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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE February 1997
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BUDGET ACTIVITY 5 - Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604867C Navy Area TMD	PROJECT 2263
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COST (\$ In Thousands)	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
2263 Navy Area TMD	0	241,330	267,822	226,748	222,145	158,271	52,433	38,089	Continuing	Continuing

To see the other Program Elements and Appropriations associated with Navy Area TMD, see section C of this R2.

A. Mission Description and Budget Item Justification

The Navy Area Theater Ballistic Missile Defense (TBMD) project builds on the national investment in AEGIS ships, weapon systems, and Navy Standard Missile I (SM-2) Block IV missiles. Two classes of ships continue to be deployed with the AEGIS combat system: the CG-47 Ticonderoga-class cruisers and the DDG-51 Burke-class destroyers. Navy TBMD will take advantage of the attributes of naval forces including overseas presence, mobility, flexibility, and sustainability in order to provide protection to debarkation ports, coastal airfields, amphibious objective areas, Allied forces ashore, and other high value sites. Navy assets will provide an option for initial TBMD allowing the insertion of additional land-based TBMD assets and other expeditionary forces in an opposed environment.

FY 1996 (\$ in Thousands)

- \$0 No funding in Fiscal Year 1996
- \$0 Total

FY 1997 (\$ in Thousands)

- \$236,099 Continue systems engineering and analysis. Continue development of User Operational Evaluation System (UOES) and tactical computer programs; initiate development of computer program design specifications for the Tactical Program; conduct Tactical Program system design review (SDR) and preliminary design review (PDR); conduct UOES critical design review (CDR). Continue detailed missile design. Continue procurement and fabrication of Engineering and Manufacturing Development (EMD) test rounds. Provide technical support for AEGIS weapon system design activities. Continue test planning. Continue required lethality analyses, lethality model refinements and testing in support of Live Fire Test & Evaluation (LFT&E). Initiate procurement of high fidelity sled track test targets for the FY98-99 LFT&E. Continue to design the interface for TBMD-related upgrades to AEGIS and Joint Maritime Command Information System (JMCIS). Continue Command and Control Processor (C2P) development.
- \$5,231 Continue building, and delivery of, targets to support Navy TBMD flight tests. Maintain infrastructure to support TMD targets.
- \$241,330 Total

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<u>FY 1998 (\$ in Thousands)</u>					
– \$ 258,845	Continue tactical computer program development; deliver AEGIS UOES computer program; conduct tactical program CDR. Continue Engineering/Manufacturing development of the missile. Begin delivery of Inert Operational Missile(IOM)/Engineering Design Model (EDM) test rounds and White Sands Missile Range (WSMR) New Mexico flight test missiles. Continue fabrication of UOES missiles. Provide technical support for AEGIS Weapon System design activities. Continue LFT&E activities. Continue Systems Engineering and Analysis. Continue implementation of JMCIS TBMD segments and TBMD messages in C2P.				
– \$8,977	Continue building and delivery of targets to support Navy TBMD flight tests. Maintain infrastructure to support TMD targets.				
– \$267,822	Total				
<u>FY 1999 (\$ in Thousands)</u>					
– \$185,590	Continue tactical computer program development. Integrate EMD IOM round into AEGIS UOES computer program. Continue EMD of the missile. Continue delivery of IOM/EDM test round, WSMR flight test missiles and UOES/EMD missiles. Begin Developmental Testing (DT) of missile at WSMR. Continue LFT&E activities. Continue implementation of JMCIS TBMD segments and TBMD messages in C2P.				
– \$41,158	Continue building and delivery of targets to support Navy TBMD flight tests. Maintain infrastructure to support TMD targets.				
– \$226,748	Total				
<u>Acquisition Strategy</u> This strategy consists of a Navy Area TBMD Program evolving to a Theater-Wide Defense TBMD program. The Navy Area Program will build on existing force structure by modifying the SM-2 Block IV missile and AEGIS Combat System to achieve TBMD capability.					
B. Program Change Summary (\$ in Thousands)					
	<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	95,732	241,582	268,470	226,119	831,903
Appropriated Value		241,582			
Adjustments to Appropriated Value:					
a. General Reductions (FFRDC, Inflation etc.)		-252			
Current Budget Submit/President's Budget	0	241,330	267,822	226,748	735,900
<u>Change Summary Explanation:</u>					
Funding: Delays in the risk reduction flight tests, SM-2 Blk IVA design immaturity, and cost growth in targets necessitated a program restructure and an FY96 notification reprogramming from P.E. 0604867C to P.E. 0603867C. Additional risk reduction flight test delays in early FY1997 necessitated a request to reprogram funds from P.E. 060487C to 060387C.					
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<p>Schedule: The January 1996 program restructure included a delay in both UOES and First Unit Equipped (FUE) dates. The Navy Area TBMD Program, within the FY97 President's Budget, supported an SM-2 Block IVA UOES capability in FY1999 and First Unit Equipped (FUE) in FY2001. However, due to concerns with 1996 flight test delays, and to allow a longer test period to accommodate more conservative Developmental Testing/perational Testing schedule, UOES is projected for FY2000 and FUE in FY2002. Following an independent life cycle cost estimate of the rebaselined program and successful completion of the Milestone II DAB, these schedules will be reassessed.</p> <p>Technical: Additional lethality analysis and testing have been included in the program as a result of the January 1996 restructure.</p>												
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>Total</u>	
2263, Navy Area TMD (Dem/Val), PE 0603867C		277,565	59,315	0	0	0	0	0	0	TBD	TBD	
Standard Missile Wpn 1507, BA2		16,276	9,151	*15,500	*44,600	*130,000	*161,000	*236,000	*225,000	*Cont	*Cont	
* Funds transferred to U. S. Navy												
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
Acquisition Milestones:												
- Acquisition Milestone II												
					X							
Engineering Milestones:												
- AEGIS Combat System (ACS)												
			*									
Preliminary Design Review (PDR)(UOES)												
- SM-2 BLK IVA PDR												
				*								
- ACS Systems Design Review (Tactical)												
					X							
- SM-2 BLK IVA Critical Design Review												
						X				X		
- ACS PDR (Tactical)												
T & E Milestones:												
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	<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				
- White Sands Missile Range NM (DT/Operation Assessment)																	X			
- UOES																				
- LRIP																				
- Navy Area TBMD TECHEVAL (DT)																				
- Navy Area TBMD OPEVAL																				
- Acquisition Milestone III																				
- FUE																				

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 1997				
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604867C Navy Area TMD			PROJECT 2263				
A. <u>Project Cost Breakdown (\$ in Thousands)</u>											
				<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>				
a.	Program Management/Integration			0	2,227	2,225	2,300				
b.	System Engineering			0	54,481	37,181	34,139				
c.	Program Management			0	5,106	5,800	5,500				
d.	Program Support			0	7,206	8,300	7,850				
e.	Ship System MODS			0	0	0	0				
f.	Design & Analysis			0	55,182	68,050	58,000				
g.	Hardware Fab. & Proc			0	86,229	100,775	75,000				
h.	Test and Evaluation			0	7,867	4,971	8,809				
i.	Test Equipment			0	4,217	3,500	5,000				
j.	Engineering Support			0	7,132	8,500	6,200				
k.	Travel			0	120	150	200				
l.	Development Test & Evaluation			0	10,611	24,470	21,600				
m.	Operational Test & Evaluation			0	405	1,500	2,000				
n.	Other/Miscellaneous			0	547	2,400	150				
	Total				241,330	267,822	226,748				
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>											
Martin Marietta	CPFF					0	39,280	43,600	30,000	TBD	112,880
NSWC/Dahlgren						0	7,540	7,500	6,000	TBD	21,040
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE	
5 - Engineering and Manufacturing Development										February 1997	
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT	
5 - Engineering and Manufacturing Development					0604867C Navy Area TMD					2263	
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
APL/JHU					0	13,913	14,651	8,639	TBD	37,203	
Holloman AFB					0	960	1,200	1,100	TBD	3,260	
SM Co					0	136,162	155,230	143,000	TBD	434,392	
Motorola					0	7,840	9,000	7,050	TBD	23,890	
RFAS					0	412	600	500	TBD	1,512	
Miscellaneous					0	12,220	11,456	7,870	TBD	31,546	
<u>Support and Management Organizations</u>											
Raymond Engineering					0	536	690	750	TBD	1,976	
NSWC/Port Hueneme Div					0	139	192	200	TBD	531	
NAWC/Pt Mugu Vitro					0	139	192	200	TBD	531	
Miscellaneous					0	1,120	1,500	1,100	TBD	3,720	
Miscellaneous					0	2,920	2,750	2,306	TBD	7,976	
<u>Test and Evaluation Organizations</u>											
NAWC/WPNDIV Pt Mugu					0	556	720	550	TBD	1,826	
BMDO					0	3,513	6,316	3,334	TBD	13,163	
WSMR NM					0	1,200	1,750	1,200	TBD	4,150	
NSWC/Port Hueneme					0	680	850	1,680	TBD	3,210	
NAWC/China Lake					0	3,600	4,500	3,600	TBD	11,700	
Miscellaneous					0	8,600	5,125	7,669	TBD	21,394	
B. Budget Acquisition History and Planning Information Continued (\$ in Thousands)											
Government Furnished Property:											
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BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604867C Navy Area TMD				PROJECT 2263		
<u>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>										
<u>Support and Management Property</u>										
<u>Test and Evaluation Property</u>										
Subtotal Product Development						218,327	243,237	204,159	665,723	
Subtotal Support and Management						4,854	5,324	4,556	14,734	
Subtotal Test and Evaluation						18,149	19,261	18,033	55,443	
Total Project						241,330	267,822	226,748	735,900	