved September 15, 1995 by Under Secretary of Defense for Acquisition, Technology, and Logistics utilizing the DoD Acquisition Streamlining approach) with Lockheed Martin Space Systems Company being the prime and Raytheon Company being the major subcontractor. The EMD contractor team will become the contractor team for the Low Rate Initial Production (LRIP) and Full Rate Production (FRP) phases. This single prime contractor will have total system performance responsibility for the EMD, LRIP, and FRP phases.

E. Schedule Profile	<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>
Radar CDR (HW/SW)	4Q						

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Launcher PDR	3Q						
BM/C ³ I PDR (HW)	3Q						
Launcher CDR							
BM/C ³ I CDR (SW/HW)							
System PDR							
Missile CDR							
System CDR							
Configuration 2 PDR							
EMD Radar 1 Integration & Test Complete							
Component Test Flights Begin							
C2 Authority to Proceed (ATP)							
Developmental Tests -Begin							
Award 14 Missile Option							
Production Qualification Test Ready							
Production Readiness Review Assessment							
Long Lead Award							
EMD Radar 2 Integration & Test Complete							
LRIP-1 Award							
FUE							

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BMDO RDT&E COST ANALYSIS (R-3)	DATE June 2001
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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. THAAD System EMD	CPAF/FF	LMSSC	81614	427431	Aug 00						509045	
Subtotal Product Development:			81614	427431							509045	

Remark:

II. Support Costs	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. SETA	Various		0	33971							33971	
b. OGAs	MIPR		0	20945							20945	
c. Program Mgmt	Various		0	18100							18100	
Subtotal Support Costs:				73016							73016	

Remark:

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	TBD
a. Test Planning	MIPR		0	3700							3700	
b. OT&E			0	1307							1307	
c. Lethality			0	0								
Subtotal Test and Evaluation:				5007							5007	

Remark:

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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. MIT/LL	MIPR/FFRDC	LEXINGTON,MA	0	1300							1300	
b. MITRE	MIPR/FFRDC	FT.MONMOUTH, NJ	0	1912							1912	
c.												
d.												
e.												
f.												
Subtotal Management Services:				3212							3212	

Remark:

V. Other Categories	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
b. SBIR				11316								
c. OSD/Undistributed cuts				21016								
Subtotal Other Categories				32332								

Remark:

Project Total Cost:				540998							81235	
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Remark: