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BMDO RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)	DATE February 1999
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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603868C Navy Theater Wide - DEM/VAL	PROJECT 1266
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COST <i>(In Thousands)</i>	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
1266 Navy Theater Wide	437896	364284	329768	369049	0	0	0	0	TBD	TBD

A. Mission Description and Budget Item Justification

The requirement for the Navy Theater Wide (NTW) Theater Ballistic Missile Defense (TBMD) system is to provide protection to U.S. and allied forces against medium to long range theater ballistic missiles (TBMs), which may be equipped with Weapons of Mass Destruction (WMD). This protection includes those political and military assets designated as vital to U.S. interests. NTW will provide an effective defense when the ship is positioned near the enemy TBM launcher to effect ascent phase intercepts; along the TBM trajectory as the TBM passes over water, or inland along the coast to effect midcourse intercepts; and, near the defended area to provide descent phase intercepts and achieve an additional layer of defense for lower-tier TBMD systems.

The NTW system builds upon the existing AEGIS Weapon Systems (AWS) and the STANDARD Missile (SM) infrastructure as a further evolution to the Navy Area TBMD system. The AWS (as modified for Navy Area TBMD) will be evolved to support exoatmospheric ascent, midcourse, and descent phase engagements. The Navy SM-2 Block IV will be modified to accommodate a kinetic warhead (KW), a new third stage propulsion system, and exoatmospheric guidance. The new variant of the SM is the SM-3.

The NTW AEGIS Lightweight Exoatmospheric Projectile [LEAP] Intercept (ALI) Program consists of a series of near-term flight tests with the primary objective of demonstrating that LEAP technologies can be integrated with a modified SM-2 Blk IV and AWS to hit a TBM target in the exoatmosphere.

FY 1998 Accomplishments:

- 375680 Continued ALI systems engineering, test article procurement, program management, and test and evaluation. Continued Vertical Launch System (VLS) integration and engineering of the NTW SM-3 missile. Continued KW technology assessments and shipboard system risk reduction activities. Continued NTW TBMD planning and studies, and completed Navy COEA Phase II. Continued AWS integration of SM-3 and provided limited AWS integration in support of ALI demonstration flights.
- 7622 Continued lethality requirement definition support and lethality performance testing of NTW KW.
- 16594 Continued target engineering and initiated PMRF range upgrades to support NTW test and evaluation.
- 38000 IMPACT 98 Supplemental funds used to accelerate the SIGPRO RRA DT-1B computer program development and KW lethal aimpoint development. Initiated procurement of DT-1B SM-3 Long Lead Material, increased development and testing assets at CSEDS and associated NTW Block I Systems Engineering.

Total 437896

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<p>FY 1999 Planned Program:</p> <ul style="list-style-type: none"> • 315856 Conducted extremely successful AUTUMN EVENTS Risk Reduction Activity in Nov 98 where TBM targets were detected, tracked, and had simulated engagements conducted against them using the AEGIS LINEBACKER equipped cruisers, the High Range Resolution radar equipped AEGIS destroyer, and the SM-3 Kinetic Warhead Seeker Captive Carry Testbed. Successfully passed LINK 16 TBM data between LINEBACKER cruisers and THAAD and Patriot Information Control Center. Continue the execution of the ALI Flight Demonstration Program (FDP), ALI and Block I associated risk reduction activities, including radar improvements competition for the radar discrimination RRA, and NTW Block I TBMD system engineering and planning. Design, develop, manufacture, integrate, and test ALI Control Test Vehicles (CTV), Flight Test Rounds (FTRs), and associated ground hardware and test equipment. Perform AEGIS Combat System (ACS) development engineering to support the ALI program. Continue the NTW test and evaluation process to include participation in the TMD Critical Measurements Program (TCMP)-3A where threat representative data will be collected by NTW weapon system components and interoperability with other BMD systems will be demonstrated within the evolving USACOM sponsored TMD Family of Systems architecture. • 6769 Continue lethality requirement definition support and lethality performance testing of NTW KW. • 21659 Continue targets procurement to support NTW test and evaluation, and provide test facilities support. • 20000 Commence cooperative development with the Government of Japan on selected NTW Block II technologies. <p>Total 364284</p> <p>FY 2000 Planned Program:</p> <ul style="list-style-type: none"> • 306151 Continue ALI, initiate Threat Representative Testing (TRT) engineering, and continue Block I systems engineering, test article procurement, program management, risk reduction activities, and test and evaluation. • 4664 Continue lethality requirement definition support and lethality performance testing of NTW KW. • 18953 Continue targets procurement to support NTW test and evaluation. <p>Total 329768</p> <p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 358174 Continue ALI, TRT, and Block I systems engineering, program management, risk reduction activities, and test and evaluation. • 6660 Continue lethality requirement definition support and lethality performance testing of NTW KW. • 4215 Continue targets procurement to support NTW test and evaluation. <p>Total 369049</p>		
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B. Program Change Summary	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Previous President's Budget (FY 1999 PB)	419414	190446	186144	183258
Congressional Adjustments		148000		
Appropriated Value		338446		
Adjustments to Appropriated Value				
a. Congressional Reductions (FFRDC, Inflation, etc)		-2121		
b. OSD Reductions		-2041		
c. Emergency Supplemental		30000*		
Adjustments to Budget Years Since FY 1999 PB				
Current Budget Submit (FY 2000 / 2001 PB)	437896	364284	329768	369049

*Of this amount, \$10 million will be executed in FY1999 and \$20 million in FY2000

Change Summary Explanation: FY98 increase represents Congressional Emergency Supplement Appropriation Act funding. FY99 increase represents Congressional plus up and Omnibus Consolidate and Emergency Supplemental Appropriations Act funding. FY00-01 and adjustments establish program, and increase test and evaluation requirements.

Schedule: FY00 President's Budget adjustments to support FUE 2007.

Technical: Increased test and evaluation requirements to include TRT.

C. Other Program Funding Summary	<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>FY 2004</u>	<u>FY 2005</u>	<u>To Compl</u>	<u>Total Cost</u>
THAAD - 0603861C	387260	433922	527871	3519	0	0	0	0	0	1352572
THAAD - 0604861C	0	0	83755	556178	417530	289197	188652	0	0	1535312
Upper Tier - 0604218C	0	0	0	0	514318	471852	517902	634550	Cont	Cont
Navy Area - 0604867C	292063	242597	268389	226772	64208	51548	33596	26665	TBD	TBD
Navy Area Procurement - 0208867C	14859	43189	55002	61066	121035	134379	152319	181381	TBD	TBD

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D. Acquisition Strategy:

E. <u>Schedule Profile</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>FY 2004</u>	<u>FY 2005</u>
Transition to Navy as Execution Agent	4Q									
Control Test Vehicle 1		4Q								
Complete Navy TBMD COEA Phase II			1Q							
Target Test Vehicle 1				1Q						
DAB Review				2Q						
Control Test Vehicle 1A				4Q						
Flight Test Round 1					1Q					
Flight Test Round 2					2Q					
Flight Test Round 3					3Q					
Flight Test Round 4					4Q					
Flight Test Round 5						1Q				
Flight Test Round 6						2Q				
Flight Test Round 7						3Q				

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BMDO RDT&E COST ANALYSIS (R-3)	DATE February 1999
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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603868C Navy Theater Wide - DEM/VAL	PROJECT 1266
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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a.	CPAF	Standard Missile Co.	506219	178665		169576		193478		TBD	1047938	
b.	CPAF	Lockheed Martin	147062	60251		46668		61592		TBD	315573	
c.	CPAF	United Defense	10051	1996		700		550		TBD	13297	
d.	CPAF	Raytheon	26120	9000		0		0		0	35120	
e.	CPFF	JHU/APL	56099	18252		17962		18327		TBD	110640	
f.	CPFF	TSC	4800	2000		2000		2000		TBD	10800	
g.	WR	NSWC Dahlgren	76924	22114		21399		23336		TBD	143773	
h.	MIPR	MIT/LL	13058	6336		6518		6518		TBD	32430	
i.		BMDO	89271	0		0		0		0	89271	
j.		Misc	31864	3194		3716		4240		TBD	43014	
Subtotal Product Development:			961468	301808		268539		310041			1841856	

Remark:

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a.	CPFF	Techmatics	6669	7315		6535		6900		TBD	27419	
b.	CPAF	VITRO	4427	1245		1300		1360		TBD	8332	
c.	CPFF	SYSCON	2230	1143		1200		1500		TBD	6073	
d.	CPFF	SPA	1081	600		600		600		TBD	2881	
e.		Misc	2908	450		421		637		TBD	4416	
Subtotal Support Costs:			17315	10753		10056		10997			49121	

Remark:

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a.	CPAF	Lockheed Martin	1000	1000		1000		1000		TBD	4000	
b.	CPFF	JHU/APL	4200	1389		1025		3214		TBD	9828	
c.	CPFF	MANTECH	1500	250		0		0		TBD	1750	
d.	WR	NSWC Dahlgren	15602	1447		1772		2541		TBD	21362	
e.	WR	NSWC Port Hueneme	1356	2329		5030		6068		TBD	14783	
f.	MIPR	NAIC	6118	0		0		0		0	6118	
g.	WR	PMRF	6529	3127		3001		8257		TBD	20914	
h.	MIPR	SMDC Army	22303	19158		18953		4215		TBD	64629	
i.		Misc	12776	2063		1949		2820		TBD	19608	
j.	MIPR	Sandia Labs		2501		0		0		0	2501	
Subtotal Test and Evaluation:			71384	33264		32730		28115			165493	

Remark:

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a.	WR	NAVSEA	2500	2300		2400		2500		TBD	9700	
b.	WR	NSWC Dahlgren	14624	8852		8900		9200		TBD	41576	
c.	WR	NRL	1724	1800		1500		1700		TBD	6724	
d.	WR	NAWC China Lake	8586	3287		3280		3806		TBD	18959	
e.	WR	NWAD	1625	805		1000		1100		TBD	4530	
f.	WR	NSWC Indian Head	2049	1140		1040		1255		TBD	5484	
g.		Misc	2752	275		323		335		TBD	3685	
Subtotal Management Services:			33860	18459		18443		19896			90658	

Remark:

Project Total Cost:			1084027	364284		329768		369049			2147128	
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