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Missile Defense Agency (MDA) Exhibit R-2 RDT&E Budget Item Just APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)			stification February 2007 R-1 NOMENCLATURE 0603892C Ballistic Missile Defense Aegis					
COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	893,040	1,122,669	1,059,103	1,129,425	1,221,650	1,067,587	1,054,753	1,089,078
0709 AEGIS Block 2004 Test Bed	136,257	23,043	0	0	0	0	0	0
0809 AEGIS BMD Block 2006	448,876	395,283	75,400	42,600	0	0	0	0
0909 AEGIS BMD Block 2008	254,007	575,620	721,133	592,914	166,100	31,400	0	0
0009 AEGIS BMD Block 2010	0	40,404	71,456	162,819	450,586	324,929	32,006	29,493
R109 AEGIS BMD Block 2012	0	8,684	26,700	130,300	316,800	412,700	687,781	758,219
0918 Sea-Based Terminal Block 2008	0	15,000	62,000	10,000	0	0	0	0
R218 Sea-Based Terminal Block 2014	0	0	13,000	39,000	60,000	65,000	130,000	163,000
0402 Japanese Cooperative Program	34,792	50,606	74,400	134,900	206,200	221,500	193,700	127,000
0602 Program-Wide Support	19,108	14,029	15,014	16,892	21,964	12,058	11,266	11,366
Amount Included in PE 0904903D					-191,169	-79,823	-29,285	-29,753
Total PE Cost Reflected in R-1	893,040	1,122,669	1,059,103	1,129,425	1,030,481	987,764	1,025,468	1,059,325

A. Mission Description and Budget Item Justification

A.1 System Element Description

The Aegis Ballistic Missile Defense (Aegis BMD) mission is to deliver an enduring, operationally effective and supportable Ballistic Missile Defense Capability in Aegis cruisers and destroyers to defend the nation, deployed forces, friends and allies, and to incrementally increase this capability by delivering evolutionary spiral improvements as part of BMDS block upgrades. The Aegis BMD element of the BMDS builds upon the existing Aegis Weapons System (AWS) and Standard Missile (SM) infrastructures deployed in Aegis cruisers and destroyers. Aegis BMD provides a forward-deployable, mobile capability to detect and track Ballistic Missiles of all ranges, and the ability to destroy Short-Range Ballistic Missile (SRBM), Medium-Range Ballistic Missile (MRBM), Intermediate-Range Ballistic Missile (IRBM), and selected long-range class threats in the midcourse phase of flight. Spiral upgrades to both the Aegis BMD Weapon System and the SM-3 configurations will enable Aegis BMD to provide effective, supportable defensive capability against more difficult threats, including Long Range Ballistic Missiles (LRBMs).

During the Block 04 timeframe Aegis BMD provided Long Range Surveillance and Track (LRS&T) capability to the BMDS against Ballistic Missile threats of all ranges. It also provides initial engagement capability against SRBM to MRBM-class threats. Aegis BMD is fielding the Block 2004 capability in three spirals: The first spiral provides an early LRS&T capability (BMD 3.0E Weapon System) to support BMDS engagements in support of Homeland Defense; The second spiral provides an initial engagement capability against SRBMs and MRBMs on Aegis BMD cruisers

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with the BMD 3.0 Weapon System and SM-3 Blk I missile that can be used for emergency activation; Spiral three provides an operationally certified LRS&T and engagement capability on Aegis BMD cruisers and destroyers configured with the BMD 3.6 Weapon System which is capable of firing SM-3 Blk I and IA missiles using organic and external sensors.

During Block 2006, Aegis BMD provides for the development and test of SPY-1 radar tracking, RF discrimination, and Aegis BMD Fire Control improvements to the BMD Weapon System. Block 2006 will deliver the Aegis BMD Signal Processor (BSP) and computer program engineering load to the Combat System Engineering Development Site (CSEDS) for testing. Also the BMD 3.6 Weapon System will be installed on Aegis cruisers and destroyers, tested during at-sea firing test missions, assessed for future improvements, and begin efforts to incorporate an initial, near-term sea based terminal capability into this baseline. SM-3 Blk IA missiles will also be tested, assessed for future improvements, and delivered for deployment.

Aegis BMD Block 2008 improves system effectiveness against an expanding threat set to include a fielded capability against some IRBM and longrange threats. This will be achieved by means of modifications to the Weapon System (BMD 4.0/4.0.1) that focus on the new RF discrimination and tracking capability, and an upgraded SM-3 guided missile. The Aegis BMD 4.0/4.0.1 Weapon System will build on Block 2006 BSP development, integrating it with an updated variant of the SM-3 (SM-3 Blk IB). The SM-3 Blk IB configuration includes a performance-enhancing two-color IR seeker, and a Throttleable Divert and Attitude Control System (TDACS), which provides performance and manufacturing improvements and lowers unit cost. The initial capability (BMD 4.0) will be delivered with the SM-3 Blk IA missile. BMD 4.0.1 will be an operationally certified system firing either the SM-3 Blk IA or IB missile. Aegis BMD will also complete the installation of the BMD 3.6 Weapon System on Aegis cruisers and destroyers, complete delivery of SM-3 Blk IA missiles for deployment, and begin delivery of SM-3 Blk IB missiles for at-sea testing and deployment.

Additionally, Block 2008 will provide for an integrated near-term Sea Based Terminal (SBT) capability against a finite set of Short Range Ballistic Missiles. BMD 3.6.1 will incorporate a fuze modified SM-2 Block IV missile provided by a separate OPNAV sponsored effort and will build on BMD 3.6 to provide a capability (BMD 3.6.1) against additional threats. The updated BMD 3.6.1 will continue efforts to refine Aegis Launch on AN/TPY-2 and will bridge the gap between the operational deployment of BMD 3.6 and BMD 4.0.1.

Aegis BMD Block 2010 will integrate the BMD mission with the Navy-developed Open Architecture system in order to preserve the sea-based BMD capability as Navy ship modernization plans are executed. The Aegis BMD Weapon System will transition from older, MIL-standard computers to new Commercial Off The Shelf (COTS) computing plants. This integration will allow ships' operators to conduct combat missions with a single set of tactical computer programs running on the same computer system. This change will enhance display features and eliminate the need for a separate computing system specific to the BMD mission. This will enable Aegis BMD to maintain compatibility with Surface Navy ships and align with the

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Navy's modernization plan, while also expanding the number of ships available to serve as potential candidates for the BMD mission. Future fielded Aegis BMD system improvements will be built in this new architecture. Also during this timeframe, Aegis BMD will begin installations of the BMD 4.0.1 Weapon System on Aegis cruisers and destroyers, continue to deliver SM-3 Blk IB missiles for testing and deployment, and assess weapon system and missile performance to determine the direction for further improvements.

Aegis BMD and the Japan Defense Agency (JDA) have undertaken an SM-3 Cooperative Development (SCD) program, which consists of a spiral upgrade to the SM-3 Blk IB missile - a 21-inch diameter SM-3 missile (SM-3 Blk IIA). Missile development will be covered under the SCD project prior to the SM-3 Blk IIA incorporation into a spiral Block upgrade to the Aegis Ballistic Missile Defense system.

Aegis BMD Block 2012 will integrate and test the SM-3 Blk IIA missile with the Aegis BMD Weapon System in Open Architecture, which will expand the battlespace to include IRBM and selected longer-range threats. Weapon System modifications will also be made to accommodate an Engage-on-Remote capability and include a more robust set capability. Also during this timeframe, Aegis BMD will complete 3.6.1 deliveries and will continue to install the BMD 4.0.1 Weapon System on Aegis cruisers and destroyers and assess performance to determine the direction for further improvements.

Additionally, Block 2012-2014 will provide for an integrated Sea Based Terminal (SBT) capability. It is envisioned that BMD 5.X will incorporate a new missile type (to be determined), which will build on the near-term Sea Based Terminal capability developed as a part of Aegis BMD 3.6.1 to provide a more capable and robust sea based terminal missile defense capability.

A.2 System Element Budget Justification and Contribution to the Ballistic Missile Defense System (BMDS)

Aegis BMD provides a mobile, forward-deployable LRS&T capability to the BMDS against ballistic missile threats of all ranges. In Block 2004, Aegis BMD also provided an engagement capability against short to medium range threats. In Block 2006, Aegis BMD begins development of an upgraded LRS&T capability; the Block 2008 fielded configuration will expand both LRS&T and engagement capability to include more complex threats including limited IRBM threats. Block 2008 will also see the introduction of a near-term Sea-Based Terminal capability to engage limited short range threats in the terminal phase of flight. Block 2010 will broaden program application for U.S. and international Aegis ship population by implementing Open Architecture. Block 2012 will further expand engagement capability against long-range threats, to include some ICBM-class threats. Aegis BMD Block upgrades will provide a capability to launch on and engage on cues from remote sensors, such as the AN/TPY-2, via Tactical Digital Information Link (TADIL), as well as provide launch and engage data to other BMDS weapon systems, such as GMD and THAAD. Improvements to the Aegis BMD Signal Processor (BSP) will improve target object discrimination. Further improvements to the missile, such as the SM-3 Blk IB and Blk IIA planned configurations, will increase BMD battlespace by increasing the SM-3 range, speed, and discrimination capability.

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Missile Defense Agency (MDA) Exhibit R-2 RDT&E Budget Item Just	ification	Date February 2007
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Block 2012-14 will also introduce a more robust Sea Based Terminal capability. participation in BMDS Concurrent Test, Training and Operations (CTTO) activi from real-world activities; and allow injection of high-fidelity simulations to run will enable end-to-end testing of the BMDS and enable BMDS training that allow	ties that will safely separa realistic scenarios on ope	te test, evaluation, and training venues rational equipment and networks. CTTO
 Aegis BMD will deliver the following: Fifteen (15) Aegis Destroyers equipped with the Aegis BMD Weapon System Three (3) Aegis Cruisers equipped with the Aegis BMD Weapon System to a SM-3 Missile Deliveries - To Be Used for Testing and/or Deployment: Five (5) SM-3 Blk I missiles Six (6) MDP-1 SM-3 Blk I missiles Two (2) ``Pathfinder`` SM-3 Blk IA Flight Test Rounds (FTRs) Nineteen (19) MDP-1 SM-3 Blk IA missiles Forty (40) MDP-2 SM-3 Blk IA and IB missiles, plus three (3) additional Twenty-four (24) MDP-3 SM-3 Blk IB missiles Forty-eight (48) MDP-4 SM-3 Blk IB missiles 	conduct the LRS&T and e	ngagement missions
 A.3 Major System Element Goals Block 2006 - Improve the Weapon System capability to identify and classify Aegis BSP Engineering Development Model (EDM). Block 2008 - Improve missile capability to identify and target the threat obje Processor (ASP), and two-color missile seeker. Improve missile kinetic warh Controls System (TDACS). Improve BMDS C2BMC performance: engagen missile downlink system for improved kill assessment. Increase battlespace: integration with Joint Defense Planner. Introduce a Near-Term Sea Based Terminal capability against SRBMs in Bloc 	ect through the All Reflect nead (KW) kinematic perfo nent coordination with TH enhanced Launch on Rem	ive Optics (ARO), Advanced Signal ormance: Throttleable Divert and Attitude (AAD and Patriot, kill assessment; and
 Introduce a Near-Term Sea Based Terminal capability against SKBMs in Bio Block 2010 - Broaden program application for U.S. and international Aegis s DMDS C2DMC performances migrate to Isint Tastiael Badia System and C 	ship population by implen	

BMDS C2BMC performance: migrate to Joint Tactical Radio System and Common Link Interface Processor, and Forcenet/GIG compliance.
Block 2012 - Increase battlespace: SM-3 Blk IIA integration into the Aegis BMD Weapon System, Engage on Remote, improved feature-aided track correlation, and improved BMDS sensor data fusion.

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APPROPRIATION/BUDGET A				R-1 NOMENCLATURE				
RDT&E, DW/04 Advanced	Component Deve	lopment and Proto	types (ACD&P)	0603892C Ballistic Missile Defense Aegis				
• Introduce a more robus	t Sea Based Term	inal capability in I	Block 2014.					
• SCD - Initiate U.S./Jap	an SM-3 Coopera	tive Development	(SCD) of the SM	3 Blk IIA Missile (21-inch diameter SM-3 missile).				
A.4 Major Events Schedu	1	1						
Major Event	Project	Timeframe	Description					
Flight Test								
Japan Cooperative Research Proj	ect							
JCTV-1	0402	2Q FY 2006	Conduct	ed Joint Control Test Vehicle-1 (JCTV-1) Proof-of-Principle flight test to test	st the			
			lightweight nosecone.					
Flight Tests								
FTM-17	0009	3Q FY 2010	• Engagement of Group B Medium Range Ballistic Missile and a Group C Medium Range Ballistic Missile in a multi-warfare environment.					
FTM-18	0009	3Q FY 2011	 Conduct live Developmental Test & Operational Test against IRBM and MRBM multiwarfare capability in a multiwarfare environment. 					
FTM 04-2 (FM-8)	0709	1Q FY 2006	 Conducted FTM 04-2 (FM-8) flight test to verify BMD 3.0 emergency engagement capability with an intercept of a Group B (MRBM) target using an SM-3 Blk I missile. 					
FTM-10	0809	3Q FY 2006	Conduct	 Conducted FTM-10 flight test to verify BMD 3.6 engagement capability with an intercept of a Group B (MRBM) target using an SM-3 Blk IA missile, supporting BMD 3.6 certification. 				
FTM-11	0809	1Q FY 2007	Conduct	ed FTM-11 flight test to verify BMD 3.6 engagement capability with a near				
				eous multiple engagement and intercept of one low exo-atmospheric Group <i>a</i> target using an SM-3 Blk IA missile, and a BQM-74 aerial target using an S sile.				
FTM-11 4th Objective	0809	3Q FY 2007	Conduct near sim	FTM-11 4th Objective flight test to verify BMD 3.6 engagement capability ultaneous multiple engagement and intercept of one low exo-atmospheric Gr target using an SM-3 Blk IA missile, and a BQM-74 aerial target using an S	oup A			
FTM-12	0809	3Q FY 2007	Conduct	FTM-12 flight test to verify BMD 3.6 engagement capability with an interce target using an SM-3 Blk IA missile.	ept of a			
FTM-13	0909	1Q FY 2008	*	n, track and engagement of two simultaneous SRBMs.				
FTM-14	0909	3Q FY 2008		on TADIL (LOT) engagement of Group F Intermediate Range Ballistic Miss	ile.			
FTM-19	R109	3Q FY 2012	• Standard target.	Cooperative Development (SCD) SM-3 Block IIA missile launch with simu	llated			
FTM-20	R109	2Q FY 2013	0	mental Test & Operational Test live engagement against a Group C.				
BLOCK 2008	I	•	1 1					
FTM-15	0918	2Q FY 2009	• Zero-pu	se mission against Short Range Ballistic Missile.				
Contract Activity								
Flight Tests								
FTM-16	0909	3Q FY 2009	 Engager 	nent of Group B Medium Range Ballistic Missile.				

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RDT&E, DW/04 Advanced Compor	nent Devel	opment and Prototypes (ACI	J&P)	0603892C Ballistic Missil	e Defense Aegis		
Major Event	Project	Timeframe	Des	scription				
Critical Design Review								
Development Milestones								
Block 2010 System Design Review	0009	3Q FY 2008	•			s BMD Block 2010 with Open Architecture.		
Block 2010 Preliminary Design Review	0009	2Q FY 2009	•	Conduct	PDR for the Aegis BMD Block 2	010 with Open Architecture.		
Block 2010 Critical Design Review	0009	2Q FY 2010	•		CDR for Aegis BMD Block 2010			
Block 2010 Engineering Assessment	0009	4Q FY 2011	•	Perform	an EA of Aegis BMD Block 2010	with Open Architecture		
BMD 3.6 Engineering Assessment	0709	2Q FY 2006	•		ed BMD 3.6 Engineering Assessm ID LRS&T and engagement capab	nent to provide an operationally-certified system bility.		
BMD 3.6 Weapon System Certification	0709	4Q FY 2006	Completed BMD 3.6 Weapon System certification following the BMD 3.6 Engineering Assessment.					
BMD 4.0E Engineering Assessment	0809	1Q FY 2008	• Complete development of the computer program upgrade BMD 4.0E, culminating with an Engineering Assessment (EA) in December 2007.					
BMD 4.0 Engineering Assessment	0909	1Q FY 2009	•			estbed system with the SM-3 Block IA missile.		
BMD 4.0.1 Engineering Assessment	0909	1Q FY 2010	•	Perform or IB mi	· ·	perationally-certified system with the SM-3 Blk IA		
Block 2012 System Requirements Review	R109	1Q FY 2009	•	Conduct	an SRR for Aegis BMD Block 20	012.		
Block 2012 System Design Review	R109	1Q FY 2010	•	Conduct	SDR for the Aegis BMD Block 2	012.		
Block 2012 Preliminary Design Review	R109	3Q FY 2010	•		PDR for the Aegis BMD Block 2			
Block 2012 Preliminary Design Review 2	R109	3Q FY 2011	•		Preliminary Design Review 2 for			
Block 2012 Critical Design Review	R109	3Q FY 2013	Conduct Critical Design Review for Aegis BMD Block 2012.					
SM-3 Blk IIA Development Milestones		1			CC			
SM-3 Blk IIA System Concept Review	0402	4Q FY 2006	•	Conduct	ed SM-3 Blk IIA SCR.			
SM-3 Blk IIA System Requirements Review	0402	4Q FY 2007	•	Conduct	SM-3 Blk IIA SRR.			
SM-3 Blk IIA System Design Review	0402	3Q FY 2008	•	Conduct	SDR for the SM-3 Blk IIA missile	e configurations.		
SM-3 Blk II Preliminary Design Review	0402	3Q FY 2009	•		PDR for the SM-3 Blk II missile			
SM-3 Blk IIA System Design Review 2	0402	2Q FY 2010	•		SDR for the SM-3 Blk IIA missile	e to be fielded in Block 2012.		
SM-3 Blk IIA Critical Design Review	0402	3Q FY 2010	•		the Critical Design Review (CDR			
SM-3 Blk IIA Preliminary Design Review	0402	3Q FY 2011	•		PDR for the SM-3 Blk IIA missile			
Other								
Milestones								
Requirements Analysis	R218	1Q FY 2008 - 2Q FY 2009						
Missile Down Select	R218	3Q FY 2009 - 2Q FY 2010	٠	Initiate N	Missile Down Select Process.			
BMDS Certification								
3.6.1 Certification	0918	3Q FY 2009	•	Certify I	3MD 3.6.1 for installation and ope	rational use on Aegis BMD cruisers and destroyers.		

PPROPRIATION/BUDGET ACTIVITYR-1 NOMENCLATUREObio3892C Ballistic Missile Defense AegisProgram Change SummaryFY 2006FY 2007FY 2008FY 2009revious President's Budget (FY 2007 PB)915,6641,031,874951,560980,498urrent President's Budget (FY 2008 PB)893,0401,122,6691,059,1031,129,425otal Adjustments-22,62490,795107,543148,927ongressional Specific Program Adjustments0-4,76500ongressional Undistributed Adjustments0-4,76500BIR/STTR Transfer-16,1400000	Missile Defense A server (MDA	\ E-L:L:4 D 4 DDT 8 E	Dudget Here			Date February 2007			
DT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)0603892C Ballistic Missile Defense AegisProgram Change SummaryFY 2006FY 2007FY 2008FY 2007FY 2008FY 2007FY 2008FY 2007FY 2008FY 2007FY 2009revious President's Budget (FY 2007 PB)915.6641,031.874951.560980.498urrent President's Budget (FY 2008 PB)893,0401,122,6691,059,1031,129,425otal Adjustments095.5600ongressional Specific Program Adjustments095.5600Of erogram Adjustments0-4.476500Of erogram Adjustments0-4.48400Of erogram Ings-6.48400Of erogram Specific Program-00Of erogram Specific Program Ings.Y06 decrease of \$22.624 million includes the SBIR/STTR transfer and MDAreprogrammings.Y07 increase of \$90.795 million includes a congressional specific program increase of \$95.560 million and a portion of t) Exhibit K-2 KD I &E	Budget Item ,						
Program Change SummaryFY 2006FY 2007FY 2008FY 2009revious President's Budget (FY 2007 PB)915,6641.031,874951,560980,498urrent President's Budget (FY 2008 PB)893,0401,122,6691.059,1031,129,425otal Adjustments-22,62490,795107,543148,927ongressional Specific Program Adjustments095,56000ongressional Undistributed Adjustments0-4,76500eprogrammings-6,4840000BIR/STTR Transfer-16,1400000djustments to Budget Years00107,543148,927Y06 decrease of \$22.624 million includes the SBIR/STTR transfer and MDA reprogrammings.Y07 increase of \$90.795 million includes a congressional specific program increase of \$95.560 million and a portion of the MDA congressional ndistributed reduction.									
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orgressional Undistributed Adjustments0-4,76500eprogrammings-6,484000BIR/STTR Transfer-16,140000djustments to Budget Years00107,543148,927Y06 decrease of \$22.624 million includes the SBIR/STTR transfer and MDA reprogrammings.Y07 increase of \$90.795 million includes a congressional specific program increase of \$95.560 million and a portion of the MDA congressional ndistributed reduction.	-	,							
BIR/STTR Transfer-16,140000djustments to Budget Years00107,543148,927Y06 decrease of \$22.624 million includes the SBIR/STTR transfer and MDA reprogrammings.Y07 increase of \$90.795 million includes a congressional specific program increase of \$95.560 million and a portion of the MDA congressional ndistributed reduction.	Congressional Undistributed Adjustments	0		0	0				
BIR/STTR Transfer-16,140000djustments to Budget Years00107,543148,927Y06 decrease of \$22.624 million includes the SBIR/STTR transfer and MDA reprogrammings.Y07 increase of \$90.795 million includes a congressional specific program increase of \$95.560 million and a portion of the MDA congressional ndistributed reduction.	Reprogrammings	-6,484	0	0	0				
Y06 decrease of \$22.624 million includes the SBIR/STTR transfer and MDA reprogrammings. Y07 increase of \$90.795 million includes a congressional specific program increase of \$95.560 million and a portion of the MDA congressional ndistributed reduction.	SBIR/STTR Transfer	-16,140	0	0	0				
Y07 increase of \$90.795 million includes a congressional specific program increase of \$95.560 million and a portion of the MDA congressional ndistributed reduction.	Adjustments to Budget Years	0	0	107,543	148,927				
	FY08 increase of \$80.043 million and FY09	increase of \$148.92	27 million are	e the results of	of MDA progra	ammatic changes.			

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification					07		
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P))efense Aeg	is		
FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
136,257	23,043	0	0	0	0	0	0
5	0	0	0	0	0	0	0
	es (ACD&P) FY 2006	R-1 NO es (ACD&P) R-1 NO 060389 FY 2006 FY 2007 136,257 23,043 5 0	R-1 NOMENCLAT es (ACD&P) R-1 NOMENCLAT 0603892C Ballisti FY 2006 FY 2007 136,257 23,043 0 5 0 0	Froject Justification F R-1 NOMENCLATURE 0603892C Ballistic Missile I FY 2006 FY 2007 FY 2008 136,257 23,043 0 0 5 0 0 0	R-1 NOMENCLATURE 0603892C Ballistic Missile Defense Aeg FY 2006 FY 2007 FY 2008 FY 2009 FY 2010 136,257 23,043 0 0 0 5 0 0 0 0	Froject Justification February 2007 R-1 NOMENCLATURE 0603892C Ballistic Missile Defense Aegis FY 2006 FY 2007 FY 2008 FY 2009 FY 2010 FY 2011 136,257 23,043 0 0 0 0 5 0 0 0 0 0	February 2007 R-1 NOMENCLATURE 0603892C Ballistic Missile Defense Aegis FY 2006 FY 2007 FY 2008 FY 2009 FY 2010 FY 2011 FY 2012 136,257 23,043 0 0 0 0 0 5 0 0 0 0 0 0 0

Note: RDT&E Articles for FY06: Four (4) SM-3 missiles, and the installation of BMD 3.0E on one (1) DDG.

A. Mission Description and Budget Item Justification

Aegis BMD Block 2004 supports the BMDS mission of intercepting ballistic missiles in all regions, in all phases, and of all ranges, as follows:

- In all regions: Provide sea-based surveillance, tracking, and engagement capabilities in international waters.
- In all phases of ballistic missile flight: Long Range Surveillance and Track (LRS&T) capability against missile threats in all flight stages; engagement capability against missile threats in the midcourse flight stage
- Against all ranges:
 - Against long-range ballistic missiles by providing surveillance and tracking support as part of the Block 2004 Limited Defensive Capability (LDC).
 - Against short and medium range ballistic missiles by providing engagement support as part of Block 2004.

Aegis BMD supports LDC by providing LRS&T data to other elements of the BMDS. Aegis BMD will further improve both national and international security with its ability to launch Standard Missile 3 (SM-3) missiles based upon autonomous data and upon data received via the Tactical Digital Information Link Joint (TADIL-J) network. The Aegis BMD Block 2004 program:

- Defeats unitary and simple separating threats (Short Range Ballistic Missiles (SRBMs) and Medium Range Ballistic Missiles (MRBMs)) with Aegis BMD configured cruisers and destroyers using SM-3 Blk I or IA guided missiles.
- Provides Long Range Ballistic Missile (LRBM) surveillance and track data through the BMDS to the GMD element to cue and initiate fire control Weapons Task Plans.
- Provides Aegis BMD surveillance and track data to the BMDS to support Combatant Commander situational awareness.
- Expands the engagement battle space by using remote (Aegis AN/SPY-1) sensor data delivered via the TADIL-J network.
- Supplies Aegis BMD operational data to the BMDS C2BMC Element to support Combatant Commander situational awareness.
- Provides an operational, engagement-capable system.

Aegis BMD Block 2004 consists of three incremental capabilities:

- LRS&T (BMD 3.0E computer program) support as part of LDC;
- A preliminary engagement capability (BMD 3.0 with SM-3 Blk I) for test bed operations and for emergency use, if required; and

Project: 0709 AEGIS Block 2004 Test Bed

		Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justif	ication	February 2007
APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE	
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	l Prototypes (ACD&P) 0603892C Ballistic Missile Defense Aegis	

• An operationally certified BMD capability that combines the engagement capability with the LRS&T capability (BMD 3.6 with SM-3 Blk I and IA). The final Block 2004 is fully compliant with the Element Capability Specification.

In collaboration with the MDA Systems Engineer, Aegis BMD is contributing to the BMDS in development of engagement sequence groups (ESGs). Aegis BMD supports an autonomous engagement against SRBMs and MRBMs without requiring external cueing. Aegis BMD Block 2004 supports SM-3 Engage on AN/SPY-1, SM-3 Launch on Remote (AN/SPY-1), GBI Engage on AN/SPY-1, and GBI Launch on AN/SPY-1.

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Weapon System Engineering	79,712	8,650	0	0
RDT&E Articles (Quantity)	1	0	0	0

In Block 2004, the Aegis BMD Weapon System Engineering group developed BMD 3.0E to provide LRS&T capability to the BMDS; BMD 3.0 to support testbed and emergency engagement operations; and BMD 3.6 to provide an operationally-certified system. Aegis BMD met the President's LDC objectives by deploying BMD 3.0E in Block 2004.

FY06 Accomplishments:

RDT&E Articles: Aegis DDG configured with BMD 3.0E (1)

Aegis BMD Weapon System:

- For LRS&T:
 - o Installed BMD 3.0E (LRS&T) on one (1) Aegis Destroyer
 - Monitored the operational performance of the BMD 3.0E LRS&T Aegis destroyers.
 - Performed computer program maintenance modifications to BMD 3.0E to implement lessons learned from FTM 04-2 (FM-8) and GT-189.
 - o Participated in Aegis BMD flight missions.

• For engagement capability:

- Provided BMD 3.0 support on operational Aegis cruisers for testbed operations and emergency deployment.
- Completed development of BMD 3.6 Weapon System.
- Completed multi-element integration and testing of BMD 3.6.
- Completed BMD 3.6 Weapon System certification following the BMD 3.6 Engineering Assessment. (Actual installs occur in CY06, and are captured under Block 2006, Project 0809).
- Temporarily installed BMD 3.6 test load on an Aegis cruiser to support an engagement flight mission as part of the certification of BMD 3.6.

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Just	ification		ate e bruary 2007	
APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENC	CLATURE		
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	0603892C Ba	allistic Missile D	efense Aegis	
 Conducted waterfront integration testing of BMD 3.6. Received approval for fielding BMD 3.6 at the SSSTRP and WSESRB Participated in Aegis BMD flight missions and other BMDS test event Completed integration of CDLMS v. 3.4 into BMD 3.6 to accomplish a BMDS interoperability. Participated in the improvement of BMDS C2BMC interface control spectrum vertical Launching System (VLS): For engagement capability: 	reviews. s. nultiple satellite	e data paths (UI	HF, SHF, and EHF) fo	1
 Provided BMD 3.0 support on operational Aegis cruisers for testbed op Supported Mk 41 VLS Phase I computer program and equipment durir Tested the Mk 41 VLS Phase II system in ground tests. Fielded the Mk 41 VLS Phase II to support SM-3 Blk IA missile deplo capability. 	g the transition	to Mk 41 VLS	Phase II implementati	
 Perform post-flight test analyses for FTM-10 and FTM-11. 				
 Perform pre-mission analysis and work-up support for FTM-11 fourth obje 	ective.			
FY 2	006	FY 2007	FY 2008	FY 2009
SM-3 Missile	46,545	14,393	0	0
RDT&E Articles (Quantity)	4	0	0	0
 Aegis BMD Block 2004 provides the SM-3 Blk I missile that can be used for a and completes component and section level testing of the SM-3 Blk IA, and comanufacturing of SM-3 components at various manufacturing facilities. FY06 Accomplishments/Planned Program: RDT&E Articles: SM-3 Blk I Missiles (4) Participated in Flight Test Mission (FTM) 04-2 (FM-8) with one (1) SM-3 o Completed pre-flight analysis to verify mission scenarios and to predice 	Blk I missile.	non-recurring e		

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Just	ification	Date February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603892C Ballistic Missi	· · · · ·
 Prepared and completed missile delivery package for the Mission Contuct of Performed post-flight analysis to validate high fidelity models and simut Conducted post-flight analysis to support Mission Data Reviews (MDR Completed SM-3 Value Engineering Change Proposal (VECP) implementa Completed SM-3 Blk IA Hazard Assessment and Safety compliance tests. Completed SM-3 Blk IA Hazard Assessment and Safety compliance tests. Completed SM-3 Blk IA sustain DACS design qualification tests. Conducted SDACS pulse capability engineering, design verification and qu Completed SM-3 Blk IA design verification tests (i.e., Live Battery, Batter margin assessment. Completed SM-3 Blk IA HERO test. Completed SM-3 Blk IA HERO test. Completed assembly and delivery of four (4) SM-3 Blk I missiles. Completed initial non-recurring engineering preparation for rate manufactu CA; Tempe, AZ; and Camden, AZ. Participated in Flight Test Mission FTM-10 with one (1) SM-3 Blk IA missi Completed pre-flight analysis to validate high fidelity models and simulati Conducted post-flight analysis to support Mission Scenarios and to predict fligh Prepared and completed missile delivery package for the Mission Control I Performed post-flight analysis to support Mission Data Reviews (MDRs). 	rol Panel reviews. alations. (s). ation efforts to ensure service in verification testing and que calification tests (safety and y Qualification, EMI etc) to issile manufacturing rate. uring of SM-3 components i sile. ght performance. Panel Reviews. on.	ce life requirement compliance. aalification of the Blk IA design. l environmental). o ensure design requirement compliance and

Project: 0709 AEGIS Block 2004 Test Bed

Missile Defense Agency (MDA)	Exhibit R-2A	RDT&E Pro	iect .Iustifica	ntion		Date February	2007							
APPROPRIATION/BUDGET ACTIVITY				R-1 NOMENO	CLATURE									
RDT&E, DW/04 Advanced Component Develop	nent and Pr	ototypes (A	CD&P)	0603892C B	allistic Miss	ile Defense	Aegis							
			FY 2006		FY 2007		FY 2008	FY	2009					
Fleet Intro/Operations & Support				10,000		0		0	0					
RDT&E Articles (Quantity)				0		0		0	0					
This effort provides funding for operator and m fielded assets. FY06 Accomplishments:	aintenance t	raining, eng	gineering su	pport, and	logistics sur	oport and m	aintenance	of Aegis BI	MD					
 Provided In-Service Engineering support to Aegis BMD: Weapon System, SM-3, and Vertical Launching System. Provided operational and maintenance training for Aegis BMD ship crews. Provided logistics support (including technical manuals, spares, and Reliability, Maintainability, and Availability) analysis and products for Aegis BMD: Weapon System, SM-3, and Vertical Launching System. Responded to Fleet issues. 														
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Cost					
PE 0603175C Ballistic Missile Defense Technology	147,270	193,307	118,569	109,540	112010	121,008	127,917	131,291	1,064,916					
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,120,879	1,092,076	962,585	1,004,282	924,101	851,213	678,694	501,147	7,134,977					
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment	2,391,246	3,043,058	2,520,064	2,359,665	2,179,602	1,699,963	1,153,082	1,183,003	16,529,683					
PE 0603883C Ballistic Missile Defense Boost Defense Segment	455,572	628,958	548,759	432,432	448,375	678,913	829,683	1,026,239	5,048,931					
PE 0603884C Ballistic Missile Defense Sensors	284,297	514,129	778,163	984,963	939,417	791,701	723,843	603,585	5,620,098					
PE 0603886C Ballistic Missile Defense System Interceptors	200,446	356,004	227,499	393,317	522,388	730,236	836,029	570,206	3,836,125					
PE 0603888C Ballistic Missile Defense Test and Targets	610,619	601,782	586,150	628,364	662,984	681,511	696,037	705,210	5,172,657					
PE 0603889C Ballistic Missile Defense Products	387,402	0	0	0	0	0	0	0	387,402					
PE 0603890C Ballistic Missile Defense System Core	409,993	429,420	482,016	511,147	558,746	579,571	579,316	588,481	4,138,690					
PE 0603891C Special Programs - MDA	271,021	353,031	323,250	305,409	369,073	526,966	789,017	792,271	3 730 038					
PE 0603893C Space Tracking & Surveillance System	220,048	322,220	331,525	347,811	412,623	501,197	778,067	981,424	3,730,038					
PE 0603894C Multiple Kill Vehicle	48,370	144,362	271,151	352,741	461,179	618,263	673,477	842,905	3,894,915 3,412,448					

Project: 0709 AEGIS Block 2004 Test Bed

Missile Defense Agency (MDA)	Exhibit R-2A	RDT&E Pro	ject Justific	ation		Date February	2007		
APPROPRIATION/BUDGET ACTIVITY				R-1 NOMENO	CLATURE				
RDT&E, DW/04 Advanced Component Develop	nent and Pr	ototypes (A	CD&P)	0603892C B	allistic Miss	ile Defense A	Aegis		
									Total
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost
PE 0603896C BMD C2BMC	0	246,852	258,913	294,627	300,847	282,615	267,275	269,420	1,920,549
PE 0603897C BMD Hercules	0	49,674	53,658	54,264	54,405	55,142	53,355	54,198	374,696
PE 0603898C BMD Joint Warfighter Support	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206	383,935
PE 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994
PE 0603905C BMD Concurrent Test and Operations	0	23,159	0	0	0	0	0	0	23,159
PE 0603906C Regarding Trench	0	0	2,000	3,000	5,000	5,000	9,000	9,000	33,000
PE 0605502C Small Business Innovative Research - MDA	133,105	0	0	0	0	0	0	0	133,105
PE 0901585C Pentagon Reservation	14,874	15,527	6,058	6,376	4,490	4,725	4,801	4,877	61,728
PE 0901598C Management Headquarters - MDA	98,609	87,059	85,906	86,453	70,355	69,855	69,855	69,855	637,947

D. Acquisition Strategy

The Aegis BMD element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Aegis BMD program awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 missile and the Aegis BMD Weapon System, respectively.

Missila	Dofonso Ac	onov (MDA) Eyhih	;4 D 2 DDT 8	E Duciaat Cas	t A polygig		Date Fobre	ary 2007		
APPROPRIATION/BUDGET		gency (MDA) Exhib	II K-3 KD I &	E Project Cos		MENCLATUR		lary 2007		
RDT&E, DW/04 Advanced		ent Development	and Prototy	nes (ACD&P		2C Ballistic I		nse Aegis		
I. Product Development			and Frototy	pes (ACDai) 000307		VIISSIIC Derei	list Acgis		
1. I Toduct Development		III I IIOusaiius)			FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Weapon System Engineering	51									
		Lockheed								
AWS	SS/CPIF	Martin/NJ	388,005	6,000	1Q	0	N/A	0	N/A	394,005
AWS	FFRDC	MIT/LL/MA	5,725	0	N/A	0	N/A	0	N/A	5,725
AWS	SS/CPFF	JHU/APL/MD	8,024	400	N/A	0	N/A	0	N/A	8,424
AWS	MIPR	NSWC/DD/VA	37,936	750	N/A	0	N/A	0	N/A	38,686
AWS	MIPR	MITRE/VA	1,400	0	N/A	0	N/A	0	N/A	1,400
AWS	MIPR	NSWC/PHD/CA	13,824	0	N/A	0	N/A	0	N/A	13,824
AWS		MDA	16,763	0	N/A	0	N/A	0	N/A	16,763
AWS	Various	VARIOUS	19,791	1,500	N/A	0	N/A	0	N/A	21,291
AWS	MIPR	NAVSEA/VA	2,000	0	N/A	0	N/A	0	N/A	2,000
SM-3 Missile										,
MISSILE	SS/CPIF	RAYTHEON/AZ /AZ	740,999	4,381	1/2Q	0	N/A	0	N/A	745,380
		JHU/APL/MD/								
MISSILE	SS/CPIF	MD	25,693	1,200	N/A	0	N/A	0	N/A	26,893
MISSILE	FFRDC	MIT/LL/MA	1,805	0	N/A	0	N/A	0	N/A	1,805
MISSILE	MIPR	NSWC/DD/VA	19,626	1,000	N/A	0	N/A	0	N/A	20,626
		NSWC/PHD/CA/								
MISSILE	MIPR	CA	11,371	1,500	1/2Q	0	N/A	0	N/A	12,871
MISSILE	MIPR	WSMR/NM/NM	2,407	0	N/A	0	N/A	0	N/A	2,407
MISSILE	MIPR	NSWC/CD/CA/ MD	4,618	1,435	N/A	0	N/A	0	N/A	6,053
MISSILE	MIPR	NSWC/IH/MD/ MD	3,653	1,526	N/A	0	N/A	0	N/A	5,179
MISSILE	MIPR	NAWC/CL/CA	2,144	500	N/A N/A	0	N/A N/A	0	N/A N/A	2,644
MISSILE	WIIPK	MDA/VA	,	1,232	N/A N/A	-	N/A N/A	0	N/A N/A	2,644
MISSILE		MDA/VA	24,676	1,232	IN/A	0	IN/A	0	IN/A	25,908

Project: 0709 AEGIS Block 2004 Test Bed

Missil	Dofonso Ag	gency (MDA) Exhib	hit D_3 PDT&	F Project Cos	t Analysis		Date Febru	uary 2007		
APPROPRIATION/BUDGET		ency (MDA) Land	M K-J KD I G	E FIUJEULUS	· ·	MENCLATUR		lal y 2007		
RDT&E, DW/04 Advance		ent Development	and Prototy	pes (ACD&P		2C Ballistic		nse Aegis		
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
	1	VARIOUS/								
MISSILE	Various	VA/CA/NJ	8,296	1,619	1Q	0	N/A	0	N/A	9,915
MISSILE	MIPR	NAVSEA	931	0	N/A	0	N/A	0	N/A	931
MISSILE	MIPR	NSWC Corona	627	0	N/A	0	N/A	0	N/A	627
Subtotal Product Development			1,340,314	23,043		0		0		1,363,357
II. Support Costs Cost	<u>(\$ in Tho</u> 	usands)	T	T	FY 2007	T	FY 2008		FY 2009	
\sim \sim										
II. Support Costs Cost	(\$1110	usands)	ſ		EV 2007		EV 2000		EN 2000	
	Contract	Performing	Total		FY 2007 Award/		FY 2008 Award/		FY 2009 Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Weapon System Engineering	a lype	Location					Dute		Duic	
Weapon System Engineering	SS/CPFF	JHU/APL/MD	8,326	0	N/A	0	N/A	0	N/A	8,326
	00/0111		0,520	· · · ·	1.0/1.1	¥			1.1/1	0,520
	+	Lockheed								
	SS/CPAF	Lockheed Martin/NJ	10,500	0	N/A	0	N/A	0	N/A	10,500
	SS/CPAF MIPR		10,500 15,346	0	N/A N/A	0	N/A N/A	0	N/A N/A	10,500
		Martin/NJ				-				15,346
	MIPR	Martin/NJ NSWC/DD/VA	15,346	0	N/A	0	N/A	0	N/A	15,346 6,807
	MIPR MIPR	Martin/NJ NSWC/DD/VA NSWC/PHD/CA	15,346 6,807 4,734	0	N/A N/A	0	N/A N/A	0 0	N/A N/A	15,346 6,807 4,734
	MIPR MIPR	Martin/NJ NSWC/DD/VA NSWC/PHD/CA SPAWAR/CA	15,346 6,807	0 0 0	N/A N/A N/A	0 0 0 0	N/A N/A N/A	0 0 0	N/A N/A N/A	15,346 6,807
	MIPR MIPR MIPR	Martin/NJ NSWC/DD/VA NSWC/PHD/CA SPAWAR/CA MDA	15,346 6,807 4,734 2,489	0 0 0 0	N/A N/A N/A N/A	0 0 0 0 0	N/A N/A N/A N/A	0 0 0 0	N/A N/A N/A N/A	15,346 6,807 4,734 2,489
	MIPR MIPR MIPR MIPR	Martin/NJ NSWC/DD/VA NSWC/PHD/CA SPAWAR/CA MDA NAVSEA/DC SupShip	15,346 6,807 4,734 2,489 3,933	0 0 0 0 0	N/A N/A N/A N/A N/A	0 0 0 0 0	N/A N/A N/A N/A N/A	0 0 0 0 0	N/A N/A N/A N/A N/A	15,346 6,807 4,734 2,489 3,933
	MIPR MIPR MIPR MIPR MIPR	Martin/NJ NSWC/DD/VA NSWC/PHD/CA SPAWAR/CA MDA NAVSEA/DC SupShip Pascagoula/MS SupShip	15,346 6,807 4,734 2,489 3,933 4,635	0 0 0 0 0 0	N/A N/A N/A N/A N/A N/A	0 0 0 0 0 0	N/A N/A N/A N/A N/A N/A	0 0 0 0 0 0	N/A N/A N/A N/A N/A N/A	15,346 6,807 4,734 2,489 3,933 4,635

Project: 0709 AEGIS Block 2004 Test Bed

RDT&E, DW/04 Advanc			and Trototy	pes (ACDal	FY 2007	2C Ballistic	FY 2008	list Atgis	FY 2009	
	Contract	Performing	Total		FY 2007 Award/		FY 2008 Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Fleet Intro/Operations & Support			2000		2		2		2 400	0000
	MIPR	NSWC/DD/VA	695	0	1Q	0	N/A	0	N/A	695
AWS	MIPR	NSWC/PHD/CA	3,381	0	1Q	0	N/A	0	N/A	3,381
AWS		Lockheed Martin/NJ	3,003	0	1Q	0	N/A	0	N/A	3,003
		MIT/MA	0	0	1/2Q	0	N/A	0	N/A	
		JHU/APL/MD	250	0	1/2Q	0	N/A	0	N/A	250
	Various	Various	336	0	1Q	0	N/A	0	N/A	336
	MIPR	NSWC Corona/ CA	860	0	N/A	0	N/A	0	N/A	860
	MIPR	CSCS (ATRC)/ VA	1,475	0	N/A	0	N/A	0	N/A	1,475
Subtotal Support Costs			69,192	0		0		0		69,192
Remarks III. Test and Evaluatio					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	36.4.1	$\Lambda \alpha t_1 v_1 t_2 \lambda_7$	PYs	FY 2007	Oblg	FY 2008	Oblg Date	FY 2009 Cost	Oblg	Total
Cost Cotogorias	Method	Activity &	Cost	Cost	Data					
Cost Categories: Subtotal Test and Evaluation	Method & Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost

IV. Management Servio	es Cost (\$ in Thousands)							
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Veapon System Engineering										
		NAVSEA/DC	26,435	0	N/A	0	N/A	0	N/A	26,435
	SS/CPFF	JHU/API/MD	2,834	0	N/A	0	N/A	0	N/A	2,834
	MIPR	NSWC/DD/VA	2,398	0	N/A	0	N/A	0	N/A	2,398
	C/CPFF	Anteon/VA	46,749	0	N/A	0	N/A	0	N/A	46,749
	SS/CPFF	Paradigm/VA	4,175	0	N/A	0	N/A	0	N/A	4,175
	SS/CPAF	Lockheed Martin/NJ	1,700	0	N/A	0	N/A	0	N/A	1,700
	SS/CPAF	Raytheon/AZ	2,000	0	N/A	0	N/A	0	N/A	2,000
	55/01/11	MDA	14,922	0	N/A	0	N/A	0	N/A	14,922
	Various	Various/Various	8,517	0	N/A	0	N/A	0	N/A	8,517
	v unous	MDA (Salaries)	1,763	0	N/A	0	N/A	0	N/A	1,763
Subtotal Management Services		(Sularies)	111,493	0	10/1	0	1011	0	1011	111,493
Remarks		1	,							,
roject Total Cost			1,520,999	23,043		0		0		1,544,042
Tolect Total Cost			,,	-)		-		-)-)-

Fiscal Year		20	06			2007	,			2008			2	009			n	010				011				201	12			-	013	
	1	20		4	1	2007		4 1	1	2008		1	2		4	1	2	1	4	1	2		4	1		201	3	4	1	2		
Testing Milestones	1	2	5		- 1	2 .	<u> </u>	<u>. .</u>			, <u>,</u>	· <u> </u>		5	<u> </u>	1 -			<u> </u>	1 -	12	5	<u> </u>	1.		-	5	<u> </u>	1	1-2		_
SM - 3 Blk IA HERO Test	Δ				- 1	1	1	Т		1	Т	1	Г	1	1	Г		1	1	1	1		Г	Τ		T				1	Г	1
BMDS Testing																•	1		•	•				•						'	•	
FT-04-03			Δ																													
FT-04-4				Δ																												
Target of Opportunities					,					ļ	ļ	-				-												1				
GT-189				Δ																												
SERV-2				Δ																												
Development Milestones		1.		-		- 1			1					1				1	1													-1
BMD 3.6 Engineering Assessment																			_												_	
SM-3 Blk IA SDACS CDR				_			_		_										_				_			_					_	
BMD 3.6 Weapon System Certification				Δ																												
Flight Tests		1		_			-	-	-	-	-		<u> </u>	—	<u> </u>	r	—	-	-	-	<u> </u>	-	-	-	-	_	_	_	1	-	-	-
	_									<u> </u>	<u> </u>																					
			Mile: Elem Syste	stone ient T	Decis est (co vel Te	t (comp ion (co omplete st (con ty	mplet e)			Leg			M ile Elei Sys	nificar eston ment tem L nned /	e Deo Test (evel ⁻	cision (plann Test ((plan ed)	ned)														

	Missile Defense Agency (MDA) Exhibit R-4 Schedule Profile APPROPRIATION/BUDGET ACTIVITY R-1 NOMENCLATURE													Da Fe		ary	200)7														
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component	nt D	evel	lopr	nen	t an	d Pr	oto	otyp	es (AC	D&	P)								issil	e D	efen	ise A	Aegi	S							
Fiscal Year		20)06			200)7			20)08			20)09			2	010			20)11			20	12			201	3	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Flight Tests	_																				_											
FTM 04-2 (FM-8)	Δ																															
FTM-10			▲																													
Fielding Deliveries/Ships	1.	1		1	_					1			1		1		-						r —		_							
Engagement Cruisers (BMD 3.0)																																
Long Range Surveillance & Tracking DDGs (BMD 3.0E)	▲																															
Fielding Deliveries/Missiles	1.	1		1								1	r			1		1					1									
Block I Missiles																																
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	_																		_													
	_																			-										\rightarrow		
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			Elen	nent T	est (c	sion (c omple	ete)	,				2	र >	Elen	nent T	Fest (ision plann	ied)	,													
			Syst Con	em Le 1plete	evel T Activ	est (co rity	mpl	ete)				Δ	<mark>7</mark> _∆		em Lo ined A		Fest (j ty	plann	ed)													
Project: 0709 AEGIS Block 2004 Test Bed																										MD	A Ex	hibit	R-4	(PE ()603	892C)

Missile Defense Ag	ency (MDA) Ex	xhibit R-4A Sch	edule Detail			Date February 2007		
APPROPRIATION/BUDGET ACTIVITY				R-1 NOMENCLA		U U		
RDT&E, DW/04 Advanced Component De	velopment and	d Prototypes (A	ACD&P)	0603892C Balli	stic Missile	e Defense Aegis		
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Testing Milestones								
SM-3 Blk IA HERO Test	1Q							
BMDS Testing								
FT-04-03	3Q							
FT-04-4	4Q							
Target of Opportunities								
GT-189	4Q							
SERV-2	4Q							
Development Milestones								
BMD 3.6 Engineering Assessment	2Q							
SM-3 Blk IA SDACS CDR	1Q							
BMD 3.6 Weapon System Certification	4Q							
Flight Tests								
FTM 04-2 (FM-8)	1Q							
FTM-10	3Q							
Fielding Deliveries/Ships								
Engagement Cruisers (BMD 3.0)	1Q							
Long Range Surveillance & Tracking DDGs (BMD 3.0E)	1Q							
Fielding Deliveries/Missiles								
Block I Missiles	1Q							
Project: 0709 AEGIS Block 2004 Test Bed						I	MDA Exhibit R-4	A (PE 0603892C)

				D	ate			
Missile Defense Agency (MDA) Exhibit R-2A RDT&E	Project Jus	tification		F	ebruary 20	07		
APPROPRIATION/BUDGET ACTIVITY		R-1 NO	MENCLAT	URE				
RDT&E, DW/04 Advanced Component Development and Prototypes	(ACD&P)	060389	2C Ballisti	c Missile D	efense Aeg	gis		
COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0809 AEGIS BMD Block 2006	448,876	395,283	75,400	42,600	0	0	0	0
RDT&E Articles Qty	12	29	6	0	0	0	0	0

Note: RDT&E Articles: FY06 - One (1) SM-3 missile, two (2) ARAVs, one (1) target, installation of BMD 3.0E on three (3) DDGs, installation of BMD 3.0 on one (1) CG, delivery of the BMD 3.6 computer program, installation of BMD 3.6 on one (1) DDG, installation of BMD 3.6 on two (2) CGs. FY07 - Thirteen (13) SM-3 missiles, five (5) ARAVs, two (2) targets, installation of BMD 3.0E on two (2) DDGs, installation of BMD 3.6 on one (1) DDG (LRS&T only), installation of BMD 3.6 on five (5) DDGs, installation of BMD 3.6 on one (1) CG. FY08 - Five (5) SM-3 missiles, installation of BMD 3.6 on one (1) DDG.

A. Mission Description and Budget Item Justification

Aegis BMD Block 2006 supports the BMDS mission of intercepting ballistic missiles in all regions, in all phases, and of all ranges, as follows:

- In all regions: provide sea-based surveillance, tracking, and engagement capabilities.
- In all phases of ballistic missile flight: Long Range Surveillance and Track (LRS&T) capability against missile threats of all ranges; engagement capability against Short Range Ballistic Missile (SRBM) to Medium Range Ballistic Missile (MRBM)-class missile threats
- Develop engagement capability against Intermediate range Ballistic Missile (IRBM)-class targets.
- Against all ranges:
 - Enhanced LRS&T capability against Ballistic Missile threats of all ranges through Aegis BMD Signal Processor (BSP) improvements.

Aegis BMD supported LDC by providing Long Range Surveillance and Track (LRS&T) data to other elements of the BMDS. Aegis BMD improved both national and international security with its ability to launch Standard Missile 3 (SM-3) missiles based upon data received via the Tactical Digital Information Link Joint (TADIL-J) network from other Aegis ships in Block 2004. Through development and testing of the Aegis BMD Signal Processor (BSP) in Block 2006, Aegis BMD will provide significant improvements in discrimination capability and performance against more diverse and longer range threats.

The Aegis BMD Block 2006 Weapon System will continue the evolutionary spiral development of the previous baseline by performing the initial integration of the BSP into the Aegis BMD Weapon System. This will improve discrimination and tracking capability against more robust threats for BMDS engagements. Weapon System LRS&T upgrades using BSP will be delivered and will go through an Engineering Evaluation at the Combat System Engineering Development Site (CSEDS) in Block 2006.

Weapon System Development will continue to evolve into the BMD 4.0 and 4.0.1 configurations; that are to be delivered during Block 2008.

				Date	
Missile Defense Agency (MDA) Exhibit R-2A RDT&E I	Project Justifi			February 2007	
APPROPRIATION/BUDGET ACTIVITY			IENCLATURE		
RDT&E, DW/04 Advanced Component Development and Prototypes	(ACD&P)	0603892	C Ballistic Missile	e Defense Aegis	
Block 2006 missile efforts focus on testing of the SM-3 Blk IA miss	ile with the I	BMD 3.6	Weapon System	and the continued deple	oyment of SM-3
Blk IA missiles. Ongoing missile development is listed and describe	d under Bloc	k 2008, j	project 0909.		
Aegis BMD Block 2006 will:					
• Defeat unitary and more complex SRBM and MRBM threats wit	th Aegis BM	D config	ured cruisers, des	troyers and Standard M	lissile-3 (SM-3)
Blk I and IA guided missiles.	-	-			
• Develop a limited IRBM capability.					
• Complete development and engineering assessment of BMD 4.0	E - testbed c	apability	that provides imp	proved ballistic missile	threat tracking,
discrimination, and object classification via the BSP Engineering		-	1 1		Ċ,
• Continue installations of the BMD 3.0E surveillance and tracking	J 1		· /	ent capability on additi	onal Aegis
destroyers, and deliver 22 SM-3 Blk IA missiles.	5 1 5		8.8	, The second	
In collaboration with the MDA Systems Engineer, Aegis BMD is co	ntributing to	the BMI	DS in developme	nt of engagement seque	nce groups (ESGs).
Aegis BMD supports an autonomous engagement against SRBMs ar	•		1	001	U I
against SRBMs and MRBMs using data from other BMDS elements			•	Bis 2112 and support	
			•		
Aegis BMD Block 2006 will support SM-3 Engage on/Launch on A	N/SPY-1. SP	M-3 Laur	nch on FBX-T. G	BI Engage on AN/SPY	1 Mod. 1.and GBI
Launch on AN/SPY-1 Mod 1.	1001 1 1, 21	1 C 1140			1 111001 1,000 021
B. Accomplishments/Planned Program					
	FY 2006	5	FY 2007	FY 2008	FY 2009
Weapons System Engineering		156,137	106,96	3,700	0
RDT&E Articles (Quantity)		8		9 1	0
In Block 2006, the Aegis BMD Weapon System Engineering group	will test BM	D 4.0E to	o provide LRS&7	capability with the BM	IDS at CSEDS.
			1	1 5	
FY06 Accomplishments:					
RDT&E Articles: BMD 3.6 Computer Program (1), BMD 3.0 Aegis	Cruiser (1),	BMD 3.	6 Aegis Cruisers	(2), BMD 3.0E Surveill	ance and Tracking
Aegis Destroyers (3), BMD 3.6 Aegis Destroyer (1)			C		C
• Installed BMD 3.0E on three (3) Aegis Destroyers. (Actual ships	sets for all B	MD 3.0E	destroyers will b	e completed in FY06. F	Remaining ship

installations are based on projected ship availability).

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justifi	cation	Date February 2007
APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE	rebruary 2007
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	0603892C Ballistic Missil	le Defense Aegis
Installed BMD 3.0 on one (1) Aegis Cruiser		
Installed BMD 3.6 on two (2) Aegis Cruisers and one (1) Aegis Destroyer.		
Commenced baseline consolidation effort:		
• Designed documentation and system modeling analysis for the Aegis BM		
Improved ballistic missile tracking, characterization, discrimination, feature	extraction, object classific	cation, and kill assessment as a part of the
development, to include:	oppost	
 Real-time feature extraction capability and classification algorithm devel At-sea testing of the BSP Advanced Development Model (medium-band 		nd and wide-band discrimination)
Continued development of the computer program upgrade for testing and En		
Commenced studies to improve Lethal Object Designation in a clutter enviro		
Continued development of enhanced C2BMC interoperability with the BMD		
• Successful demonstration of space track exchange with land-based opera	tional sites using EHF.	
• Demonstrated ability to receive space cues generated from developmenta	l advanced track data fusi	on algorithms.
Y07 Planned Program:		
RDT&E Articles: BMD 3.0E Aegis LRS&T Destroyers (2), BMD 3.6 Aegis Cru	uiser (1). BMD 3.6 LRS&	T Destrover (1), BMD 3.6 Aegis
Engagement Destroyers (5)		
Install BMD 3.0E capability on two (2) Aegis destroyers. (Shipsets for final	BMD 3.0E destroyer will	be available at this time. Projected
installation dates for remaining destroyer is based on ship availability).		
Install BMD 3.6 on one (1) Aegis Cruiser.		
Install BMD 3.6 (engagement capability) on five (5) Aegis destroyers.		
Install BMD 3.6 (LRS&T capability) on one (1) Aegis destroyer.	• •• • • •	1 1
Continue improvement to ballistic missile tracking, characterization, discrim as a part of the Weapon System development, to include:	ination, reature extraction	, object classification, and kill assessmen
 Real-time feature extraction capability and classification algorithm devel 	opment.	
• At-sea testing of the BSP Advanced Development Model (medium-band		nd and wide-band discrimination)
Install BSP EDM at CSEDS.		<i>,</i>
Complete development and testing of the computer program upgrade culmin	ating with an Engineering	Evaluation (EE) in CY 2007.
Continue studies to improve Lethal Object Designation in a cluttered enviror		

Missila Dafansa Aganay (MDA) Ewhihit D 3A DDT &F	Draigat Instif	ication	Date Feb	ruary 2007	
Missile Defense Agency (MDA) Exhibit R-2A RDT&E APPROPRIATION/BUDGET ACTIVITY	Project Justin		ENCLATURE	ruary 2007	
RDT&E, DW/04 Advanced Component Development and Prototypes	(ACD&P)		C Ballistic Missile Def	ense Aegis	
Continue at Sea Testing of BMD 3.6.	``````````````````````````````````````			0	
FY08 Planned Program:					
RDT&E Articles: BMD 3.6 (engagement capability) on one (1) Aeg	gis destroyer	s.			
• Complete BMD Engineering Evaluation and begin Element Tes	t and Evalua	tion (ETE)	and Multi-Element	Integration Testing (M	IEIT). Leading
to BMD 4.0 Engineering Assessment.					
• Monitor the performance of BMD Weapon System for potential	improveme	nts and cor	rections to future We	eapon System develop	oment.
• Install BMD 3.6 engagement capability on one Aegis destroyer.					
		~			
SM-3 Missile	FY 200	186,137	FY 2007 136,608	FY 2008 27,900	FY 2009
RDT&E Articles (Quantity)		180,137	130,008	27,900	0
During Block 2006 the SM-3 Blk IA missiles will be tested, monito	1.6 .	1	-		0
 FY06 Accomplishments: RDT&E Articles: SM-3 Block IA Pathfinder (1). Participated in FTM-10 (first SM-3 Blk IA test, using the Blk IA Completed pre-flight analysis to verify scenarios and perform Prepared and completed missile delivery package for Missic Performed post-flight analysis to validate high-fidelity simu Conducted post-flight analysis to support Mission Data Revio Performed analysis of SM-3 Blk IA Hardware/Software base Reviewed data analysis and requirements to update the missile, 	mance assess on Control Pa lations. iews (MDRs	sment. anel review).	8.		

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justifi		Date February 2007				
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE					
 FY07 Planned Program: RDT&E Articles: SM-3 Block IA Missiles (13) Continue assembly and delivery of SM-3 Blk IA missiles. Deliver one (1) SM-3 Blk IA Pathfinder test round Deliver twelve (12) SM-3 Blk IA missiles Continue material engineering to monitor parts obsolescence. Participate in FTM-11 and FTM-12 Complete pre-flight analysis to verify scenarios and performance assessm Prepare and complete missile delivery package for Mission Control Pane Perform post-flight analysis to support Mission Data Reviews (MDRs). Perform analysis of SM-3 Blk IA Hardware/Software based on flight rest Expend SM-3 Blk IA 2nd Pathfinder in ground test support for TSRM not 	l Reviews. 1lts.	pulse indention ground test.				
 FY08 Planned Program: RDT&E Articles: SM-3 Blk IA missiles (5) Continue assembly and delivery of SM-3 Blk IA missiles. Deliver five (5) SM-3 Blk IA missiles. Continue material engineering and monitor parts obsolescence. Participate in FTM-13 (2 rounds) and FTM-14 (1 round). Complete pre-flight analysis to verify scenarios and performance assessm Prepare and complete missile delivery package for Mission Control Pane Perform post-flight analysis to support Mission Data Reviews (MDRs). Perform analysis of SM-3 Blk IA Hardware/Software based on flight rest 	l Reviews.					

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Missile Defense Agency (MDA) Exhibit R-2A RDT&I	E Project Justif	ication	Dat Fel	e bruary 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototype		R-1 NOME	NCLATURE Ballistic Missile De		
	FY 200)6	FY 2007	FY 2008	FY 2009
System Test & Evaluation		77,300	76,360	0	
RDT&E Articles (Quantity)		0	0	0	
 Operations: Conducted an ARAV-A simulated engagement to verify BI Conducted FTM-10 flight test to verify BMD 3.6 engagement IA missile. Conducted a simulated, near-simultaneous engagement of a multiple simultaneous engagement capability in a multi-wa Conducted BMD 3.6 Certification Test with a live engagement. Continued to test interoperability with other BMDS elements. Participated in BMDS tests to include FTC-2 a/b, SERV-3, and Continued test planning for FTM-11, and began test planning for 	ent capability a low exo-atm arfare environ nent of two B d Glory Trip.	with an int nospheric A ment. QM-74 targ	RAV-A and a BQM	A-74 aerial target to ass	-
 FY07 Planned Program: Conduct campaign consisting of a Ballistic Missile Tracking E Complete pre-flight analysis to verify mission scenarios and Prepare and complete missile delivery package for the Mission Conduct an ARAV-B simulated engagement to verify BMI 	d to predict fl sion Control I	ight perform Panel Revie	nance.	Engagements:	

- Conduct FTM-11 flight test to verify BMD 3.6 engagement capability with a near simultaneous multiple engagement and intercept of one low exo-atmospheric Group A (SRBM) target using an SM-3 Blk IA missile, and a BQM-74 aerial target using an SM-2 Blk IIIA missile. (Conducted 1Q FY07)
- Conduct campaign consisting of a Ballistic Missile Tracking Exercise and FTM-12:
 - Complete pre-flight analysis to verify mission scenarios and to predict flight performance.

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification Date February 2007								
APPROPRIATION/BUDGET ACTIVITY			ENCLATURE					
RDT&E, DW/04 Advanced Component Development and Prototypes ((ACD&P)	06038920	C Ballistic Missil	e Defense Aegis				
 Prepare and complete missile delivery package for the Missic Conduct a BMD 3.6 simulated engagement and intercept of t Blk IA missiles. Conduct FTM-12 flight test to verify BMD 3.6 engagement of Reactive Lethality Payload (IRLP) using an SM-3 Blk IA mi Continue to test interoperability with other BMDS elements. Participate in BMDS test to include FTX-02, FTX-03, GT-195, C Begin test planning for FTM-13: prepare target, develop models Begin test planning for FTM-14; prepare target, develop models Conduct critical experiments using the MK-99 Doppler Data Col implementation. 	wo (2) near s capability wi ssile. GT-198, FTC and simulati and simulati	simultane th an inter G-4, FTG- ons, and r ons, and r	ous ARAV-A S rcept of a Group 5. FTT-7, and F ready the range f ready the range f	B (MRBM) target w TT-8 missions. for a test. for test.	vith ar	n Integrated		
	FY 2006	ñ	FY 2007	FY 2008		FY 2009		
Block 2006 Targets	112000	17,207	39,7		0	0		
RDT&E Articles (Quantity)		3	,-	7	0	0		
 This effort provides the Missile Defense Agency with ballistic missil associated launch services to support Aegis BMD flight tests during Ballistic Missile Defense System. FY 2006 Accomplishments: RDT&E Articles: 1 Target, 2 ARAVs Modified FTM 04-3 MBRV-2 to ballast only (no payload) and m chuff in support of FTM-10. Successful MRT presentation in support of FTM-10. Initiated design, manufacture and delivery of one (1) Modified B insert in support of FTM-12 Initiated design, manufacture and delivery of a MRT launch vehi Successful TTV presentation and post flight analysis in support of Successful ARAV presentation and post flight analysis in support 	Block 06, as nodified FTM callistic Re-e icle in suppo of FTM-11.	well as o 1 04-3 MI ntry Vehic rt of FTM	ther system wid RT launch vehic cles (MBRV-2)	e tests to support the	e devel	lopment of the reduce booster		
Project: 0809 AEGIS BMD Block 2006 Line Item 82 -	27 of 1 U NCLASSIFIE J	04		MDA	A Exhibi	it R-2A (PE 0603892C)		

				Date	
Missile Defense Agency (MDA) Exhibit R-2A RDT&E	Project Justifi			ebruary 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes			IENCLATURE C Ballistic Missile I	Dafanca Lagis	
	(ACDAI)	0003092	C Damstic Missile I	Detense Aegis	
FY 2007 Planned Program: RDT&E Articles: 2 Targets, 5 ARAVS					
	alliatia Da an	ture Vale:	alaa (MDDV 2) amd	Devile ed in cent in even	mouth of ETM 14
• Initiate design, manufacture and delivery of one (1) Modified Ba		-		Payload insert in sup	port of F1M-14
 Initiate design, manufacture and delivery of a LV-2 launch vehice MDT presentation in support of ETM 12 	cie in suppor	t of FTM	-14.		
• MRT presentation in support of FTM-12					
• Two ARAV presentations and post flight analysis in support of I					
• Two ARAV presentations and post flight analysis in support of l	F1M-13				
	FY 200	6	FY 2007	FY 2008	FY 2009
SE&I and BMDS Integration		3,495	5,000	0	(
RDT&E Articles (Quantity)		0	0	0	(
 FY06 Accomplishments: Completed Block 2006 Element Capability Specifications (ECS) contribution to the BMDS mission. Completed Block 2006 capability performance assessment studi Participated in BMDS ESG planning and monitoring. FY07 Planned Program: Conduct Block 2006 capability integration studies. Participate in BMDS ESG planning and monitoring. 	, 1	its analys	is for flow down to	Aegis BMD top-leve	l requirements and
	FY 200	6	FY 2007	FY 2008	FY 2009
Aegis BMD Fire Control (BMC3)	11200	8,600	10,553	0	(
RDT&E Articles (Quantity)		0	0	0	(
This effort provides funding for BMC3 improvements, including est interoperability with other BMDS elements.	tablishment	of alterna	te BMD data paths	and enhancements, su	ipported increased

ene				
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Pro	oject Instification		Date February 2007	
APPROPRIATION/BUDGET ACTIVITY	R-1 NO	MENCLATURE 2C Ballistic Missile	•	
RDT&E, DW/04 Advanced Component Development and Prototypes (A	(D&P) 000389	2C Bamsuc Missile	e Derense Aegis	
FY06 Accomplishments:				
Commenced Block 2006 Aegis BMD Weapon System integration	and test.			
Began incorporation of CDLMS upgrades, including:				
 Interoperability improvements to support Long Range Surveilla missions 	ance and Track, en	hanced Launch or	TADIL, and engageme	ent coordination
 Conducted definition, planning and initial implementation to upgra (engagement coordination). 	ide the Aegis BMI) system in coordi	nation with other BMDS	S elements
Conducted definition planning and initial implementation for Aegia and Control System - Maritime.	s BMD planning e	xchange with Join	t Defense Planner via G	lobal Command
Conducted definition, planning and initial implementation of Aegis	s BMD Link certif	ication requirement	nts.	
Initiated analyses supporting the migration of Aegis BMD Fire Con	ntrol (BMC3) arch	itecture into future	e BMDS networks.	
Y07 Planned Program:				
Complete CDLMS upgrades to incorporate:				
• Enhanced Launch on TADIL-J design and development to incr	ease the battle spa	ce.		
Complete implementation of Aegis BMD planning exchange with	Joint Defense Plar	ner via Global Co	mmand and Control Sys	stem - Maritime.
Complete definition, planning, and initial implementation of Aegis	BMD Link certifi	cation requiremen	ts.	
Continue analyses supporting the migration of Aegis BMD Fire Co		-		
	FY 2006	FY 2007	FY 2008	FY 2009
perations & Support/ Fleet Introduction	0	20,00	0 43,800	42,6
DT&E Articles (Quantity)	0		0 0	
This effort provides funding for operator and maintenance training, en- ielded assets.	gineering support,	and logistics supp	ort and maintenance of	Aegis BMD
Y07 Planned Program:				
Provide In-service Engineering support to Aegis BMD: Weapon Sy	vstem SM-3 and	Vertical Launchin	o System	
Provide operational and maintenance training for Aegis BMD.	•		5 0 9 500 111.	

• Provide operational and maintenance training for Aegis BMD ship crews.

Project: 0809 AEGIS BMD Block 2006

Missile Defense Agency (MDA)	Evhihit D 7A	DDT&F Dro	viget Instifies	tion		Date February	2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Developm			I	R-1 NOMENC)603892C Ba		• • •			
 Provide logistics support (including technica BMD: Weapon System, SM-3, and Vertical Provide leadership and engineering/technica Respond to Fleet issues related to Aegis BM 	Launching l support to	System. conduct Ae	egis Comba	t Systems A	ssessments	·	analysis and	l products)	for Aegis
 FY08 Planned Program: Provide In-service Engineering support to A Provide operational and maintenance trainin Provide logistics support (including technica BMD: Weapon System, SM-3, and Vertical Provide leadership and engineering/technica Respond to Fleet issues related to Aegis BM FY09 Planned Program: Provide In-service Engineering support to A Provide logistics support (including technica BMD: Weapon System, SM-3, and Vertical Provide In-service Engineering support to A Provide logistics support (including technica BMD: Weapon System, SM-3, and Vertical Provide logistics support (including technica BMD: Weapon System, SM-3, and Vertical Provide leadership and engineering/technica Respond to Fleet issues related to Aegis BM 	g for Aegis al manuals, Launching Il support to ID installation egis BMD: g for Aegis al manuals, Launching Il support to	BMD ship spares, and System. conduct Ae ons, BMD o Weapon Sy BMD ship spares, and System. conduct Ae	crews. Reliability, egis Comba operations a ystem, SM-3 crews. Reliability, egis Comba	Maintainab t Systems A and BMD ev 3, and Vertic Maintainab t Systems A	bility, and A assessments vents. cal Launchi bility, and A assessments	vailability a ng System. vailability a			C
C. Other Program Funding Summary	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Cost
PE 0603175C Ballistic Missile Defense Technology	147,270	193,307	118,569	109,540	116,014	121,008	127,917	131,291	1,064,916
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,120,879	1,092,076	962,585	1,004,282	924,101	851,213	678,694	501,147	7,134,977
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment	2,391,246	3,043,058	2,520,064	2,359,665	2,179,602	1,699,963	1,153,082	1,183,003	16,529,683

Project: 0809 AEGIS BMD Block 2006

Missile Defense Agency (MDA)	Exhibit R-2A	RDT&E Pro	oject Instific	ation		Date February	2007			
APPROPRIATION/BUDGET ACTIVITY		ILD I WE I I O	Jeer Justin	R-1 NOMENCLATURE						
RDT&E, DW/04 Advanced Component Develop	nent and Pr	ototypes (A	CD&P)	0603892C B		ile Defense A	Aegis			
									Total	
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost	
PE 0603883C Ballistic Missile Defense Boost Defense										
Segment	455,572	628,958	548,759	432,432	448,375	678,913	829,683	1,026,239	5,048,931	
PE 0603884C Ballistic Missile Defense Sensors	284,297	514,129	778,163	984,963	939,417	791,701	723,843	603,585	5,620,098	
PE 0603886C Ballistic Missile Defense System Interceptors	200,446	356,004	227,499	393,317	522,388	730,236	836,029	570,206	3,836,125	
PE 0603888C Ballistic Missile Defense Test and Targets	610,619	601,782	586,150	628,364	662,984	681,511	696,037	705,210	5,172,657	
PE 0603889C Ballistic Missile Defense Products	387,402	0	0	0	0	0	0	0	387,402	
PE 0603890C Ballistic Missile Defense System Core	409,993	429,420	482,016	511,147	558,746	579,571	579,316	588,481	4,138,690	
PE 0603891C Special Programs - MDA	271,021	353,031	323,250	305,409	369,073	526,966	789,017	792,271	3,730,038	
PE 0603893C Space Tracking & Surveillance System	220,048	322,220	331,525	347,811	412,623	501,197	778,067	981,424	3,894,915	
PE 0603894C Multiple Kill Vehicle	48,370	144,362	271,151	352,741	461,179	618,263	673,477	842,905	3,412,448	
PE 0603895C BMD System Space Program	0	0	27,666	35,093	46,849	56,183	133,617	157,117	456,525	
PE 0603896C BMD C2BMC	0	246,852	258,913	294,627	300,847	282,615	267,275	269,420	1,920,549	
PE 0603897C BMD Hercules	0	49,674	53,658	54,264	54,405	55,142	53,355	54,198	374,696	
PE 0603898C BMD Joint Warfighter Support	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206	383,935	
PE 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994	
PE 0603905C BMD Concurrent Test and Operations	0	23,159	0	0	0	0	0	0	23,159	
PE 0603906C Regarding Trench	0	0	2,000	3,000	5,000	5,000	9,000	9,000	33,000	
PE 0605502C Small Business Innovative Research - MDA	133,105	0	0	0	0	0	0	0	133,105	
PE 0901585C Pentagon Reservation	14,874	15,527	6,058	6,376	4,490	4,725	4,801	4,877	61,728	
PE 0901598C Management Headquarters - MDA	98,609	87,059	85,906	86,453	70,355	69,855	69,855	69,855	637,947	

D. Acquisition Strategy

The Aegis BMD element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Aegis BMD program has awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 missile and the Aegis BMD Weapon System, respectively.

Missila	Defense As		14 D 2 DDT 0	E Ducient Cont	h A malmata		Date Eabr	uary 2007				
MISSIE APPROPRIATION/BUDGET		ency (MDA) Exhi	bit R-3 RDT&	E Project Cosi	-	MENCLATU		lary 2007				
RDT&E, DW/04 Advanced	d Compone	ent Development	and Prototy	pes (ACD&P)) 060389	0603892C Ballistic Missile Defense Aegis						
I. Product Development	Cost (\$	in Thousands)										
î	Contract Method	Performing Activity &	Total PYs	FY 2007	FY 2007 Award/ Oblg	FY 2008	FY 2008 Award/ Oblg	FY 2009	FY 2009 Award/ Oblg	Total		
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost		
Weapons System Engineering												
	SS/CPAF	Lockheed Martin/NJ	44,330	335	1Q	1,125	1Q	0	N/A	45,790		
	CPFF	JHU/APL/MD	712	0	4Q	0	N/A	0	N/A	712		
	MIPR	NSWC/DD/VA	878	0	1Q	1,850	N/A	0	N/A	2,728		
	MIPR	NSWC/PHD/CA	405	0	4Q	0	N/A	0	N/A	405		
	MIPR	SPAWAR/CA	455	0	4Q	0	N/A	0	N/A	455		
	FPI	VA Sites/VA	0	0	4Q	725	N/A	0	N/A	725		
SBAR	SS/CPAF	Lockheed Martin/NJ	5,150	0	N/A	0	N/A	0	N/A	5,150		
Deployment	SS/CPAF	Lockheed Martin/NJ	26,520	10,838	1Q	0	N/A	0	N/A	37,358		
Deployment	MIPR	NAVSEA/VA	3,030	3,300	1Q	0	N/A	0	N/A	6,330		
Deployment	MIPR	NSWC/DD/VA	3,370	3,018	1Q	0	N/A	0	N/A	6,388		
Deployment	MIPR	NSWC/PHD/CA	5,242	5,089	1Q	0	N/A	0	N/A	10,331		
Deployment	MIPR	SPAWAR/CA	1,275	1,525	1Q	0	N/A	0	N/A	2,800		
Deployment	MIPR	SUPSHIP/BATH /ME	853	2,325	1Q	0	N/A	0	N/A	3,178		
Deployment	FPI	SUPSHIP/PASC/ MS	3,930	770	1Q	0	N/A	0	N/A	4,700		
Deployment	Various	Various	2,175	1,898	1Q	0	N/A	0	N/A	4,073		
SBAR	Various	Various	500	0	N/A	0	N/A	0	N/A	500		
SM-3 Missile												
Missile	SS/CPIF	Raytheon/AZ	155,352	110,447	1Q	23,840	N/A	0	N/A	289,639		
Missile	SS/CPIF	JHU/APL/MD	3,503	3,588	1Q	1,196	N/A	0	N/A	8,287		
Missile	FFRDC	MIT/LL/MA	325	196	1Q	200	N/A	0	N/A	721		
Missile	MIPR	NSWC/DD/VA	1,841	4,591	1Q	1,267	N/A	0	N/A	7,699		
Missile	MIPR	NSWC/PHD/CA	1,224	1,493	1Q	497	N/A	0	N/A	3,214		

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MDA Exhibit R-3 (PE 0603892C)

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							Date					
		ency (MDA) Exhib	oit R-3 RDT&	E Project Co				uary 2007				
APPROPRIATION/BUDGET						MENCLATU						
RDT&E, DW/04 Advance	d Compone	ent Development	and Prototy	pes (ACD&I	P) 060389	0603892C Ballistic Missile Defense Aegis						
					FY 2007		FY 2008		FY 2009			
	Contract	Performing	Total		Award/		Award/		Award/			
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total		
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost		
Missile	MIPR	NAWC/CL/CA	280	341	1Q	200	N/A	0	N/A	821		
Missile	MIPR	NSWC/IH/MD	460	561	1Q	200	N/A	0	N/A	1,221		
		Various/										
Missile	Various	MD, CA, VA	718	1,148	1Q	400	N/A	0	N/A	2,266		
	1	NSWC Corona/										
	MIPR	CA	0	549	1Q	100	N/A	0	N/A	649		
Block 2006 Targets												
	MIPR	MDA/VA	18,024	39,797	1Q	0	N/A	0	N/A	57,821		
Subtotal Product Development			280,552	191,809		31,600		0		503,961		
II. Support Costs Cost	(\$ in Tho	usands)										
n. Support Costs Cost		usanus j										
	G () (FY 2007		FY 2008		FY 2009			
	Contract	Performing	Total		FY 2007 Award/		FY 2008 Award/		FY 2009 Award/			
Cost Categories:	Method	Performing Activity &	Total PYs	FY 2007	Award/	FY 2008	Award/	FY 2009	Award/	Total		
		Performing Activity & Location		FY 2007 Cost		FY 2008 Cost		FY 2009 Cost		Total Cost		
Weapons System Engineering	Method	Activity &	PYs		Award/ Oblg		Award/ Oblg		Award/ Oblg			
	Method	Activity &	PYs		Award/ Oblg		Award/ Oblg		Award/ Oblg			
	Method & Type	Activity & Location	PYs Cost	Cost	Award/ Oblg Date	Cost	Award/ Oblg Date	Cost	Award/ Oblg Date	Cost		
	Method & Type	Activity & Location MIT/LL/MA	PYs Cost	Cost	Award/ Oblg Date 1Q	Cost	Award/ Oblg Date	Cost	Award/ Oblg Date	Cost		
	Method & Type SS/CPAF	Activity & Location MIT/LL/MA NSWC/Corona/	PYs Cost 3,515	Cost 1,750	Award/ Oblg Date 1Q	Cost 0	Award/ Oblg Date N/A	Cost 0	Award/ Oblg Date N/A	Cost 5,265		
	Method & Type SS/CPAF SS/MIPR	Activity & Location MIT/LL/MA NSWC/Corona/ CA	PYs Cost 3,515 225	Cost 1,750 88	Award/ Oblg Date 1Q	Cost 0 0	Award/ Oblg Date N/A N/A	Cost 0 0	Award/ Oblg Date N/A N/A	Cost 5,265 313		
	Method & Type SS/CPAF SS/MIPR SS/CPFF	Activity & Location MIT/LL/MA NSWC/Corona/ CA SEG/VA	PYs Cost 3,515 225 2,970	Cost 1,750 88 1,050	Award/ Oblg Date 1Q 1Q 2Q	Cost 0 0 0 0 0	Award/ Oblg Date N/A N/A N/A	Cost 0 0 0 0 0	Award/ Oblg Date N/A N/A N/A	Cost 5,265 313 4,020		
	Method & Type SS/CPAF SS/MIPR SS/CPFF Various	Activity & Location MIT/LL/MA NSWC/Corona/ CA SEG/VA VARIOUS/US	PYs Cost 3,515 225 2,970 0	Cost 1,750 88 1,050 525	Award/ Oblg Date 1Q 1Q 2Q 1Q	Cost 0 0 0 0 0 0 0 0 0	Award/ Oblg Date N/A N/A N/A N/A	Cost 0 0 0 0 0	Award/ Oblg Date N/A N/A N/A N/A	Cost 5,265 313 4,020 525		
Weapons System Engineering	Method & Type SS/CPAF SS/MIPR SS/CPFF Various	Activity & Location MIT/LL/MA NSWC/Corona/ CA SEG/VA VARIOUS/US	PYs Cost 3,515 225 2,970 0	Cost 1,750 88 1,050 525	Award/ Oblg Date 1Q 1Q 2Q 1Q 1Q	Cost 0 0 0 0 0 0 0 0 0	Award/ Oblg Date N/A N/A N/A N/A	Cost 0 0 0 0 0	Award/ Oblg Date N/A N/A N/A N/A	Cost 5,265 313 4,020 525		
Weapons System Engineering	Method & Type SS/CPAF SS/MIPR SS/CPFF Various MIPR	Activity & Location MIT/LL/MA NSWC/Corona/ CA SEG/VA VARIOUS/US MDA/VA	PYs Cost 3,515 225 2,970 0 11,000	Cost 1,750 88 1,050 525 11,130	Award/ Oblg Date 1Q 1Q 2Q 1Q	Cost 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Award/ Oblg Date N/A N/A N/A N/A N/A	Cost 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Award/ Oblg Date N/A N/A N/A N/A N/A	Cost 5,265 313 4,020 525 22,130		

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Missila	Doforco Ac	onov (MDA) Evhi	.:4 D 2 DDT 0	E Drainat Ca	at Amalwaia		Date Fabr	uary 2007				
APPROPRIATION/BUDGET		gency (MDA) Exhil	bit K-3 KD I d	E Project Co	ě	MENCLATU		uary 2007				
RDT&E, DW/04 Advanced		ent Development	and Prototy	nes (ACD&I								
RD I WL, D W/0 I Muvulee			unu i rototy	pes (nebu	FY 2007		FY 2008	lise rregis	FY 2009			
	Contract	Performing	Total		Award/		Award/		Award/			
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total		
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost		
	51	MIT/LL/MA	100	100	1/2Q	0	N/A	0	N/A	200		
	MIPR	NSWC/CD/MD	450	459	1Q	0	N/A	0	N/A	909		
	MIPR	NAVSEA/VA	669	815	1Q	0	N/A	0	N/A	1,484		
	Various	Various	276	847	1/2Q	0	N/A	0	N/A	1,123		
	MIPR	MDA/VA	19,439	10,008	4Q	0	N/A	0	N/A	29,447		
SE&I and BMDS Integration												
	MIPR	JHU/APL/MD	260	335	1Q	0	N/A	0	N/A	595		
		NSWC Corona/										
	MIPR	CA	305	400	1Q	0	N/A	0	N/A	705		
	MIPR	NSWC DD/VA	2,291	2,950	1Q	0	N/A	0	N/A	5,241		
	MIPR	NSWC PHD/CA	540	700	1Q	0	N/A	0	N/A	1,240		
	Various	Various	99	615	1/2Q	0	N/A	0	N/A	714		
Aegis BMD Fire Control (BMC3)												
	MIPR	JHU/APL/MD	1,565	2,100	1Q	0	N/A	0	N/A	3,665		
	FPI	MIT/LL/MA	663	863	1/2Q	0	N/A	0	N/A	1,526		
		MITRE	548	448	1Q	0	N/A	0	N/A	996		
	MIPR	NSWC PHD/CA	656	856	1Q	0	N/A	0	N/A	1,512		
	MIPR	SPAWAR/CA	4,628	5,828	1Q	0	N/A	0	N/A	10,456		
	Various	Various	540	458	1/2Q	0	N/A	0	N/A	998		
Operations & Support/ Fleet Introduction												
Weapon System	MIPR	JHU/APL/MD	0	450	1Q	450	1Q	350	1Q	1,250		
		CSCS (ATRC)/										
Weapon System	MIPR	VA	0	1,975	1Q	1,975	1Q	1,775	1Q	5,725		
Weapon System	MIPR	NSWC Corona/ CA	0	1,060	1Q	1,060	1Q	860	1Q	2,980		
Weapon System	MIPR	NSWC/DD/VA	0	795	1Q	795	10	695	10	2,285		
Weapon System	MIPR	NSWC/PHD/CA	0	3,881	1Q	3,881	10	3,681	10	11,443		

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Miss	ile Defense Ac	gency (MDA) Exhi	hit R-3 RDT&	E Project Co	st Analysis		Date Febr	uary 2007		
APPROPRIATION/BUDGE			M K-3 KD I C	E Hojeti Co	Ŧ	MENCLATU		ual y 2007		
RDT&E, DW/04 Advan			and Prototy	pes (ACD&l		92C Ballistic		nse Aegis		
				•	FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Weapon System	Various	Various	0	839	1/2Q	839	1/2Q	639	1/2Q	2,317
Weapon System	CPAF	Lockheed Martin/NJ	0	11,000	1/2Q	11,000	1/2Q	11,000	1Q	33,000
Missile	CPAF	Raytheon/AZ	0	0	4Q	14,000	1Q	14,000	1Q	28,000
Missile	MIPR	NSWC/PHD/CA	0	0	4Q	2,500	N/A	2,500	N/A	5,000
Missile	MIPR	NSWC/DD/VA	0	0	4Q	2,500	N/A	2,500	N/A	5,000
		NSWC Corona/				,		,		,
Missile	MIPR	CA	0	0	4Q	2,000	N/A	2,000	N/A	4,000
Missile	MIPR	NSWC IH/MD	0	0	4Q	1,000	N/A	1,000	N/A	2,000
Missile	Various	Various	0	0	4Q	1,800	1/2Q	1,600	1/2Q	3,400
Subtotal Support Costs			52,239	63,790		43,800		42,600		202,429
		• • • • • • • • • • • • • • • • • • • •								
III. Test and Evaluation	on Cost (\$	in Thousands)			EV 2005		EV 2 000		EV 2 000	
			T (1		FY 2007		FY 2008		FY 2009	
	Contract Method	Performing Activity &	Total PYs	FY 2007	Award/ Oblg	FY 2008	Award/ Oblg	FY 2009	Award/ Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
System Test & Evaluation	æ Type	Location	Cost	COSI	Date	COSI	Date	Cost	Date	Cost
Test & Eval	MIPR	PMRF/HI	6,700	13,360	1Q	0	N/A	0	N/A	20,060
Test & Eval	MIPR	SMDC/AL	3,400	2,200	1Q 1Q	0	N/A	0	N/A	5,600
Test & Eval	MIPR	NSWC/DD/VA	8,200	8,600	1Q 1Q	0	N/A N/A	0	N/A N/A	16,800
Test & Eval	SS/CPFF	JHU/APL/MD	13,200	12,700	1Q 1Q	0	N/A N/A	0	N/A N/A	25,900
Test & Eval	55/0111	NAWC/WPNS	3,100	4,500	1Q 1Q	0	N/A	0	N/A	7,600
Test & Eval	MIPR	NSWC/PHD/CA	5,100	4,800	1Q 1Q	0	N/A	0	N/A	9,900
Test & Eval	MIPR	MIT/LL/MD	1,100	1,000	1Q 1Q	0	N/A	0	N/A	2,200
			1,100	1,100	īγ	0	1.771	0	1.0/11	2,200

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							Date			
Missile	e Defense Ag	ency (MDA) Exhi	bit R-3 RDT&	E Project Co	st Analysis		Febr	uary 2007		
APPROPRIATION/BUDGET						MENCLATU				
RDT&E, DW/04 Advance	d Compone	ent Development	and Prototy	pes (ACD&l	P) 060389	2C Ballistic	Missile Defe	nse Aegis		
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Test & Eval	MIPR	AIRPAC/HI	1,100	1,400	1Q	0	N/A	0	N/A	2,500
Test & Eval	MIPR	SPAWAR/CA	2,500	2,800	1Q	0	N/A	0	N/A	5,300
Test & Eval	Various	Various	3,800	3,400	1Q	0	N/A	0	N/A	7,200
Test & Eval	MIPR	WSMR/CA	800	700	1Q	0	N/A	0	N/A	1,500
		NSWC/Corona/								
	MIPR	CA	2,900	2,800	1Q	0	N/A	0	N/A	5,700
		Raytheon/AZ	2,800	2,500	1Q	0	N/A	0	N/A	5,300
		Lockheed								
		Martin/NJ	15,700	15,500	1Q	0	N/A	0	N/A	31,200
		MDA/VA	9,000	0	1Q	0	N/A	0	N/A	9,000
Subtotal Test and Evaluation			79,400	76,360		0		0		155,760
IV. Management Servic	es Cost (\$ in Thousands	z.)							
i vi management bei vie			,,		FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Weapons System Engineering										
	MIPR	NAVSEA	13,867	13,867	1Q	0	N/A	0	N/A	27,734
	C/CPFF	Anteon/VA	28,266	34,800	1Q	0	N/A	0	N/A	63,066
	C/CPFF	Paradigm/VA	1,638	1,750	1Q	0	N/A	0	N/A	3,388
	SS/CPFF	JHU/APL/MD	1,330	2,519	1Q	0	N/A	0	N/A	3,849
	SS/CPAF	Raytheon/AZ	1,000	1,542	1Q	0	N/A	0	N/A	2,542
	SS/CI AI	itu yulooli i l								
	SS/CPAF	Lockheed Martin/NJ	1,000	1,500	1Q	0	N/A	0	N/A	2,500

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				UNCLASS	IFIED		-			
							Date	2007		
		ency (MDA) Exhil	oit R-3 RDT&	E Project Cost	-			uary 2007		
APPROPRIATION/BUDGET						MENCLATU				
RDT&E, DW/04 Advance	d Compone	ent Development	and Prototy	pes (ACD&P)	060389	2C Ballistic	Missile Defe	nse Aegis		
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
, i i i i i i i i i i i i i i i i i i i	MIPR	NSWC/DD/VA	1,285	2,851	1Q	0	N/A	0	N/A	4,136
	Various	Various	2,048	2,495	1/2Q	0	N/A	0	N/A	4,543
		Gryphon/	,	,						,
	CPFF	MD	0	2,000	1Q	0	N/A	0	N/A	2,000
Subtotal Management Services	-		50,434	63,324		0		0		113,758
Remarks	1	11		I						
Project Total Cost			462,625	395,283		75,400		42,600		975,908

Missile Defen	ise A	gen	cy (I	MD.	A) F	Exhit	oit F	R-4 \$	Sche	dul	e Pr	ofile	e								Da Fe		ary	200)7							
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Componer	nt D	evel	opn	ien	t an	d Pi	roto	otyp	es (AC	D&	: P)		R-1 N 603							e D	efen	ise A	Aegi	S							
Fiscal Year		20)06			20	07			20)08			20	09			20	010			20)11			20)12			201	.3	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Manufacturing Processes and Advanced Mate	rials	_															_	_			_											
BSP Engineering Development Model (CSEDS)							Δ																									
Development Milestones	_	_			_								_	_			_				_											
Block 2006 System Design Review		Δ																														
BMD 4.0.1 Engineering Capability Specification				۵																												
BMD 4.0.1 Preliminary Design Review 1					Δ																											
BMD 4.0 Critical Design Review							Δ																									
BMD 4.0.1 System Design Review							Δ																									
BMD 4.0E Engineering Assessment									Δ																							
Flight Tests	-																-				-											
FTM-10			Δ																													
FTM-11					Δ																											
FTM-11 4th Objective							Δ																									
FTM-12							Δ																									
			Ciani	ficon	Evo	nt (cor	malat	10)		L	ege			Ciani	ficant	+ 5.40	nt (pla		-1/													
			Miles	stone	Deci	ision (com					1		Mile	stone	Dec	ision	(plan														
			Syste	em Le	evel T	compl est (c		ete)					7	Syste	em Le	evel T	planne est (p		ed)													
	Δ_	_	Com	plete	Activ	/ity						Δ		Plan	ned A	ctivit	ty															
																										MD		.1.21.5	. р . 4		2002	900 0 0
Project: 0809 AEGIS BMD Block 2006																										MD	A EX	mpit	к-4	(PE (1003	892C)

RDT&E, DW/04 Advanced Componer			_						- <u></u>)		060.														-	012				0.01	2	-
Fiscal Year		20					200				1	008			1	009	Т			20					201				1	012				201		
	1	2	3	4	1	2	2	3	4		2	3	4	1	2	3	4	•	1	2	3	4			2	3	4	1	2	3	4	·] ·	1	2	3	4
Fielding Deliveries/Ships Long Range Surveillance & Tracking DDGs (BMD 3.0E)					Ļ	. Z	¥	1		Ŀ	1	1	1		1	1	1	l	I			1	L	1	1	1				1	1	T	1	1	- [
Engagement Cruisers (BMD 3.0)			Δ																																	
Engagement Cruisers (BMD 3.6)			\mathbf{A}																																	
Engagement DDGs (BMD 3.6)				Δ-	Ļ۸	. Δ	\downarrow		_∆																											
Fielding Deliveries/Missiles	-				-		•	-		-	•			-				-					-	•	-	-		-	•	•	-	-			-	
Block IA Missiles			4																																	
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			M ile Elen Syst	eston nent tem L	nt Evo e Deo Test .evel e Act	cisio (com Test	n (co nplet (cor	omp te)	lete)	· · · · · · · · · · · · · · · · · · ·		-c gc			M ile Eler Sys	nifica estor ment tem L nned	ne De Test _evel	ecisio (pla Tes	on (p innec	lann I)	ed)															

Missile Defense Age	ency (MDA) Ex	hibit R-4A Sch	edule Detail		Da Fe	te bruary 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Dev				R-1 NOMENCLA 0603892C Balli	TURE			
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Manufacturing Processes and Advanced Materials								
BSP Engineering Development Model (CSEDS)		3Q						
Development Milestones								
Block 2006 System Design Review	2Q							
BMD 4.0.1 Engineering Capability Specification	4Q							
BMD 4.0.1 Preliminary Design Review 1		1Q						
BMD 4.0 Critical Design Review		3Q						
BMD 4.0.1 System Design Review		3Q						
BMD 4.0E Engineering Assessment			1Q					
Flight Tests								
FTM-10	3Q							
FTM-11		1Q						
FTM-11A		2Q						
FTM-11 4th Objective		3Q						
FTM-12		3Q						
Fielding Deliveries/Ships								
Long Range Surveillance & Tracking DDGs (BMD 3.0E)	2Q-4Q	1Q-4Q	1Q					
Engagement Cruisers (BMD 3.0)	3Q							
Engagement Cruisers (BMD 3.6)	3Q-4Q	1Q						
Engagement DDGs (BMD 3.6)	4Q	1Q-4Q						
Fielding Deliveries/Missiles								
Block IA Missiles	3Q-4Q	1Q-4Q	1Q					Ì

MDA Exhibit R-4A (PE 0603892C)

				D	ate			
Missile Defense Agency (MDA) Exhibit R-2A RDT&E	Project Just	tification		F	ebruary 20	07		
APPROPRIATION/BUDGET ACTIVITY		R-1 NO	MENCLAT	URE				
RDT&E, DW/04 Advanced Component Development and Prototypes	(ACD&P)	060389	2C Ballisti	c Missile D	Defense Aeg	gis		
COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0909 AEGIS BMD Block 2008	254,007	575,620	721,133	592,914	166,100	31,400	0	0
RDT&E Articles Qty	0	0	27	24	9	0	0	0

Note: RDT&E Articles: FY08 - Fifteen (15) SM-3 missiles, four (4) ARAVs, two (2) targets, installation of BMD 3.6 on six (6) DDGs, installation of BMD 3.6.1 on one (1) CG. FY09 - Thirteen (13) SM-3 missiles, two (2) ARAVs, three (3) targets, installation of BMD 3.0E on one (1) DDG, installation of BMD 3.6 on two (2) DDGs, delivery of the BMD 4.0 computer program, one (1) BSP EDM, installation of BMD 4.0 on one (1) CG. FY10 - Eight (8) SM-3 missiles, delivery of the BMD 4.0.1 computer program.

A. Mission Description and Budget Item Justification

Aegis BMD Block 2008 supports the BMDS mission of intercepting ballistic missiles in all regions, in all phases, and of all ranges, as follows:

- In all regions: provide enhanced, sea-based Long Range Surveillance and Track (LRS&T) and engagement capabilities.
- In all phases of ballistic missile flight: LRS&T capability against missile threats in all flight stages; engagement capability against missile threats in the midcourse flight stage
- Against all ranges:
 - o LRS&T capability against Ballistic Missiles threats of all ranges.
 - Enhanced engagement capability (BMD 4.0.1) will provide: battlespace expanded to include Intermediate-Range Ballistic Missile (IRBM)class threats

Aegis BMD supported LDC by providing Long Range Surveillance and Track (LRS&T) data to other elements of the BMDS. Aegis BMD will further improve both national and international security with its ability to launch Standard Missile 3 (SM-3) missiles based upon data received via the Tactical Digital Information Link (TADIL) network. Through development and fielding of the Aegis BMD Signal Processor and upgrades to the SM-3 Blk IA missile (SM-3 Blk IB) in Block 2008, Aegis BMD will improve discrimination capability and performance against more diverse and longer range threats.

Aegis BMD Block 2008 will build on BSP development in Block 2006 to expand Aegis BMD effectiveness against the threat base. It will provide a full upgrade to the Aegis BMD Weapon System (BMD 4.0/4.0.1) and an upgraded SM-3 missile, SM-3 Blk IB.

Block 2008 includes improvements to the kinetic warhead's seeker and Divert and Attitude Control System (DACS). Seeker improvements will include the introduction of seeker All-Reflective-Optics (ARO) to improve optics performance, and a Kinetic Warhead Advanced Signal Processor (ASP) to mitigate diminished manufacturing source issues in SM-3 Blk IA missiles. Additionally, the increased processing capability of the ASP will

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Missile Defense Agency (MDA) Exhibit R-2A RDT&E			Date February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes		MENCLATURE 92C Ballistic Missile	Defense Aegis	
support new discrimination algorithms. The optics and processing in providing greater sensitivity and seeker discrimination capability. O development of the Throttleable Divert and Attitude Control System IB configuration in the Block 2008 timeframe.	ther missile improve	ements include the	integration of a two-colo	or seeker and
 Aegis BMD Block 2008 will deliver in two spirals: Spiral one (BMD 4.0) will deliver an initial testbed system capa enhancements to the LRS&T mission by adding mission capabil Spiral two (BMD 4.0.1) will continue through the System Engine certified system capable of firing the SM-3 Blk IA or IB missile 	lity for flight mission neering Developmen	18.		
 Other Block 2008 capability enhancements include: Improvements in BMDS Command and Control, Battle Manage enhancements and the resulting discrimination capabilities are a Improved engagement coordination capability with THAAD and Analysis for planned upgrades to the SM-3 missile to expand battle 	ble to be communicated PATRIOT to constant	ated, correlated, and erve upper tier miss	l acted upon. iles.	
In collaboration with the MDA Systems Engineer, Aegis BMD is co Aegis BMD supports an autonomous engagement against Short Ran without requiring external cueing. It supports an engagement against sensors. Aegis BMD will also provide target track data to support G Missiles (LRBMs) and Intermediate Range Ballistic Missiles (IRBM (STP) and Weapons Task Plan (WTP).	nge Ballistic Missile at SRBMs and MRB bround Based Interce	s (SRBMs) and Me Ms using data from ptor Launch and E	dium Range Ballistic M other BMDS elements ngagement against Long	issiles (MRBMs) and external Range Ballistic
B. Accomplishments/Planned Program	FY 2006	FY 2007	FY 2008	FY 2009
Weapon System	78,158	241,49		204,366
RDT&E Articles (Quantity)	0		0 6	6
(Zeandy)	0		÷ 0	0

In Block 2008, the Aegis BMD Weapon System Engineering group will develop BMD 4.0 to support testbed flight mission operations; and BMD 4.0.1 to provide an operationally-certified system with either the SM-3 Block IA or IB.

Project: 0909 AEGIS BMD Block 2008

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Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justif	ication	February 2007
APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE	
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	0603892C Ballistic Missi	le Defense Aegis
FY06 Accomplishments:Prepared a Specification Change Notice (SCN) to the Block 2006 Element C	anability Specification (F	ECS) to incorporate Block 2008
requirements.	supublicity opecation (L	2000 meorporate block 2000
 Performed System level trade-off studies based on the updated Block 2006 I 	ECS.	
 Prepared an SCN to the Block 2008 A-Spec., defining the Aegis Weapon Sy requirements. 	stem design requirements	to meet Block 2008 system-level
• Conducted a Delta System Requirements Review (SRR).		
• Commenced studies to improve Lethal Object Designation in a cluttered env	vironment.	
FY07 Planned Program:		
• Support the MDA System Engineering's Update of the Test Bed System Spe	cification (TBSS) to refle	ct Block 2008 requirements.
• Update the Block 2008 Element Capability Specification (ECS) based on the		1
Conduct the BMD 4.0.1 System Design Review (SDR), based on the update	d ECS, to present Block 2	2008 requirements.
• Conduct the Preliminary Design Review (PDR) to review and gain approval	for the contractor's appro	ach to meeting Block 2008 requirements
• Complete work to improve Lethal Object Designation in a cluttered environment	ment.	
 Conduct critical experiments using Aegis BMD Signal Processor ADM equi 		
• Conduct studies on RF/IR sensor fusion for a Block 2008 implementation.	-	
FY08 Planned Program:		
RDT&E Articles: BMD 3.6 Destroyers (6)		
• Continue development of BMD 4.0, leading to an Engineering Assessment i	n FY09.	
• Conduct the Block 2008 Critical design Review (CDR), to review the contra	ctor's design to meet Bloc	ck 2008 requirements and approval to
proceed with MEIT leading to a BMD 4.0.1 demonstration and certification.		
FY09 Planned Program:		
RDT&E Articles: BMD 3.0E DDG (1), BMD 4.0 Computer Program (1), BSP H	Engineering Development	Model (1), BMD 3.6 LRS&T and
Engagement Destroyers (2), BMD 4.0 Cruiser (Lake Erie) (1)		
Conduct BMD 4.0 Engineering Assessment		
 Install BMD 4.0 on an Aegis Cruiser (Lake Erie) 		
Project: 0909 AEGIS BMD Block 2008		MDA Exhibit R-2A (PE 06038
Ling Itom 82	104	1112/ EXhibit K-2/ (I E 00050

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Missile Defense Agency (MDA) Exhibit R-2A RDT&E I	Project Justifi	cation		Date F ebruary 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (R-1 NOME	ENCLATURE C Ballistic Missile	·	
 Install BSP Engineering Development Model (EDM) on an Aegi Support FTM-16, using BMD 4.0 and the BSP EDM. Continue development and testing of BMD 4.0.1, leading to an E 		Assessmer	t in FY10.		
	FY 200	6	FY 2007	FY 2008	FY 2009
SM-3 Missile		175,849	331,682	272,100	229,600
RDT&E Articles (Quantity)		0	С	15	1.
 FY06 Accomplishments: Continued SM-3 Blk IB IR discrimination risk reduction and alg Continued SM-3 Blk IB All Reflective Optics (ARO) engineerin Continued SM-3 Blk IB Advanced Signal Processor (ASP) desig manufacturing source issues. Continued the development and began integration of the SM-3 B Continued SM-3 Blk IB TDACS design efforts. Procured Long Lead Material for SM-3 Blk IA Missiles with del Began fabrication of SM-3 Blk IA missiles for delivery beginnin 	ng for improv gn efforts for Blk IB two-co livery beginr	ved missile improved blor seeker	missile discrimin	1	iminished
6	fouimpusses	d missile	diagnimination as	nahilitioa	
• Continue SM-3 Blk IB All Reflective Optics (ARO) engineering					
 FY07 Planned Program: Continue SM-3 Blk IB All Reflective Optics (ARO) engineering Continue SM-3 Blk IB Advanced Signal Processor (ASP) design Continue testing of SM-3 Blk IB two-color seeker upgrade. 					

Continue SM-3 Blk IB TDACS development.
Produce initial SM-3 Blk IB proof-of-design units.

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Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Ju	estification		Date February 2007	
APPROPRIATION/BUDGET ACTIVITY		IENCLATURE	rebruary 2007	
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&F		C Ballistic Missil	e Defense Aegis	
 RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&F) Complete SM-3 Blk IB IR discrimination risk reduction and algorithm de Upgrade SM-3 Blk IA Virtual and Inert Operational Missile to SM-3 Blk across weapon system interfaces. Continue fabrication of SM-3 Blk IA missiles for delivery beginning in F FY08 Planned Program: RDT&E Articles: SM-3 Blk IA Missiles (15) Continue material engineering to monitor parts obsolescence. Continue assembly and delivery of SM-3 Blk IA missiles. Complete assembly and delivery of fifteen (15) missiles Complete SM-3 Blk IB All-Reflective Optics (ARO) engineering for imp Complete SM-3 Blk IB Advanced Signal Processor (ASP) design efforts Complete SM-3 Blk IB TDACS development. FY09 Planned Program: RDT&E Articles: SM-3 Blk IA Missiles (12), SM-3 Blk IB Missile (Test Ro 	evelopment. IB configura Y08, and be proved missil for improved	ation to validate i gin fabrication of e discrimination o	nterface integrity withi FY09 deliveries. capabilities.	n the missile and
 Continue material engineering to monitor parts obsolescence. Continue assembly and delivery of SM-3 Blk IA missiles Complete assembly and deliver twelve (12) SM-3 Blk IA missiles. Complete assembly and delivery of one (1) SM-3 Blk IB test round missile. Complete element integration of SM-3 Blk IB missile. 				
	2006	FY 2007	FY 2008	FY 2009
System Test & Evaluation	0		0 105,100	105,500
RDT&E Articles (Quantity)	0		0	8
This effort provides funding for Aegis BMD test and evaluation Block 2008 the development of the BMDS.	llight test mi	ssions, as well as	other system-wide BN	1DS tests to support

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		Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justif		February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603892C Ballistic Missi	la Dafanca Aagis
	0003092C Damstic Wissi	ie Defense Aegis
FY08 Planned Program:		
• Participate in FTM-13 and FTM-14		
• Complete pre-flight analysis to verify scenarios and performance assessment		
• Prepare and complete missile delivery package for Mission Control Pane	el reviews.	
• Perform post-flight analysis to validate high-fidelity simulations.		
• Conduct post-flight analysis to support Mission Data Reviews (MDRs).	14	
• Perform analysis of SM-3 Blk IA Hardware/Software based on flight res	uits.	
• Conduct FTM-13 Campaign:	1. 0	
• Complete pre-flight analysis to verify mission scenarios and to predict flip		
• Prepare and complete missile delivery package for the Mission Control F		SM 2 Dily IA missilas
• Conduct a simultaneous launch of two (2) ARAV-A targets for BMD 3.6) SMI-3 BIK IA MISSILES.
• Perform post-flight analysis to validate high fidelity models and simulati	ons.	
• Conduct post-flight analysis to support Mission Data Reviews (MDRs).		
 Conduct FTM-14 Campaign: Complete pre-flight analysis to verify mission scenarios and to predict flight 	abt nonformanaa	
		a SM 3 Blk IA missile
 Conduct a BMD 3.6 Launch on TADIL engagement and intercept of a G Test interoperability with other BMDS elements. 	Toup I' INDIVI target with	a SIM-5 DIK IA IIISSIIC.
 Perform post-flight analysis to validate high fidelity models and simulati 	one	
 Conduct post-flight analysis to variate light fidelity models and simulation Conduct post-flight analysis to support Mission Data Reviews (MDRs). 	0115.	
 Participate as a sensor element in BMDS tests to include FTG-6, FTG-7, FT 	T_0 FTT_10 FTT_11 FT	T-12 and FTT-13 missions
 Participate as a sensor element in BMDS tests to include PTG-0, PTG-7, PT Participate in GT-196 target of opportunity 	1-9, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	
	om or similar aquinment	as a risk mitigation for Plack 2008
 Conduct critical experiments using the MK-99 Doppler Data Collection System implementation. 	eni or sinnar equipment	as a fisk fillingation for block 2008
1	ions and ready the range	fortest
 Begin test planning for FTM-15: prepare target, develop models and simulat Begin preliminary test planning for FTM-16: develop models and simulation 	• •	101 1051.
• Begin premimary test planning for F1NI-10: develop models and simulation	18.	
Project: 0000 AEGIS RMD Block 2008		MDA Exhibit P 2A (DE $0.603802C$)

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Missile Defense Agency (MDA) Exhibit R-2A RDT&E Pr APPROPRIATION/BUDGET ACTIVITY			ebruary 2007	
RDT&E, DW/04 Advanced Component Development and Prototypes (A		MENCLATURE 2C Ballistic Missile I	Jafanca Lagic	
	$(D\alpha I) = 000303$	20 Damsue Missile I	Jerense Aegis	
FY09 Planned Program:	4 0010 N			
Conduct FTM-15 Campaign funding and events accounted for in proje	ect 0918, Near-Ter	m Sea-Based Termi	nal.	
• Conduct FTM-16 Campaign:	1			
• Complete pre-flight analysis to verify mission scenarios and to	1 0 1			
 Prepare and complete missile delivery package for the Mission Conduct a BMD 4.0 simulated engagement of an ARAV-B MI 		lews.		
 Conduct a BMD 4.0 simulated engagement of an ARAV-B MI Conduct a BMD 4.0 engagement and intercept of a Group B M 		on SM 3 Blk IB mis	sila	
 Conduct a BMD 4.0 engagement and intercept of a Group B W Conduct a BMD 4.0 simulated engagement of a Group C MRE 	e	all SIVI-5 DIK ID IIIIS	5110.	
 Test interoperability with other BMDS elements. 	ow unget.			
 Perform post-flight analysis to validate high-fidelity models ar 	nd simulations.			
 Conduct post-flight analysis to support Mission Data Reviews 				
• Participate in targets of opportunity.	× ,			
• Begin test planning for FTM-17: prepare target, develop models at	nd simulations, and	l ready the range for	test.	
	,	, 0		
	FY 2006	FY 2007	FY 2008	FY 2009
Block 2008 Targets	0	0	,	39,448
RDT&E Articles (Quantity)	0	0	9	5
This effort provides the Missile Defense Agency with ballistic missile	C ,	0 0 11		C ,
associated launch services to support Aegis BMD flight tests in Block	08, as well as othe	er system wide tests	to support the develop	oment of the
Ballistic Missile Defense System.				
EV 2008 Diamod Dragram				
FY 2008 Planned Program: RDT&E Articles: 2 Targets, 4 ARAVs				
 Continue design, manufacture and delivery of one (1) MBRV-2 ar 	d Daylood insort i	Support of ETM 1/		
 Continue design, manufacture and derivery of one (1) MBR V-2 at Continue design, manufacture and delivery of a LV-2 launch vehic 	•		·.	
 Presentation of LV-2/MBRV-2 Target in support of FTM-14. 	cie in support of F	1 14.		
	most of ETM 14 T	v		
 Two ARAV-B and -C presentations and post flight analysis in sup Design, manufacture and delivery of a SRBMs, MBRV-3s and pay 	1		visat (0018) and ETM	16 SPT
 Design, manufacturing and delivery of a Group C, MBRV-1, and 	/ II	` I		-10 SD1.
 Design, manufacturing and derivery of a Group C, MBR V-1, and Design, manufacture and delivery of a MRT, MBRV-2 and payloa 				
• Design, manufacture and derivery of a wiki, widk v-2 and payloa	in m support of F1	IVI-10.		

 APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P) FY 2009 Planned Program: RDT&E Articles: 3 Targets, 2 ARAVs Presentation of a SRBM/MBRV-3 target in support of FTM-15 SBT (project 0918) Presentation of a ARAV-A/NOSE in support of FTM-15 (project 0918) Presentation of a GROUP C/MBRV-1 target in support of FTM-16 TX. Presentation of a ARAV-B/NOSE in support of FTM-16 TX. Presentation of a MRT/MBRV-2 in support of FTM-16. Presentation of a SRBM/MBRV-3 in support of FTM-16 SBT. Design, manufacturing and delivery of a Group C, MBRV-1, and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. 	Missile Defense Agency (MDA) Fyhihit R-2A RD	T&F Project Justifi	ication	Da Fe	te bruary 2007	
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P) 0603892C Ballistic Missile Defense Aegis FY 2009 Planned Program: RDT&E Articles: 3 Targets, 2 ARAVs • Presentation of a SRBM/MBRV-3 target in support of FTM-15 (project 0918) • • Presentation of a ARAV-A/NOSE in support of FTM-15 (project 0918) • • Presentation of a ARAV-A/NOSE in support of FTM-16 (TX. • • Presentation of a MRT/MBRV-2 in support of FTM-16 TX. • • Presentation of a SRBM/MBRV-3 in support of FTM-16 SBT. • • Design, manufacturing and delivery of a Group C, MBRV-1, and payload in support of FTM-17. • • Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. • • Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of of a component of a difference of a state of a difference of a state of a difference		I &E I I Oject Justin			01 ual y 2007	
RDT&E Articles: 3 Targets, 2 ARAVs Presentation of a SRBM/MBRV-3 target in support of FTM-15 SBT (project 0918) Presentation of a ARAV-A/NOSE in support of FTM-15 (project 0918) Presentation of a ARAV-A/NOSE in support of FTM-16 TX. Presentation of a ARAV-B/NOSE in support of FTM-16 TX. Presentation of a MRT/MBRV-2 in support of FTM-16 TX. Presentation of a SRBM/MBRV-3 in support of FTM-16 SBT. Design, manufacturing and delivery of a Group C, MBRV-1, and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. SE&I and BMDS Integration RDT&E Articles (Quantity) This effort provides funding to work in collaboration with the BMDS System Engineer to develop requirements flowdown for Aegis BMD BI 2008 and participate in definition of appropriate Engagement Sequence Groups to best utilize Aegis BMD capability in the overall BMDS. FY08 Planned Program: Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. Support system integration efforts with other BMDS elements to reflect the overall BMDS selend in the Block 2008 TBSS.		ypes (ACD&P)			efense Aegis	
 Presentation of a SRBM/MBRV-3 target in support of FTM-15 SBT (project 0918) Presentation of a ARAV-A/NOSE in support of FTM-15 (project 0918) Presentation of a ARAV-B/NOSE in support of FTM-16 TX. Presentation of a ARAV-B/NOSE in support of FTM-16 TX. Presentation of a MRT/MBRV-2 in support of FTM-16 SBT. Design, manufacturing and delivery of a Group C, MBRV-1, and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. 	Y 2009 Planned Program:					
 Presentation of a ARAV-A/NOSE in support of FTM-15 (project 0918) Presentation of a GROUP C/MBRV-1 target in support of FTM-16 TX. Presentation of a ARAV-B/NOSE in support of FTM-16 TX. Presentation of a ARAV-B/NBRV-2 in support of FTM-16. Presentation of a SRBM/MBRV-3 in support of FTM-16 SBT. Design, manufacturing and delivery of a Group C, MBRV-1, and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. 	DT&E Articles: 3 Targets, 2 ARAVs					
 Presentation of a GROUP C/MBRV-1 target in support of FTM-16 TX. Presentation of a ARAV-B/NOSE in support of FTM-16 TX. Presentation of a MRT/MBRV-2 in support of FTM-16. Presentation of a SRBM/MBRV-3 in support of FTM-16 SBT. Design, manufacturing and delivery of a Group C, MBRV-1, and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. 	Presentation of a SRBM/MBRV-3 target in support of FTM	I-15 SBT (project	t 0918)			
 Presentation of a ARAV-B/NOSE in support of FTM-16 TX. Presentation of a MRT/MBRV-2 in support of FTM-16. Presentation of a SRBM/MBRV-3 in support of FTM-16 SBT. Design, manufacturing and delivery of a Group C, MBRV-1, and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. <u>FY 2006</u> <u>FY 2007</u> <u>FY 2008</u> <u>FY 200</u> <u>Ste&I and BMDS Integration</u> <u>0</u> <u>0</u> <u>3,500</u> RDT&E Articles (Quantity) <u>0</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> <	Presentation of a ARAV-A/NOSE in support of FTM-15 (p	project 0918)				
 Presentation of a MRT/MBRV-2 in support of FTM-16. Presentation of a SRBM/MBRV-3 in support of FTM-16 SBT. Design, manufacturing and delivery of a Group C, MBRV-1, and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. EVALUATE: FY 2006 FY 2007 FY 2008 Guantity) The second state of the second stat	Presentation of a GROUP C/MBRV-1 target in support of F	FTM-16 TX.				
 Presentation of a SRBM/MBRV-3 in support of FTM-16 SBT. Design, manufacturing and delivery of a Group C, MBRV-1, and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. Example 1	Presentation of a ARAV-B/NOSE in support of FTM-16 TX	Χ.				
 Design, manufacturing and delivery of a Group C, MBRV-1, and payload in support of FTM-17. Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. FY 2006 FY 2007 FY 2008 FY 200 SE&I and BMDS Integration 0 0 3,500 RDT&E Articles (Quantity) 0 0 This effort provides funding to work in collaboration with the BMDS System Engineer to develop requirements flowdown for Aegis BMD BI 2008 and participate in definition of appropriate Engagement Sequence Groups to best utilize Aegis BMD capability in the overall BMDS. FY08 Planned Program: Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. FY09 Planned Program: Support the MDA System Engineering's Update of the Test Bed System Specification (TBSS) to reflect Block 2008 requirements. FY09 Planned Program: Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. 	Presentation of a MRT/MBRV-2 in support of FTM-16.					
 Design, manufacture and delivery of a MRT, MBRV-2 and payload in support of FTM-17. FY 2006 FY 2007 FY 2008 FY 200 SE&I and BMDS Integration 0 0	Presentation of a SRBM/MBRV-3 in support of FTM-16 SI	BT.				
FY 2006 FY 2007 FY 2008 FY 20 SE&I and BMDS Integration 0 0 0 3,500 RDT&E Articles (Quantity) 0 0 0 0 0 This effort provides funding to work in collaboration with the BMDS System Engineer to develop requirements flowdown for Aegis BMD BI 2008 and participate in definition of appropriate Engagement Sequence Groups to best utilize Aegis BMD capability in the overall BMDS. FY08 Planned Program: • Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. • Support the MDA System Engineering's Update of the Test Bed System Specification (TBSS) to reflect Block 2008 requirements. FY09 Planned Program: • • Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. FY09 Planned Program: • • Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS.	Design, manufacturing and delivery of a Group C, MBRV-	1, and payload in	support of	f FTM-17.		
FY 2006 FY 2007 FY 2008 FY 20 SE&I and BMDS Integration 0 0 3,500 RDT&E Articles (Quantity) 0 0 0 This effort provides funding to work in collaboration with the BMDS System Engineer to develop requirements flowdown for Aegis BMD BI 2008 and participate in definition of appropriate Engagement Sequence Groups to best utilize Aegis BMD capability in the overall BMDS. FY08 Planned Program: • Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. • Support the MDA System Engineering's Update of the Test Bed System Specification (TBSS) to reflect Block 2008 requirements. FY09 Planned Program: • • Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. FY09 Planned Program: • • Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS.		· · ·				
SE&I and BMDS Integration 0 0 3,500 RDT&E Articles (Quantity) 0 0 0 0 0 This effort provides funding to work in collaboration with the BMDS System Engineer to develop requirements flowdown for Aegis BMD BI 2008 and participate in definition of appropriate Engagement Sequence Groups to best utilize Aegis BMD capability in the overall BMDS. FY08 Planned Program: • Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. • Support the MDA System Engineering's Update of the Test Bed System Specification (TBSS) to reflect Block 2008 requirements. FY09 Planned Program: • • Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. FY09 Planned Program: • • Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS.					1	
RDT&E Articles (Quantity) 0 0 0 0 This effort provides funding to work in collaboration with the BMDS System Engineer to develop requirements flowdown for Aegis BMD BI 2008 and participate in definition of appropriate Engagement Sequence Groups to best utilize Aegis BMD capability in the overall BMDS. FY08 Planned Program: • Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. • Support the MDA System Engineering's Update of the Test Bed System Specification (TBSS) to reflect Block 2008 requirements. FY09 Planned Program: • • Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 requirements.		FY 200				FY 2009
 This effort provides funding to work in collaboration with the BMDS System Engineer to develop requirements flowdown for Aegis BMD BI 2008 and participate in definition of appropriate Engagement Sequence Groups to best utilize Aegis BMD capability in the overall BMDS. FY08 Planned Program: Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. Support the MDA System Engineering's Update of the Test Bed System Specification (TBSS) to reflect Block 2008 requirements. FY09 Planned Program: Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. 	3&I and BMDS Integration		0	0	3,500	3,5
 2008 and participate in definition of appropriate Engagement Sequence Groups to best utilize Aegis BMD capability in the overall BMDS. FY08 Planned Program: Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. Support the MDA System Engineering's Update of the Test Bed System Specification (TBSS) to reflect Block 2008 requirements. FY09 Planned Program: Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS. 	DT&E Articles (Quantity)		0	0	0	
• Support system integration efforts with other BMDS elements to reflect the overall BMDS as defined in the Block 2008 TBSS.	his effort provides funding to work in collaboration with the E	•	ngineer to o	develop requiremen	ts flowdown for Aegis	
	his effort provides funding to work in collaboration with the E 008 and participate in definition of appropriate Engagement So Y08 Planned Program: Support system integration efforts with other BMDS element Support the MDA System Engineering's Update of the Test	equence Groups to nts to reflect the o	ngineer to o to best util	develop requiremen ize Aegis BMD cap IDS as defined in th	ts flowdown for Aegis bability in the overall E ab Block 2008 TBSS.	BMDS.
Support the MDA System Engineering's Undate of the Test Bed System Specification (TRSS) to reflect Block 2008 requirements	his effort provides funding to work in collaboration with the E 008 and participate in definition of appropriate Engagement So Y08 Planned Program: Support system integration efforts with other BMDS element Support the MDA System Engineering's Update of the Test Y09 Planned Program:	equence Groups to nts to reflect the of Bed System Spe	ngineer to o to best util overall BM cification (develop requiremen ize Aegis BMD cap IDS as defined in th (TBSS) to reflect B	ts flowdown for Aegis bability in the overall E ae Block 2008 TBSS. lock 2008 requirement	BMDS.
- Support the MD1 System Engineering's optime of the rest bed System Specification (1055) to reflect block 2000 requirements.	his effort provides funding to work in collaboration with the E 008 and participate in definition of appropriate Engagement So Y08 Planned Program: Support system integration efforts with other BMDS element Support the MDA System Engineering's Update of the Test Y09 Planned Program: Support system integration efforts with other BMDS element	equence Groups to nts to reflect the of Bed System Spe nts to reflect the o	ngineer to o to best util overall BM cification (develop requiremen ize Aegis BMD cap IDS as defined in th (TBSS) to reflect B IDS as defined in th	ts flowdown for Aegis bability in the overall E ae Block 2008 TBSS. lock 2008 requirement ae Block 2008 TBSS.	BMDS. .s.
	his effort provides funding to work in collaboration with the E 008 and participate in definition of appropriate Engagement So Y08 Planned Program: Support system integration efforts with other BMDS element Support the MDA System Engineering's Update of the Test Y09 Planned Program: Support system integration efforts with other BMDS element	equence Groups to nts to reflect the of Bed System Spe nts to reflect the o	ngineer to o to best util overall BM cification (develop requiremen ize Aegis BMD cap IDS as defined in th (TBSS) to reflect B IDS as defined in th	ts flowdown for Aegis bability in the overall E ae Block 2008 TBSS. lock 2008 requirement ae Block 2008 TBSS.	BMDS. .s.
	his effort provides funding to work in collaboration with the E 008 and participate in definition of appropriate Engagement So Y08 Planned Program: Support system integration efforts with other BMDS element Support the MDA System Engineering's Update of the Test Y09 Planned Program: Support system integration efforts with other BMDS element	equence Groups to nts to reflect the of Bed System Spe nts to reflect the of Bed System Spe	ngineer to o to best util overall BM cification (overall BM cification (develop requiremen ize Aegis BMD cap IDS as defined in th (TBSS) to reflect B IDS as defined in th (TBSS) to reflect B	ts flowdown for Aegis bability in the overall E le Block 2008 TBSS. lock 2008 requirement le Block 2008 TBSS. lock 2008 requirement	BMDS. 58.
	his effort provides funding to work in collaboration with the E 008 and participate in definition of appropriate Engagement So Y08 Planned Program: Support system integration efforts with other BMDS elemen Support the MDA System Engineering's Update of the Test Y09 Planned Program: Support system integration efforts with other BMDS elemen Support system integration efforts with other BMDS elemen Support system integration efforts with other BMDS elemen	equence Groups to nts to reflect the of Bed System Spe nts to reflect the o	ngineer to o to best util overall BM cification (overall BM cification (develop requiremen ize Aegis BMD cap IDS as defined in th (TBSS) to reflect B IDS as defined in th (TBSS) to reflect B	ts flowdown for Aegis pability in the overall E ae Block 2008 TBSS. lock 2008 requirement be Block 2008 TBSS. lock 2008 requirement	BMDS. 58. 58. FY 2009
This effort provides funding for BMC3 improvements, including establishment of alternate BMD data paths and enhancements, supporting in	his effort provides funding to work in collaboration with the E 008 and participate in definition of appropriate Engagement So Y08 Planned Program: Support system integration efforts with other BMDS elemen Support the MDA System Engineering's Update of the Test Y09 Planned Program: Support system integration efforts with other BMDS elemen Support system integration efforts with other BMDS elemen Support the MDA System Engineering's Update of the Test	equence Groups to nts to reflect the of Bed System Spe nts to reflect the of Bed System Spe	ngineer to o to best util overall BM cification (overall BM cification (develop requiremen ize Aegis BMD cap IDS as defined in th (TBSS) to reflect B IDS as defined in th (TBSS) to reflect B FY 2007 2,440	ts flowdown for Aegis pability in the overall E ae Block 2008 TBSS. lock 2008 requirement be Block 2008 TBSS. lock 2008 requirement FY 2008	BMDS. 58. 58.
This error provides ranging for Divides improvements, meruquing establishingh of anythate Divide gaus and emancements, subberung in	his effort provides funding to work in collaboration with the E 008 and participate in definition of appropriate Engagement So Y08 Planned Program: Support system integration efforts with other BMDS element Support the MDA System Engineering's Update of the Test Y09 Planned Program: Support system integration efforts with other BMDS element Support the MDA System Engineering's Update of the Test Support the MDA System Engineering's Update of the Test	equence Groups to nts to reflect the of Bed System Spe nts to reflect the of Bed System Spe FY 200	ngineer to o to best util overall BM cification (overall BM cification (0	develop requiremen ize Aegis BMD cap IDS as defined in th (TBSS) to reflect B IDS as defined in th (TBSS) to reflect B FY 2007 2,440 0	ts flowdown for Aegis bability in the overall E ae Block 2008 TBSS. lock 2008 requirement be Block 2008 TBSS. lock 2008 requirement FY 2008 0	BMDS. 58. 58. <u>FY 2009</u> 10,59

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Just	ification	Date February 2007
PPROPRIATION/BUDGET ACTIVITY DT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATUR	
 Y07 Planned Program: Continue incorporation of CDLMS upgrades, including: Interoperability improvements to support Long Range Surveillance and Enhanced Launch on TADIL support Engagement Coordination Continue definition, planning, and implementation of the Defense Informat compliant Aegis BMD multi-ship mission planner. Continue development of enhanced discrimination algorithms to improve s missions. 	ion Infrastructure Com	
 Y08 Planned Program: Continue incorporation of CDLMS upgrades, including: Interoperability improvements to support Long Range Surveillance and Enhanced Launch on TADIL support Engagement Coordination Continue definition, planning, and implementation of DIICOE compliant A Continue development of enhanced discrimination algorithms and conduct 	egis BMD Multi-Ship	
 Y09 Planned Program: Complete CDLMS upgrades to incorporate: Interoperability improvements Enhanced Launch on TADIL to increase battlespace Enhanced Engagement Coordination to conserve upper-tier interceptors Complete implementation of DIICOE compliant Aegis BMD Multi-Ship Material 	lission Planner.	ng Range Surveillance and Track and

Missile Defense Agency (MDA)	Fyhihit D 7A	DDT&F Dro	joot Justific	option		Date February	2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Develop				R-1 NOMENC 0603892C B	-	· ·			
C. Other Program Funding Summary									
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Cost
PE 0603175C Ballistic Missile Defense Technology	147,270	193,307	118,569	109,540	116,014	121,008	127,917	131,291	1,064,916
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,120,879	1,092,076	962,585	1,004,282	924,101	851,213	678,694	501,147	7,134,977
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment	2,391,246	3,043,058	2,520,064	2,359,665	2,179,602	1,699,963	1,153,082	1,183,003	16,529,683
PE 0603883C Ballistic Missile Defense Boost Defense Segment	455,572	628,958	548,759	432,432	448,375	678,913	829,683	1,026,239	5,048,931
PE 0603884C Ballistic Missile Defense Sensors	284,297	514,129	778,163	984,963	939,417	791,701	723,843	603,585	5,620,098
PE 0603886C Ballistic Missile Defense System Interceptors	200,446	356,004	227,499	393,317	522,388	730,236	836,029	570,206	3,836,125
PE 0603888C Ballistic Missile Defense Test and Targets	610,619	601,782	586,150	628,364	662,984	681,511	696,037	705,210	5,172,657
PE 0603889C Ballistic Missile Defense Products	387,402	0	0	0	0	0	0	0	387,402
PE 0603890C Ballistic Missile Defense System Core	409,993	429,420	482,016	511,147	558,746	579,571	579,316	588,481	4,138,690
PE 0603891C Special Programs - MDA	271,021	353,031	323,250	305,409	369,073	526,966	789,017	792,271	3,730,038
PE 0603893C Space Tracking & Surveillance System	220,048	322,220	331,525	347,811	412,623	501,197	778,067	981,424	3,894,915
PE 0603894C Multiple Kill Vehicle	48,370	144,362	271,151	352,741	461,179	618,263	673,477	842,905	3,412,448
PE 0603895C BMD System Space Program	0	0	27,666	35,093	46,849	56,183	133,617	157,117	456,525
PE 0603896C BMD C2BMC	0	246,852	258,913	294,627	300,847	282,615	267,275	269,420	1,920,549
PE 0603897C BMD Hercules	0	49,674	53,658	54,264	54,405	55,142	53,355	54,198	374,696
PE 0603898C BMD Joint Warfighter Support	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206	383,935
PE 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994
PE 0603905C BMD Concurrent Test and Operations	0	23,159	0	0	0	0	0	0	23,159
PE 0603906C Regarding Trench	0	0	2,000	3,000	5,000	5,000	9,000	9,000	33,000
PE 0605502C Small Business Innovative Research - MDA	133,105	0	0	0	0	0	0	0	133,105
PE 0901585C Pentagon Reservation	14,874	15,527	6,058	6,376	4,490	4,725	4,801	4,877	61,728
PE 0901598C Management Headquarters - MDA	98,609	87,059	85,906	86,453	70,355	69,855	69,855	69,855	637,947

Project: 0909 AEGIS BMD Block 2008

MDA Exhibit R-2A (PE 0603892C)

		Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justif	ication	February 2007
APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE	
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	0603892C Ballistic Missil	e Defense Aegis

D. Acquisition Strategy

The Aegis BMD element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Aegis BMD program has awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 missile and the Aegis BMD Weapon System, respectively.

Missila	Defense Ac	gency (MDA) Exhil	of P_3 PDT&	F Project Cost	Analysis		Date Febr	uary 2007		
APPROPRIATION/BUDGET RDT&E, DW/04 Advanced	ACTIVITY			-	R-1 NO	MENCLATUR	RE	v		
I. Product Development	÷	*		pes (ACD&I)) 000303		wiissite Dere	lise Aegis		
	Contract Method	Performing Activity &	Total PYs	FY 2007	FY 2007 Award/ Oblg	FY 2008	FY 2008 Award/ Oblg	FY 2009	FY 2009 Award/ Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Weapon System	SS/CPAF	Lockheed Martin/NJ	72,510	190,145	1Q	146,350	1Q	134,800	1Q	543,805
	MIPR	NSWC/DD/VA	1,632	5,048	1Q	13,475	1Q	12,700	1Q	32,855
	MIPR	NSWC/PHD/CA	751	5,100	1Q	3,650	1Q	2,750	1Q	12,251
	MIPR	JHU/APL/MD	1,322	7,750	1Q	5,345	1Q	4,500	1Q	18,917
	MIPR	SPAWAR/CA	845	6,100	1Q	2,250	1Q	1,650	1Q	10,845
	MIPR	Va Sites/VA	0	5,555	1Q	4,300	1Q	3,850	1Q	13,705
	Various	Various	0	0	N/A	3,580	1/2Q	2,891	1/2Q	6,471
	MIPR	Aegis Techrep/NJ	0	0	N/A	1,750	1Q	1,225	1Q	2,975
Deployment			0	0	N/A	42,300	N/A	0	N/A	42,300
SM-3 Missile										
		Raytheon/AZ	182,000	273,189	1Q	200,000	N/A	162,600	N/A	817,789
	MIPR	NSWC DD/ VA	0	7,061	1Q	7,000	N/A	6,000	N/A	20,061
	MIPR	JHU/APL/MD	0	8,164	1Q	7,000	N/A	6,000	N/A	21,164
	MIPR	NSWC/CR/MD	0	2,184	1Q	2,000	N/A	1,500	N/A	5,684
	MIPR	NSWC/CL/CA	0	2,350	1/2Q	2,000	N/A	1,500	N/A	5,850
	MIPR	NSWC/IH/MD	0	3,576	1Q	3,000	4Q	2,500	N/A	9,076
	MIPR	NSWC Corona/ CA	0	3,564	1Q	3,000	N/A	2,500	N/A	9,064
	MIPR	MIT/LL/MA	0	4,204	1Q	4,000	N/A	3,000	N/A	11,204
	MIPR	NSWC/PHD/CA	0	3,534	1Q	2,000	N/A	1,500	N/A	7,034
	Various	Various	0	5,336	1/2Q	2,100	N/A	2,500	N/A	9,936
SE&I and BMDS Integration										
	CPFF	JHU/APL/MD	0	0	4Q	235	1Q	235	1Q	470

Project: 0909 AEGIS BMD Block 2008

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							Date			
		gency (MDA) Exhi	bit R-3 RDT&	E Project Co	· ·			uary 2007		
APPROPRIATION/BUDGE						MENCLATU				
RDT&E, DW/04 Advanc	ed Compon	ent Development	and Prototy	pes (ACD&l	P) 060389	2C Ballistic	Missile Defe	nse Aegis		
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
		NSWC Corona/								
	MIPR	CA	0	0	4Q	280	1Q	280	1Q	560
	MIPR	NSWC DD/VA	0	0	4Q	2,065	1Q	2,065	1Q	4,130
	MIPR	NSWC PHD/CA	0	0	4Q	490	1Q	490	1Q	980
	Various	Various	0	0	4Q	430	1/2Q	430	1/2Q	860
Aegis BMD Fire Control (BMC3)										
	CPFF	JHU/APL/MD	0	457	1Q	1,650	1Q	1,650	1Q	3,757
	FPI	MIT/MA	0	490	1Q	845	1Q	845	1Q	2,180
		MITRE	0	330	1Q	672	1Q	672	1Q	1,674
	MIPR	NSWC PHD/CA	0	483	1Q	834	1Q	834	1Q	2,151
	MIPR	SPAWAR/CA	0	329	1Q	5,742	1Q	5,742	1Q	11,813
	Various	Various	0	351	1/2Q	757	1/2Q	757	1/2Q	1,865
Subtotal Product Development			259,060	535,300		469,100		367,966		1,631,426
Remarks II. Support Costs Cos	t (\$ in The	ousands)								
			T 1		FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total	EN 2005	Award/	EX 2 000	Award/	EN 2000	Award/	T 1
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Weapon System	MIDD	ATRC/VA	0	(50	10	0	NT/A	0	NT/A	(50
	MIPR		÷	650 1,950	1Q 1Q	0	N/A	0	N/A	650
	CDEE	OF CAMP		1 950	10	0	N/A	0	N/A	3,575
	CPFF	SEG/MD	1,625		-		NT/A	0	NT/A	5 005
	FFRDC	MIT/LL/MA	1,755	3,250	1Q	0	N/A	0	N/A	5,005
					-		N/A N/A	0	N/A N/A	5,005 325

Project: 0909 AEGIS BMD Block 2008

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М	issila Dafansa Aa	gency (MDA) Exhit		F Project Cos	t Analysis		Date Febru	uary 2007		
PPROPRIATION/BUD		ency (MDA) Exint	JIL K-3 KD I &	E Floject Cos		MENCLATUR		ual y 2007		
CT&E, DW/04 Adv		ent Development	and Prototy	pes (ACD&P		2C Ballistic		nse Aegis		
,	r				FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
		Various	1,718	162	1Q	0	N/A	0	N/A	1,880
	CPFF	General Dynamics/NJ	0	0	N/A	21,050	1Q	14,650	1Q	35,700
	CPFF	Paradigm/VA	0	0	N/A	1,000	1Q	1,000	1Q	2,000
	CPFF	Gryphon/MD	0	0	N/A	1,000	1Q	1,000	1Q	2,000
	CPAF	Lockheed Martin/NJ	0	0	N/A	500	1Q	500	1Q	1,000
	CPAF	Raytheon/AZ	0	0	N/A	500	1Q	500	1Q	1,000
	MIPR	NAVSEA/DC	0	0	N/A	4,500	1Q	4,500	1Q	9,000
	MIPR	MDA/VA	0	15,300	1Q	11,450	1Q	17,850	1Q	44,600
SM-3 Missile										
	MIPR	NSWC DD/VA	1,000	500	1Q	0	N/A	0	N/A	1,500
	MIPR	JHU/APL/MD	1,000	1,000	1Q	0	N/A	0	N/A	2,000
	FPI	MIT/LL/MA	0	100	1/2Q	0	N/A	0	N/A	100
	MIPR	NSWC/CD/MD	0	471	1Q	0	N/A	0	N/A	471
	MIPR	NAVSEA/VA	0	838	1Q	0	N/A	0	N/A	838
	Various	Various	0	129	1Q	0	4Q	0	4Q	129
	CPFF	General Dynamics/NJ	0	0	4Q	21,050	1Q	14,650	1Q	35,700
	CPFF	Paradigm/VA	0	0	4Q	1,000	1Q	1,000	1Q	2,000
	CPFF	Gryphon/MD	0	0	4Q	1,000	1Q	1,000	1Q	2,000
	CPAF	Lockheed Martin/NJ	0	0	4Q	500	1Q	500	1Q	1,000
	CPAF	Raytheon/AZ	0	0	4Q	500	1Q	500	1Q	1,000
	MIPR	NAVSEA/DC	0	0	4Q	4,500	1Q	4,500	1Q	9,000
	MIPR	MDA/VA	0	15,482	4Q	11,450	1Q	17,850	1Q	44,782
Subtotal Support Costs		1	7,098	40,320		80,000		80,000		207,418

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	Delense Ag		SF D 2 DNT&	E Project Cos	st Analysis		Date Febru	uary 2007		
APPROPRIATION/BUDGET A RDT&E, DW/04 Advanced		-		-	R-1 NO	MENCLATUR	RE	·		
III. Test and Evaluation	_	—	anu i rototy	pes (ACDar) 000389		VIISSILE DELEI	lise Aegis		
	COSE (ψ	in Thousands)			FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
System Test & Evaluation										
	MIPR	PMRF/HI	0	0	4Q	8,000	N/A	8,000	N/A	16,000
	MIPR	SMDC/AL	0	0	4Q	3,000	N/A	3,000	N/A	6,000
	MIPR	NSWC DD/VA	0	0	4Q	10,000	N/A	10,000	N/A	20,000
	CPFF	JHU/APL/MD	0	0	4Q	17,000	N/A	17,000	N/A	34,000
	CPAF	Lockheed Martin/NJ	0	0	4Q	20,000	N/A	20,000	N/A	40,000
	MIPR	NSWC PHD/CA	0	0	4Q	7,000	N/A	7,000	N/A	14,000
	CPFF	MIT/LL/MA	0	0	4Q	5,000	N/A	5,000	N/A	10,000
	MIPR	AIRPAC/HI	0	0	4Q	3,000	N/A	3,000	N/A	6,000
	MIPR	SPAWAR/CA	0	0	4Q	5,000	N/A	5,000	N/A	10,000
	Various	Various	0	0	4Q	27,100	N/A	27,500	N/A	54,600
Block 2008 Targets										
		MDA/VA	0	0	N/A	66,933	N/A	39,448	N/A	106,381
Subtotal Test and Evaluation			0	0		172,033		144,948		316,981
Remarks IV. Management Service	s Cost (\$ in Thousands)		FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Subtotal Management Services	. 71.									
Remarks		<u> </u>		I		I		I	I	
Project Total Cost		[[266,158	575,620		721,133		592,914		2,155,82

Project: 0909 AEGIS BMD Block 2008

RDT&E, DW/04 Advanced Compone	nt D	eve	lopr	nen	t an	d Pr	oto	type	es (AC	D&I	P)	0	6038	892	C B	Balli	istic	M	issi	le D	efe	ns	e A	egi	S								_
Fiscal Year		20)06			200)7			20	08			200)9			20	010			2	201	1			2	2012	2			20	13	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2		3	4	1	2		3	4	1	2	3	2
Development Milestones																																		
BMD 4.0/4.0.1 Development						44						_																						
Block 2008 Preliminary Design Review					Δ																													
Block 2008 Critical Design Review							Δ																											
BMD 4.0.1 Preliminary Design Review 2									Δ																									
BMD 4.0.1 Critical Design Review												Δ																						
BMD 4.0 Engineering Assessment													Δ																					
BMD 4.0.1 Engineering Assessment																	Δ																	
Manufacturing Processes and Advanced Mate	erials				-			-				-				_	-				_								-	-			_	
BSP Engineering Development Model (cruiser)														Δ																				L
Testing Milestones		1	1	1	1				- 1	1		. 1				- 1	1	r				1		- 1			1	1			- 1			
RIMPAC 08					<u> </u>							Δ																						L
Flight Tests	1	1	-	1	-								_					1		<u> </u>	-	_	-					_	_					_
			M ile Elen Syst	eston nent ⁻ tem L	e Deci Test (d	nt (com ision (c comple Test (co vity	omp ete)	lete)		Le	gen			Signif Miles Eleme Syste Plann	tone ent Te m Lev	Decis est (p vel Te	sion (planne est (p	(planr ed)	ned)															

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RDT&E, DW/04 Advanced Compo	onent Develop	ment ar	nd Prototyp	es (ACD&P)	0603892C I	Ballistic Missil	e Defense Aegi	S	
Fiscal Year	2006		2007	2008	2009	2010	2011	2012	2013
	1 2 3	4 1	2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Flight Tests									
FTM-13				Δ					
FTM-14				Δ					
FTM-16					Δ				
Fielding Deliveries/Ships									
LRS&T destroyers				Δ					
Engagement DDGs (BMD 3.6)									
BMD 4.0 Cruiser									
Fielding Deliveries/Missiles									
Block 1A Missiles									
	Sic	nificant Evo	ent (complete)	Legend	Significant Eve	ant (planned)			
	🛨 Mi	estone Dec	cision (complete)		Milestone Dec	sision (planned)			
		ment Test (stem Level T	(complete) Test (complete)						
		mplete Acti		Δ	▲ Planned Activit				

APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Dev	elopment and	l Prototypes (A	ACD&P)	R-1 NOMENCLA 0603892C Balli		efense Aegis		
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Development Milestones								
BMD 4.0/4.0.1 Development	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q			
Block 2008 Preliminary Design Review		1Q						
Block 2008 Critical Design Review		3Q						
BMD 4.0.1 Preliminary Design Review 2			1Q					
BMD 4.0.1 Critical Design Review			4Q					
BMD 4.0 Engineering Assessment				1Q				
BMD 4.0.1 Engineering Assessment					1Q			
Manufacturing Processes and Advanced Materials								
BSP Engineering Development Model (cruiser)				2Q				
Testing Milestones								
RIMPAC 08			4Q					
Flight Tests								
FTM-13			1Q					
FTM-14			3Q					
FTM-16				3Q				
Fielding Deliveries/Ships								
LRS&T destroyers			2Q					
Engagement DDGs (BMD 3.6)			2Q-4Q	1Q-3Q				
BMD 4.0 Cruiser				2Q				
Fielding Deliveries/Missiles								
Block 1A Missiles			2Q-4Q	1Q-4Q				

				D	ate			
Missile Defense Agency (MDA) Exhibit R-2A RDT&E	Project Jus	tification		F	ebruary 20	07		
APPROPRIATION/BUDGET ACTIVITY		R-1 NO	MENCLAT	URE				
RDT&E, DW/04 Advanced Component Development and Prototypes	(ACD&P)	060389	2C Ballisti	c Missile D	efense Aeg	jis		
COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0009 AEGIS BMD Block 2010	0	40,404	71,456	162,819	450,586	324,929	32,006	29,493
RDT&E Articles Qty	0	0	0	0	27	40	7	0

Note: RDT&E Articles: FY10 - Eighteen (18) SM-3 missiles, one (1) ARAV, two (2) targets, installation of BMD 4.0.1 on one (1) CG, installation of BMD 3.6.1 on five (5) DDGs. FY11 - Twenty-nine (29) SM-3 missiles, one (1) ARAV, one (1) target, installation of BMD 3.6.1 on six (6) DDGs, installation of BMD 4.0.1 on one (1) CG, installation of BMD 4.0.1 on two (2) DDGs. FY12 - Six (6) SM-3 missiles, installation of BMD 4.0.1 on DDG (1).

A. Mission Description and Budget Item Justification

Aegis BMD Block 2010 supports the BMDS mission of intercepting ballistic missiles in all regions, in all phases, and of all ranges, as follows:

- In all regions: provide sea-based surveillance, tracking, and engagement capabilities.
- In all phases of ballistic missile flight: Long Range Surveillance and Track (LRS&T) capability against missile threats in all flight stages; engagement capability against missile threats in the midcourse flight stage
- Against all ranges:
 - o LRS&T capability against Ballistic Missile threats of all ranges
 - o Engagement capability against SRBM to IRBM-class threats

Aegis BMD supported LDC by providing Long Range Surveillance and Track (LRS&T) data to other elements of the BMDS. Aegis BMD will further improve both national and international security with its ability to launch Standard Missile 3 (SM-3) missiles based upon autonomous data and upon data received via the Tactical Digital Information Link (TADIL) network. Through development and fielding of the Aegis BMD Signal Processor and upgrades to the SM-3 Blk IA missile in Block 2006/2008, Aegis BMD will significantly improve discrimination capability and performance against more diverse and longer range threats.

The Aegis BMD Block 2010 program will integrate Aegis BMD Block 2008 and the BMD mission with the Navy-developed Open Architecture system. This effort will transition Aegis BMD from older, MIL-standard computers to newer Commercial Off The Shelf (COTS) computing plants. This change is necessary for Aegis BMD to remain compatible with Navy assets as Navy ship modernization plans are executed. This change will improve human-systems interface through display enhancements and eliminate the need for a separate computing system specific to the BMD mission. This will also enable more ships to serve as candidates for the BMD mission as the threat projection changes. Open architecture will be included in future fielded BMD system improvements.

Project: 0009 AEGIS BMD Block 2010

		Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justifi	cation	February 2007
APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE	
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	0603892C Ballistic Missil	e Defense Aegis

In collaboration with the MDA Systems Engineer, Aegis BMD is contributing to the BMDS in development of engagement sequence groups (ESGs). Aegis BMD Block 2010 will support an autonomous engagement against Short Range Ballistic Missiles (SRBMs), Medium Range Ballistic Missiles (MRBMs) and Intermediate-Range Ballistic Missiles (IRBMs) without external cueing. It will support an engagement against SRBM to IRBM- class targets using data from other BMDS elements and external sensors.

Aegis BMD will also provide target track data to support Ground Based Interceptor Launch and Engagement against Long Range Ballistic Missiles (LRBMs) and Intermediate Range Ballistic Missiles (IRBMs) via input for the Ground-based Midcourse Defense (GMD) Sensor Task Plan (STP) and Weapons Task Plan (WTP).

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Weapon System Engineering	0	14,243	40,656	124,519
RDT&E Articles (Quantity)	0	0	0	0

For Block 2010, Aegis BMD will begin performance and threat analysis in FY07.

FY07 Planned Program:

- Perform preliminary analysis in support of Engineering Capability Specification (ECS) development.
 - o Evaluate U.S. Navy Open Architecture computer program code.
 - Review U.S. Navy cruiser modernization and destroyer modernization hardware suites for future incorporation of Aegis BMD Block 2010 computer programs.
 - Begin drafting Block 2010 ECS.

FY08 Planned Program:

- Complete Block 2010 ECS
- Conduct Block 2010 System Requirements Review (SRR)
- Draft Block 2010 A-Spec, System B-1 & B-2 Specs
- Conduct Block 2010 System Design Review (SDR)

FY09 Planned Program:

• Draft System B-5 Specs (some in Unified Modeling Language), update A-Spec & B-1s from SDR

Project: 0009 AEGIS BMD Block 2010

Missile Defense Agency (MDA)	Exhibit R-2A	RDT&E Pro	iect Justific	ation		Date February	2007		
APPROPRIATION/BUDGET ACTIVITY		ILD I WE I I O	*	R-1 NOMEN	CLATURE	i coi dui y	2007		
RDT&E, DW/04 Advanced Component Develop	ment and Pr	ototypes (A	CD&P)	0603892C B	allistic Miss	ile Defense A	Aegis		
 Conduct Block 2010 Preliminary Design R requirements. 	eview (PDR), to review	and gain a	pproval for t	the contract	or's approad	ch to meetin	ig the Block	2010
			FY 2006		FY 2007	-	FY 2008	FY	2009
SM-3 Missile				0	26,	.161	30,80	0	38,300
RDT&E Articles (Quantity)				0		0		0	С
Aegis BMD Block 2010 will continue the proc	urement of S	SM-3 Block	IB missile	s.					
 FY07 Planned Program: Procure Long Lead Material for SM-3 Blk FY08 Planned Program: Procure Long Lead material for SM-3 Blk I Begin assembly of SM-3 Blk IB missiles w FY09 Planned Program: Continue assembly of SM-3 Blk IB missile Begin assembly of SM-3 Blk IB missiles w 	IB missiles v ith delivery s with delive	vith delivery in FY10. ery in FY10.	y in FY11.						
									Total
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost
PE 0603175C Ballistic Missile Defense Technology	147,270	193,307	118,569	109,540	116,014	121,008	127,917	131,291	1,064,916
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,120,879	1,092,076	962,585	1,004,282	924,101	851,213	678,694	501,147	
									7,134,977
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment PE 0603883C Ballistic Missile Defense Boost Defense	2,391,246	3,043,058	2,520,064	2,359,665	2,179,602	1,699,963	1,153,082	1,183,003	7,134,977

Project: 0009 AEGIS BMD Block 2010

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Missile Defense Agency (MDA)	Exhibit R-2A	RDT&E Pro	oject Justifio	cation		Date February	2007		
APPROPRIATION/BUDGET ACTIVITY				R-1 NOMENO					
RDT&E, DW/04 Advanced Component Develop	nent and Pr	ototypes (A	CD&P)	0603892C B	allistic Miss	ile Defense	Aegis		
									Total
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost
PE 0603884C Ballistic Missile Defense Sensors	284,297	514,129	778,163	984,963	939,417	791,701	723,843	603,585	5,620,098
PE 0603886C Ballistic Missile Defense System Interceptors	200,446	356,004	227,499	393,317	522,388	730,236	836,029	570,206	3,836,125
PE 0603888C Ballistic Missile Defense Test and Targets	610,619	601,782	586,150	628,364	662,984	681,511	696,037	705,210	5,172,657
PE 0603889C Ballistic Missile Defense Products	387,402	0	0	0	0	0	0	0	387,402
PE 0603890C Ballistic Missile Defense System Core	409,993	429,420	482,016	511,147	558,746	579,571	579,316	588,481	4,138,690
PE 0603891C Special Programs - MDA	271,021	353,031	323,250	305,409	369,073	526,966	789,017	792,271	3,730,038
PE 0603893C Space Tracking & Surveillance System	220,048	322,220	331,525	347,811	412,623	501,197	778,067	981,424	3,894,915
PE 0603894C Multiple Kill Vehicle	48,370	144,362	271,151	352,741	461,179	618,263	673,477	842,905	3,412,448
PE 0603895C BMD System Space Program	0	0	27,666	35,093	46,849	56,183	133,617	157,117	456,525
PE 0603896C BMD C2BMC	0	246,852	258,913	294,627	300,847	282,615	267,275	269,420	1,920,549
PE 0603897C BMD Hercules	0	49,674	53,658	54,264	54,405	55,142	53,355	54,198	374,696
PE 0603898C BMD Joint Warfighter Support	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206	383,935
PE 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994
PE 0603905C BMD Concurrent Test and Operations	0	23,159	0	0	0	0	0	0	23,159
PE 0603906C Regarding Trench	0	0	2,000	3,000	5,000	5,000	9,000	9,000	33,000
PE 0605502C Small Business Innovative Research - MDA	133,105	0	0	0	0	0	0	0	133,105
PE 0901585C Pentagon Reservation	14,874	15,527	6,058	6,376	4,490	4,725	4,801	4,877	61,728
PE 0901598C Management Headquarters - MDA	98,609	87,059	85,906	86,453	70,355	69,855	69,855	69,855	637,947

D. Acquisition Strategy

The Aegis BMD element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Aegis BMD program has awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 missile and the Aegis BMD Weapon System, respectively.

Missila	Defense Ac	gency (MDA) Exhil	hit R_3 RDT&	F Project Co	et Analycic		Date Febru	uary 2007		
APPROPRIATION/BUDGET		gency (WIDA) Exim	$\mathbf{M} \mathbf{K} \mathbf{M} \mathbf{M} \mathbf{M}$	LE I TOJECI CO		MENCLATU		ual y 2007		
RDT&E, DW/04 Advance		ent Development	and Prototy	pes (ACD&l		2C Ballistic		nse Aegis		
I. Product Development	Cost (\$	in Thousands)								
*					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Weapon System Engineering										
		Lockheed Martin/								
	CPAF	NJ	0	12,070	1Q	32,106	1Q	37,419	1Q	81,595
	MIPR	NSWC DD/VA	0	800	N/A	2,500	1Q	2,550	1Q	5,850
	CPFF	JHU/APL/MD	0	750	N/A	2,475	1Q	2,500	1Q	5,725
	CPFF	MIT/MA	0	400	N/A	1,390	1Q	1,275	1Q	3,065
	CPAF	VA Sites/VA	0	100	N/A	1,075	1Q	1,000	1Q	2,175
	Various	Various	0	123	N/A	360	1/2Q	575	1/2Q	1,058
		Aegis Techrep/								
	MIPR	NJ	0	0	N/A	750	1Q	900	1Q	1,650
Deployment			0	0	N/A	0	N/A	78,300	1Q	78,300
SM-3 Missile										
	CPAF	Raytheon/AZ	0	24,000	4Q	26,180	N/A	32,555	N/A	82,735
	MIPR	NSWC IH/MD	0	0	4Q	1,100	1Q	1,500	N/A	2,600
		NSWC DD/								
	MIPR	VA	0	0	4Q	1,220	1Q	1,420	N/A	2,640
	MIPR	NSWC PHD/CA	0	0	4Q	1,000	1Q	1,325	N/A	2,325
	Various	Various	0	0	4Q	1,300	1/2Q	1,500	N/A	2,800
Subtotal Product Development			0	38,243		71,456		162,819		272,518

Remarks

Project: 0009 AEGIS BMD Block 2010

		ency (MDA) Exhi	bit R-3 RDT&	E Project Cos				uary 2007		
APPROPRIATION/BUDGE										
RDT&E, DW/04 Advanc	-	-	and Prototy	pes (ACD&P	060389	2C Ballistic	viissile Dere	nse Aegis		
II. Support Costs Cos	<u>t (\$ in Tho</u>	usands)								
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
SM-3 Missile										
	MIPR	MDA/VA	0	2,161	1Q	0	N/A	0	N/A	2,161
Subtotal Support Costs			0	2,161		0		0		2,161
Remarks										
III. Test and Evaluation	n Cost (\$i	in Thousands))							
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Subtotal Test and Evaluation										
									·	
Remarks										
Remarks										
	ces Cost (S	\$ in Thousands	5)							
	ces Cost (\$ in Thousands	5)		FY 2007		FY 2008		FY 2009	
					FY 2007 Award/		FY 2008 Award/		FY 2009 Award/	
	Contract	Performing	Total	FY 2007	Award/	FY 2008	Award/	FY 2009	Award/	Total
IV. Management Servi	Contract Method			FY 2007 Cost		FY 2008 Cost		FY 2009 Cost		Total Cost
IV. Management Servie Cost Categories:	Contract	Performing Activity &	Total PYs		Award/ Oblg		Award/ Oblg		Award/ Oblg	
IV. Management Servio Cost Categories: Subtotal Management Services	Contract Method	Performing Activity &	Total PYs		Award/ Oblg		Award/ Oblg		Award/ Oblg	
IV. Management Servio Cost Categories: Subtotal Management Services	Contract Method	Performing Activity &	Total PYs		Award/ Oblg		Award/ Oblg		Award/ Oblg	
Remarks IV. Management Servic Cost Categories: Subtotal Management Services Remarks Project Total Cost	Contract Method	Performing Activity &	Total PYs		Award/ Oblg		Award/ Oblg		Award/ Oblg	

Missile Defe	nse A	gen	cy (N	MD	A) E	xhil	bit R	-4 S	Sche	dul	e Pr	ofile	е								Dat Fel		ary	200)7							
APPROPRIATION/BUDGET ACTIVITY													F	R-1 I																		
RDT&E, DW/04 Advanced Compone	nt D	evel	opn	ien	t an	d P	roto	typ	es (AC	D&	P))603	892	C E	Balli	istic	Mi	ssil	e De	efen	se A	Aegi	S							_
Fiscal Year		20	006			20	07			20	08			20	09			20	10			20	11			20	12			201	3	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Development Milestones	_																															
Block 2010 System Requirements Review									Δ																							
Block 2010 System Design Review											Δ																					
Block 2010 Preliminary Design Review														Δ																		
Block 2010 Critical Design Review																		Δ														
Block 2010 Engineering Assessment																								Δ								
Flight Tests	_												_				_															
FTM-17																			Δ													
FTM-18																							Δ									
Fielding Deliveries/Ships	_	-		-				_					_	_	_		_	_							_						į	
BMD 4.0.1 Cruiser																					Δ			ĻΛ								
BMD 4.0.1 Destroyers																					Δ			μ								
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			Miles	stone	Decis	sion (mplete compl					4		Mile	stone	t Ever Deci	sion ((plann														
			Elem Syste	ent T em Le	est (c evel Te	ompl est (c	lete) :omple [:]	te)					>	Elerr Syst	ient T em Le	est (p evel T	olanne est (p	ed) olanne	d)													
	▲		Com	plete	Activ	ity						Δ	_Δ	Plan	ned A	ctivit	у															
Project: 0009 AEGIS BMD Block 2010																										MD.	A Ex	hibit	R-4	(PE 0	6038	392C)

Missile Defense	Agency (MDA) Ex	hibit R-4A Sch	edule Detail			Date February 2007		
APPROPRIATION/BUDGET ACTIVITY				R-1 NOMENCLA				
RDT&E, DW/04 Advanced Component	-	· -		0603892C Balli				
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Development Milestones								
Block 2010 System Requirements Review			1Q					
Block 2010 System Design Review			3Q					
Block 2010 Preliminary Design Review				2Q				
Block 2010 Critical Design Review					2Q			
Block 2010 Engineering Assessment						4Q		
Flight Tests								
FTM-17					3Q			
FTM-18						3Q		
Fielding Deliveries/Ships								
BMD 4.0.1 Cruiser						1Q-4Q		
BMD 4.0.1 Destroyers						1Q-4Q		

					ate	07		
Missile Defense Agency (MDA) Exhibit R-2A RDT&	2 Project Jus	tification		F	ebruary 20	07		
APPROPRIATION/BUDGET ACTIVITY		R-1 NO	MENCLAT	URE				
RDT&E, DW/04 Advanced Component Development and Prototype	s (ACD&P)	060389	2C Ballisti	c Missile I	Defense Aeg	gis		
COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
COST (\$ in Thousands) R109 AEGIS BMD Block 2012	FY 2006	FY 2007 8,684	FY 2008 26,700	FY 2009 130,300	FY 2010 316,800	FY 2011 412,700	FY 2012 687,781	FY 2013 758,219

Note: RDT&E Articles: FY12 - Nineteen (19) SM-3 missiles, BMD 4.0.1 CG (1) and DDGs (2). FY13 - Nine (9) SM-3 missiles, BMD 4.0.1 DDGs (4).

A. Mission Description and Budget Item Justification

Aegis BMD Block 2012 supports the BMDS mission of intercepting ballistic missiles in all regions, in all phases, and of all ranges, as follows:

- In all regions: provide sea-based surveillance, tracking, and engagement capabilities. Japan, and possibly other countries, will deploy Aegis BMD.
- In all phases of ballistic missile flight: boost, midcourse, and terminal.
- Against all ranges:
 - Against long-range ballistic missiles by providing surveillance and tracking support as part of the Block 04 Limited Defensive Capability (LDC).
 - Against short and medium range ballistic missiles by providing engagement support as part of Block 2004.
 - Against limited intermediate range ballistic missiles by providing engagement support as part of Block 2008.
 - Against long-range ballistic missiles, to include some Intercontinental Ballistic Missile (ICBM) threats, using the upgrade SM-3 Blk IIA missile.

Aegis BMD supported LDC by providing Long Range Surveillance and Track (LRS&T) data to other elements of the BMDS. Aegis BMD will further improve both national and international security with its ability to launch Standard Missile 3 (SM-3) missiles based upon autonomous data and upon data received via the Tactical Digital Information Link (TADIL) network. Through development and fielding of the Aegis BMD Signal Processor and upgrades to the SM-3 Blk IA missile in Block 2006/2008, Aegis BMD will significantly improve discrimination capability and performance against more diverse and longer range threats.

The Aegis BMD Block 2012 program will integrate Aegis BMD Weapon System improvements, including Engage on Remote, and the SM-3 Blk IIA missile. Other Aegis BMD Block 2012 improvements include:

Project: R109 AEGIS BMD Block 2012

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification Date February 2007 APPROPRIATION/BUGGET ACTIVITY R-1 NOMENCLATURE RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P) 6603892C Ballistic Missile Defense Aegis • Defeat a wide variety of ballistic missiles in the presence of counter countermeasures (Short Range Ballistic Missiles (SRBMs), Medium Range Ballistic Missiles (MRBMs), Intermediate Range Ballistic Missiles (IRBMs), Long Range Ballistic Missiles (LRBMs), including limited Inter- Continental Ballistic Missiles (ICBMs). • Feature Aided Track Correlation (FATC) • Forcenet/GIG Compliance • Improvements to BMDS Multi-Element Sensor Data Fusion. • Engage on Remote (EoR) Missile development efforts for the SM-3 Blk IIA configuration are captured under project 0402, Japanese Cooperative Program. This project includes incorporation of the SM-3 Blk IIA with the Aegis BMD Weapon System with Open Architecture. In collaboration with the MDA systems engineer, Aegis BMD is contributing to the BMDS in development of engagement sequence groups (ESGs). Aegis BMD Block 2012 will support an autonomous engagement against SRBMs, MRBMs, IRBMs and some ICBMs without requiring external cueing. It will also support an engagement against SRBMs, MRBMs, IRBMs and LRBMs and broad Elements and external sensors. Aegis BMD Will also provide target track data to support Ground Based Interceptor Launch and Engagement against IRBMs and ICBMs via input for the Ground-based Midcourse Defense (GMD) Sensor Task Plan (STP) and Weapons Task Plan (WTP). B. Accomplishments/Planned Program FY 2006	UN	CLASSIF.	IED				
APPROPRIATION/BUDGET ACTIVITY R-1 NOMENCLATURE RDT&F, DW/04 Advanced Component Development and Prototypes (ACD&P) R-1 NOMENCLATURE 0603892C Ballistic Missile Defense Aegis • Defeat a wide variety of ballistic missiles in the presence of counter countermeasures (Short Range Ballistic Missiles (ICBMs), Medium Range Ballistic Missiles (IRBMs), Including limited Inter-Continental Ballistic Missiles (ICBMs). • Feature Aided Track Correlation (FATC) • Forcenet/GIG Compliance • Improvements to BMDS Multi-Element Sensor Data Fusion. • Engage on Remote (EoR) Missile development efforts for the SM-3 Blk IIA configuration are captured under project 0402, Japanese Cooperative Program. This project includes incorporation of the SM-3 Blk IIA with the Aegis BMD Weapon System with Open Architecture. In collaboration with the MDA systems engineer, Aegis BMD is contributing to the BMDS in development of engagement sequence groups (ESGs). Aegis BMD Block 2012 will support an autonomous engagement against SRBMs, MRBMs, IRBMs, LRBMs and some ICBMs without requiring external cueing. It will also support an engagement against SRBMs, MRBMs, IRBMs and LRBMs using data from other BMDS elements and external sensors. Aegis BMD will also provide target track data to support Ground Based Interceptor Launch and Engagement against IRBMs and ICBMs via input for the Ground-based Midcourse Defense (GMD) Sensor Task Plan (XTP) and Weapons Task Plan (WTP). B. Accomplishments/Planned Program FY 2006 FY 2007 FY 2008 FY 2009 Weapon System Engineering <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>							
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P) 0603892C Ballistic Missile Defense Aegis • Defeat a wide variety of ballistic missiles in the presence of counter countermeasures (Short Range Ballistic Missiles (SRBMs), Medium Range Ballistic Missiles (MRBMs), Intermediate Range Ballistic Missiles (IRBMs), Long Range Ballistic Missiles (LRBMs), including limited Inter-Continental Ballistic Missiles (ICBMs). • Feature Aided Track Correlation (FATC) • • Forcenet/GIG Compliance • • Improvements to BMDS Multi-Element Sensor Data Fusion. • • Engage on Remote (EoR) • Missile development efforts for the SM-3 Blk IIA configuration are captured under project 0402, Japanese Cooperative Program. This project includes incorporation of the SM-3 Blk IIA with the Aegis BMD Weapon System with Open Architecture. In collaboration with the MDA systems engineer, Aegis BMD is contributing to the BMDS in development of engagement sequence groups (ESGs). Aegis BMD Block 2012 will support an autonomous engagement against SRBMs, MRBMs, IRBMs and Some ICBMs without requiring external cueing. It will also support an engagement against SRBMs, MRBMs, IRBMs and LRBMs using data from other BMDS elements and external sensors. Aegis BMD will also provide target track data to support Ground Based Interceptor Launch and Engagement against IRBMs and ICBMs via input for the Ground-based Midcourse Defense (GMD) Sensor Task Plan (STP) and Weapons Task Plan (WTP). B. Accomplishments/Planned Program FY 2006 FY 2007 FY 2008 FY 2009 0 0 0		Project Justific			February 2007		
• Defeat a wide variety of ballistic missiles in the presence of counter countermeasures (Short Range Ballistic Missiles (SRBMs), Medium Range Ballistic Missiles (MRBMs), Intermediate Range Ballistic Missiles (IRBMs), Long Range Ballistic Missiles (LRBMs), including limited Inter-Continental Ballistic Missiles (ICBMs). • Feature Aided Track Correlation (FATC) • Forcenet/GIG Compliance • Improvements to BMDS Multi-Element Sensor Data Fusion. • Engage on Remote (EoR) Missile development efforts for the SM-3 Blk IIA configuration are captured under project 0402, Japanese Cooperative Program. This project includes incorporation of the SM-3 Blk IIA with the Aegis BMD Weapon System with Open Architecture. In collaboration with the MDA systems engineer, Aegis BMD is contributing to the BMDS in development of engagement sequence groups (ESGs). Aegis BMD Block 2012 will support an autonomous engagement against SRBMs, MRBMs, IRBMs, LRBMs and some ICBMs without requiring external cueing. It will also support an engagement against SRBMs, MRBMs, and LRBMs using data from other BMDS elements and external sensors. Aegis BMD will also provide target track data to support Ground Based Interceptor Launch and Engagement against IRBMs and LCBMs via input for the Ground-based Midcourse Defense (GMD) Sensor Task Plan (STP) and Weapons Task Plan (WTP). B. Accomplishments/Planned Program FY 2006 FY 2007 FY 2008 FY 2009 • Weapon System Engineering 0 0 0 0 43,90							
Ballistic Missiles (MRBMs), Intermediate Range Ballistic Missiles (IRBMs), Long Range Ballistic Missiles (LRBMs), including limited Inter- Continental Ballistic Missiles (ICBMs). • Feature Aided Track Correlation (FATC) • Forcenet/GIG Compliance • Improvements to BMDS Multi-Element Sensor Data Fusion. • Engage on Remote (EoR) Missile development efforts for the SM-3 Blk IIA configuration are captured under project 0402, Japanese Cooperative Program. This project includes incorporation of the SM-3 Blk IIA with the Aegis BMD Weapon System with Open Architecture. In collaboration with the MDA systems engineer, Aegis BMD is contributing to the BMDS in development of engagement sequence groups (ESGs). Aegis BMD Block 2012 will support an autonomous engagement against SRBMs, MRBMs, IRBMs and LRBMs and some ICBMs without requiring external cueing. It will also support an engagement against SRBMs, MRBMs, IRBMs and LRBMs using data from other BMDS elements and external sensors. Aegis BMD will also provide target track data to support Ground Based Interceptor Launch and Engagement against IRBMs and ICBMs via input for the Ground-based Midcourse Defense (GMD) Sensor Task Plan (STP) and Weapons Task Plan (WTP). B. Accomplishments/Planned Program FY 2006 FY 2007 FY 2008 FY 2009 Weapon System Engineering 0 0 0 0 0	RDT&E, DW/04 Advanced Component Development and Prototypes ((ACD&P)	0603892C	Ballistic Missile	Defense Aegis		
FY 2006 FY 2007 FY 2008 FY 2009 Weapon System Engineering 0 8,684 26,700 43,90 RDT&E Articles (Quantity) 0 0 0 0 0	 Ballistic Missiles (MRBMs), Intermediate Range Ballistic Missil Continental Ballistic Missiles (ICBMs). Feature Aided Track Correlation (FATC) Forcenet/GIG Compliance Improvements to BMDS Multi-Element Sensor Data Fusion. Engage on Remote (EoR) Missile development efforts for the SM-3 Blk IIA configuration are of includes incorporation of the SM-3 Blk IIA with the Aegis BMD We In collaboration with the MDA systems engineer, Aegis BMD is con Aegis BMD Block 2012 will support an autonomous engagement ag external cueing. It will also support an engagement against SRBMs, external sensors. Aegis BMD will also provide target track data to su 	captured und eapon System ntributing to t gainst SRBM MRBMs, IR upport Groun	Long Ran er project n with Ope he BMDS s, MRBM BMs and d Based In	oge Ballistic Mis 0402, Japanese en Architecture. in development s, IRBMs, LRBM LRBMs using da nterceptor Launc	siles (LRBMs), includ Cooperative Program. of engagement seque Is and some ICBMs v ta from other BMDS h and Engagement ag	This project nce groups (I vithout require elements and	ESGs). ring
Weapon System Engineering08,68426,70043,90RDT&E Articles (Quantity)0000	B. Accomplishments/Planned Program						
RDT&E Articles (Quantity) 0 0 0		FY 2006		FY 2007		FY 20	09
			-	8,684	4 26,700		43,90
Block 2012 will integrate SM-3 Blk IIA missile improvements (developed under project 0402) with the Aegis BMD Weapon System, leveraging on	RDT&E Articles (Quantity)		0		0		
	Block 2012 will integrate SM-3 Blk IIA missile improvements (deve	eloped under	project 04	02) with the Ae	gis BMD Weapon Sys	tem, leverag	ing on
improvements achieved under Block 2010, to include Open Architecture. FY07 Planned Program:	improvements achieved under Block 2010, to include Open Architec FY07 Planned Program:	cture.				-	-
 Perform preliminary analysis in support of Block 2012 Element Capability Specification (ECS) development. Perform initial Block 2012 requirements development in support of SM-3 Blk IIA top-level requirement generation. 	• Perform initial Block 2012 requirements development in support	•••		· / 1			

FY08 Planned Program:

• Begin modification of Block 2008 simulation programs to model Block 2012 performance.

Project: R109 AEGIS BMD Block 2012

						Date	2005		
Missile Defense Agency (MDA)	Exhibit R-2A	RDT&E Pro				February	2007		
APPROPRIATION/BUDGET ACTIVITY	/ ID			R-1 NOMENO					
RDT&E, DW/04 Advanced Component Develop	ment and Pr	ototypes (A	CD&P)	0603892C B	allistic Missi	ile Defense	Aegis		
• Conduct analyses of Block 2012 threat set.									
• Draft Block 2012 ECS									
FY09 Planned Program:									
• Conduct System Requirements Review (SR	R), Review	ECS and pr	ovide requi	irements to	the contract	or for Block	x 2012.		
• Draft A-Spec based on requirements from E	CS and guid	dance from	SRR.						
	C								
			FY 2006		FY 2007]	FY 2008	FY	2009
Missile				0		0		0	86,400
RDT&E Articles (Quantity)				0		0		0	(
			-		-				
FY09 Planned Program: Procure long lead material for SM-3 missile	e for Blk 1F	e delivery ir	FV 2011						
 FY09 Planned Program: Procure long lead material for SM-3 missile C. Other Program Funding Summary 	es for Blk 1E	3 delivery ir	n FY 2011.						
• Procure long lead material for SM-3 missile									Total
 Procure long lead material for SM-3 missile C. Other Program Funding Summary 	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost
Procure long lead material for SM-3 missile C. Other Program Funding Summary PE 0603175C Ballistic Missile Defense Technology				FY 2009 109,540	FY 2010 116,014	FY 2011 121,008	FY 2012 127,917	FY 2013 131,291	
Procure long lead material for SM-3 missile C. Other Program Funding Summary PE 0603175C Ballistic Missile Defense Technology PE 0603881C Ballistic Missile Defense Terminal Defense	FY 2006 147,270	FY 2007 193,307	FY 2008 118,569	109,540	116,014	121,008	127,917	131,291	Cost 1,064,916
Procure long lead material for SM-3 missile C. Other Program Funding Summary PE 0603175C Ballistic Missile Defense Technology PE 0603881C Ballistic Missile Defense Terminal Defense Segment	FY 2006	FY 2007	FY 2008						Cost 1,064,916
Procure long lead material for SM-3 missile C. Other Program Funding Summary PE 0603175C Ballistic Missile Defense Technology	FY 2006 147,270	FY 2007 193,307	FY 2008 118,569	109,540	116,014	121,008	127,917	131,291	Cost 1,064,910 7,134,977
Procure long lead material for SM-3 missile C. Other Program Funding Summary PE 0603175C Ballistic Missile Defense Technology PE 0603881C Ballistic Missile Defense Terminal Defense Segment PE 0603882C Ballistic Missile Defense Midcourse Defense Segment PE 0603883C Ballistic Missile Defense Boost Defense	FY 2006 147,270 1,120,879 2,391,246	FY 2007 193,307 1,092,076 3,043,058	FY 2008 118,569 962,585 2,520,064	109,540 1,004,282 2,359,665	116,014 924,101 2,179,602	121,008 851,213 1,699,963	127,917 678,694 1,153,082	131,291 501,147 1,183,003	Cost 1,064,910 7,134,977 16,529,683
Procure long lead material for SM-3 missile C. Other Program Funding Summary PE 0603175C Ballistic Missile Defense Technology PE 0603881C Ballistic Missile Defense Terminal Defense Segment PE 0603882C Ballistic Missile Defense Midcourse Defense Segment PE 0603883C Ballistic Missile Defense Boost Defense Segment	FY 2006 147,270 1,120,879 2,391,246 455,572	FY 2007 193,307 1,092,076 3,043,058 628,958	FY 2008 118,569 962,585 2,520,064 548,759	109,540 1,004,282 2,359,665 432,432	116,014 924,101 2,179,602 448,375	121,008 851,213 1,699,963 678,913	127,917 678,694 1,153,082 829,683	131,291 501,147 1,183,003 1,026,239	Cost 1,064,916 7,134,977 16,529,683 5,048,93
Procure long lead material for SM-3 missile C. Other Program Funding Summary PE 0603175C Ballistic Missile Defense Technology PE 0603881C Ballistic Missile Defense Terminal Defense Segment PE 0603882C Ballistic Missile Defense Midcourse Defense Segment PE 0603883C Ballistic Missile Defense Boost Defense Segment PE 0603884C Ballistic Missile Defense Sensors	FY 2006 147,270 1,120,879 2,391,246 455,572 284,297	FY 2007 193,307 1,092,076 3,043,058 628,958 514,129	FY 2008 118,569 962,585 2,520,064 548,759 778,163	109,540 1,004,282 2,359,665 432,432 984,963	116,014 924,101 2,179,602 448,375 939,417	121,008 851,213 1,699,963 678,913 791,701	127,917 678,694 1,153,082 829,683 723,843	131,291 501,147 1,183,003 1,026,239 603,585	Cost 1,064,910 7,134,977 16,529,683 5,048,933 5,620,098
Procure long lead material for SM-3 missile C. Other Program Funding Summary PE 0603175C Ballistic Missile Defense Technology PE 0603881C Ballistic Missile Defense Terminal Defense Segment PE 0603882C Ballistic Missile Defense Midcourse Defense Segment PE 0603883C Ballistic Missile Defense Boost Defense Segment PE 0603884C Ballistic Missile Defense Sensors PE 0603886C Ballistic Missile Defense System Interceptors	FY 2006 147,270 1,120,879 2,391,246 455,572 284,297 200,446	FY 2007 193,307 1,092,076 3,043,058 628,958 514,129 356,004	FY 2008 118,569 962,585 2,520,064 548,759 778,163 227,499	109,540 1,004,282 2,359,665 432,432 984,963 393,317	116,014 924,101 2,179,602 448,375 939,417 522,388	121,008 851,213 1,699,963 678,913 791,701 730,236	127,917 678,694 1,153,082 829,683 723,843 836,029	131,291 501,147 1,183,003 1,026,239 603,585 570,206	Cost 1,064,910 7,134,977 16,529,683 5,048,93 5,620,098 3,836,122
Procure long lead material for SM-3 missile C. Other Program Funding Summary PE 0603175C Ballistic Missile Defense Technology PE 0603881C Ballistic Missile Defense Terminal Defense Segment PE 0603882C Ballistic Missile Defense Midcourse Defense Segment PE 0603883C Ballistic Missile Defense Boost Defense Segment PE 0603884C Ballistic Missile Defense Sensors PE 0603886C Ballistic Missile Defense Test and Targets	FY 2006 147,270 1,120,879 2,391,246 455,572 284,297 200,446 610,619	FY 2007 193,307 1,092,076 3,043,058 628,958 514,129 356,004 601,782	FY 2008 118,569 962,585 2,520,064 548,759 778,163 227,499 586,150	109,540 1,004,282 2,359,665 432,432 984,963 393,317 628,364	116,014 924,101 2,179,602 448,375 939,417 522,388 662,984	121,008 851,213 1,699,963 678,913 791,701 730,236 681,511	127,917 678,694 1,153,082 829,683 723,843 836,029 696,037	131,291 501,147 1,183,003 1,026,239 603,585 570,206 705,210	Cost 1,064,916 7,134,977 16,529,683 5,048,931 5,620,098 3,836,125 5,172,657
Procure long lead material for SM-3 missile C. Other Program Funding Summary PE 0603175C Ballistic Missile Defense Technology PE 0603881C Ballistic Missile Defense Terminal Defense Segment PE 0603882C Ballistic Missile Defense Midcourse Defense Segment PE 0603883C Ballistic Missile Defense Boost Defense Segment PE 0603884C Ballistic Missile Defense Sensors PE 0603886C Ballistic Missile Defense System Interceptors	FY 2006 147,270 1,120,879 2,391,246 455,572 284,297 200,446	FY 2007 193,307 1,092,076 3,043,058 628,958 514,129 356,004	FY 2008 118,569 962,585 2,520,064 548,759 778,163 227,499	109,540 1,004,282 2,359,665 432,432 984,963 393,317	116,014 924,101 2,179,602 448,375 939,417 522,388	121,008 851,213 1,699,963 678,913 791,701 730,236	127,917 678,694 1,153,082 829,683 723,843 836,029	131,291 501,147 1,183,003 1,026,239 603,585 570,206	Cost 1,064,916 7,134,977 16,529,683 5,048,931 5,620,098 3,836,125

Project: R109 AEGIS BMD Block 2012

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Missile Defense Agency (MDA)	Exhibit R-2A	RDT&E Pro	ject Justific	ation		Date February	2007		
APPROPRIATION/BUDGET ACTIVITY				R-1 NOMENO	CLATURE				
RDT&E, DW/04 Advanced Component Developr	nent and Pr	ototypes (A	C D&P)	0603892C B	allistic Miss	ile Defense A	Aegis		
									Total
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost
PE 0603891C Special Programs - MDA	271,021	353,031	323,250	305,409	369,073	526,966	789,017	792,271	3,730,038
PE 0603893C Space Tracking & Surveillance System	220,048	322,220	331,525	347,811	412,623	501,197	778,067	981,424	3,894,915
PE 0603894C Multiple Kill Vehicle	48,370	144,362	271,151	352,741	461,179	618,263	673,477	842,905	3,412,448
PE 0603895C BMD System Space Program	0	0	27,666	35,093	46,849	56,183	133,617	157,117	456,525
PE 0603896C BMD C2BMC	0	246,852	258,913	294,627	300,847	282,615	267,275	269,420	1,920,549
PE 0603897C BMD Hercules	0	49,674	53,658	54,264	54,405	55,142	53,355	54,198	374,696
PE 0603898C BMD Joint Warfighter Support	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206	383,935
PE 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994
PE 0603905C BMD Concurrent Test and Operations	0	23,159	0	0	0	0	0	0	23,159
PE 0603906C Regarding Trench	0	0	2,000	3,000	5,000	5,000	9,000	9,000	33,000
PE 0605502C Small Business Innovative Research - MDA	133,105	0	0	0	0	0	0	0	133,105
PE 0901585C Pentagon Reservation	14,874	15,527	6,058	6,376	4,490	4,725	4,801	4,877	61,728
PE 0901598C Management Headquarters - MDA	98,609	87,059	85,906	86,453	70,355	69,855	69,855	69,855	637,947

D. Acquisition Strategy

The Aegis BMD element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. Considering all the technical and management aspects of the program and the requirements presented by an evolving ballistic missile threat, the Aegis BMD program's preferred strategy would be to award sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 missile and the Aegis BMD Weapon System, respectively.

Missile	e Defense Ag	ency (MDA) Exhi	bit R-3 RDT&	zE Proiect Co	st Analysis		Date Febr	uary 2007		
APPROPRIATION/BUDGET	0				,	MENCLATU				
RDT&E, DW/04 Advance	d Compone	ent Development	and Prototy	pes (ACD&	P) 060389	2C Ballistic	Missile Defe	nse Aegis		
I. Product Development	Cost (\$	in Thousands)								
▲					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Weapon System Engineering										
	CPAF	Lockheed Martin/NJ	0	6,000	1/2Q	20,825	1Q	36,000	1Q	62,825
	CPAF	JHU/APL/MD	0	500	1/2Q	1,775	1Q	2,500	1Q	4,775
	MIPR	NSWCDD/VA	0	500	1/2Q	1,350	1Q	2,400	1Q	4,250
	MIPR	SPAWAR/CA	0	500	1/2Q	500	1Q	500	1Q	1,500
	MIPR	VA Sites/VA	0	400	1/2Q	775	1Q	1,000	1Q	2,175
	Various	Various	0	784	1/3Q	725	1/3Q	600	1/2Q	2,109
	MIPR	Aegis Techrep/ NJ	0	0	N/A	750	1Q	900	1Q	1,650
Missile		1.10	<u> </u>		1,111		- 2	,,,,		1,000
	CPAF	Raytheon/AZ	0	0	4Q	0	4Q	76,400	N/A	76,400
	MIPR	NSWC DD/VA	0	0	4Q	0	4Q	1,500	N/A	1,500
	CPAF	JHU/APL/MD	0	0	4Q	0	4Q	1,500	N/A	1,500
	MIPR	NSWC PHD/CA	0	0	4Q	0	4Q	1,325	N/A	1,325
	MIPR	NSWC IH/MD	0	0	4Q	0	4Q	250	N/A	250
		NSWC Corona/					-			
	MIPR	CA	0	0	4Q	0	4Q	250	N/A	250
	MIPR	MDA/VA	0	0	4Q	0	4Q	5,175	1Q	5,175
	Various	Various	0	0	4Q	0	4Q	0	N/A	
Subtotal Product Development			0	8,684		26,700		130,300		165,684

Remarks

Missile	e Defense Ag	ency (MDA) Exhi	hit R-3 RDT&	E Project Cost	Analysis		Date Febr	uary 2007		
APPROPRIATION/BUDGET		ency (WDA) Exil	bit K-5 KD I G	El l'Inject Cost	-	OMENCLATU		uury 2007		
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)						0603892C Ballistic Missile Defense Aegis				
II. Support Costs Cost	(\$ in Tho	usands)								
		,			FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Subtotal Support Costs										
Remarks										
III. Test and Evaluation	Cost (\$	in Thousands)		<u> </u>				.		
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Subtotal Test and Evaluation										
Remarks										
IV. Management Servic	es Cost (\$ in Thousands	S)							
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Subtotal Management Services										
Remarks										
Project Total Cost			0	8,684		26,700		130,300		165,684
Remarks								•		

Project: R109 AEGIS BMD Block 2012

RDT&E, DW/04 Advanced Compone			-						,			·					Balli															
Fiscal Year	+ ,		06			2007		_		200				20				20)11	1	_		201			-	2013	-
	1	2	3	4	1	2 3	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	. 2	2	3	4	1 2	2	3
Development Milestones	1 1	1	1 1	1	- 1	1	1	-1	-1	- 1	1	ľ	•	- 1	1	-					1	1	1	1	1	1	1	- 1	1	-1	1	1
Block 2012 System Requirements Review	_						_						Δ				•							_		_	_			_		
Block 2012 System Design Review																	Δ							_		_	_			_		
Block 2012 Preliminary Design Review																			Δ				L .			_	_			_		_
Block 2012 Preliminary Design Review 2																							Δ									
Block 2012 Critical Design Review																																Δ
Flight Tests																_																
FTM-19																												Δ				
FTM-20																															4	
										Le	gen	nd																				
						(comp ion (co							1				nt (pla sion (
			Elem	ent Te	st (co	mplete	e)					\diamond	>	Elem	ent T	est (p	lanne	ed)														
				em Lev		st (com tv	nplet	te)				Δ		Syste Plani			est (p v	lanne	d)													

Missile Defense A	gency (MDA) Ex	khibit R-4A Sch	edule Detail		Da Fe	ite ebruary 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component De	evelopment and	d Prototypes (A	ACD&P)	R-1 NOMENCL. 0603892C Ball		efense Aegis		
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Development Milestones								
Block 2012 System Requirements Review				1Q				
Block 2012 System Design Review					1Q			
Block 2012 Preliminary Design Review					3Q			
Block 2012 Preliminary Design Review 2						3Q		
Block 2012 Critical Design Review								3Q
Flight Tests								
FTM-19							3Q	
FTM-20								2Q

Missile Defense Agency (MDA) Exhibit R-2A RDT&E	Project Jus	tification			ate e bruary 20	07		
APPROPRIATION/BUDGET ACTIVITY		R-1 NO	MENCLAT	URE				
RDT&E, DW/04 Advanced Component Development and Prototypes	(ACD&P)	060389	2C Ballisti	c Missile D	efense Aeg	gis		
COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0918 Sea-Based Terminal Block 2008	0	15,000	62,000	10,000	0	0	0	0
RDT&E Articles Qty	0	0	2	5	0	0	0	0
$N \leftarrow EV(0) D \downarrow$ (1) DMD 2 (1 CDT (1))		CDM	<u>ית סנ אר</u> כ	T (1)			11	מאות

Note: FY08 - Delivery of the BMD 3.6.1 SBT computer program (1), installation of BMD 3.6.1 SBT on one (1) DDG. FY09 - Installation of BMD 3.6.1 SBT on three (3) DDGs and two (2) CGs.

A. Mission Description and Budget Item Justification

The Near-Term Sea-Based Terminal (SBT) project in Block 2008 supports the BMDS mission of intercepting ballistic missiles in all regions, in all phases, and of all ranges, as follows:

- In all regions: provide enhanced engagement capability.
- In all phases of ballistic missile flight: engagement capability against missile threats in the terminal flight stage.
- All ranges: Near-Term SBT provides capability against SRBM and limited PRBM targets.

Aegis BMD supported LDC by providing Long Range Surveillance and Track (LRS&T) data to other elements of the BMDS. Aegis BMD further improved both national and international security with its ability to launch Standard Missile 3 Block IA (SM-3 Blk IA) missiles based upon data received via the Tactical Digital Information Link (TADIL) network in the final Block 2006 configuration, BMD 3.6.

In Block 2008, Aegis BMD will provide a follow-on capability to BMD 3.6, in response to recent Real World Events. Near-Term SBT (BMD 3.6.1) will provide for an integrated Sea Based Terminal capability against a finite set of Short Range Ballistic Missiles. BMD 3.6.1 will incorporate a fuze modified SM-2 Block IV missile provided by a separate OPNAV sponsored effort and will build on BMD 3.6 to provide a terminal phase capability. The BMD 3.6.1 will continue efforts to refine Aegis Launch on AN/TPY-2 and will bridge the gap between the operational deployment of BMD 3.6 and BMD 4.0.1.

Aegis BMD will field a near-term Sea-Based Terminal capability beginning in FY 2009. In addition to the near-term SBT capability, Aegis BMD will perform various upgrades to BMD 3.6 in BMD 3.6.1; updates will include early integration efforts for Aegis BMD launch on AN/TPY-2 capability. Funding for this BMD 3.6.1 upgrade comes from a Congressional plus up and sponsorship from the U.S. Navy.

			Date	:	
Missile Defense Agency (MDA) Exhibit R-2A RDT&E	Project Justif			ruary 2007	
APPROPRIATION/BUDGET ACTIVITY			ENCLATURE	· · ·	
RDT&E, DW/04 Advanced Component Development and Prototypes	(ACD&P)	06038920	C Ballistic Missile Def	ense Aegis	
B. Accomplishments/Planned Program			EV 2007	EN 2000	EN 2000
Weapon System	FY 200	0	FY 2007 15,000	FY 2008 19,500	FY 2009 2,50
RDT&E Articles (Quantity)		0	0	2	2,50
In this project, Weapon System funding will focus on the development	ent and denl	-			
 FY07 Planned Program: Conduct System Readiness Review and In Process reviews to pr Complete threat analyses and threat database modifications for t Complete memory and timing studies for the additional processi Begin Element Test and Evaluation (ETE) and Multi-Element Ir FY08 Planned Program: RDT&E Articles: BMD 3.6.1 Computer Program (1), BMD 3.6.1 cr Conduct the Test Readiness Review (TRR) for BMD 3.6.1, to er Conduct Engineering Assessment for BMD 3.6.1 upgrades. Participate in At Sea Flight Test Mission leading to certification FY09 Planned Program: RDT&E Articles: BMD 3.6.1 DDGs (3) and CGs (2) Certify BMD 3.6.1 for installation and operational use on Aegis Begin installations of BMD 3.6.1 on Aegis BMD cruisers and de Participate in flight missions, verifying BMD 3.6.1 performance 	he selected t ing requirem ntegration Te ruiser (1) nsure modifi in FY 2009 BMD cruise estroyers.	hreat set. ents. esting (ME cations me ers and des	IT). eet the Sea-Based Ter	rminal requirements.	EV. 2000
	FY 200)6	FY 2007	FY 2008	FY 2009
		0			
Test & Evaluation RDT&E Articles (Quantity)		0	0	42,500	7,50

Project: 0918 Sea-Based Terminal Block 2008

FY 2006FY 2007FY 2008FY 2009FY 2010FY 2011FY 2012FY 2013CostPE 0603175C Ballistic Missile Defense Technology147,270193,307118,569109,540116,014121,008127,917131,2911,064PE 0603881C Ballistic Missile Defense Terminal Defense Segment1,120,8791,092,076962,5851,004,282924,101851,213678,694501,1477,134PE 0603882C Ballistic Missile Defense Midcourse Defense Segment2,391,2463,043,0582,520,0642,359,6652,179,6021,699,9631,153,0821,183,00316,529PE 0603883C Ballistic Missile Defense Boost Defense Segment455,572628,958548,759432,432448,375678,913829,6831,026,2395,048PE 0603884C Ballistic Missile Defense Sensors284,297514,129778,163984,963939,417791,701723,843603,5855,620PE 0603886C Ballistic Missile Defense System Interceptors200,446356,004227,499393,317522,388730,236836,029570,2063,836PE 0603888C Ballistic Missile Defense Test and Targets610,619601,782586,150628,364662,984681,511696,037705,2105,172PE 0603889C Ballistic Missile Defense Products387,402000000000			UNU	LASSIFI	ĽIJ					
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FY09 Planned Program: • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •										
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Segment 2,391,246 3,043,058 2,520,064 2,359,665 2,179,602 1,699,963 1,153,082 1,183,003 16,529 PE 0603883C Ballistic Missile Defense Boost Defense 455,572 628,958 548,759 432,432 448,375 678,913 829,683 1,026,239 5,048 PE 0603884C Ballistic Missile Defense Sensors 284,297 514,129 778,163 984,963 939,417 791,701 723,843 603,585 5,620 PE 0603888C Ballistic Missile Defense System Interceptors 200,446 356,004 227,499 393,317 522,388 730,236 836,029 570,206 3,836 PE 0603888C Ballistic Missile Defense Test and Targets 610,619 601,782 586,150 628,364 662,984 681,511 696,037 705,210 5,172 PE 0603889C Ballistic Missile Defense Products 387,402 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0<		1,120,879	1,092,076	962,585	1,004,282	924,101	851,213	678,694	501,147	7,134,977
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PE 0603889C Ballistic Missile Defense Products 387,402 0 0 0 0 0 0 387		,			,					5,172,657
	6	,	-				,			387,402
	PE 0603890C Ballistic Missile Defense System Core	409,993	429,420	482,016	511,147	558,746	579,571	579,316	588,481	4,138,690
PE 0603891C Special Programs - MDA 271,021 353,031 323,250 305,409 369,073 526,966 789,017 792,271 3,730	PE 0603891C Special Programs - MDA	271,021	353,031	323,250	305,409	369,073	526,966	789,017	792,271	3,730,038
PE 0603893C Space Tracking & Surveillance System 220,048 322,220 331,525 347,811 412,623 501,197 778,067 981,424 3,894	PE 0603893C Space Tracking & Surveillance System	220,048	322,220	331,525	347,811	412,623	501,197	778,067	981,424	3,894,915
PE 0603894C Multiple Kill Vehicle 48,370 144,362 271,151 352,741 461,179 618,263 673,477 842,905 3,412	PE 0603894C Multiple Kill Vehicle	48,370	144,362	271,151	352,741	461,179	618,263	673,477	842,905	3,412,448
PE 0603895C BMD System Space Program 0 0 27,666 35,093 46,849 56,183 133,617 157,117 456	PE 0603895C BMD System Space Program	0	0	27,666	35,093	46,849	56,183	133,617	157,117	456,525
PE 0603896C BMD C2BMC 0 246,852 258,913 294,627 300,847 282,615 267,275 269,420 1,920	PE 0603896C BMD C2BMC	0	246,852	258,913	294,627	300,847	282,615	267,275	269,420	1,920,549
PE 0603897C BMD Hercules 0 49,674 53,658 54,264 54,405 55,142 53,355 54,198 374	PE 0603897C BMD Hercules	0	49,674	53,658	54,264	54,405	55,142	53,355	54,198	374,696

Project: 0918 Sea-Based Terminal Block 2008

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77 of 104 UNCLASSIFIED MDA Exhibit R-2A (PE 0603892C)

Missile Defense Agency (MDA)	Exhibit R-2A	RDT&E Pro	ject Justific	ation		Date February	2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Developm	nent and Pr	ototypes (A		R-1 NOMENO 0603892C B		ile Defense	Aegis		
									Total
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost
PE 0603898C BMD Joint Warfighter Support	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206	383,935
PE 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994
PE 0603905C BMD Concurrent Test and Operations	0	23,159	0	0	0	0	0	0	23,159
PE 0603906C Regarding Trench	0	0	2,000	3,000	5,000	5,000	9,000	9,000	33,000
PE 0605502C Small Business Innovative Research - MDA	133,105	0	0	0	0	0	0	0	133,105
PE 0901585C Pentagon Reservation	14,874	15,527	6,058	6,376	4,490	4,725	4,801	4,877	61,728
PE 0901598C Management Headquarters - MDA	98,609	87,059	85,906	86,453	70,355	69,855	69,855	69,855	637,947

D. Acquisition Strategy

The Aegis BMD element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Aegis BMD program has awarded sole source contract to Lockheed Martin to continue development of the Aegis BMD Weapon System. The U.S. Navy performing modifications to the 100 SM-2 Blk IV missiles.

I. Product Development Cost (\$ in Thousands) FY 2007 FY 2007 Award/ <	I. Product Development Cost (\$ in Thousands) Contract Performing Total FY 2007 FY 2008 Award/ Award/ <t< th=""><th>I. Product Development Cost (\$ in Thousands) FY 2007 FY 2007 FY 2008 FY 2009 Award/ Contract Performing Total PY's FY 2007 Oblg FY 2008 Award/ <</th><th>APPROPRIATION/BUDGET RDT&E, DW/04 Advanced</th><th></th><th>ent Development</th><th>and Prototy</th><th>nes (ACD&F</th><th></th><th>MENCLATUR 2C Ballistic I</th><th></th><th>nse Aegis</th><th></th><th></th></t<>	I. Product Development Cost (\$ in Thousands) FY 2007 FY 2007 FY 2008 FY 2009 Award/ Contract Performing Total PY's FY 2007 Oblg FY 2008 Award/ <	APPROPRIATION/BUDGET RDT&E, DW/04 Advanced		ent Development	and Prototy	nes (ACD&F		MENCLATUR 2C Ballistic I		nse Aegis		
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Cost Categories: & Type Location Cost Cost Date Cost Dat	Cost Categories: & Type Location Cost Cost Date Cost Dat	Cost Categories: & Type Location Cost Cost Date Cost Dat		Contract	Performing	Total		Award/		Award/		Award/	
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Subtotal Support Costs	Subtotal Support Costs	Subtotal Support Costs	Remarks	(\$ in Tho Contract	usands) Performing	0 Total	15,000	FY 2007 Award/	19,500	FY 2008 Award/	2,500	FY 2009 Award/	37,000
			Remarks II. Support Costs Cost	(\$ in Tho Contract Method	usands) Performing Activity &	0 Total PYs	15,000 FY 2007	FY 2007 Award/ Oblg	19,500 FY 2008	FY 2008 Award/ Oblg	2,500 FY 2009	FY 2009 Award/ Oblg	37,000 Total
	Remarks	Remarks	Remarks II. Support Costs Cost Cost Categories:	(\$ in Tho Contract Method	usands) Performing Activity &	0 Total PYs	15,000 FY 2007	FY 2007 Award/ Oblg	19,500 FY 2008	FY 2008 Award/ Oblg	2,500 FY 2009	FY 2009 Award/ Oblg	37,000 Total
Remarks			Remarks II. Support Costs Cost Cost Categories: Subtotal Support Costs	(\$ in Tho Contract Method	usands) Performing Activity &	0 Total PYs	15,000 FY 2007	FY 2007 Award/ Oblg	19,500 FY 2008	FY 2008 Award/ Oblg	2,500 FY 2009	FY 2009 Award/ Oblg	37,000 Total
			Remarks II. Support Costs Cost Cost Categories: Subtotal Support Costs	(\$ in Tho Contract Method	usands) Performing Activity &	0 Total PYs	15,000 FY 2007	FY 2007 Award/ Oblg	19,500 FY 2008	FY 2008 Award/ Oblg	2,500 FY 2009	FY 2009 Award/ Oblg	37,000 Total
			Remarks II. Support Costs Cost Cost Categories: Subtotal Support Costs	(\$ in Tho Contract Method	usands) Performing Activity &	0 Total PYs	15,000 FY 2007	FY 2007 Award/ Oblg	19,500 FY 2008	FY 2008 Award/ Oblg	2,500 FY 2009	FY 2009 Award/ Oblg	37,000 Total
			Remarks II. Support Costs Cost Cost Categories: Subtotal Support Costs	(\$ in Tho Contract Method	usands) Performing Activity &	0 Total PYs	15,000 FY 2007	FY 2007 Award/ Oblg	19,500 FY 2008	FY 2008 Award/ Oblg	2,500 FY 2009	FY 2009 Award/ Oblg	37,000 Total
			Remarks II. Support Costs Cost Cost Categories: Subtotal Support Costs	(\$ in Tho Contract Method	usands) Performing Activity &	0 Total PYs	15,000 FY 2007	FY 2007 Award/ Oblg	19,500 FY 2008	FY 2008 Award/ Oblg	2,500 FY 2009	FY 2009 Award/ Oblg	37,000 Total

IVIISSIIC	Defense Ag	ency (MDA) Exhi	bit R-3 RDT&	E Project Cos	t Analysis		Date Febru	uary 2007		
APPROPRIATION/BUDGET	ACTIVITY	•			R-1 NO	MENCLATUR	E			
RDT&E, DW/04 Advance	d Compon	ent Development	and Prototy	pes (ACD&P) 060389	2C Ballistic	Missile Defe	nse Aegis		
III. Test and Evaluation	Cost (\$	in Thousands)								
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Fest & Evaluation										
	MIPR	PMRF/HI	0	0	4Q	4,500	1Q	500	N/A	5,000
	MIPR	NSWC DD/VA	0	0	4Q	6,500	1Q	1,000	N/A	7,500
	CPFF	JHU/APL/MD	0	0	4Q	11,000	1Q	1,500	1Q	12,500
	MIPR	NSWC PHD/CA	0	0	4Q	5,000	1Q	1,000	1Q	6,000
		Lockheed	0	0	4Q	12,000	1Q	2,500	1Q	14,500
	CPAF	Martin/NJ	Ŭ							1 2 5 0
	CPAF Various	Martin/NJ Various	0	0	4Q	950	1Q	400	1Q	1,350
				0	4Q 4Q	950 2,550	1Q 1Q	400 600	1Q 1Q	1,350 3,150
Subtotal Test and Evaluation Remarks	Various	Various	0		-		-		-	3,150
Remarks	Various MIPR es Cost (Various MDA/VA \$ in Thousands	0 0 0 5)	0	4Q FY 2007	2,550	1Q FY 2008	600	1Q FY 2009	3,150
Remarks	Various MIPR es Cost (Contract	Various MDA/VA \$ in Thousands Performing	0 0 0 5) Total	0	4Q FY 2007 Award/	2,550 42,500	1Q FY 2008 Award/	600 7,500	1Q FY 2009 Award/	3,150 50,000
Remarks IV. Management Servic	Various MIPR es Cost (Contract Method	Various MDA/VA \$ in Thousands Performing Activity &	0 0 0 5) Total PYs	0 0 FY 2007	4Q FY 2007 Award/ Oblg	2,550 42,500 FY 2008	1Q FY 2008 Award/ Oblg	600 7,500 FY 2009	1Q FY 2009 Award/ Oblg	3,150 50,000 Total
Remarks IV. Management Servic Cost Categories:	Various MIPR es Cost (Contract	Various MDA/VA \$ in Thousands Performing	0 0 0 5) Total	0	4Q FY 2007 Award/	2,550 42,500	1Q FY 2008 Award/	600 7,500	1Q FY 2009 Award/	3,150 50,000
Remarks IV. Management Servic	Various MIPR es Cost (Contract Method	Various MDA/VA \$ in Thousands Performing Activity &	0 0 0 5) Total PYs	0 0 FY 2007	4Q FY 2007 Award/ Oblg	2,550 42,500 FY 2008	1Q FY 2008 Award/ Oblg	600 7,500 FY 2009	1Q FY 2009 Award/ Oblg	3,150 50,000 Total

Missile Defense A	gen	ey (MI	DA)	Exhi	bit F	R-4 \$	Sche	edul	e Pr	ofile	e								Da Fe		lary	20	07								
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component De	evel	opme	nt a	nd P	roto	otyp	oes (AC	D&	P)			NOM 8 892						e D	efer	ise 4	Aeg	is								
Fiscal Year	20	06		20)07			20)08			20	09			20	010			20	011			20	012			21)13		1
1	2	3 4	1 1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
BLOCK 2008							1									,														,	
FTM-15												Δ																			
BMDS Certification								1						_																	
3.6.1 Certification													Δ																		
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		Signific						L	ege		<u>\</u>		ificant																		
		Milesto Elemen	t Test	(comp	lete)] <	>	Elem	stone nent T	est (p	olann	ed)	,														
		System Comple	Level ete A c	Test (c tivity	compl	ete)				Δ	∽ ∆	Syst Plan	em Le ned A	evel T ctivit	'est (p ty	olann	ed)														
																															_
Project: 0918 Sea-Based Terminal Block 2008																								МГ	Δ F	hibi	t R_	4 (PE	060	380	2C)

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APPROPRIATION/BUDGET ACTI				R-1 NOMENCLA		e		
RDT&E, DW/04 Advanced Cor Schedule Profile	FY 2006	FY 2007	ACD&P) FY 2008	0603892C Balli FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
BLOCK 2008	F I 2000	FT 2007	F I 2008	F I 2009	FI 2010	FT 2011	FT 2012	FT 2013
FTM-15				2Q				
MDS Certification				2Q				
3.6.1 Certification				3Q				

UN	ICLASSI	ГILD						
Missile Defense Agency (MDA) Exhibit R-2A RDT&E	Project Just	ification			ate e bruary 20 0)7		
APPROPRIATION/BUDGET ACTIVITY	TTOJECT JUSI		MENCLATI		col ual y 200	<i>J</i> /		
RDT&E, DW/04 Advanced Component Development and Prototypes	(ACD&P)				efense Aeg	is		
	× /							
COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
R218 Sea-Based Terminal Block 2014	0	0	13,000	39,000	60,000	65,000	130,000	163,000
RDT&E Articles Qty	0	0	0	0	0	0	0	0
SBT missile defense capability and expand battlespace to enable th			0	0				0
BMD Weapon System in Open Architecture. Current planning certa apgrades. The weapon system development and deployment effort will be sol competed among multiple vendors.	fies tactica	l capabilit	y in FY14,	for inclus	ion with th	e U.S. Nav	y's spiral	6
BMD Weapon System in Open Architecture. Current planning cert apgrades. The weapon system development and deployment effort will be sol	fies tactica	l capabilit	y in FY14, Martin. Tl	for inclus	ion with th developme	e U.S. Nav ent work w	vy's spiral	6 e
BMD Weapon System in Open Architecture. Current planning certa apgrades. The weapon system development and deployment effort will be sol competed among multiple vendors.	fies tactica	l capabilit	y in FY14,	for inclus	ion with th	e U.S. Nav ent work w	y's spiral	6 e
 BMD Weapon System in Open Architecture. Current planning certilopgrades. The weapon system development and deployment effort will be sol competed among multiple vendors. B. Accomplishments/Planned Program 	fies tactica e source to FY 2	l capabilit Lockheed	y in FY14, Martin. Tl 	for inclus ne missile $\frac{007}{0}$	ion with th developme FY 2	e U.S. Nav ent work w	vy's spiral	6 e 009

Missile Defense Agency (MDA)	Exhibit R-2A	RDT&E Pro	ject Justific	cation		Date February	2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Develop				R-1 NOMEN 0603892C B		ile Defense	Aegis		
			FY 2006	, ,	FY 2007		FY 2008	FY	2009
Missiles				0		0		0	10,000
RDT&E Articles (Quantity)				0		0		0	0
This project funds missile development efforts	to support F	ar Term Sea	a Based Te	erminal effor	ts.				
 FY09 Planned Program: Begin missile downselect process. C. Other Program Funding Summary									
									Total
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost
PE 0603175C Ballistic Missile Defense Technology	147,270	193,307	118,569	109,540	116,014	121,008	127,917	131,291	1,064,916
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,120,879	1,092,076	962,585	1,004,282	924,101	851,213	678,694	501,147	7,134,977
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment	2,391,246	3,043,058	2,520,064	2,359,665	2,179,602	1,699,963	1,153,082	1,183,003	16,529,683
PE 0603883C Ballistic Missile Defense Boost Defense Segment	455,572	628,958	548,759	432,432	448,375	678,913	829,683	1,026,239	5,048,931
PE 0603884C Ballistic Missile Defense Sensors	284,297	514,129	778,163	984,963	939,417	791,701	723,843	603,585	5,620,098
PE 0603886C Ballistic Missile Defense System Interceptors	200,446	356,004	227,499	393,317	522,388	730,236	836,029	570,206	3,836,125
PE 0603888C Ballistic Missile Defense Test and Targets	610,619	601,782	586,150	628,364	662,984	681,511	696,037	705,210	5,172,657
PE 0603889C Ballistic Missile Defense Products	387,402	0	0	0	0	0	0	0	387,402
PE 0603890C Ballistic Missile Defense System Core	409,993	429,420	482,016	511,147	558,746	579,571	579,316	588,481	4,138,690
PE 0603891C Special Programs - MDA	271,021	353,031	323,250	305,409	369,073	526,966	789,017	792,271	3,730,038
PE 0603893C Space Tracking & Surveillance System	220,048	322,220	331,525	347,811	412,623	501,197	778,067	981,424	3,894,915
PE 0603894C Multiple Kill Vehicle	48,370	144,362	271,151	352,741	461,179	618,263	673,477	842,905	3,412,448
PE 0603895C BMD System Space Program	0	0	27,666	35,093	46,849	56,183	133,617	157,117	456,525
PE 0603896C BMD C2BMC	0	246,852	258,913	294,627	300,847	282,615	267,275	269,420	1,920,549
PE 0603897C BMD Hercules	0	49,674	53,658		54,405	55,142	53,355	54,198	374,696
PE 0603898C BMD Joint Warfighter Support	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206	383,935
PE 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994

Project: R218 Sea-Based Terminal Block 2014

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Missile Defense Agency (MDA)	Exhibit R-2A	RDT&E Pro	oject Justific	ation		Date February	2007		
APPROPRIATION/BUDGET ACTIVITY				R-1 NOMENO	CLATURE				
RDT&E, DW/04 Advanced Component Develop	nent and Pr	ototypes (A	CD&P)	0603892C B	allistic Miss	ile Defense	Aegis		
									Total
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost
PE 0603905C BMD Concurrent Test and Operations	0	23,159	0	0	0	0	0	0	23,159
PE 0603906C Regarding Trench	0	0	2,000	3,000	5,000	5,000	9,000	9,000	33,000
PE 0605502C Small Business Innovative Research - MDA	133,105	0	0	0	0	0	0	0	133,105
PE 0901585C Pentagon Reservation	14,874	15,527	6,058	6,376	4,490	4,725	4,801	4,877	61,728
PE 0901598C Management Headquarters - MDA	98,609	87,059	85,906	86,453	70,355	69,855	69,855	69,855	637,947

D. Acquisition Strategy

MDA/D recently directed that Aegis BMD initiate the acquisition planning for the Far-Term Sea Based Terminal program. The AWS development and deployment effort will be sole source to Lockheed Martin. The missile development work will likely be competed among multiple vendors.

I. Product Development	Cost (\$	in Thousands)								
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Veapon System										
Veapon System	C/CPAF	Lockheed Martin/NJ	0	0	4Q	10,220	1Q	24,000	1Q	34,220
Veapon System	C/CPFF	JHU/APL/MD	0	0	4Q 4Q	1,000	1Q 1Q	2,000	1Q 1Q	3,000
Veapon System	MIPR	NSWC/DD/VA	0	0	4Q	1,000	1Q 1Q	1,260	1Q 1Q	2,260
Veapon System	MIPR	MDA/VA	0	0	4Q	780	1Q 1Q	1,200	1/2Q	2,200
Aissiles	WIII K		0	0	יע	700	īų	1,740	1/202	2,520
11551105		Raytheon/								
Aissile	C/CPAF	Various	0	0	N/A	0	N/A	7,000	1Q	7,000
lissile	MIPR	NSWC/DD/VA	0	0	N/A	0	N/A	1,000	1/2Q	1,000
Missile	C/CPAF	JHU/APL/MD	0	0	N/A	0	N/A	1,400	1/2Q	1,400
Missile	MIPR	MDA/VA	0	0	N/A	0	N/A	600	1Q	600
V118511C			0	0		13,000		39,000		52,000
Subtotal Product Development			0	0		,		,		52,000
Subtotal Product Development Remarks	 (\$ in Tho	usands)		0	I	, <u> </u>				
Subtotal Product Development Remarks	(\$ in Tho	usands)			FY 2007		FY 2008		FY 2009	
Subtotal Product Development Remarks	Contract	Performing	Total		Award/		Award/		Award/	
Subtotal Product Development Remarks	Contract Method	Performing Activity &	Total PYs	FY 2007	Award/ Oblg	FY 2008	Award/ Oblg	FY 2009	Award/ Oblg	Total
Subtotal Product Development Remarks	Contract	Performing	Total		Award/		Award/		Award/	

Missile	Defense Ag	ency (MDA) Exhi	bit R-3 RDT&	E Project Cost	Analysis		Date Febr	ruary 2007		
APPROPRIATION/BUDGET	0					OMENCLATU				
RDT&E, DW/04 Advanced	d Compone	ent Development	t and Prototy	pes (ACD&P)	06038	92C Ballistic	Missile Defe	ense Aegis		
III. Test and Evaluation	Cost (\$	in Thousands))							
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Subtotal Test and Evaluation										
Remarks										
IV. Management Service	es Cost (\$ in Thousand	s)		FY 2007	1	FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Subtotal Management Services										
Remarks			11				1			
Project Total Cost			0	0		13,000		39,000		52,000
Remarks										
Project: R218 Sea-Based Terminal	Block 2014							-	MDA Exhibit R	3 (PF 0603807)

Missile Defense	e Age	enc	y (Ml	DA) I	Exhi	bit l	R-4	Sch	edu	ıle Pr	ofil	e								Da Fe		ary	200)7							
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component	Dev	elo	opme	nt ar	nd P	rote	otyj	pes ((A)	CD&	zP)			NON 389 2					issil	e D	efen	ise A	Aegi	is							
Fiscal Year		200)6		20	007			-	2008			2(009			2	010			20)11			20)12			20	13	
			3 4	1	2	3	4	1	2		4	1	2		4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Milestones																-				-											
Requirements Analysis								Δ	_			<u> </u>	₽																		
Missile Down Select														Δ-			ĻΛ														_
Flight Tests											1			-			,			-											
Far-Term SBT Campaign 1																											Δ				
Far-Term SBT Campaign 2																														Δ	
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	•		Element System				lete)					$\hat{\mathbf{b}}$		nent T tem Le				ed)			-										
			Comple									∆	Plar	nned A	Activi	ty															
Project: R218 Sea-Based Terminal Block 2014																									MD	A E	xhibi	t R-4	(PE	0603	3892C)

cy (MDA) Exhibit R-4	types (ACD&1	R-1 NOM 0603892 2008 FY 2-4Q 1Q	Q-2Q	issile Defense		FY 2012 4Q	FY 2013
	2007 FY	2008 FY 2-4Q 1Q	Q-2Q FY:	2010 FY	<u> </u>		
	10			1-2Q		4Q	3Q
				2-2Q		4Q	3Q
		3Q	Q-4Q 1Q	-2Q		4Q	3Q
						4Q	3Q
						4Q	3Q
							3Q

					ate			
Missile Defense Agency (MDA) Exhibit R-2A RDT	&E Project Jus	tification		F	ebruary 20	07		
APPROPRIATION/BUDGET ACTIVITY		R-1 NO	MENCLAT	URE				
RDT&E, DW/04 Advanced Component Development and Prototy	pes (ACD&P)	060389	2C Ballisti	c Missile D	Defense Aeg	gis		
COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0402 Japanese Cooperative Program	34,792	50,606	74,400	134,900	206,200	221,500	193,700	127,000
RDT&E Articles Oty	1	0	0	0	2	2	2	2

Note: RDT&E Article for FY06: One (1) SM-3 missile. FY10: SM-3 Blk IIA propulsion test vehicles (2). FY11: SM-3 Blk IIA propulsion test vehicles (2). FY12: SM-3 Blk IIA control test vehicle (1), SM-3 Blk IIA guided test vehicle (1). FY13: SM-3 Blk IIA guided test vehicle (1), SM-3 Blk IIA missile (1).

A. Mission Description and Budget Item Justification

The U.S./Japan Joint Cooperative Research (JCR) program conducted cooperative research in Ballistic Missile Defense. The research focused on the development of advanced missile technologies in four components of the SM-3 guided missile: sensor, advanced kinetic warhead, second stage propulsion and lightweight nosecone. In FY06, the JCR project concluded with the flight testing of the lightweight nosecone in Joint Control Test Vehicle-1 (JCTV-1).

In addition, the U.S. and Japan have a mutual interest in the evolutionary development of improvements to the Standard Missile-3 (SM-3). In FY06 the two countries signed a Memorandum of Understanding (MOU) for the co-development of an upgraded, 21-inch diameter SM-3 missile (SM-3 Blk IIA). The objective of the SM-3 Cooperative Development (SCD) project is the development and initial at-sea flight test of the SM-3 Blk IIA missile. The SM-3 Blk IIA missile development will build upon established joint research investments by both the U.S. and Japan. The analysis approaches, system trade methodologies, and BMD system performance established in the U.S./Japan BMD Joint Analysis (JAWS) completed in March 2005 are the foundation for developing the SM-3 Blk IIA missile. Key technology improvements over the current SM-3 Blk IA missile planned for the SM-3 Blk IIA missile include a significant increase in velocity and range provided by a 21-inch diameter rocket motor propulsion stack, and increased seeker sensitivity and divert capability incorporated in an advanced kinetic warhead. Key component technologies to be developed under this Annex include, but are not limited to: Lightweight nosecone, advanced kinetic warhead, 21-inch second stage rocket motor, and 21-inch third stage rocket motor.

The U.S. and Japan will equitably share both work and cost.

The Scope of Work of the SCD project will be conducted through a three-phased engineering approach, which completes by 2014. Phase I consists of requirements definition for the SM-3 Blk IIA missile configuration, concurrent with initial risk reduction efforts related to the 21-inch propulsion components, lightweight nosecone, advanced seeker, larger Divert and Attitude Control System (DACS), and preliminary test plans. Also in Phase I,

		Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justifi	cation	February 2007
APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE	
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	0603892C Ballistic Missil	e Defense Aegis
information exchange related to production and maintenance of the SM-3 Blk IL	A missile will be initiated.	Upon completion of requirements
definition and a data for densels means that the send and and a dense of the send	- f	(1, 1, 1)

definition, a schedule for development and testing, and work share and cost share for development and testing will be refined. Phase II will define the performance allocation and component configuration for the development and testing of the SM-3 Blk II missile; Phase III will define the performance allocation and component configuration for the development and testing of the SM-3 Blk II missile.

The SM-3 Blk IIA missile will increase the area that can be defended by Aegis BMD and increase the probability of kill against a larger threat set. It will leverage enhanced capability provided by BMDS sensor upgrades.

The SCD project will:

- Develop components for the SM-3 Blk IIA missile and integrate them into an All Up Round (AUR)
 - 21^{\\} 2nd and 3rd stage components:
 - 21`` nosecone
 - Advanced kinetic warhead
 - Advanced Seeker
 - Improved Large Diameter Divert and Attitude Control System
- Modify the Aegis Weapon System to exploit the capability of the SM-3 Blk II/IIA missile and use of threat track data from BMDS sensors.
- Integrate the SM-3 Blk IIA missile and VLS with Aegis ship systems • Includes development of a light weight VLS canister
- Conduct test and evaluation using ground and flight tests
 - SM-3 Blk IIA missile
 - Aegis BMD ship systems
 - o Aegis BMD weapon systems

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Missile Defense Agency (MDA) Exhibit R-2A RDT&	&E Project Justif	fication		Sebruary 2007	
ROPRIATION/BUDGET ACTIVITY	9		ENCLATURE		
Г&Е, DW/04 Advanced Component Development and Prototyp	pes (ACD&P)	06038920	C Ballistic Missile 1	Defense Aegis	
Accomplishments/Planned Program					
	FY 200		FY 2007	FY 2008	FY 2009
ese Cooperative Research		22,792	0	-	0
&E Articles (Quantity)		1	0	0	0
06 Accomplishments: F&E Articles: SM-3 Missile (1) Conducted a Critical Design review (CDR) of the SM-3 missi Delivered one (1) SM-3 missile for use in JCTV-1 flight test. Conducted JCTV-1 Proof-of-Principle (PoP) flight test. Conducted analysis of JCTV-1 PoP flight test. Completed hazard assessment and insensitive munitions testin Completed system engineering support for JDA design and design and design and design and thruster components.	ng of JDA rock	et motors.	C	/IP seeker, lightweight	nosecone and
	FY 20	06	FY 2007	FY 2008	FY 2009
Blk IIA Development (SCD) - Weapon System		0	0	14,300	38,100
&E Articles (Quantity)		0	0	0	0
apon System efforts within this project are centered on AWS 1 08 Planned Program: Conduct a System Design Review (SDR) for the SCD effort. 09 Planned Program: Conduct a Preliminary Design Review (PDR) for the SCD eff Begin test planning for Propulsion Test Vehicle (PTV)-1 and	fort.	necessary u	J test the SiM-J B	ik ita inissite.	
at 0402 Janan as Cooperative Droomer					MDA E-L

Project: 0402 Japanese Cooperative Program

Missile Defense Agency (MDA) Exhibit R-2A RDT&E	E Project Justif	ication	Date Febr	uary 2007	
APPROPRIATION/BUDGET ACTIVITY			IENCLATURE		
RDT&E, DW/04 Advanced Component Development and Prototypes	s (ACD&P)	0603892	C Ballistic Missile Defe	nse Aegis	
	FY 200	06	FY 2007	FY 2008	FY 2009
SM-3 Blk IIA Development - Missile		12,000	50,606	60,100	96,80
RDT&E Articles (Quantity)		0	0	0	
 FY06 Accomplishments: Initiated requirements definition for the SM-3 Blk IIA missile c Performed risk reduction efforts related to the 21-inch missile c FY07 Planned Program: Initiate Phase I of the SM-3 Cooperative Development project. Conduct a System Concept Review for the SM-3 Blk IIA missil Conduct a System Requirements Review for the SM-3 Blk IIA Continue risk reduction efforts related to the 21-inch missile co Continue risk reduction efforts related to the 21-inch missile co Continue risk reduction efforts related to the 21-inch missile co Prepare preliminary test plans for the SM-3 Blk IIA missile. Initiate information exchange with Japan related to the producti Initiate Aegis Weapon System design studies for the SM-3 Blk FY08 Planned Program: Participate in the System Design Review (SDR) for the SCD efforts FY09 Planned Program: Participate in the Preliminary Design Review (PDR) for the SCD Begin test planning for Propulsion Test Vehicle (PTV)-1: prepare 	components, a le. missile. omponents, se omponents, se ion and maint IIA missile e fort.	advanced s eeker, and eeker, and tenance of effort.	DACS. DACS. f the SM-3 Blk IIA mis		

Missile Defense Agency (MDA)	Fyhihit D 7A	DDT&F Dro	joot Justific	option		Date February	2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Develop				R-1 NOMENC 0603892C B	-	· ·			
C. Other Program Funding Summary									
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Cost
PE 0603175C Ballistic Missile Defense Technology	147,270	193,307	118,569	109,540	116,014	121,008	127,917	131,291	1,064,916
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,120,879	1,092,076	962,585	1,004,282	924,101	851,213	678,694	501,147	7,134,977
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment	2,391,246	3,043,058	2,520,064	2,359,665	2,179,602	1,699,963	1,153,082	1,183,003	16,529,683
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PE 0603884C Ballistic Missile Defense Sensors	284,297	514,129	778,163	984,963	939,417	791,701	723,843	603,585	5,620,098
PE 0603886C Ballistic Missile Defense System Interceptors	200,446	356,004	227,499	393,317	522,388	730,236	836,029	570,206	3,836,125
PE 0603888C Ballistic Missile Defense Test and Targets	610,619	601,782	586,150	628,364	662,984	681,511	696,037	705,210	5,172,657
PE 0603889C Ballistic Missile Defense Products	387,402	0	0	0	0	0	0	0	387,402
PE 0603890C Ballistic Missile Defense System Core	409,993	429,420	482,016	511,147	558,746	579,571	579,316	588,481	4,138,690
PE 0603891C Special Programs - MDA	271,021	353,031	323,250	305,409	369,073	526,966	789,017	792,271	3,730,038
PE 0603893C Space Tracking & Surveillance System	220,048	322,220	331,525	347,811	412,623	501,197	778,067	981,424	3,894,915
PE 0603894C Multiple Kill Vehicle	48,370	144,362	271,151	352,741	461,179	618,263	673,477	842,905	3,412,448
PE 0603895C BMD System Space Program	0	0	27,666	35,093	46,849	56,183	133,617	157,117	456,525
PE 0603896C BMD C2BMC	0	246,852	258,913	294,627	300,847	282,615	267,275	269,420	1,920,549
PE 0603897C BMD Hercules	0	49,674	53,658	54,264	54,405	55,142	53,355	54,198	374,696
PE 0603898C BMD Joint Warfighter Support	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206	383,935
PE 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994
PE 0603905C BMD Concurrent Test and Operations	0	23,159	0	0	0	0	0	0	23,159
PE 0603906C Regarding Trench	0	0	2,000	3,000	5,000	5,000	9,000	9,000	33,000
PE 0605502C Small Business Innovative Research - MDA	133,105	0	0	0	0	0	0	0	133,105
PE 0901585C Pentagon Reservation	14,874	15,527	6,058	6,376	4,490	4,725	4,801	4,877	61,728
PE 0901598C Management Headquarters - MDA	98,609	87,059	85,906	86,453	70,355	69,855	69,855	69,855	637,947

Project: 0402 Japanese Cooperative Program

94 of 104 UNCLASSIFIED MDA Exhibit R-2A (PE 0603892C)

		Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justif	ication	February 2007
APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE	
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	0603892C Ballistic Missil	e Defense Aegis

D. Acquisition Strategy

The SM-3 Cooperative Program for the SM-3 Blk IIA missile will utilize a performance based approach that ties program decision milestones to the performance of development prototypes, as well as Control Test Vehicle (CTV) and Guidance Test Vehicle (GTV) flight test article performance. Acquisition of hardware, software modifications and required services will occur in conjunction with contractual and tasking efforts for U. S. Navy work and events.

RDT&E, DW/04 Advance	*	Ţ	and Prototy	pes (ACD&P) 060389	2C Ballistic I	viissile Defe	nse Aegis		
I. Product Development	Cost (\$	in Thousands)					TU A A A A A A A A A A			
	G () (T. (1		FY 2007		FY 2008		FY 2009	
	Contract Method	Performing Activity &	Total PYs	EV 2007	Award/	EV 2009	Award/ Oblg	EV 2000	Award/ Oblg	T-4-1
Cost Categories:	& Type	Location	P I S Cost	FY 2007 Cost	Oblg Date	FY 2008 Cost	Date	FY 2009 Cost	Date	Total Cost
Japanese Cooperative	æ Type	Location	Cost	COSt	Date	Cost	Date	Cost	Date	Cost
Research										
JCR	SS/CPAF	Raytheon/AZ	88,351	0	N/A	0	N/A	0	N/A	88,351
		Lockheed								
JCR	SS/CPAF	Martin/NJ	21,073	0	N/A	0	N/A	0	N/A	21,073
JCR		Various	353	0	N/A	0	N/A	0	N/A	353
SM-3 Blk IIA Development (SCD) - Weapon System										
		Lockheed								
SCD	CPAF	Martin/NJ	2,000	0	N/A	11,150	1Q	30,860	1Q	44,010
SCD	CPFF	JHU/APL/MD	2,000	0	N/A	1,130	1Q	2,350	1Q	5,480
SCD	MIPR	NSCW/DD/VA	2,000	0	N/A	350	1Q	1,220	1Q	3,570
SCD		MIT/MA	1,000	0	N/A	1,550	1Q	2,700	1Q	5,250
SCD	Various	Various	1,500	0	N/A	120	1/2Q	420	1/2Q	2,040
	MIPR	Techrep/NJ	0	0	N/A	0	N/A	550	1Q	550
SM-3 Blk IIA Development - Missile										
	SS/CPAF	Raytheon/AZ	2,000	47,900	1Q	51,085	1Q	82,280	1Q	183,265
	MIPR	NSWC DD/VA	0	0	N/A	2,000	1Q	3,500	1Q	5,500
	CPFF	JHU/APL/MD	0	0	N/A	2,500	1Q	4,000	1Q	6,500
		MIT/MA	0	0	N/A	1,000	1Q	1,500	1Q	2,500
	MIPR	NSWC PHD/CA	0	0	N/A	2,500	1Q	3,500	1Q	6,000
	MIPR	NSWC IH/MD	0	0	N/A	1,015	1Q	2,020	1Q	3,035
	MIPR	MDA/VA	0	2,706	1Q	0	N/A	0	N/A	2,706
Subtotal Product Development			120,277	50,606		74,400		134,900		380,183

Missil	e Defense Ag	gency (MDA) Exhil	oit R-3 RDT&	zE Project Co	st Analysis		Date Febru	uary 2007		
APPROPRIATION/BUDGE RDT&E, DW/04 Advance		ant Davalanmant	and Prototy	nec (ACD & I		MENCLATUI 2C Ballistic		nsa Aarris		
II. Support Costs Cost	-			pes (ACDAI	000309	2C Damstic	wiissiie Deie	lise Aegis		
					FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Japanese Cooperative Research										
	SS/CPFF	NSWC/DD/VA	4,812	0	N/A	0	N/A	0	N/A	4,812
	SS/CPFF	NSWC/PHD/CA	895	0	N/A	0	N/A	0	N/A	895
	SS/CPFF	JHU/APL/MD	5,493	0	N/A	0	N/A	0	N/A	5,493
	Various	Various/Various	2,617	0	N/A	0	N/A	0	N/A	2,617
	SS/MIPR	NAWC/CL/CA	725	0	N/A	0	N/A	0	N/A	725
	SS/MIPR	ANTEON/VA	5,307	0	N/A	0	N/A	0	N/A	5,307
	SS/CPFF	PARADIGM/VA	528	0	N/A	0	N/A	0	N/A	528
		MDA/VA	5,128	0	N/A	0	N/A	0	N/A	5,128
	SS	NAVSEA/DC	1,756	0	N/A	0	N/A	0	N/A	1,756
	SS/CPAF	Lockheed Martin/NJ	3,532	0	N/A	0	N/A	0	N/A	3,532
SM-3 Blk IIA Development (SCD) - Weapon System										
SCD	MIPR	NSWC/DD/VA	250	0	4Q	0	N/A	0	N/A	250
SCD	MIPR	JHU/APL/MD	250	0	4Q	0	N/A	0	N/A	250
SCD		Anteon/VA	500	0	4Q	0	N/A	0	N/A	500
SCD	Various	Various	500	0	4Q	0	N/A	0	N/A	500
Subtotal Support Costs			32,293	0		0		0		32,293

Remarks

RDT&E, DW/04 Advance III. Test and Evaluation	-	^	unu 1 1 0 00 0 j) 00000)	2C Ballistic		ise megis		
		III Thousanus)			FY 2007		FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/		Award/	
	Method	Activity &	PYs	FY 2007	Oblg	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Cost
Japanese Cooperative Research										
Test & Evaluation	MIPR	PMRF/HI	190	0	N/A	0	N/A	0	N/A	190
	MIPR	NSWC/PHD/CA	1,159	0	N/A	0	N/A	0	N/A	1,159
	MIPR	NAWC/PM/CA	610	0	N/A	0	N/A	0	N/A	610
		NSWC/Corona/								
	MIPR	CA	735	0	N/A	0	N/A	0	N/A	735
	MIPR	NSWC/DD/VA	368	0	N/A	0	N/A	0	N/A	368
	SS/CPFF	JHU/APL/MD	260	0	N/A	0	N/A	0	N/A	260
	Various	Various	401	0	N/A	0	N/A	0	N/A	401
	MIPR	NAWC/CL	750	0	N/A	0	N/A	0	N/A	750
	MIPR	Kirtland AFB	2,249	0	N/A	0	N/A	0	N/A	2,249
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Remarks	ces Cost (Contract	\$ in Thousands Performing) Total		FY 2007 Award/		FY 2008 Award/		FY 2009 Award/	
Remarks IV. Management Servio	Contract Method			FY 2007		FY 2008		FY 2009		Total
Remarks IV. Management Servio Cost Categories:	Contract	Performing	Total	FY 2007 Cost	Award/	FY 2008 Cost	Award/	FY 2009 Cost	Award/	
Remarks IV. Management Servic Cost Categories: Subtotal Management Services	Contract Method	Performing Activity &	Total PYs		Award/ Oblg		Award/ Oblg		Award/ Oblg	Total
Subtotal Test and Evaluation Remarks IV. Management Servic Cost Categories: Subtotal Management Services Remarks Project Total Cost	Contract Method	Performing Activity &	Total PYs		Award/ Oblg		Award/ Oblg		Award/ Oblg	Total

RDT&E, DW/04 Advanced Compone	ent D	evel	opn	nen	t an	d Pro	otot	ypes	(A	CD8	kP))603	3892	2C E	Balli	stic	Mi	ssil	e De	fen	ise A	\egi	is							_
Fiscal Year		20)06			2007	7		2	2008			20)09			20	10			20)11			2	012			2	2013	
	1	2	3	4	1	2	3	4 1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	. 2	3	3 4
Japan Cooperative Research Project																															
Proof of Principle System CDR	Δ																														
ICTV-1		Δ																													
ICTV-1 Mission Data Review			Δ																												
Flight Tests							_																								
PTV-1															Δ																
PTV-2																			Δ												
PTV-3																					Δ										
PTV-4																							Δ								
SM-3 Blk IIA Development Milestones					•				•		•	-												•	•	•	•	•	•		
SM-3 Blk IIA System Concept Review				Δ			Т																		Γ				Т	Γ	Т
SM-3 Blk IIA System Requirements Review								Δ																							
SM-3 Blk IIA System Design Review										Δ																					
SM-3 Blk II Preliminary Design Review														Δ																	
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Missile Defense Agency (MDA) Exhibit R-4 Schedule Profile APPROPRIATION/BUDGET ACTIVITY R-1 NOMENO														Da Fe		ary	200)7														
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Fiscal Year		20)06			200)7			20)08			20)09			2	010			20)11			20)12			2013	3	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SM-3 Blk IIA Development Milestones															•		_								-							
SM-3 Blk IIA System Design Review 2																		Δ														
SM-3 Blk IIA Critical Design Review																			Δ													
SM-3 Blk IIA Preliminary Design Review																							Δ									
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			Mile	stone	Deci	sion (c omple	o mp					244		Mile		e Dec	ision	(plan														
			Syste	em Le		est (co		ete)				Δ	7	Syst		evel T	est (plann	ed)													
	▲		Con	ipiete	ACIIV	пу								Fian	neu P	ACTIVI	ty															
Project: 0402 Japanese Cooperative Program																										MD	A Ex	hibi	t R- 4	(PE 0	6038	92C)

Japan Cooperative Research Project1QProof of Principle System CDR1QJCTV-12QJCTV-1 Mission Data Review3QFlight Tests1PTV-11PTV-21PTV-31PTV-41SM-3 Blk IIA Development Milestones4Q	Y 2007 F		FY 2009	FY 2010 4Q	FY 2011	FY 2012	FY 2013
Proof of Principle System CDR1QJCTV-12QJCTV-1 Mission Data Review3QFlight Tests9PTV-19PTV-29PTV-39PTV-49SM-3 Blk IIA Development Milestones9SM-3 Blk IIA System Concept Review4QSM-3 Blk IIA System Requirements Review9SM-3 Blk IIA System Design Review9SM-3 Blk IIA Critical Design Review9	4Q		4Q	4Q			
JCTV-12QJCTV-1 Mission Data Review3QFlight Tests9PTV-19PTV-29PTV-39PTV-49SM-3 Blk IIA Development Milestones9SM-3 Blk IIA System Concept Review4QSM-3 Blk IIA System Requirements Review9SM-3 Blk IIA System Design Review9SM-3 Blk IIA Critical Design Review9SM-3 Blk IIA Critical Design Review9	4Q		4Q	4Q			
JCTV-1 Mission Data Review3QFlight TestsImage: Second S	4Q		4Q	4Q			
Flight TestsImage: Constraint of the second sec	4Q		4Q	4Q			
PTV-1PTV-2PTV-2PTV-3PTV-4SM-3 Blk IIA Development MilestonesSM-3 Blk IIA Development MilestonesSM-3 Blk IIA System Concept ReviewSM-3 Blk IIA System Concept Review4QSM-3 Blk IIA System Requirements ReviewSM-3 Blk IIA System Design ReviewSM-3 Blk IIA System Design ReviewSM-3 Blk IIA System Design ReviewSM-3 Blk II Preliminary Design Review 2SM-3 Blk IIA System Design ReviewSM-3 Blk IIA System Design ReviewSM-3 Blk IIA System Design Review	4Q		4Q	4Q			
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PTV-4SM-3 Blk IIA Development MilestonesSM-3 Blk IIA System Concept ReviewSM-3 Blk IIA System Requirements ReviewSM-3 Blk IIA System Design ReviewSM-3 Blk IIA System Design ReviewSM-3 Blk II Preliminary Design Review 2SM-3 Blk IIA System Design Review 2SM-3 Blk IIA Critical Design Review	4Q						
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SM-3 Blk IIA System Concept Review4QSM-3 Blk IIA System Requirements ReviewSM-3 Blk IIA System Design ReviewSM-3 Blk II Preliminary Design ReviewSM-3 Blk IIA System Design Review 2SM-3 Blk IIA Critical Design Review	4Q						
SM-3 Blk IIA System Requirements ReviewSM-3 Blk IIA System Design ReviewSM-3 Blk II Preliminary Design ReviewSM-3 Blk IIA System Design Review 2SM-3 Blk IIA Critical Design Review	4Q						
SM-3 Blk IIA System Design ReviewSM-3 Blk II Preliminary Design ReviewSM-3 Blk IIA System Design Review 2SM-3 Blk IIA Critical Design Review	4Q						
SM-3 Blk II Preliminary Design Review SM-3 Blk IIA System Design Review 2 SM-3 Blk IIA Critical Design Review							
SM-3 Blk IIA System Design Review 2 SM-3 Blk IIA Critical Design Review		3Q					
SM-3 Blk IIA Critical Design Review			3Q				
-				2Q			
SM-3 Blk IIA Preliminary Design Review				3Q			
					3Q		
					3Q		

Missile Defense Agency (MDA) Exhibit R-2A	tification		07					
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Pu	Ÿ	R-1 NO	MENCLAT 2C Ballisti		v			
COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	10.100	14.029	15.014	16.892	21.964	12.058	11.266	11.366
0602 Program-Wide Support	19,108	14,029	15,014	10,072	21,701	12,000	11,200	11,500

A. Mission Description and Budget Item Justification

Program-Wide Support provides funding for common non-headquarters support functions across the entire program such as strategic planning, program integration, business management, cost estimating, contracting, and financial management, to include preparation of financial statements, reimbursement of financial services provided by DFAS, internal review and audit, earned-value management, and program assessment. Includes costs for both government civilians performing these functions, as well as outside services and support contractors that augment government staff in these areas. Many of these costs reside within the Missile Defense Agency Executing Agents in the Services: Army Space and Missile Defense Command, Army PEO Space and Missile Defense, Office of Naval Research, and various Air Force laboratory and acquisition activities, although some functions and costs within this program element are performed by MDA employees assigned within the National Capital Region (NCR). Other costs included herein provide facility capabilities for MDA Executing Agent locations, such as physical and technical security, legal services, travel and training, office and equipment leases, utilities and communications, supplies and maintenance, and similar operating expenses. Also includes funding for charges on canceled appropriations in accordance with Public Law 101-510, legal settlements, and foreign currency fluctuation on a limited number of foreign contracts.

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Civilian Salaries and Support	19,108	14,029	15,014	16,892
RDT&E Articles (Quantity)	0	0	0	0

See Section A: Mission Description and Budget Item Justification

Missile Defense Agency (MDA)	Fyhihit D 9A	DDT & F Dro	iggt Instifi	votion		Date February	2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Develop				R-1 NOMENC 0603892C Ba	-				
C. Other Program Funding Summary									
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Cost
PE 0603175C Ballistic Missile Defense Technology	147,270	193,307	118,569	109,540	116,014	121,008	127,917	131,291	1,064,916
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,120,879	1,092,076	962,585	1,004,282	924,101	851,213	678,694	501,147	7,134,977
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment	2,391,246	3,043,058	2,520,064	2,359,665	2,179,602	1,699,963	1,153,082	1,183,003	16,529,683
PE 0603883C Ballistic Missile Defense Boost Defense Segment	455,572	628,958	548,759	432,432	448,375	678,913	829,683	1,026,239	5,048,931
PE 0603884C Ballistic Missile Defense Sensors	284,297	514,129	778,163	984,963	939,417	791,701	723,843	603,585	5,620,098
PE 0603886C Ballistic Missile Defense System Interceptors	200,446	356,004	227,499	393,317	522,388	730,236	836,029	570,206	3,836,125
PE 0603888C Ballistic Missile Defense Test and Targets	610,619	601,782	586,150	628,364	662,984	681,511	696,037	705,210	5,172,657
PE 0603889C Ballistic Missile Defense Products	387,402	0	0	0	0	0	0	0	387,402
PE 0603890C Ballistic Missile Defense System Core	409,993	429,420	482,016	511,147	558,746	579,571	579,316	588,481	4,138,690
PE 0603891C Special Programs - MDA	271,021	353,031	323,250	305,409	369,073	526,966	789,017	792,271	3,730,038
PE 0603893C Space Tracking & Surveillance System	220,048	322,220	331,525	347,811	412,623	501,197	778,067	981,424	3,894,915
PE 0603894C Multiple Kill Vehicle	48,370	144,362	271,151	352,741	461,179	618,263	673,477	842,905	3,412,448
PE 0603895C BMD System Space Program	0	0	27,666	35,093	46,849	56,183	133,617	157,117	456,525
PE 0603896C BMD C2BMC	0	246,852	258,913	294,627	300,847	282,615	267,275	269,420	1,920,549
PE 0603897C BMD Hercules	0	49,674	53,658	54,264	54,405	55,142	53,355	54,198	374,696
PE 0603898C BMD Joint Warfighter Support	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206	383,935
PE 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994
PE 0603905C BMD Concurrent Test and Operations	0	23,159	0	0	0	0	0	0	23,159
PE 0603906C Regarding Trench	0	0	2,000	3,000	5,000	5,000	9,000	9,000	33,000
PE 0605502C Small Business Innovative Research - MDA	133,105	0	0	0	0	0	0	0	133,105
PE 0901585C Pentagon Reservation	14,874	15,527	6,058	6,376	4,490	4,725	4,801	4,877	61,728
PE 0901598C Management Headquarters - MDA	98,609	87,059	85,906	86,453	70,355	69,855	69,855	69,855	637,947

Project: 0602 Program-Wide Support

MDA Exhibit R-2A (PE 0603892C)

		Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justific	cation	February 2007
APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE	
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	0603892C Ballistic Missile	e Defense Aegis

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Project: 0602 Program-Wide Support

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