Missile Defense Agency

Fiscal Year (FY) 2012 Budget Estimates

February 2011

Procurement, Defense-Wide

Missile Defense Agency

PROCUREMENT, DEFENSE-WIDE

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Procurement, Defense-Wide Program

Defense-Wide
FY 2012 President's Budget
Exhibit P-1 FY 2012 President's Budget
Total Obligational Authority
(Dollars in Thousands)

08 Feb 2011

Appropriation	FY 2010 (Base & OCO)	FY 2011 Base Request with CR Adj*	FY 2011 OCO Request with CR Adj*	FY 2011 Total Request with CR Adj*
Procurement, Defense-Wide	835,710	952,950		952,950
Total Defense-Wide	835,710	952,950		952,950

P-1P; FY 2012 President's Budget (Published Official Position With FY 2011 CR Adjustments), as of February 8, 2011 at 14:02:52
* Reflects the FY 2011 President's Budget with an undistributed adjustment to match the Annualized Continuing Resolution funding level by appropriation.

Defense-Wide
FY 2012 President's Budget
Exhibit P-1 FY 2012 President's Budget
Total Obligational Authority
(Dollars in Thousands)

08 Feb 2011

Appropriation	FY 2011 Annualized CR Base**	FY 2011 Annualized CR OCO**	FY 2011 Annualized CR Total**
Procurement, Defense-Wide	901,182		901,182
Total Defense-Wide	901,182		901,182

P-1P: FY 2012 President's Budget (Published Official Position With FY 2011 CR Adjustments), as of February 8, 2011 at 14:02:52
** Adjusts each budget line included in the FY 2011 President's Budget request proportionally to match the Annualized Continuing Resolution funding level for each appropriation. Quantities - TBD

Defense-Wide
FY 2012 President's Budget
Exhibit P-1 FY 2012 President's Budget
Total Obligational Authority
(Dollars in Thousands)

08 Feb 2011

Appropriation	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Procurement, Defense-Wide	1,778,738		1,778,738
Total Defense-Wide	1,778,738		1,778,738

P-1P; FY 2012 President's Budget (Published Official Position With FY 2011 CR Adjustments), as of February 8, 2011 at 14:02:52

Defense-Wide
FY 2012 President's Budget
Exhibit P-1 FY 2012 President's Budget
Total Obligational Authority
(Dollars in Thousands)

08 Feb 2011

Appropriation: 0300D Procurement, Defense-Wide

Line No	Item Nomenclature	Ident Code	FY 2010 (Base & OCO) Quantity	FY 2010 (Base & OCO) Cost	FY 2011 Base Request with CR Adj* Quantity	FY 2011 Base Request with CR Adj* Cost	FY 2011 OCO Request with CR Adj* Quantity	FY 2011 OCO Request with CR Adj* Cost	FY 2011 Total Request with CR Adj* Quantity	FY 2011 Total Request with CR Adj* Cost	S e c
Budget Activity 01: Major equipment											
	Major Equipment, Missile Defense Agency										
31	THAAD Procurement	B	26	419,004	67	858,870			67	858,870	U
32	AEGIS BMD Procurement	A	6	225,625	8	94,080			8	94,080	U
33	THAAD	B									U
34	Aegis BMD	B									U
35	BMDS AN/TPY-2 Radars	B	1	191,081							U
Total Major equipment				835,710		952,950				952,950	
Total Procurement, Defense-Wide				835,710		952,950				952,950	

P-1P: FY 2012 President's Budget (Published Official Position With FY 2011 CR Adjustments), as of February 8, 2011 at 14:02:52
* Reflects the FY 2011 President's Budget with an undistributed adjustment to match the Annualized Continuing Resolution funding level by appropriation.

Defense-Wide
FY 2012 President's Budget
Exhibit P-1 FY 2012 President's Budget
Total Obligational Authority
(Dollars in Thousands)

08 Feb 2011

Appropriation: 0300D Procurement, Defense-Wide

Line No	Item Nomenclature	Ident Code	FY 2011 Annualized CR Base** Quantity	FY 2011 Annualized CR Base** Cost	FY 2011 Annualized CR OCO** Quantity	FY 2011 Annualized CR OCO** Cost	FY 2011 Annualized CR Total** Quantity	FY 2011 Annualized CR Total** Cost	Sec
	Budget Activity 01: Major equipment								
	Major Equipment, Missile Defense Agency								
31	THAAD Procurement	B		812,213				812,213	U
32	AEGIS BMD Procurement	A		88,969				88,969	U
33	THAAD	B							U
34	Aegis BMD	B							U
35	BMDS AN/TPY-2 Radars	B							U
	Total Major equipment			901,182				901,182	
	Total Procurement, Defense-Wide			901,182				901,182	

P-1P: FY 2012 President's Budget (Published Official Position With FY 2011 CR Adjustments), as of February 8, 2011 at 14:02:52
** Adjusts each budget line included in the FY 2011 President's Budget request proportionally to match the Annualized Continuing Resolution funding level for each appropriation. Quantities - TBD

Defense-Wide
FY 2012 President's Budget
Exhibit P-1 FY 2012 President's Budget
Total Obligational Authority
(Dollars in Thousands)

08 Feb 2011

Appropriation: 0300D Procurement, Defense-Wide

Line No	Item Nomenclature	Ident Code	FY 2012 Base Quantity	FY 2012 Base Cost	FY 2012 OCO Quantity	FY 2012 OCO Cost	FY 2012 Total Quantity	FY 2012 Total Cost	Sec
Budget Activity 01: Major equipment									
	Major Equipment, Missile Defense Agency								
31	THAAD Procurement	B							U
32	AEGIS BMD Procurement	A							U
33	THAAD	B	68	833,150			68	833,150	U
34	Aegis BMD	B	46	565,393			46	565,393	U
35	BMDS AN/TPY-2 Radars	B	2	380,195			2	380,195	U
Total Major equipment				1,778,738				1,778,738	
Total Procurement, Defense-Wide				1,778,738				1,778,738	

P-1P: FY 2012 President's Budget (Published Official Position With FY 2011 CR Adjustments), as of February 8, 2011 at 14:02:52

Missile Defense Agency

THAAD Procurement

Missile Defense Agency

($ in Millions)

FY 2010 Estimate:	419.004
FY 2011 Estimate:	858.870
FY 2012 Estimate:	833.150

Program Overview

The Terminal High Altitude Area Defense (THAAD) is an element of the Terminal Defense Segment (TDS) of the Ballistic Missile Defense System (BMDS). The THAAD element provides the THAAD Interceptor Engage on Army Navy/Transportable Radar Surveillance - Model 2 (AN/TPY-2)(THAAD Mode) engagement sequence of the BMDS. THAAD enhances the TDS by deepening, complementing, and extending the BMDS battlespace and capability to engage ballistic targets in the late mid-course and terminal phases of their trajectory. THAAD will also be a surveillance sensor, providing sensor data to cue other elements of the BMDS. THAAD, in conjunction with the fielded PATRIOT System, provides the TDS and supports the MDA objective of enhancing the BMDS capability. Five major components (Interceptors, Launchers, AN/TPY-2 Radar, THAAD Fire Control and Communication (TFCC), and Peculiar Support Equipment) will be integrated into the THAAD element and the BMDS.

Purpose and Scope of Work

The Terminal High Altitude Area Defense (THAAD) procurement contract provides an additional 7 Batteries. The first two batteries were funded with the RDT&E appropriation (PE 0603881C), and included a total of 50 interceptors, six launchers, and two TFCCs consisting of 2 Tactical Station Groups (TSGs) each. Current Battery definition includes a basic load of 48 interceptors, 6 launchers, and 2 TSGs each. Radars are budgeted separately. Total procurement of THAAD hardware (including RDT&E funded tactical assets) includes 477 interceptors (total interceptor procurement objective is independent of batteries), 18 TSGs, 60 launchers (9 Batteries, with 6 launchers each, plus an additional 6 launchers), and peculiar support equipment. Additionally, 1 TSG is procured for the Institutional Training Base. Given different production lead times, hardware components will be procured to optimize deliveries. Also, the THAAD procurement contract provides for the purchase and assembly of the components for 13 Range Safety Instrumentation Safety Kits (RSIS). This includes the assessment and performance of all necessary redesigns to address obsolescence issues and perform any required qualification of the redesigned electronics and ordnance assemblies. Additionally, New Equipment Training (NET) is provided to THAAD Soldiers in Batteries three through nine. The Soldiers are taught both technical and operational tasks to enable them to effectively deploy, operate, and maintain the system.

The Terminal High Altitude Area Defense (THAAD) procurement program provides for Government project office manpower to manage the breadth of programmatic activities required to acquire and deliver THAAD Batteries to the U.S. Army. THAAD government and support contractor salaries, travel, training, and supplies are provided for within this scope of effort.

Justification of Funds

FY 2010: Procurement for Lot Buys of Interceptors (26) and Ground Equipment (3 Launchers, and 2 Tactical Station Groups)
FY 2011: Procurement for Lot Buys of Interceptors (67) and Ground Equipment (15 Launchers and 4 Tactical Station Groups)
FY 2012: Procurement for Lot Buys of Interceptors (68) and Ground Equipment (6 Launchers and 1 Tactical Station Group)

Exhibit P-40, Budget Item Justification						Date: February 2011					
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number: 0300D - Procurement, Defense-wide/BA-01/BSA-17						**P-1 Line Item Nomenclature:** Terminal High Altitude Area Defense (THAAD)					
Program Element for Code B Items:						**Other Related Program Elements:**					
	ID Code	**Prior Years**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**To Complete**	**Total Program**
Proc Qty			26	67	68	68	66	65	67		427
Gross Cost ($M)		103.0	419.0	858.9	833.2	728.6	921.8	955.5	745.4	0.0	5,565.3
Less PY Adv Proc ($M)											
Plus CY Adv Proc ($M)											
Net Proc (=P-1) ($M)		103.0	419.0	858.9	833.2	728.6	921.8	955.5	745.4	0.0	5,565.3
Initial Spares ($M)											
Total Proc Cost ($M)		103.0	419.0	858.9	833.2	728.6	921.8	955.5	745.4	0.0	5,565.3
Flyaway Unit Cost ($M)		N/A	10.7	9.8	9.5	9.3	8.8	8.4	9.0	0.0	9.3
Wpn Sys Proc U/C ($M)		N/A	16.1	12.8	12.3	10.7	14.0	14.7	11.1	0.0	13.0

Description

Procurement of THAAD Hardware as follows:

	FY10	FY 11	FY12	FY13	FY14	FY15	FY16	Total
Interceptors	26	67	68	68	66	65	67	427
Launchers	3	15	6	0	12	18	0	54
TSGs	2	4	1	0	4	4	0	15
PSE Suites	1	2	0	0	2	2	0	7

Justification

Funding shown above supports the procurement of 427 THAAD Interceptors, 54 launchers, 15 Tactical Station Groups, 30 A-2 Hemitt Transpoters and all associated peculiar support equipment to include the Mobile Spt Truck,Generator set,spares transport shelter and the Battery logistics Operation Center. RDT&E funded tactical hardware (initial two THAAD batteries) are not included in the costs above. Interceptor Flyaway Unit Cost increase in FY 2016 is due to obsolescene mitigation costs planned for FY 2016.

"Proc Qty" above represents interceptors only, but the net procurement cost includes the costs of all hardware. FY 2011, FY 2014, and FY 2015 funding includes procurement of significant numbers of ground components, which affects the Weapon System Unit Cost. Training devices are RDT&E funded, and thus not included in any of the costs shown above.

Exhibit P-5 Cost Analysis			Weapon System: Terminal High Altitude Area Defense (THAAD)					Date: February 2011		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number: 0300D - Procurement, Defense-wide/BA-01/BSA-17				D Code:		P-1 Line Item Nomenclature: Terminal High Altitude Area Defense (THAAD)				
WBS Cost Elements	**Prior Years Cost**	**Prior Years Cost**	**FY 2010 Cost**	**FY 2010 Cost**	**FY 2011 Cost**	**FY 2011 Total Cost**	**FY 2012 Unit Cost**	**FY 2012 Cost**	**FY 2013 Cost**	**FY 2013 Cost**
THAAD Interceptor Qty	N/A	-	26		67		68		68	
THAAD Interceptor	N/A	88.602	10.695	287.900	9.792	584.498	9.501	646.060	9.333	634.670
THAAD Launcher Qty			3		15		6			
THAAD Launcher		-	9.000	27.000	9.100	136.500	9.133	54.800	-	-
THAAD Fire Control & Communication Tactical Station Group Qty			2		4		1			
THAAD Fire Control & Communication Tactical Station Group		-	10.217	20.433	10.142	40.567	9.900	9.900	-	-
TSG Obsolescence Mitigation								4.000	N/A	
Peculiar Support Equipment & System Integration	N/A	14.373	N/A	83.671	N/A	97.305	N/A	61.490	N/A	46.791
A-2 HEMTT Transporter End of Life Buy							0.600	18.000		
RSIS Kits								3.900		3.900
New Equipment Training										7.500
Program Office Support								35.000		35.700
Total		102.975		419.004		858.870		833.150		728.561

Exhibit P-5 Cost Analysis (Page 2)		Weapon System Terminal High Altitude Area Defense (THAAD)				Date: February 2011		
WBS Cost Elements	**FY 2014 Unit Cost**	**FY 2014 Total Cost**	**FY 2015 Unit Cost**	**FY 2015 Total Cost**	**FY 2016 Unit Cost**	**FY 2016 Total Cost**		
THAAD Interceptor Qty	66		65		67			
THAAD Interceptor	8.776	579.220	8.443	548.770	8.973	601.174		
THAAD Launcher Qty	12		18					
THAAD Launcher	8.942	107.300	8.639	155.500	N/A	-		
THAAD Fire Control & Communication Tactical Station Group Qty	4		4					
THAAD Fire Control & Communication Tactical Station Group	14.475	57.900	14.150	56.600	N/A	-		
Peculiar Support Equipment & System Integration	N/A	132.361	N/A	146.144	N/A	94.856		
RSIS Kits		1.100						
New Equipment Training		7.500		11.400		11.600		
Program Office Support		36.400		37.100		37.800		
Total		**921.781**		**955.514**		**745.430**		

Exhibit P-5a, Procurement History and Planning (Page 1)	Weapon System: Terminal High Altitude Area Defense (THAAD)	Date: February 2011

Appropriation (Treasury) Code/CC/BA/BSA/ItemControl Number:

0300D - Procurement, Defense-wide/BA-01/BSA-17

P-1 Line Item Nomenclature:

Terminal High Altitude Area Defense (THAAD)

WBS COST ELEMENTS	Qty	Unit Cost	Location of PCO	RFP Issue Date	Contract Method & Type	Contractor & Location	Award Date	Date of First Delivery	Tech Data Available Now?	Date Revisions Available
FY 2010										
THAAD Interceptor	26	10.695	MDA, Hsv, AL	1QFY10	SS/FPIF	LM, Sunnyvale, CA	4QFY10	4QFY12	Yes	
THAAD Launcher	3	9.000	MDA, Hsv, AL	1QFY10	SS/FFP	LM, Sunnyvale, CA	2QFY11	3QFY12	Yes	
THAAD Fire Control & Communication Tactical Station Group	2	10.217	MDA, Hsv, AL	1QFY10	SS/FFP	LM, Sunnyvale, CA	2QFY11	1QFY13	Yes	
Peculiar Support Equipment & System Integration	N/A	N/A	MDA, Hsv, AL	1QFY10	SS/FFP	LM, Sunnyvale, CA	2QFY11	N/A	Yes	
FY 2011										
THAAD Interceptor - Lot 2	22	10.526	MDA, Hsv, AL	1QFY10	SS/FPIF	LM, Sunnyvale, CA	2QFY11	4QFY13	Yes	
THAAD Interceptor - Lot 3	45	9.433	MDA, Hsv, AL	2QFY11	SS/FPIF	LM, Sunnyvale, CA	3QFY11	1QFY14	Yes	
THAAD Launcher - Lot 2	9	9.100	MDA, Hsv, AL	1QFY10	SS/FFP	LM, Sunnyvale, CA	2QFY11	4QFY12	Yes	
THAAD Launcher - Lot 3	6	9.100	MDA, Hsv, AL	2QFY11	SS/FFP	LM, Sunnyvale, CA	3QFY11	3QFY13	Yes	
THAAD Fire Control & Communication Tactical Station Group	4	10.142	MDA, Hsv, AL	1QFY10	SS/FFP	LM, Sunnyvale, CA	2QFY11	2QFY13	Yes	
Peculiar Support Equipment & System Integration	N/A	N/A	MDA, Hsv, AL	1QFY10	SS/FFP	LM, Sunnyvale, CA	2QFY11	N/A	Yes	
FY 2012										
THAAD Interceptor	68	9.501	MDA, Hsv, AL	3QFY11	SS/FFP	LM, Sunnyvale, CA	2QFY12	4QFY14	Yes	
THAAD Launcher	6	9.133	MDA, Hsv, AL	3QFY11	SS/FFP	LM, Sunnyvale, CA	2QFY12	1QFY14	Yes	
Peculiar Support Equipment & System Integration	N/A	N/A	MDA, Hsv, AL	3QFY11	SS/FFP	LM, Sunnyvale, CA	2QFY12	N/A	Yes	
THAAD Fire Control & Communication Tactical Station Group	1	9.900	MDA, Hsv, AL	3QFY11	SS/FFP	LM, Sunnyvale, CA	2QFY12	2QFY14	Yes	
TSG Obsolescence Mitigation	N/A	N/A	MDA, Hsv, AL	3QFY11	SS/FFP	LM, Sunnyvale, CA	2QFY12	N/A	Yes	

Remarks:

FY 2011 will be the first year that we fully move to funded procurement purely with Procurement funding. Prior years RDTE funds were used .

Exhibit P-21, Production Schedule			Date: February 2011
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: 0300D - Procurement, Defense-wide/BA-01/BSA-17		Weapons System: THAAD	P-1 Line Item Nomenclature: Terminal High Altitude Area Defense (THAAD)

		PRODUCTION RATE			PROCUREMENT LEADTIMES					
ITEM	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to 1 Oct	ALT After 1 Oct	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Battery Interceptors	LMSSC, Troy AL	1/Mo	4/Mo	6/Mo	0	7 Mo	24 Mo	24 Mo	31 Mo	E
Battery Fire Control/Communications (TSGs)	LM, Camden AR	2/3Mo	2/3 Mo	3/3 Mo	0	1 Mo	24 Mo	24 Mo	25 Mo	E
Battery Launchers	LM, Camden AR	1/Mo	1/Mo	6/3 Mo	0	1 Mo	18 Mo	18 Mo	19 Mo	E

						FISCAL YEAR 2010													FISCAL YEAR 2011									
									CALENDAR YEAR 2010													CALENDAR YEAR 2011								
ITEM	FY	SVC	QTY	DEL	BAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Battery Interceptors	10		26	0	26															A										26
	11		67	0	67																	A								67
Battery Fire Control/Communications (TSGs)	10		2	0	2																	A								2
	11		4	0	4																	A								4
Battery Launchers	10		3	0	3																	A								3
	11		15	0	15																	A								15

						FISCAL YEAR 2012													FISCAL YEAR 2013									
									CALENDAR YEAR 2012													CALENDAR YEAR 2013								
ITEM	FY	SVC	QTY	DEL	BAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Battery Interceptors*	10		26	0	26										1	1	1	1	2	2	3	3	3	3	3	3				0
	11		67	0	67																						4	4	5	54
	12		68	0	68				A																					68
	13		68	0	68																A									68
Battery Fire Control/Communications (TSGs)	10		2	0	2														1	1										0
	11		4	0	4																1	1								2
	12		1	0	1				A																					1
Battery Launchers	10		3	0	3							1	1	1																0
	11		15	0	15										1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
	12		6	0	6				A																					6

REMARKS: *Lead time for first delivery of FY 2010 funded interceptors & ground components are reduced due to long lead items procured in FY 2009. Build plan for ground components optimizes delivery dates for battery integration. Lead times for ground components support battery integration schedules. Lead times shown above are the nominal required for component integration, nominal lead times have been assessed at 18 months for launchers and 24 months for TSGs. All ground components are produced in the same facility so that manufacturing synergy can mitigate production gaps.

Exhibit P-21, Production Schedule			**Date:** February 2011
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: 0300D - Procurement, Defense-wide/BA-01/BSA-17		**Weapons System:** THAAD	**P-1 Line Item Nomenclature:** Terminal High Altitude Area Defense (THAAD)

ITEM	Manufacturer's Name and Location	PRODUCTION RATE: MSR	ECON	MAX	PROCUREMENT LEADTIMES: ALT Prior to 1 Oct	ALT After 1 Oct	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Battery Interceptors	LMSSC, Troy AL	1/Mo	4/Mo	6/Mo	0	7 Mo	24 Mo	24 Mo	31 Mo	E
Battery Fire Control/Communications (TSGs)	LM, Camden AR	2/3Mo	2/3 Mo	3/3 Mo	0	1 Mo	24 Mo	24 Mo	25 Mo	E
Battery Launchers	LM, Camden AR	1/Mo	1/Mo	6/3 Mo	0	1 Mo	18 Mo	18 Mo	19 Mo	E

						FISCAL YEAR 2014												FISCAL YEAR 2015												
									CALENDAR YEAR 2014												CALENDAR YEAR 2015									
ITEM	FY	SVC	QTY	DEL	BAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Battery Interceptors	**11**		67	13	54	6	6	6	6	6	6	6	6	6																0
	12		68	0	68										6	6	6	6	6	6	6	6	5	5	5	5				0
	13		68	0	68																						5	5	5	53
	14		66	0	66				A																					66
	15		65	0	65																A									65
Battery Fire Control/Communications (TSGs)	**11**		4	2	2		1	1																						0
	12		1	0	1				1																					0
	14		4	0	4				A																					4
	15		4	0	4																A									4
Battery Launchers	**12**		6	0	6	1	1	1	1	1	1																			0
	14		12	0	12				A																		1	1	1	9
	15		18	0	18																A									18

						FISCAL YEAR 2016												FISCAL YEAR 2017												
									CALENDAR YEAR 2016												CALENDAR YEAR 2017									
ITEM	FY	SVC	QTY	DEL	BAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Battery Interceptors	**13**		68	15	53	5	6	6	6	6	6	6	6	6																0
	14		66	0	66										6	6	5	6	6	5	6	6	5	5	5	5				0
	15		65	0	65																						6	6	6	47
	16		67	0	67				A																					67
Battery Fire Control/Communications (TSGs)	**14**		4	0	4					1	1		1	1																0
	15		4	0	4																	1	1		1	1				0
Battery Launchers	**14**		12	3	9	1	1	1	1	1	1	1	1	1																0
	15		18	0	18										1	1	1	2	2	2	2	2	2	1	1	1				0

REMARKS: Build plan for ground components optimizes delivery dates for battery integration. Lead times for ground components vary by year, depending on integration schedules.

Exhibit P-21, Production Schedule		**Date:** February 2011
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: 0300D - Procurement, Defense-wide/BA-01/BSA-17	**Weapons System:** THAAD	**P-1 Line Item Nomenclature:** Terminal High Altitude Area Defense (THAAD)

		PRODUCTION RATE			PROCUREMENT LEADTIMES					
ITEM	**Manufacturer's Name and Location**	**MSR**	**ECON**	**MAX**	**ALT Prior to 1 Oct**	**ALT After 1 Oct**	**Initial Mfg PLT**	**Reorder Mfg PLT**	**Total**	**Unit of Measure**
Battery Interceptors	**LMSSC, Troy AL**	1/Mo	4/Mo	6/Mo	0	7 Mo	24 Mo	24 Mo	31 Mo	E

						FISCAL YEAR 2018												FISCAL YEAR 2019												
									CALENDAR YEAR 2018												CALENDAR YEAR 2019									
ITEM	**FY**	**SVC**	**QTY**	**DEL**	**BAL**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**BAL**
Battery Interceptors	**15**		65	18	47	6	6	5	5	5	5	5	5	5																0
	16		67	0	67										6	6	6	6	6	6	6	5	5	5	5	5				0

Missile Defense Agency

Aegis BMD Procurement

Missile Defense Agency

($ in Millions)

FY 2010 Estimate:	225.625
FY 2011 Estimate:	94.080
FY 2012 Estimate:	565.393

Program Overview

The Aegis Ballistic Missile Defense (Aegis BMD) mission is to deliver an enduring, operationally effective and supportable Ballistic Missile Defense capability to defend the nation, deployed forces, friends and allies, and to increase this capability by delivering evolutionary improvements as part of Ballistic Missile Defense System (BMDS) upgrades. The Aegis BMD element of the BMDS capitalizes upon and evolves from the existing U.S. Navy Aegis Weapons System (AWS) and Standard Missile (SM) infrastructures. 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 Missiles (SRBM), Medium-Range Ballistic Missiles (MRBM), and Intermediate-Range Ballistic Missiles (IRBM) in the midcourse phase of flight. In support of Homeland Defense, Aegis BMD provides a Long Range Surveillance and Track (LRS&T) capability to the BMDS. Upgrades to both the Aegis BMD Weapon System and the SM-3 configuration enable Aegis BMD provide effective, supportable defensive capability against longer range, more complex threats and an enduring Aegis Ashore defensive capability.

Purpose and Scope of Work

Standard Missile-3 was developed for Aegis Ballistic Missile Defense (BMD) as part of the Missile Defense Agency's Ballistic Missile Defense System (BMDS). The Aegis BMD system integrates SM-3 with the Aegis Weapon System (AWS) aboard U.S. Navy cruisers to provide an umbrella of protection against short to intermediate-range ballistic missile threats. SM-3 is compatible with the Mark (MK) 41 Vertical Launching System (VLS) deployed on many U.S. Navy and international surface combatants. The SM-3 is primarily used and tested by the United States Navy and also operated by the Japan Maritime Self-Defense Force. The SM-3 Block IA provides increased capability, over SM-3 Block I, to engage short-to intermediate-range ballistic missiles. The SM-3 Block IA incorporates rocket motor upgrades and computer program modifications to improve sensor performance, missile guidance and control, and lower cost. It also includes producibility and maintainability features required to qualify the missile as a tactical fleet asset. The SM-3 Block IB will incorporate a two-color, all reflective infrared seeker, enabling longer range acquisition and increased threat discrimination. A Throttleable Divert Altitude Control System (TDACS) is also in development to provide a more flexible and lower cost alternative to the Solid Divert Altitude System (SDACS). The SM-3 Block IIA incorporates 21-inch 2nd and 3rd stage rocket motors, providing a significant increase in engagement capability and larger defended areas. The Block IIA missile will also include a larger, more capable kinetic warhead to counter future ballistic missile threats.

Justification of Funds

FY 2010: 42 SM-3 Blk IA's utilizing RDT&E and Procurement funding

FY 2011: Full funding for eight (8) SM-3 Blk IB's for delivery in FY 2013

FY 2012: Full funding for 46 SM-3 Blk IB's for delivery in FY 2014

Exhibit P-40, Budget Item Justification									Date: February 2011		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number: 0300D - Procurement, Defense-wide/BA-01/BSA-17						**P-1 Line Item Nomenclature:** Aegis BMD					
Program Element for Code B Items:						**Other Related Program Elements:** 0603892C					
	ID Code	**Prior Years**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**To Complete**	**Total Program**
Proc Qty		*	*	8	46	62	73	82	83		354
Gross Cost ($M)		101.932	225.625	94.080	565.393	675.126	737.440	1,018.966	1,065.442		4,484.004
Less PY Adv Proc ($M)			0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Plus CY Adv Proc ($M)			0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Net Proc (=P-1) ($M)		101.932	225.625	94.080	565.393	675.126	737.440	1,018.966	1,065.442		4,484.004
Initial Spares ($M)											
Total Proc Cost ($M)		101.932	225.625	94.080	565.393	675.126	737.440	1,018.966	1,065.442		4,484.004
Flyaway Unit Cost ($M)			9.600	11.760	12.291	10.889	10.102	12.426	12.837		12.667
Wpn Sys Proc U/C ($M)											

Note: Increase in Unit Cost in FY 2016 is due to the buy of 15 SM-3 Blk IIA.

Description

The SM-3 Block IA provides increased capability, over the SM-2 Block IV and SM-3 Block I, to engage short-to intermediate-range ballistic missiles. The SM-3 Block IA incorporates rocket motor upgrades and computer program modifications to improve sensor performance, missile guidance and control, and lower cost. It also includes producibility and maintainability features required to qualify the missile as a tactical fleet asset.

The SM-3 Block IB will incorporate a two-color, all reflective infrared seeker, enabling longer range acquisition and increased threat discrimination. A Throttleable Divert Altitude Control System (TDACS) is will provide a more flexible and lower cost alternative to the Solid Divert Altitude Control System (SDACS). Initial production of the SM-3 Blk IB is planned in FY 2011 with larger rate production in FY 2012.

Justification

* FY 2010: Prior - A total of 42 SM-3 Blk IA's appropriated in FY 2008, 2009 and 2010. The SM-3 Blk IA's were transitioned from RDT&E to Procurement, Defense-Wide in FY 2009 utilizing funding from both appropriations. For further depiction see table on P-5.

FY 2011: Full funding for eight (8) SM-3 Blk IB's for delivery in FY 2013

FY 2012: Full funding for 46 SM-3 Blk IB's for delivery in FY 2014

Exhibit P-5 Cost Analysis		Weapon System: Aegis BMD				Date: February 2011			
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number: 0300D - Procurement, Defense-wide/BA-01/BSA-17		D Code:		P-1 Line Item Nomenclature: Aegis BMD					
	Prior Year	FY 2010		FY 2011		FY 2012		FY 2013	
WBS Cost Elements	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
Quantity	*	*		8		46		62	
SM-3 Blk IA Missile Hardware									
SM-3 BLK 1A Guided Missile Round	101.932	9.433	225.625						
SM-3 Blk IB Missile Hardware									
SM-3 Blk IB Guided Missile Round				11.760	94.080	12.291	565.393	10.889	675.126
Total	101.932		225.625		94.080		565.393		675.126

Note: SM-3 Blk IAs were initially funded with RDT&E, in FY 2009 the acquisition process realigned the IA's to be completed in the Procurement, D-W appropriation. This exhibit only Procurement, D-W. This exhibit reflects the Procurement funding. Manufacturing engineering support for the Blk IA and IB and production spares, and missile surveillance program for SM - 3 Blk IB's is funded under the RDT&E appropriation. (See project MD09 PE 0603892C)

*** SM-3 Blk IA Missile Breakout**			
CLIN 3 Procured 24 missiles as follows:	FY 2008	61.518	RDT&E
	FY 2009	57.032	Procurement
	FY 2010	107.844	Procurement
	Total	226.394	
	Unit Cost	9.433	
CLIN 4 Procured 12 missiles in FY 2009 and	FY 2009	44.900	Procurement
6 additional missiles added by congress ($57.6M) in	FY 2010	117.781	Procurement
FY 2010 as follows:	Total	162.680	
	Unit Cost	9.038	
Average Unit Cost of the IA Missile		9.264	

Exhibit P-5 Cost Analysis	Weapon System: Aegis BMD					Date: February 2011		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number 0300D - Procurement, Defense-wide/BA-01/BSA-17	**D Code:**		**P-1 Line Item Nomenclature:** Aegis BMD					
WBS Cost Elements	**FY 2014**		**FY 2015**		**FY 2016**		**Complete Costs**	**Total Cost**
	Unit Cost	**Total Cost**	**Unit Cost**	**Total Cost**	**Unit Cost**	**Total Cost**		
Quantity	**73**		**82**		**68/15**			
SM-3 Blk IA Missile Hardware								
SM-3 BLK IA Guided Missile Round							327.557	327.557
Canisters - Funded in RDT&E								
SM-3 Blk IB Missile Hardware								
SM-3 BLK IB Guided Missile Round	10.102	737.440	12.426	1,018.967	9.723	661.140	3,752.146	3,752.146
SM-3 Blk IIA Missile Hardware								
SM-3 BLK IIA Guided Missile Round					24.292	364.381	364.381	364.381
Total		**737.440**		**1,018.967**		**1,025.521**	**4,444.084**	**4,444.084**

Exhibit P-5a, Procurement History and Planning (Page 1)					Weapon System: Aegis BMD			Date: February 2011		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number: 0300D - Procurement, Defense-wide/BA-01/BSA-17					P-1 Line Item Nomenclature: Aegis BMD					
WBS COST ELEMENTS	**Qty**	**Unit Cost**	**Location of PCO**	**RFP Issue Date**	**Contract Method & Type**	**Contractor & Location**	**Award Date**	**Date of First Delivery**	**Data Available Now?**	**Revisions Available**
FY 2010										
SM-3 Blk 1A*	42	9.433	Dahlgren, Va	Jul-06	CPIF	Raytheon, Tuscon AZ	May-07	Jul-10	Yes	
FY 2011										
SM-3 Blk 1B	8	11.760	Dahlgren, Va	Mar-11	CPIF	Raytheon, Tuscon AZ	Aug-11	Jul-13	Yes	
FY 2012										
SM-3 Blk 1B	46	12.291	Dahlgren, Va	Mar-11	CPIF	Raytheon, Tucson AZ	Oct-11	Oct-13	Yes	

Remarks:

* FY 2010: Prior - A total of 42 SM-3 Blk IA's appropriated in FY 2008, 2009 and 2010. The SM-3 Blk IA's were transitioned from RDT&E to Procurement, Defense-Wide in FY 2009 utilizing funding from both appropriations. For further depiction see table on P-5, page 1.

Exhibit P-21, Production Schedule			Date: February 2011
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: 0300D - Procurement, Defense-wide/BA-01/BSA-17		Weapons System: Aegis BMD	P-1 Line Item Nomenclature: Aegis BMD

		PRODUCTION RATE			PROCUREMENT LEADTIMES					
ITEM	Manufacturer's Name & Location	MSR	ECON	MAX	ALT Prior to 1 Oct	ALT After 1 Oct	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
SM-3 Block IA Missiles	Raytheon, Tucson AZ	1/Mo	2/Mo	8/Mo	9 Mo	0 Mo	30 Mo	30 Mo	30 Mo	E
SM-3 Block IB Missiles	Raytheon, Tucson AZ	1/Mo	4/Mo	8/Mo	9 Mo	0 Mo	24 Mo	24 Mo	24 Mo	E
SM-3 Block IIA Missiles	Raytheon, Tucson AZ	1/Mo	2/Mo	2/Mo	9 Mo	0 Mo	24 Mo	24 Mo	24 Mo	E

						FISCAL YEAR 2010															FISCAL YEAR 2011									
									CALENDAR YEAR 2010												CALENDAR YEAR 2011									
ITEM	FY	SVC	QTY	DEL	BAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
SM-3 Blk IA Missiles (A = May 2007)	10		42	0	42			3	3	1	2				2	4	2	7						2	2	2	2	2	2	0
SM-3 Blk IB Missiles	11		8	0	8																							A		8
SM-3 Blk IB Missiles	12		46	0	46																									46
SM-3 Blk IB Missiles	13		62	0	62																									62
SM-3 Blk IB Missiles	14		73	0	73																									73
SM-3 Blk IB Missiles	15		82	0	82																									82
SM-3 Blk IB Missiles	16		68	0	68																									68
SM-3 Blk IIA Missiles	16		15	0	15																									15

						FISCAL YEAR 2012															FISCAL YEAR 2013									
									CALENDAR YEAR 2012												CALENDAR YEAR 2013									
ITEM	FY	SVC	QTY	DEL	BAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
SM-3 Blk IA Missiles	10		42	36	42	2	2	2																						0
SM-3 Blk IB Missiles	11		8	0	8																						2	3	3	0
SM-3 Blk IB Missiles	12		46	0	46	A																								46
SM-3 Blk IB Missiles	13		62	0	62													A												62
SM-3 Blk IB Missiles	14		73	0	73																									73
SM-3 Blk IB Missiles	15		82	0	82																									82
SM-3 Blk IB Missiles	16		68	0	68																									68
SM-3 Blk IIA Missiles	16		15	0	15																									15

REMARKS: Production gap between SM-3 Blk IA and IB is being filled with the manufacturing of RDT&E SM-3 Blk IB Test Missiles (Jan 2012 - Jun 2013).

NOTE: Maximum production rate is based on 2 shifts, 8 hours per day, 5 days per week.

Exhibit P-21, Production Schedule			Date: February 2011
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: 0300D - Procurement, Defense-wide/BA-01/BSA-17		**Weapons System:** Aegis BMD	**P-1 Line Item Nomenclature:** Aegis BMD

		PRODUCTION RATE			PROCUREMENT LEADTIMES					
ITEM	**Manufacturer's Name and Location**	**MSR**	**ECON**	**MAX**	**ALT Prior to Oct 1**	**ALT After 1-Oct**	**Initial Mfg PLT**	**Reorder Mfg PLT**	**Total**	**Unit of Measure**
SM-3 Block IA Missiles	**Raytheon, Tucson AZ**	1/Mo	2/Mo	8/Mo	9 Mo	0 Mo	30 Mo	30 Mo	30 Mo	E
SM-3 Block IB Missiles	**Raytheon, Tucson AZ**	1/Mo	4/Mo	8/Mo	9 Mo	0 Mo	24 Mo	24 Mo	24 Mo	E
SM-3 Block IIA Missiles	**Raytheon, Tucson AZ**	1/Mo	2/Mo	2/Mo	9 Mo	0 Mo	24 Mo	24 Mo	24 Mo	E

						FISCAL YEAR 2014												**FISCAL YEAR 2015**											
									CALENDAR YEAR 2014															**CALENDAR YEAR 2015**								
ITEM	**FY**	**SVC**	**QTY**	**DEL**	**BAL**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**BAL**
SM-3 Blk IA Missiles	10		**42**	**42**	**0**																								0
SM-3 Blk IB Missiles	11		**8**	**8**	**0**																								0
SM-3 Blk IB Missiles	12		**46**	**0**	**46**	3	4	4	3	4	4	4	4	4	4	4	4												0
SM-3 Blk IB Missiles	13		**62**	**0**	**62**													5	5	5	5	5	5	5	5	5	5	6	6	0
SM-3 Blk IB Missiles	14		**73**	**0**	**73**	A																							73
SM-3 Blk IB Missiles	15		**82**	**0**	**82**													A											82
SM-3 Blk IB Missiles	16		**68**	**0**	**68**																								68
SM-3 Blk IIA Missiles	16		**15**	**0**	**15**																								15

						FISCAL YEAR 2016												**FISCAL YEAR 2017**											
									CALENDAR YEAR 2016													**CALENDAR YEAR 2017**								
ITEM	**FY**	**SVC**	**QTY**	**DEL**	**BAL**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**BAL**
SM-3 Blk IA Missiles	10		**42**	**42**	**0**																								0
SM-3 Blk IB Missiles	11		**8**	**8**	**0**																								0
SM-3 Blk IB Missiles	12		**46**	**46**	**0**																								0
SM-3 Blk IB Missiles	13		**62**	**62**	**0**																								0
SM-3 Blk IB Missiles	14		**73**	**0**	**73**	6	6	6	6	6	6	6	6	6	6	6	7												0
SM-3 Blk IB Missiles	15		**82**	**0**	**82**													6	6	6	6	7	7	7	7	8	7	7	8	0
SM-3 Blk IB Missiles	16		**68**	**0**	**68**	A																							68
SM-3 Blk IIA Missiles	16		**15**	**0**	**15**	A																							15

REMARKS: Production rate of 6 per month is based on 1 shift, 8 hrs day, 5 days a week; a 2nd shift would be required for a surge capability above 6 per month.

NOTE: Maximum production rate is based on 2 shifts, 8 hours per day, 5 days per week.

Exhibit P-21, Production Schedule			Date: February 2011
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: 0300D - Procurement, Defense-wide/BA-01/BSA-17	**Weapons System:** Aegis BMD		**P-1 Line Item Nomenclature:** Aegis BMD

ITEM	Manufacturer's Name and Location	PRODUCTION RATE MSR	PRODUCTION RATE ECON	PRODUCTION RATE MAX	PROCUREMENT LEADTIMES ALT Prior to Oct 1	PROCUREMENT LEADTIMES ALT After 1-Oct	PROCUREMENT LEADTIMES Initial Mfg PLT	PROCUREMENT LEADTIMES Reorder Mfg PLT	PROCUREMENT LEADTIMES Total	Unit of Measure
SM-3 Block IA Missiles	**Raytheon, Tucson AZ**	1/Mo	2/Mo	8/Mo	9 Mo	0 Mo	30 Mo	30 Mo	30 Mo	E
SM-3 Block IB Missiles	**Raytheon, Tucson AZ**	1/Mo	4/Mo	8/Mo	9 Mo	0 Mo	24 Mo	24 Mo	24 Mo	E
SM-3 Block IIA Missiles	**Raytheon, Tucson AZ**	1/Mo	2/Mo	2/Mo	9 Mo	0 Mo	24 Mo	24 Mo	24 Mo	E

						FISCAL YEAR 2018													FISCAL YEAR 2019										
									CALENDAR YEAR 2018														CALENDAR YEAR 2018								
ITEM	**FY**	**SVC**	**QTY**	**DEL**	**BAL**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**BAL**
SM-3 Blk IA Missiles	10		**42**	**42**	**0**																								0
SM-3 Blk IB Missiles	11		**8**	**8**	**0**																								0
SM-3 Blk IB Missiles	12		**46**	**46**	**0**																								0
SM-3 Blk IB Missiles	13		**62**	**62**	**0**																								0
SM-3 Blk IB Missiles	14		**73**	**73**	**0**																								0
SM-3 Blk IB Missiles	15		**82**	**82**	**0**																								0
SM-3 Blk IB Missiles	16		**68**	**0**	**68**	5	5	5	5	6	6	6	6	6	6	6	6												0
SM-3 Blk IIA Missiles	16		**15**	**0**	**15**														1	1	1	1	1	1	1	1	1	2	2

						FISCAL YEAR 2020													FISCAL YEAR 2021										
									CALENDAR YEAR 2020														CALENDAR YEAR 2021								
ITEM	**FY**	**SVC**	**QTY**	**DEL**	**BAL**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**BAL**
SM-3 Blk IA Missiles	10		**42**	**42**	**0**																								0
SM-3 Blk IB Missiles	11		**8**	**8**	**0**																								0
SM-3 Blk IB Missiles	12		**46**	**46**	**0**																								0
SM-3 Blk IB Missiles	13		**62**	**62**	**0**																								0
SM-3 Blk IB Missiles	14		**73**	**73**	**0**																								0
SM-3 Blk IB Missiles	15		**82**	**82**	**0**																								0
SM-3 Blk IB Missiles	16		**68**	**68**	**0**																								0
SM-3 Blk IIA Missiles	16		**15**	**13**	**2**	2																							0

REMARKS:

NOTE: Maximum production rate is based on 2 shifts, 8 hours per day, 5 days per week.

Missile Defense Agency

BMDS AN/TPY-2 Radars Procurement

Missile Defense Agency

($ in Millions)	
FY 2010 Estimate:	191.081
FY 2011 Estimate:	N/A
FY 2012 Estimate:	380.195

Program Overview

The Ballistic Missile Defense System (BMDS) layered network of sensors includes Army Navy/Transportable Radar Surveillance - Model 2 (AN/TPY-2) Radars, that can be used as a BMDS Forward-based X-Band Radar or a Terminal High Altitude Area Defense (THAAD). These radars are transportable, adding flexibility to respond to geographical changes in threat. In a forward-based role, the AN/TPY-2 provides target detection and tracking during the boost phase, reducing uncertainty in target discrimination and reaction time, and increasing the probability of a successful BMDS engagement. In terminal mode, the AN/TPY-2 provides target acquisition, tracking, and discrimination for fire control of the THAAD Battery.

Purpose and Scope of Work

Eleven additional AN/TPY-2 Radars are needed to complete THAAD Battery procurements and support Combatant Commanders (COCOM) emergent requirements for BMDS Forward-Based Radars. Each AN/TPY-2 radar can be configured for THAAD or forward-based mode, and can be switched between modes in eight (8) hours. The Radar System includes the radar, an Antenna Equipment Unit (AEU), an Electronics Equipment Unit (EEU), a Cooling Equipment Unit (CEU), and two Prime Power Units (PPUs).

Justification of Funds

FY 2010: Procurement of one AN/TPY-2 radar
FY 2011: No Procurement (Skip Year)
FY 2012: Procurement of two AN/TPY-2 radars

Exhibit P-40, Budget Item Justification									Date: February 2011		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number: 0300D - Procurement, Defense-wide/BA-01/BSA-17						**P-1 Line Item Nomenclature:** BMDS AN/TPY-2 Radars					
Program Element for Code B Items:						**Other Related Program Elements: PE 0603884C**					
	ID Code	**Prior Years**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**To Complete**	**Total Program**
Proc Qty			1		2	2	2	2	2		11
Gross Cost ($M)			191.081		380.195	365.559	354.175	380.715	380.250		2,051.975
Less PY Adv Proc ($M)											
Plus CY Adv Proc ($M)											
Net Proc (=P-1) ($M)			191.081		380.195	365.559	354.175	380.715	380.250		2,051.975
Initial Spares ($M)							22.669				22.669
Total Proc Cost ($M)			191.081		380.195	365.559	376.844	380.715	380.250		2,074.644
Flyaway Unit Cost ($M)			191.081		190.098	182.780	188.422	190.358	190.125		
Wpn Sys Proc U/C ($M)			191.081		190.098	182.780	188.422	190.358	190.125		

Description

Procurement funding procures eleven AN/TPY-2 Radars required to complete THAAD Battery procurements and support COCOM emergent requirements for BMDS Forward-Based Radars.

Note: FY 2010 resources provided through a FY 2010 Above Threshold Reprogramming (ATR).

Justification

FY 2010: Procurement of one AN/TPY-2

FY 2011: No procurement (Skip Year)

FY 2012: Procurement of two AN/TYP-2 radars

Exhibit P-5 Cost Analysis			Weapon System: BMDS AN/TPY-2 Radars						Date: February 2011	
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number: 0300D - Procurement, Defense-wide/BA-01/BSA-17				D Code:		P-1 Line Item Nomenclature: BMDS AN/TPY-2 Radars				
WBS Cost Elements	Prior Years Unit Cost	Prior Years Total Cost	FY 2010 Unit Cost	FY 2010 Total Cost	FY 2011 Unit Cost	FY 2011 Total Cost	FY 2012 Unit Cost	FY 2012 Total Cost	FY 2013 Unit Cost	FY 2013 Cost
System Quantity			1				2		2	
AN/TPY-2 Radar System										
Antenna Equipment Unit (AEU)			144.285	144.285			144.091	288.181	137.930	275.859
Cooling Equipment Unit (CEU)			7.800	7.800			7.668	15.336	7.475	14.950
Electronic Equipment Unit (EEU)			23.398	23.398			23.003	46.006	22.425	44.850
Primary Power Units (PPU 2 ea radar system)			15.598	15.598			15.336	30.672	14.950	29.900
Total				191.081				380.195		365.559

Exhibit P-5 Cost Analysis (Page 2)		Weapon System: BMDS AN/TPY-2 Radars				Date: February 2011		
WBS Cost Elements	**FY 2014 Unit Cost**	**FY 2014 Total Cost**	**FY 2015 Unit Cost**	**FY 2015 Total Cost**	**FY 2016 Unit Cost**	**FY 2016 Total Cost**		
System Quantity	2		2		2			
AN/TPY-2 Radar System								
Antenna Equipment Unit (AEU)	134.033	268.066	147.386	294.771	147.153	294.306		
Cooling Equipment Unit (CEU)	7.286	14.572	7.162	14.324	7.162	14.324		
Electronic Equipment Unit (EEU)	21.729	43.458	21.486	42.972	21.486	42.972		
Primary Power Units (PPU 2 per radar system)	14.488	28.974	14.324	28.648	14.324	28.648		
Spares								
Cooling Equipment Unit (Spare 1)	7.286	7.286						
Prime Power Unit (Spares 2 ea)	7.244	14.488						
Total		**376.844**		**380.715**		**380.250**		

Exhibit P-5a, Procurement History and Planning (Page 1)					Weapon System: BMDS AN/TPY-2 Radars		Date:	February 2011	
Appropriation (Treasury) Code/CC/BA/BSA/ItemControl Number: 0300D - Procurement, Defense-wide/BA-01/BSA-17						**P-1 Line Item Nomenclature:** BMDS AN/TPY-2 Radars			
WBS COST ELEMENTS	**Qty**	**Unit Cost**	**Location of PCO**	**RFP Issue Date**	**Contract Method & Type**	**Contractor & Location**	**Award Date**	**Date of First Delivery**	**Tech Data Available Now?**	**Date Revisions Available**
FY 2010										
AN/TPY-2 Radar -	**1**		MDA, HSV, AL	3QFY10	SS/FPI	Raytheon: Woburn, MA	4QFY10	2QFY13	Y	
Antenna Equipment Unit (AEU)		144.285	MDA, HSV, AL						Y	
Cooling Equipment Unit (CEU)		7.800	MDA, HSV, AL						Y	
Electronic Equipment Unit (EEU)		23.398	MDA, HSV, AL						Y	
Primary Power Units (PPU 2 ea radar system)		15.598	MDA, HSV, AL						Y	
Total Cost:		**191.081**								
FY 2011										
(Procurement Skip Year)										
FY 2012										
AN/TPY-2 Radar	**2**		MDA, HSV, AL	3QFY11	SS/FFP	Raytheon: Woburn, MA	1QFY12	3QFY14	Y	
Antenna Equipment Unit (AEU)		144.091	MDA, HSV, AL						Y	
Cooling Equipment Unit (CEU)		7.668	MDA, HSV, AL						Y	
Electronic Equipment Unit (EEU)		23.003	MDA, HSV, AL						Y	
Primary Power Units (PPU 2 ea radar system)		15.336	MDA, HSV, AL						Y	
Total Cost:		**190.098**								
Remarks:										

Exhibit P-21, Production Schedule			Date: February 2011
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: 0300D - Procurement, Defense-wide/BA-01/BSA-17		Weapons System: BMDS AN/TPY-2 Radars	P-1 Line Item Nomenclature: BMDS AN/TPY-2 Radars

		PRODUCTION RATE			PROCUREMENT LEADTIMES					
ITEM	Manufacturer's Name & Location	MSR	ECON (1-8-5)	MAX	ALT Prior to 1 Oct	ALT After 1 Oct	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
AN/TPY-2 Radars	Raytheon / MA	1/yr	1/yr	4/yr	4 Mo	2 Mo	30 Mo		36 Mo	E

						FISCAL YEAR 2010												FISCAL YEAR 2011										
									CALENDAR YEAR 2010													CALENDAR YEAR 2011								
ITEM	FY	SVC	QTY	DEL	BAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
AN/TPY-2 Radar #8	2010	D	1	0	1												A													1

						FISCAL YEAR 2012												FISCAL YEAR 2013										
									CALENDAR YEAR 2012													CALENDAR YEAR 2013								
ITEM	FY	SVC	QTY	DEL	BAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
AN/TPY-2 Radar #8	2010	D	1	0	1																		1			.				0
AN/TPY-2 Radars #9, 10	2012	D	2	0	2			A																						2
AN/TPY-2 Radars #11, 12	2013	D	2	0	2															A										2

Note: Maximum production rate is based on 3 shifts, 8 hours per day, 7 days per week.

Exhibit P-21, Production Schedule			Date: February 2011
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: 0300D - Procurement, Defense-wide/BA-01/BSA-17	Weapons System: BMDS BMDS AN/TPY-2 Radars	P-1 Line Item Nomenclature: BMDS AN/TPY-2 Radars	

		PRODUCTION RATE			PROCUREMENT LEADTIMES					
ITEM	Manufacturer's Name and Location	MSR (1-8-5)	ECON (1-8-5)	MAX (3-8-7)	ALT Prior to Oct 1	ALT After 1-Oct	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
AN/TPY-2 Radars	Raytheon; Woburn, MA	1/yr	1/yr	4/yr	4 Mo	2 Mo	30 Mo		36 Mo	E

						FISCAL YEAR 2014													FISCAL YEAR 2015									
									CALENDAR YEAR 2014														CALENDAR YEAR 2015								
ITEM	FY	SVC	QTY	DEL	BAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
AN/TPY-2 Radar #9, 10	2012	D	2	0	2									2																0
AN/TPY-2 Radars #11, 12	2013	D	2	0	2																					2				0
AN/TPY-2 Radars #13, 14	2014	D	2	0	2			A																						2
AN/TPY-2 Radars #15, 16	2015	D	2	0	2															A										2

						FISCAL YEAR 2016													FISCAL YEAR 2017									
									CALENDAR YEAR 2016														CALENDAR YEAR 2017								
ITEM	FY	SVC	QTY	DEL	BAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
AN/TPY-2 Radars #13, 14	2014	D	2	0	2									2																0
AN/TPY-2 Radar #15, 16	2015	D	2	0	2																					2				0
AN/TPY-2 Radars 17, 18	2016	D	2	0	2			A																						2

Note: Maximum production rate is based on 3 shifts, 8 hours per day, 7 days per week.