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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 1997		
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603868C Navy Theater Wide TMD				PROJECT 1266		
<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
1266 Navy Theater Wide Missile Defense	200,442	304,171	194,898	192,073	191,229	190,930	145,190	149,444	Continuing	Continuing
A. <u>Mission Description and Budget Item Justification</u>										
<p>The Navy Theater Wide (NTW) Ballistic Missile Defense (BMD) program builds upon the Navy Area Theater Missile Defense (TMD) program and the national investment in AEGIS ships, weapons systems, and missiles. Two classes of ships are deployed with the AEGIS combat system: the Ticonderoga Class cruisers and the Arleigh Burke Class destroyers. Navy Theater Wide BMD will take advantage key naval forces attributes including overseas presence, mobility, flexibility, and sustainability to provide protection of a theater of operations.</p> <p>The Navy Theater Wide BMD program will provide an exo-atmospheric naval regional defense capability to counter the TBM threat. In accordance with the BMD Program Review in early 1996, the Navy Theater Wide program is conducting the following activities: an AEGIS LEAP system level intercept demonstration, Kinetic Warhead (KW) technology assessments and concept definition studies, and system engineering efforts to identify key technical risk reduction activities including discrimination and KW lethality. Since the FY97 President's Budget request, the Department has provided additional funds for FY 98-01 to increase testing and conduct more in-depth risk reduction. Ongoing advanced technology studies provide the anticipated objective system improvements required to meet the evolving threat.</p> <p>This project is assigned to the Budget Activity and Program Element codes as identified in this descriptive summary in accordance with existing Department of Defense policy.</p> <p><u>FY 1996 (\$ in Thousands)</u></p> <ul style="list-style-type: none"> - \$158,970 Continued NTW TBMD planning and studies, and continued Navy Cost and Operational Effectiveness Analysis (COEA) Phase II. Conducted system and design engineering to support the guidance-to-hit (GTH) technical demonstration flights including SM-2/LEAP limited integration. Conducted AEGIS Weapon System (AWS) integration for an NTW interceptor and provide limited AWS integration to support the GTH demonstration flights. - \$15,972 Provided technical support and historical expertise for NTW program. - \$17,000 Provided follow-on engineering and analysis to conduct system engineering and risk reduction activities. - \$5,000 Conducted initial concept exploration analysis under the Joint System Engineering interceptor studies. - \$3,500 Conducted initial lethality tests for momentum/weight effects. - \$200,442 Total 										
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<u>FY 1997 (\$ in Thousands)</u>		
- \$170,200	Continue Vertical Launch System (VLS) integration of the technical demonstration interceptor. Continue engineering for the NTW regional defense program and continue specific concept investigations and technology demonstrations.	
- \$80,100	Conduct kill vehicle technology assessments and shipboard system risk reduction activities.	
- \$25,450	Continue NTW TBMD planning and studies, and complete Navy COEA Phase II.	
- \$24,000	Continue AEGIS Weapon System integration for an NTW interceptor and provide limited AWS integration to support the GTH demonstration flights.	
- \$4,421	Continue follow-on engineering and analysis to support NTW.	
- \$304,171	Total	
<u>FY 1998 (\$ in Thousands)</u>		
- \$119,000	Continue planning and system engineering in support of the end game GTH demonstration flights. Continue VLS integration of the technical demonstration interceptor.	
- \$35,542	Conduct kill vehicle technology assessments and shipboard system risk reduction activities.	
- \$19,528	Continue NTW TBMD planning and studies.	
- \$19,377	Continue AEGIS Weapon System integration for an NTW interceptor and provide limited AWS integration to support the end game demonstration flights.	
- \$1,451	Continue follow-on engineering and analysis to support NTW.	
- \$194,898	Total	
<u>FY 1999 (\$ in Thousands)</u>		
- \$113,000	Continue planning and system engineering in support of the end game GTH demonstration flights. Continue VLS integration of the technical demonstration interceptor.	
- \$41,375	Conduct kill vehicle technology assessments and shipboard system risk reduction activities.	
- \$19,747	Continue NTW TBMD planning and studies.	
- \$17,951	Continue AEGIS Weapon System integration for an NTW interceptor and provide limited AWS integration to support the end game GTH demonstration flights.	
- \$192,073	Total	
<u>Acquisition Strategy:</u> The Navy acquisition strategy is to leverage the AEGIS ship anti-air warfare capability development by integrating TBMD capability through the Standard Missile prime contractor.		
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B. Program Change Summary (\$ in Thousands)											
		<u>FY 1996</u>		<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>		<u>Total Cost</u>	
Previous President's Budget		194,565		58,171		96,226		143,295		492,257	
Appropriated Value				304,171							
Changes to Appropriated Value:											
a. Restoration of Inflation Reduction				5,877							
Current Budget Submit/President's Budget		200,442		304,171		194,898		192,073		891,584	
Change Summary Explanation:											
Funding: FY1997 change due to Congressional addition of \$246M and various adjustments to the program. Changes in FY97 - 99 reflect congressional language and DoD increases to the program.											
Schedule: The Navy SM-2/AEGIS/LEAP program was delayed 3-6 months in FY96 in order to transition the executing agent from the BMDO to the Navy; Completion of Navy TBMD COEA has been delayed approximately one year following program restructure in January 1996. The joint system engineering team (JSET) study will be completed in the third quarter of FY98 with a briefing to be presented in the fourth quarter FY98.											
Technical: None											
C. Other Program Funding Summary (\$ in Thousands)											
		<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 Compl</u>	<u>Total Cost</u>
2263, Navy Area TBMD, PE 0603867C		277,565	59,315	0	0	0	0	0	0	TBD	TBD
2263, Navy Area TBMD, PE 0604867C		0	241,330	267,822	226,748	222,145	158,271	52,433	38,089	Cont	Cont
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. Schedule Profile											
		<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
Transition to Navy as Executing Agent				X							4
Control Test Vehicle 1										X	
Complete Navy TBMD COEA										X	
Third Stage Rocket Motor Test										X	
Control Test Vehicle 2										X	
Kinetic Warhead Hover Test										X	
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		<u>FY 1996</u>					<u>FY 1997</u>					<u>FY 1998</u>					<u>FY 1999</u>		
Complete Joint System Engineering Study	1				1														
Control Test Vehicle 3																			
Control Test Vehicle 4																			
First Flight Intercept Demo 1 (Guidance Test Vehicle) - 2Q/FY2000																			

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)						DATE February 1997					
BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT				
4 - Demonstration and Validation				0603868C Navy Theater Wide TMD			1266				
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.	System Engineering		27,099	65,675	37,621	34,727					
b.	Program Management		3,818	6,250	5,818	5,818					
c.	Program Support		4,386	5,825	5,386	5,386					
d.	Ship System Mods		290	8,450	3,875	3,875					
e.	Design & Analysis		68,701	75,325	45,117	43,117					
f.	Hardware Fab & Procurement		51,340	96,675	58,430	60,499					
g.	Test & Evaluation		5,806	9,900	7,806	7,806					
h.	Test Equipment		544	4,600	3,300	3,300					
I.	Engineering Support		3,975	7,500	6,975	6,975					
j.	Travel		300	300	300	300					
k.	Software Development		13,795	19,250	18,795	18,795					
l.	Other/Misc/BMDO		20,388	4,421	1,475	1,475					
	Total		200,442	304,171	194,898	192,073					
B. <u>Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
Performing Organizations:											
Contractor or Government	Contract Method/Type	Award or Obligation	Performing Activity	Project Office	Total Prior to FY 1996	Budget FY 1996	Budget FY 1997	Budget FY 1998	Budget FY 1999	Budget to Complete	Total Program
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>FY 1996</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Organizations</u>											
Standard Missile Company	CPAF				53,131	84,970	173,750	89,754	89,823	TBD	491,428
Lockheed Martin	CPAF				12,637	16,800	30,575	16,800	16,800	TBD	93,612
NSWC Dalgren	WR				6,109	20,239	30,100	11,777	10,034	TBD	78,259
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4 - Demonstration and Validation										February 1997	
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4 - Demonstration and Validation					0603868C Navy Theater Wide TMD					1266	
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
JHU/APL	RCP				3,295	9,673	18,650	7,807	6,656	TBD	46,081
Holloman AFB	MIPR				8,794	720	1,350	720	720	TBD	12,304
SSI	CPFF				1,576	952	1,500	952	952	TBD	5,932
United Defense	PD				0	2,675	4,100	2,675	2,675	TBD	12,125
Rockwell	CPAF				0	942	1,450	942	942	TBD	4,276
Arnold Eng	CPFF				0	300	400	300	300	TBD	1,300
ARC	CPFF				0	435	500	435	435	TBD	1,805
TSC	CPFF				0	2,150	2,550	2,150	2,150	TBD	9,000
Misc					12,640	2,663	3,750	2,663	2,663	TBD	24,379
BMDO					47,990	37,972	4,421	37,972	37,972	TBD	166,327
<u>Support and Management Organizations</u>											
NSWC Dalgren	WR				0	2,000	3,100	2,000	2,000	TBD	9,100
NSWC Port	WR				0	815	1,250	815	815	TBD	3,695
Hueneme Lake											
NAWC China	WR				0	1,400	1,675	1,400	1,400	TBD	5,875
NSWC Indian Head	RCP				0	2,370	2,600	2,370	2,370	TBD	9,710
VITRO	CPFF				2,132	445	550	445	445	TBD	4,017
SPA	CPFF				0	500	1,000	500	500	TBD	2,500
JHU/APL	CPFF				0	4,153	5,500	4,153	4,153	TBD	17,959
Misc					2,589	1,496	1,900	1,496	1,496	TBD	8,977
<u>Test and Evaluation Organizations</u>											
NSWC Dalgren	WR				0	3,800	4,600	3,800	3,800	TBD	16,000
JHU/APL	CPFF				0	400	1,500	400	400	TBD	2,700
SSDC Army	MIPR				0	1,276	4,600	1,276	1,276	TBD	8,428
WSMR	WR				1,198	50	1,500	50	50	TBD	2,848

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BUDGET ACTIVITY							PROJECT			
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Misc				3,909	1,246	1,300	1,246	1,246	TBD	8,947
B. <u>Budget Acquisition History and Planning Information Continued (\$ in Thousands)</u>										
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>										
<u>Support and Management Property</u>										
<u>Test and Evaluation Property</u>										
Subtotal Product Development				146,172	180,491	273,096	174,947	172,122		946,828
Subtotal Support and Management				4,721	13,179	17,575	13,179	13,179		61,833
Subtotal Test and Evaluation				5,107	6,772	13,500	6,772	6,772		38,923
Total Project				156,000	200,442	304,171	194,898	192,073		1,047,584
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