Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-362

BMDS

As of December 31, 2011

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Designation And Nomenclature (Popular Name)

Ballistic Missile Defense System (BMDS)

DoD Component

Responsible Office

Responsible Office

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References

SAR Baseline (Planning Estimate)

National Security Presidential Directive (NSPD) - 23 dated December 16, 2002

Mission and Description

The mission of the Missile Defense Agency (MDA) is derived from the National Missile Defense Act of 1999; the Missile Defense Program Direction signed by the Secretary of Defense, dated January 02, 2002; National Security Presidential Directive-23 (NSPD-23), dated December 16, 2002; the MDA Charter - Department of Defense Directive 5134.09, dated September 17, 2009; and the Ballistic Missile Defense Review (BMDR) Report, dated February 01, 2010.

MDA's mission is to develop and field an integrated, layered, increasingly robust Ballistic Missile Defense System (BMDS) to defend the United States, its deployed forces, allies, and partners against all ranges of enemy ballistic missiles in all phases of flight.

Following guidance from the President, the Secretary of Defense approved the BMDR Report, which established the following policy priorities to frame missile defense development and acquisition program strategies:

1. Enhance the protection of the United States from limited ballistic missile attack
2. Continue to develop, improve, and deploy capabilities to defend U.S. forces, allies and partners against regional missile threats
3. Develop capabilities that are flight tested under operationally realistic conditions before they are deployed
4. Build capabilities to hedge against future threat uncertainties and the technical risks inherent in technology development plans
5. Deploy capabilities that are economically sustainable over the long term
6. Lead expanded international efforts and cooperation in missile defense

Executive Summary

The Missile Defense Agency (MDA) accomplished a number of key goals toward satisfying critical ballistic missile defense (BMD) capability requirements directed by the 2010 Secretary of Defense *Ballistic Missile Defense Review (BMDR)* report and Presidential guidance as well as identified in the Warfighter Prioritized Capability List. Critical milestones were achieved to support homeland and regional defense capabilities, enhanced testing, development of new BMD System (BMDS) capabilities, and international cooperation in 2011. MDA also completed several landmark management initiatives.

The MDA goals are:

- Prove the power of missile defense through successful testing
- Enable fielding of European Phased Adaptive Approach (EPAA) Phase 1
- Provide a professionally rewarding work environment for a highly skilled and diverse workforce
- Enhance leadership and management skills
- Efficient use of taxpayers' investment in missile defense
- Provide Department of Defense (DoD) enterprise solutions to the Services and Combatant Commands (COCOMs)
- Complete BMDS and element Phased Adaptive Approach (PAA) Phase 3 and 4 Systems Engineering trades to maximize effectiveness and minimize cost
- Implement National Security Strategy through international cooperation in missile defense
- Capitalize on the creativity and innovation of the Nation's universities and small business community to enhance missile defense Science and Technology

MDA updated the strategy for delivering capability to the Warfighter. This change has not altered the content of the BMDS program, but does provide capability to the Warfighter sooner. Previously, MDA's strategy was to align BMDS development to BMDS "Capability Deliveries." These Capability Deliveries occurred in two-three year increments and included hardware and software systems projected for delivery inside that window. In 2011, MDA migrated to a more rapid incremental delivery strategy. Under this strategy, MDA delivers capability to the Warfighter as it is ready; making the delivery increments smaller and more frequent. Baselines are no longer tied to a single BMDS Capability Delivery; they are now aligned with multiple incremental deliveries.

Significant 2011 BMDS program highlights include MDA deployment of Phase 1 of the EPAA which consisted of deployed command and control in Europe, forward-based radar in Turkey, and force projection of Aegis BMD capability. MDA's highest priority is the successful Ground-Based Missile Defense (GMD) intercept flight test of the newest exo-atmospheric kill vehicle (EKV). MDA completed the Failure Review Board evaluation last year identifying the most probable cause of the failure in the December 2010 Flight Test Ground Based Interceptor (FTG-06a) flight test. As a result, MDA is developing EKV design enhancements which will be tested in Fiscal Year (FY) 2012 in the FTG-06b flight test.

BMDS component element programs are aligned with the President's Budget (PB) submission for FY 2013 (PB13). PB13 reduced BMDS resources across the Future Years Defense Program (FYDP). These reductions, as well as the Continuing Resolution during FY 2011 and through the second quarter of FY 2012, impacted MDA's ability to execute program plans and drove changes to some BMDS program content and schedule.

Homeland and Regional Defense

MDA awarded several major contracts during 2011 to develop or produce capability against the proliferation of increasingly capable ballistic missiles. These included the GMD Development and Sustainment Contract (DSC) which was competitively awarded to perform future GMD development, fielding, test, system integration, configuration management, operations and sustainment and other functions for the GMD weapon system. Other major contracts awarded include the Terminal High Altitude Area Defense (THAAD) system and AN/TPY-2 radar Foreign Military Sales (FMS) production for the United Arab Emirates (UAE); a contract to develop, model, fabricate,

integrate, test, deliver, train, operate and sustain continued Command and Control, Battle Management, and Communications (C2BMC) capability; and the Objective Simulation Framework contract which provides a highly flexible mechanism to modernize, deploy, and sustain MDA's Modeling & Simulation (M&S) capabilities. During 2011 MDA delivered unprecedented capability to the Warfighter for homeland and regional defense. The following highlights the significant capability delivered and other key BMDS programmatic milestones:

- Upgraded the Thule Early Warning Radar (EWR) into the BMDS and certified it for operational use for missile warning, missile defense, and space surveillance missions
- Upgraded three emplaced Ground-Based Interceptors (GBIs) at Fort Greely, Alaska as part of the GMD fleet refurbishment and upgrade program, and fielded improved GMD fire control software
- Completed the FTG-06a Failure Review Board evaluation, a critical step toward the successful return to GMD flight testing in FY 2012
- Completed GMD Missile Field-2 major construction
- Deployed one Aegis 3.6.1 BMD ship to the European Command (EUCOM) Area of Responsibility in support of initial EPAA Phase 1 capabilities to protect North Atlantic Treaty Organization (NATO) and territories in Europe
- Demonstrated NATO Active Layer Theatre Ballistic Missile Defense (ALTBMD) interoperability with EUCOM C2BMC Spiral 6.4 for NATO situational awareness of the defense of Europe. Deployed initial missile defenses by the end of 2011, including deployment of EPAA Phase 1 capabilities to protect NATO and territories in Europe
- Delivered 11 THAAD interceptors for THAAD batteries #1 and #2 and started production of THAAD batteries #3 and #4
- Converted three ships to Aegis BMD 3.6.1, completed installation of Aegis BMD 4.0.1 on one ship and a second Aegis BMD 4.0.1 ship installation is underway
- Manufactured 19 Standard Missile-3 (SM-3) Block IA interceptors and the first SM-3 Block IB interceptor
- Prepared and deployed an AN/TPY-2 radar to EUCOM (Turkey) and achieved Technical Capability Declaration on December 20, 2011
- Supported negotiations for host nation agreements to deploy Aegis Ashore batteries to Romania and Poland
- Continued SM-3 Block IIA system and component preliminary design reviews
- Delivered C2BMC Spiral 6.4 to Northern Command (NORTHCOM), Strategic Command (STRATCOM), and Pacific Command (PACOM)
- Completed BMDS Sea-Based X-band radar (SBX) development and production, entered operations and sustainment, and completed transfer to the Navy's Military Sealift Command on December 22, 2011

Enhanced Testing

MDA continues to evolve the BMDS test strategy to balance affordability concerns with defeating the dynamic threat. BMDS testing demonstrates improved integration of sensor, battle management, fire control, and interceptor systems to allow the BMDS to counter large raids of increasingly varied ballistic missiles. To support BMDS testing, MDA implemented a revised strategy to develop a flexible target family with the ability to interchange re-entry vehicles across Medium Range Ballistic Missile (MRBM), Intermediate Range Ballistic Missile (IRBM), and Intercontinental Ballistic Missile (ICBM) target classes. This strategy allows MDA to emulate a wide range of threat capabilities with fewer unique target configurations. In order to accomplish this, MDA realigned the BMDS targets' portfolio by parsing common components from the Short Range Ballistic Missile (SRBM), MRBM, and IRBM programs. This new Targets Common Components program provides additional insight into cost, schedule, and acquisition strategy for re-entry vehicles and associated objects. Also, MDA will revise the acquisition strategy to acquire near term ICBM-class targets. The ICBM requirements through FY 2018 will be fulfilled by modifying IRBM targets so they achieve ICBM performance. MDA plans to develop an acquisition strategy to satisfy future ICBM-specific technical requirements in the FY 2017 timeframe.

In 2011 MDA completed Integrated Master Test Plan (IMTP) version 11.1 (February 2011) and version 11.2 (August 2011). The following are significant flight test events conducted to satisfy the IMTP 11.1 and 11.2:

- Japan Aegis BMD used SM-3 IA to intercept an SRBM separating payload Joint Flight Test Standard Missile

(JFTM-04 Event 3)
- First Aegis launch on remote test used SM-3 IA and sensor data provided by a forward–based AN/TPY-2 radar to intercept an IRBM Flight Test Standard Missile (FTM-15)
- First intercept test using SM-3 IB failed to intercept an SRBM separating payload however; did demonstrate the SM-3 IB Kinetic Warhead performance and operation of Aegis BMD 4.0.1 Weapon System (FTM-16E2)
- Initial Operational Test & Evaluation test demonstrated first simultaneous intercept of two SRBM targets by THAAD Flight Test THAAD Interceptor (FTT-12)

MDA is working with the operational test and evaluation community to update the IMTP for version 12.1 for a release in March 2012.

New BMDS Capabilities

MDA continues to develop affordable, yet advanced BMD technologies for integration into the fielded BMDS to allow rapid adaptation against the highly dynamic threat. To improve overall BMDS performance, MDA is developing capability to intercept threat ballistic missiles early in the battle space. Future programs such as the SM-3 IIB next generation interceptor will facilitate this early intercept as well as provide significantly enhanced capability.

Last year MDA concentrated testing using the Airborne Laser Test Bed (ALTB) to collect data on tracking and atmospheric compensation, system jitter, and boundary layer effects on directed energy propagation. This year, however, MDA grounded the ALTB aircraft in accordance with funding reductions enacted by Congress. MDA continues to examine the technical feasibility of developing high efficiency directed energy technology within next decade through other science and technology programs. Also in accordance with Congressional direction, MDA is refining development of technology originally to be delivered by the Airborne Infrared (ABIR) program.

MDA continues to support research and development efforts for other advanced technologies such as remote sensing; acquisition, tracking, and discrimination of multi-color infrared sensors and techniques to improve system data fusion capability to strengthen the defense sensor network. The greatest capability enhancement impacting both homeland and regional defense is the development and deployment of the Precision Tracking Space System (PTSS) satellite constellation. PTSS will provide fire control track-quality data to counter threat ballistic missile raids during their entire flight, therefore expanding the early intercept capability of BMDS interceptors. PTSS simplifies the current state of technology by providing more mature components to reduce program risk. PTSS intends to deliver ground segments and launch of the first two spacecraft in FY 2017.

International Cooperation

In 2011 MDA continued to expand missile defense cooperation with key allies. MDA currently participates in missile defense-related projects and studies with over twenty countries. A significant accomplishment in December 2011 was the signing of THAAD's first FMS case with the UAE.

MDA continues to promote critical collaboration with Israel for the development and rapid fielding of several BMD capabilities while ensuring interoperability with the U.S. BMDS. MDA tested the Arrow Weapon System successfully, intercepting a target representative to Israel's current ballistic missile threat. MDA plans additional testing of the David's Sling weapon system to demonstrate the capability to counter threat missiles during the midcourse and terminal portions of their flight. MDA is working with other Middle East countries through the Gulf Cooperation Council to strengthen cooperation and determine common missile defense interests.

In Europe, MDA participated in the successful test of the BMDS C2BMC system with the ALTBMD Interim Capability. This test demonstrated interoperability and data sharing. MDA successfully supported negotiations for host nation agreements to deploy BMD interceptor missiles in Romania and Poland for future EPAA Phases. MDA will continue to work with NATO allies to develop requirements and further capabilities for regional defense.

In East Asia, MDA is satisfying the requirements of the *BMDR* by leading expanded efforts for missile defense through several bilateral projects with Republic of Korea, Australia, and Japan. Japan remains a close partner with

MDA, continuing the cooperative development of the SM-3 IIA interceptor as well as supporting Japan's SM-3 Block IA flight test program. Furthermore, Japan received the first FMS of Aegis BMDS. Japan now has four Aegis destroyers equipped with Aegis BMD mission equipment and outfitted with SM-3 IA interceptor missiles.

Phased Adaptive Approach

The *BMDR* established that the U.S. will pursue a PAA for regional missile defense tailored to the threats unique to each region as well as the capabilities available to address the threat. The first adaptation of PAA was the EPAA, which is designed to protect NATO allies and forces against the increasing threats posed by the proliferation of ballistic missiles in Europe. DoD met its commitment for EPAA Phase 1 by deploying Aegis BMD-capable ships and a land-based radar by the end of 2011. Deliveries in the next three EPAA phases include:

- Aegis Ashore in Romania with SM-3 IB interceptors in the 2015 timeframe (Phase 2)
- Aegis Ashore in Poland with SM-3 IIA interceptors in the 2018 timeframe (Phase 3)
- SM-3 IIB interceptors and early intercept capability in the 2020 timeframe (Phase 4)

The United States will also pursue phased adaptive approaches in the Asia Pacific and the Middle East by building on current efforts. MDA will align capabilities and programs to develop and deploy missile defenses using a phased adaptive approach. This approach includes support for: procurement and delivery of additional SM-3 IB and THAAD interceptors; construction of an Aegis Ashore test facility at the Pacific Missile Range Facility by 2014 and an Aegis Ashore battery in Romania by 2015; operation and sustainment of C2BMC at fielded sites; continued co-development with Japan of the SM-3 IIA interceptor; and design and engineering work for the PTSS.

MDA Management Initiatives

The BMDS Accountability Report (BAR) has been provided to Congress in 2010, 2011, and most recently in February 2012 in accordance with public law requirements. The BAR represents a key MDA management initiative to document BMDS component program baselines. BMDS programs included in the report are in the Product Development, Initial Production, or Production phase. Although not required by statute, MDA also reports on SM-3 IIB and PTSS plans because of they are a critical component to future of the BMDS. The reported baselines are resource (cost), schedule, technical, contracts, and operational capacity. MDA reports significant variances against the resource, schedule, and technical baselines. Due to the impacts of the FY 2012 appropriations in late December 2011, MDA did not report the BMDS component program test baselines in the 2012 BAR. MDA will describe BMDS test information in the updated IMTP.

The 2005 Base Realignment and Closure (BRAC) Commission Recommendation #134 directed the realignment of several MDA functions from the National Capital Region (NCR) to government facilities at Fort Belvoir, Virginia, and Redstone Arsenal in Huntsville, Alabama. In 2011, the Headquarters (HQ) successfully relocated to Fort Belvoir while the remaining mission and mission support functions moved to Redstone Arsenal. MDA personnel first occupied the HQ facility in the summer of 2011. The building dedication occurred in August 2011. The new Van Braun III (VB III) facility on Redstone Arsenal holds over 2,600 personnel. VB III was first occupied in the summer of 2011 and was dedicated in the September 2011.

MDA completed the initial competition for the restructure of all of its contractor support services. This effort, called Missile Defense Agency Engineering and Support Services (MiDAESS), replaced over 200 legacy contracts and many other transactions managed by Service organizations. MiDAESS introduced efficiencies to embrace enterprise-wide, product-focused Advisory and Assistance Services support while increasing the amount of small business utilization for that support. MiDAESS has 36 Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts in seven functional areas with 54 separate task orders. MDA awarded 16 of the 36 ID/IQ contracts to small businesses as prime contractors. The first task orders will begin their recompete phase in the fall of 2012.

There are no significant software-related issues with this program at this time.

Threshold Breaches

APB Breaches		
Schedule		☐
Performance		☐
Cost	RDT&E	☐
	Procurement	☐
	MILCON	☐
	Acq O&M	☐
Unit Cost	PAUC	☐
	APUC	☐

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Schedule

No schedule milestones exist for BMDS.

Memo
For schedule milestones see the Unclassifed Ballistic Missile Defense System (BMDS) Accountability Report (BAR) and BAR Classified Annex dated February 15, 2012.

Performance

Memo
For performance characteristics see the Unclassified Ballistic Missile Defense System (BMDS) Accountability Report (BAR) and BAR Classified Annex dated February 15, 2012.

Track To Budget

RDT&E				
APPN 0400	BA 04	PE 0207998C	(DoD)	
	Project MD36	Base Realignment and Closure (BRAC)		(Sunk)
APPN 0400	BA 03	PE 0603175C	(DoD)	
	Project MD25	Advanced Technology		
	Project MD40	Program Wide Support		
APPN 0400	BA 03	PE 0603274C	(DoD)	
	Project MD81	Special Programs - MDA Technology		
APPN 0400	BA 04	PE 0603881C	(DoD)	
	Project MD06	Patriot Advanced Capability-3 (PAC-3)		
	Project MD07	THAAD		
	Project MD40	Program Wide Support		
	Project MT07	THAAD Test		
APPN 0400	BA 04	PE 0603882C	(DoD)	
	Project MD08	Ground Based Midcourse		
	Project MD40	Program Wide Support		
	Project MT08	Ground Based Midcourse Test		
	Project MX08	Ground Based Midcourse Development Support		
APPN 0400	BA 04	PE 0603884C	(DoD)	
	Project MD11	BMDS Radars		
	Project MD40	Program Wide Support		
	Project MT11	BMDS Radars Test		
APPN 0400	BA 04	PE 0603888C	(DoD)	
	Project MD04	Test Program		(Sunk)
	Project MD05	Targets Program		(Sunk)
	Project MD40	Program Wide Support		(Sunk)

APPN 0400	BA 04	PE 0603890C	(DoD)	
	Project MD24	Systems Engineering & Integration		
	Project MD28	Intelligence & Security		
	Project MD29	Producibility and Manufacturing Technology		(Sunk)
	Project MD30	BMD Information Management Systems		
	Project MD31	Modeling & Simulation		
	Project MD32	Quality, Safety, and Mission Assurance		
	Project MD40	Program Wide Support		
	Project MT23	Enabling - Test		
APPN 0400	BA 04	PE 0603891C	(DoD)	
	Project MD27	Special Programs		
APPN 0400	BA 04	PE 0603892C	(DoD)	
	Project MD09	Aegis BMD		
	Project MD40	Program Wide Support		
	Project MT09	Aegis BMD Test		
	Project MX09	Aegis BMD Development Support		
APPN 0400	BA 04	PE 0603893C	(DoD)	
	Project MD12	Space Tracking & Surveillance System (STSS)		
	Project MD40	Program Wide Support		
APPN 0400	BA 04	PE 0603895C	(DoD)	
	Project MD33	MD Space Exp Center (MDSEC)		
	Project MD40	Program Wide Support		
APPN 0400	BA 04	PE 0603896C	(DoD)	
	Project MD01	Command & Control, Battle Management, Communications (C2BMC)		
	Project MD40	Program Wide Support		
	Project MT01	C2BMC Test		
	Project MX01	C2BMC Development Support		

APPN 0400	BA 04	PE 0603898C	(DoD)	
	Project MD03	Joint Warfighter Support		
	Project MD40	Program Wide Support		
APPN 0400	BA 03	PE 0603901C	(DoD)	
	Project MD40	Program Wide Support		
	Project MD69	Directed Energy Research		
APPN 0400	BA 03	PE 0603902C	(DoD)	
	Project MD40	Program-Wide Support		
	Project MD70	Standard Missile-3 Block IIB (SM-3 IIB)		
APPN 0400	BA 04	PE 0603904C	(DoD)	
	Project MD22	Missile Defense Integration & Operations Center (MDIOC)		
	Project MD40	Program Wide Support		
APPN 0400	BA 04	PE 0603906C	(DoD)	
	Project MD35	Regarding Trench		
APPN 0400	BA 04	PE 0603907C	(DoD)	
	Project MD40	Program Wide Support		
	Project MD46	Sea Based X-Band (SBX) Sustainment		(Sunk)
	Project MX46	Sea Based X-Band Radar Development Support		
APPN 0400	BA 04	PE 0603913C	(DoD)	
	Project MD20	Israeli Upper Tier		
	Project MD26	Israeli ARROW Program		
	Project MD34	Short Range Ballistic Missile Defense (SRBMD)		
APPN 0400	BA 04	PE 0603914C	(DoD)	
	Project MD40	Program Wide Support		
	Project MT04	BMDS Test Program		

	Project MX04	BMD Test Development Support		(Sunk)
APPN 0400	BA 04	PE 0603915C	(DoD)	
	Project MD40	Program Wide Support		
	Project MT05	BMDS Targets Program		
APPN 0400	BA 04	PE 0604880C	(DoD)	
	Project MD40	Program-Wide Support		
	Project MD68	Aegis Ashore		
	Project MT68	Aegis Ashore Test		
APPN 0400	BA 04	PE 0604881C	(DoD)	
	Project MD09	SM-3 Block IIA Co-Development		
	Project MD40	Program-Wide Support		
	Project MT09	SM-3 Block IIA Co-Development Test		
APPN 0400	BA 04	PE 0604883C	(DoD)	
	Project MD10	Precision Tracking Space Sensor (PTSS)		
	Project MD40	Program Wide Support		
APPN 0400	BA 04	PE 0604884C	(DoD)	
	Project MD67	Airborne Infrared (ABIR)		(Sunk)
APPN 0400	BA 04	PE 0604886C	(DoD)	
	Project MD40	Program Wide Support		
	Project MD95	Advanced Remote Sensor Technology		
APPN 0400	BA 04	PE 0605502C	(DoD)	
	Project MD45	Small Business Innovative Research		(Sunk)
APPN 0400	BA 06	PE 0901585C	(DoD)	
	Project MD42	Pentagon Reservation Maintenance Reserve Fund (PRMRF)		(Sunk)

APPN 0400	BA 06	PE 0901598C	(DoD)	
	Project MD38	Management Headquarters		

Procurement

APPN 0300	BA 01	PE 0208866C	(DoD)	
	ICN MD07	THAAD		
	ICN MD09	Aegis BMD		
	ICN MD11	BMDS AN/TPY-2 Radars		
	ICN MD73	Aegis Ashore Phase III		
	ICN MD77	Radar Spares		
	ICN MD78	Aegis Spares		
	ICN MD83	Iron Dome		(Sunk)

MILCON

APPN 0500		PE 0603882C	(DoD)	
	Project MD08	Ground Based Midcourse		
APPN 0500		PE 0603884C	(DoD)	
	Project MD11	BMDS Radars		
APPN 0500		PE 0603888C	(DoD)	
	Project MD04	Test Program		
APPN 0500		PE 0603890C	(DoD)	
	Project MD32	Quality, Safety, and Mission Assurance		(Sunk)
APPN 0500		PE 0604880C	(DoD)	
	Project MD68	Aegis Ashore		

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

	BY $M			BY2002 $M	TY $M		
Appropriation	SAR Baseline Plan Est	Current APB Objective/Threshold		Current Estimate	SAR Baseline Plan Est	Current APB Objective	Current Estimate
RDT&E	44740.1	--	--	98446.6	47217.1	--	114766.6
Procurement	0.0	--	--	8397.8	0.0	--	10782.1
Flyaway	0.0	--	--	8397.8	0.0	--	10782.1
Recurring	0.0	--	--	8397.8	0.0	--	10782.1
Non Recurring	0.0	--	--	0.0	0.0	--	0.0
Support	0.0	--	--	0.0	0.0	--	0.0
Other Support	0.0	--	--	0.0	0.0	--	0.0
Initial Spares	0.0	--	--	0.0	0.0	--	0.0
MILCON	0.0	--	--	521.3	0.0	--	657.4
Acq O&M	0.0	--	--	0.0	0.0	--	0.0
Total	44740.1	--	--	107365.7	47217.1	--	126206.1

Quantity	SAR Baseline Plan Est	Current APB	Current Estimate
RDT&E	0	0	0
Procurement	0	0	0
Total	0	0	0

Quantities of Key BMDS Assets (grouped by appropriation, total buys from FY 2002-2017)

Program	Component	RDT&E Funded	Procurement Funded
THAAD	Batteries	2	4
	Interceptors	50	270
Aegis BMD	SM-3 Block I/IA Interceptors	71	68
	SM-3 Block IB Interceptors	25	375
GMD	GBIs	57	0
Sensors	AN/TPY-2 Radars	7	4

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2013 President's Budget / December 2011 SAR (TY$ M)

Appropriation	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
RDT&E	77925.3	6495.2	6224.7	5917.1	6229.1	6079.6	5895.6	0.0	114766.6
Procurement	2113.1	1654.7	1077.8	1419.4	1620.6	1362.7	1533.8	0.0	10782.1
MILCON	201.7	67.2	188.3	24.3	10.8	154.6	10.5	0.0	657.4
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2013 Total	80240.1	8217.1	7490.8	7360.8	7860.5	7596.9	7439.9	0.0	126206.1
PB 2012 Total	80210.3	8423.0	8481.3	8300.6	8466.8	8480.6	0.0	0.0	122362.6
Delta	29.8	-205.9	-990.5	-939.8	-606.3	-883.7	7439.9	0.0	3843.5

Quantity	Undistributed	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	0	0	0	0	0	0	0	0	0
PB 2013 Total	0	0	0	0	0	0	0	0	0	0
PB 2012 Total	0	0	0	0	0	0	0	0	0	0
Delta	0	0	0	0	0	0	0	0	0	0

Cost and Funding

Annual Funding By Appropriation

Annual Funding TY$
0400 | RDT&E | Research, Development, Test, and Evaluation, Defense-Wide

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2002	--	--	--	--	--	--	6618.8
2003	--	--	--	--	--	--	6446.3
2004	--	--	--	--	--	--	7566.8
2005	--	--	--	--	--	--	8826.7
2006	--	--	--	--	--	--	7690.2
2007	--	--	--	--	--	--	9381.3
2008	--	--	--	--	--	--	8655.3
2009	--	--	--	--	--	--	8407.3
2010	--	--	--	--	--	--	6957.3
2011	--	--	--	--	--	--	7375.3
2012	--	--	--	--	--	--	6495.2
2013	--	--	--	--	--	--	6224.7
2014	--	--	--	--	--	--	5917.1
2015	--	--	--	--	--	--	6229.1
2016	--	--	--	--	--	--	6079.6
2017	--	--	--	--	--	--	5895.6
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**114766.6**

Annual Funding BY$
0400 | RDT&E | Research, Development, Test, and Evaluation, Defense-Wide

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 $M	Non End Item Recurring Flyaway BY 2002 $M	Non Recurring Flyaway BY 2002 $M	Total Flyaway BY 2002 $M	Total Support BY 2002 $M	Total Program BY 2002 $M
2002	--	--	--	--	--	--	6567.6
2003	--	--	--	--	--	--	6295.8
2004	--	--	--	--	--	--	7213.9
2005	--	--	--	--	--	--	8158.5
2006	--	--	--	--	--	--	6910.1
2007	--	--	--	--	--	--	8230.7
2008	--	--	--	--	--	--	7453.8
2009	--	--	--	--	--	--	7152.1
2010	--	--	--	--	--	--	5834.2
2011	--	--	--	--	--	--	6068.2
2012	--	--	--	--	--	--	5250.3
2013	--	--	--	--	--	--	4948.9
2014	--	--	--	--	--	--	4625.3
2015	--	--	--	--	--	--	4783.2
2016	--	--	--	--	--	--	4585.6
2017	--	--	--	--	--	--	4368.4
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**98446.6**

Since there is no separate appropriation for Base Realignment and Closure (BRAC), FY 2006 - FY 2011 BRAC is included in the RDT&E appropriation.

Annual Funding TY$
0300 | Procurement | Procurement, Defense-Wide

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2009	--	--	206.6	--	206.6	--	206.6
2010	--	--	835.7	--	835.7	--	835.7
2011	--	--	1070.8	--	1070.8	--	1070.8
2012	--	--	1654.7	--	1654.7	--	1654.7
2013	--	--	1077.8	--	1077.8	--	1077.8
2014	--	--	1419.4	--	1419.4	--	1419.4
2015	--	--	1620.6	--	1620.6	--	1620.6
2016	--	--	1362.7	--	1362.7	--	1362.7
2017	--	--	1533.8	--	1533.8	--	1533.8
Subtotal	**--**	**--**	**10782.1**	**--**	**10782.1**	**--**	**10782.1**

Annual Funding BY$
0300 | Procurement | Procurement, Defense-Wide

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 $M	Non End Item Recurring Flyaway BY 2002 $M	Non Recurring Flyaway BY 2002 $M	Total Flyaway BY 2002 $M	Total Support BY 2002 $M	Total Program BY 2002 $M
2009	--	--	174.5	--	174.5	--	174.5
2010	--	--	694.3	--	694.3	--	694.3
2011	--	--	873.5	--	873.5	--	873.5
2012	--	--	1326.7	--	1326.7	--	1326.7
2013	--	--	849.8	--	849.8	--	849.8
2014	--	--	1099.9	--	1099.9	--	1099.9
2015	--	--	1233.6	--	1233.6	--	1233.6
2016	--	--	1018.9	--	1018.9	--	1018.9
2017	--	--	1126.6	--	1126.6	--	1126.6
Subtotal	**--**	**--**	**8397.8**	**--**	**8397.8**	**--**	**8397.8**

Annual Funding TY$
0500 | MILCON | Military Construction, Defense-Wide

Fiscal Year	Total Program TY $M
2002	8.2
2003	24.9
2004	24.4
2005	22.3
2006	4.9
2007	--
2008	--
2009	18.3
2010	98.7
2011	--
2012	67.2
2013	188.3
2014	24.3
2015	10.8
2016	154.6
2017	10.5
Subtotal	**657.4**

Annual Funding BY$
0500 | MILCON | Military Construction, Defense-Wide

Fiscal Year	Total Program BY 2002 $M
2002	8.0
2003	23.7
2004	22.6
2005	20.1
2006	4.3
2007	--
2008	--
2009	15.2
2010	80.6
2011	--
2012	53.0
2013	146.0
2014	18.5
2015	8.1
2016	113.6
2017	7.6
Subtotal	**521.3**

Low Rate Initial Production

There is no Low Rate Initial Production for this program.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost $M	Memo
United Arab Emirates	12/25/2011	2	3499.0	FMS Case AE-B-UAF, Two THAAD Batteries, consisting of 96 Interceptors, 2 AN/TPY-2 Radars, 9 Launchers, 8 Missile Round Pallets, 7 MIDS Terminals, 4 AMMPS, 10 PR4G TRC-9105 Radios, 4 PR4G TRC-9301C Radios, various tactical vehicles, trucks, training aids & devices, spare parts, training, government and contractor technical assistance, books & publications, and repair & return.
United Arab Emirates	4/30/2010	0	13.8	FMS Case AE-B-UAE, Technical Assistance & Site Survey. Deliveries: no major deliveries.
Japan	3/22/2010	2	20.0	FMS Case JA-P-FON: SM-3 BLK IA Spares and Return, Repair, Re-Shipment (RRR). Deliveries: SM-3 Standard Kinetic Warhead (KW); MK72 Rocket Booster Motor.
Japan	1/15/2010	0	8.0	FMS Case JA-P-FPX: Japan Hardware in the Loop (HWIL). No major deliveries.
Japan	11/9/2008	0	21.0	FMS Case JA-P-CAM: Japan Computer Program Test Site JABMD Upgrade. No major deliveries.
Japan	9/11/2008	0	12.0	FMS Case JA-P-FQV: SM-3 BLK IA Spares. No major deliveries. .
Japan	8/19/2008	0	59.0	FMS Case JA-P-CAN: JS KIRISHIMA (DDG 174) Firing Event. Deliveries: Execution of Firing Event; no major deliveries.
Japan	3/3/2008	9	202.0	FMS Case JA-P-LWA: Japan Aegis BMD Block 2004 Upgrade of JS KIRISHIMA (DDG 174). Deliveries: 1 JBMD BLK 04 Computer Program, Peripherals, and SM-3 BLK IA Missiles.
Japan	1/18/2008	0	53.0	FMS Case JA-P-CAE: JS MYOKO (DDG 175) Firing Event. Deliveries: Execution of firing event; no major deliveries.
Japan	1/3/2008	0	3.0	FMS Case JA-P-FLU: Defining the Interface between Japan Aerospace Defense Ground Environment (JADGE) and Japan Aegis BMD. No major deliveries.
Netherlands	8/31/2006	0	7.0	FMS Case NE-P-GLK: Participation in ABMD Test Events and Trade Studies. Deliveries: No major deliveries.
Japan	8/21/2006	0	55.0	FMS Case JA-P-BIR: JS CHOKAI (DDG 176) Firing Event. Deliveries: Execution of firing event; no major deliveries.
Japan	8/21/2006	9	209.6	FMS Case JA-P-LVK: Japan Aegis BMD Block 2004 Upgrade of JS MYOKO (DDG 175). Deliveries: 1 JBMD BLK 04 Computer Program, Peripherals, and SM-3 BLK IA Missiles.
Japan	10/12/2005	9	230.0	FMS Case JA-P-LUX: Japan Aegis BMD Block

				2004 Upgrade of JS CHOKAI (DDG 176). Deliveries: 1 JBMD BLK 04 Computer Program, Peripherals, and SM-3 BLK IA Missiles.
Japan	9/9/2005	0	55.0	FMS Case JA-P-BIN: JS KONGO (DDG 173) Firing Event. Deliveries: Execution of Firing Event; no major deliveries.
Japan	8/17/2004	9	309.0	FMS Case JA-P-LUH, Japan Aegis BMD Block 2004 Upgrade of JS KONGO (DDG 173). Deliveries: 1 JBMD BLK 04 Computer Program, Peripherals, and SM-3 BLK IA Missiles.
Japan	8/13/2004	0	21.0	FMS Case JA-P-BGQ: Joint Control Test Vehicle (JCTV-1)/Joint Flight Test Mission. No major deliveries.
Japan	11/19/2002	0	4.0	FMS Case JA-P-BEY: Quantum Well Infrared Photodetector Integration and Test. No major deliveries.
Japan	8/30/2001	0	6.0	FMS Case JA-P-BDZ: Navy Theater Wide (NTW) Captive Carry Test. No major deliveries.
Netherlands	9/28/2000	0	4.0	FMS Case NE-P-GJS: Theater Ballistic Missile Defense Concept Validation Phase. No major deliveries.

Nuclear Cost

None

Unit Cost

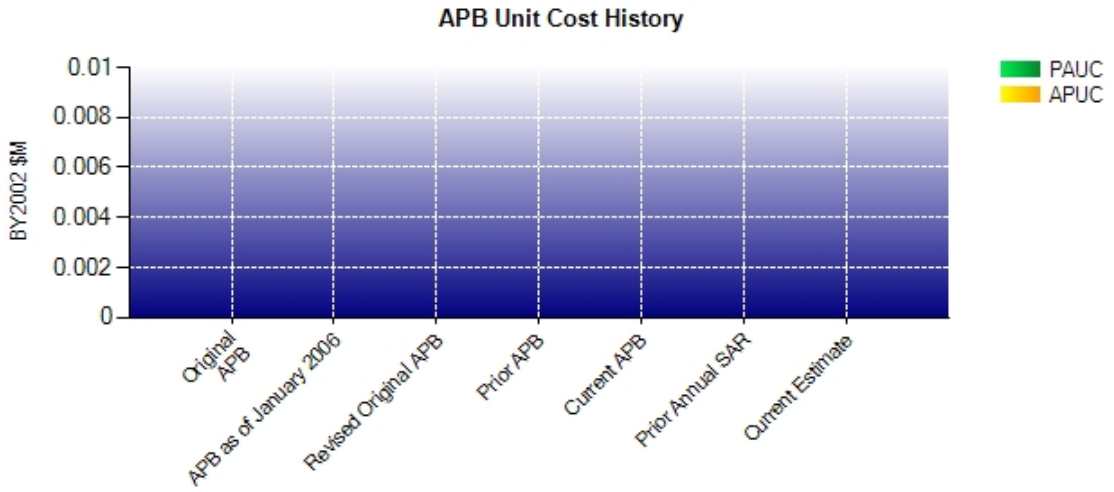
Unit Cost Report

Unit Cost	BY2002 $M Current UCR Baseline	BY2002 $M Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	--	107365.7	
Quantity	--	0	
Unit Cost	--	--	--
Average Procurement Unit Cost (APUC)			
Cost	--	8397.8	
Quantity	--	0	
Unit Cost	--	--	--

Unit Cost	BY2002 $M Original UCR Baseline	BY2002 $M Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	--	107365.7	
Quantity	--	0	
Unit Cost	--	--	--
Average Procurement Unit Cost (APUC)			
Cost	--	8397.8	
Quantity	--	0	
Unit Cost	--	--	--

For Major Defense Acquisition Programs, DoD requires an Acquisition Program Baseline (APB) at program initiation. The APB establishes cost, quantity, schedule, and performance parameters that form the basis for unit cost reporting under 10 U.S.C. Sec. 2433. As a single integrated system of systems, the BMDS does not have an APB. In response to other statutory requirements, however, Missile Defense Agency provides the Congress with an annual BMDS Accountability Report (BAR), which includes schedule, technical, test, operational capacity, resource, and contract baselines that guide development of ballistic missile defense capabilities. The BAR includes unit cost baselines for key assets (e.g. Ground-Based Interceptors and AN/TPY-2 radars) comprising the BMDS.

Unit Cost History



		BY2002 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	N/A	N/A	N/A	N/A	N/A
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	N/A	N/A	N/A	N/A	N/A
Current APB	N/A	N/A	N/A	N/A	N/A
Prior Annual SAR	DEC 2010	N/A	N/A	N/A	N/A
Current Estimate	DEC 2011	N/A	N/A	N/A	N/A

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY $M)

Initial PAUC Plan Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Current SAR Baseline to Current Estimate (TY $M)

Initial APUC Plan Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	N/A	N/A	N/A
Milestone C	N/A	N/A	N/A	N/A
IOC	N/A	N/A	N/A	N/A
Total Cost (TY $M)	47217.1	N/A	N/A	126206.1
Total Quantity	0	N/A	N/A	0
Prog. Acq. Unit Cost (PAUC)	N/A	N/A	N/A	N/A

Cost Variance

Cost Variance Summary

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Plan Est)	47217.1	--	--	47217.1
Previous Changes				
Economic	+1092.2	-17.5	-18.8	+1055.9
Quantity	--	--	--	--
Schedule	-1684.3	--	--	-1684.3
Engineering	+50688.3	+399.0	--	+51087.3
Estimating	-8091.0	+32.7	+403.9	-7654.4
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+42005.2	+414.2	+385.1	+42804.5
Current Changes				
Economic	+530.4	+149.7	+4.7	+684.8
Quantity	--	--	--	--
Schedule	--	-124.7	--	-124.7
Engineering	-560.8	-1695.1	-31.8	-2287.7
Estimating	-902.3	-1207.2	+240.7	-1868.8
Other	--	--	--	--
Support	--	--	--	--
Subtotal	-932.7	-2877.3	+213.6	-3596.4
Adjustments	+26477.0	+13245.2	+58.7	+39780.9
Total Changes	+67549.5	+10782.1	+657.4	+78989.0
CE - Cost Variance	114766.6	10782.1	657.4	126206.1
CE - Cost & Funding	114766.6	10782.1	657.4	126206.1

Summary Base Year 2002 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Plan Est)	44740.1	--	--	44740.1
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	-1417.0	--	--	-1417.0
Engineering	+42769.8	+315.6	--	+43085.4
Estimating	-6867.7	+31.9	+320.7	-6515.1
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+34485.1	+347.5	+320.7	+35153.3
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	-91.5	--	-91.5
Engineering	-429.3	-1292.8	-24.3	-1746.4
Estimating	-727.1	-936.9	+180.3	-1483.7
Other	--	--	--	--
Support	--	--	--	--
Subtotal	-1156.4	-2321.2	+156.0	-3321.6
Adjustments	+20377.8	+10371.5	+44.6	+30793.9
Total Changes	+53706.5	+8397.8	+521.3	+62625.6
CE - Cost Variance	98446.6	8397.8	521.3	107365.7
CE - Cost & Funding	98446.6	8397.8	521.3	107365.7

Previous Estimate: December 2010

Cost Variance Memo

	Then-Year $M				Base-Year $M			
	RDT&E	PROC	MILCON	TOTAL	RDT&E	PROC	MILCON	TOTAL
Dec 2009 SAR Adjustments	14,302.0	9,520.3	38.1	23,860.4	11,204.2	7,582.5	29.4	18,816.1
Dec 2010 SAR Adjustments	6,279.4	2,191.1	10.1	8,480.6	4,805.2	1,662.4	7.6	6,475.2
Dec 2011 SAR Adjustments	5,895.6	1,533.8	10.5	7,439.9	4,368.4	1,126.6	7.6	5,502.6
Total	**26,477.0**	**13,245.2**	**58.7**	**39,780.9**	**20,377.8**	**10,371.5**	**44.6**	**30,793.9**

The December 2011 SAR adjustments reflect the addition of the FY 2017 funding for RDT&E, Procurement, and MILCON; previous SAR limited funding through 2016.

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+530.4
Adjustment for current and prior escalation. (Estimating)	-162.2	-197.3
Additional Aegis SM-3 Block IIA test rounds (Estimating)	+117.1	+153.8
Revised Integrated Master Test Plan (IMTP 12.1) (Estimating)	+91.7	+117.7
Reduction of Special Programs funding (Estimating)	-317.6	-408.2
Reductions in Directed Energy Program (Estimating)	-150.8	-194.2
Funding reductions in FY 2011- FY 2012 in Precision Tracking Space System (PTSS) Program. (Estimating)	-91.8	-113.6
FY 2011 Congressional reduction to Midcourse Defense (Estimating)	-47.7	-58.0
Adjustments to realign to higher priorities (Estimating)	-165.8	-202.5
Increases to Israeli Cooperative Program for FY 2011-2012 (Engineering)	+177.2	+217.8
Established Advanced Remote Sensor Technology Program (Engineering)	+99.3	+127.0
Placed Sea Based X-band (SBX) radar in limited test and contingency operation status (Engineering)	-516.8	-666.3
Cancelled Airborne Infrared (ABIR) Program (Engineering)	-189.0	-239.3
RDT&E Subtotal	-1156.4	-932.7

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+149.7
Adjustment for current and prior escalation. (Estimating)	-30.4	-37.6
Increase for 20 additional Aegis missiles in FY 2011 (Estimating)	+154.7	+189.7
Reduced THAAD missile production rate (Estimating)	-975.3	-1247.2
Adjustments to realign to higher priorities (Estimating)	-85.9	-112.1
Increase for Iron Dome in FY 2011 (Engineering)	+167.2	+205.0
Increase for Aegis Ashore equipment for second site (Engineering)	+135.1	+176.0
Reduced THAAD Batteries from 9 to 6 and other THAAD reductions (Engineering)	-414.6	-540.8
Eliminated 7 AN/TPY-2 radars (from 18 to 11) (Engineering)	-945.4	-1237.2
Reduced Aegis SM-3 Block IB missiles in FY 2013 (Engineering)	-235.1	-298.1
Delayed Aegis SM-3 Block IIA Procurement by one year (Schedule)	-91.5	-124.7
Procurement Subtotal	-2321.2	-2877.3

MILCON	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+4.7
Adjustment for current and prior escalation. (Estimating)	-1.9	-2.3
Increased estimates for Romania and Poland Aegis Ashore sites (Estimating)	+159.2	+213.0
Increased estimate for Fort Drum IFICS Data Terminal (IDT) (Estimating)	+20.1	+25.9
Revised cost estimates and other adjustments (Estimating)	+2.9	+4.1
Cancelled Airborne Infrared (ABIR) Program (Engineering)	-24.3	-31.8
MILCON Subtotal	+156.0	+213.6

Contracts

General Contract Memo

On December 23, 2011 the Missile Defense Agency awarded a sole-source, incentive-based, Indefinite Delivery/Indefinite Quantity (ID/IQ) contract to Lockheed Martin Corporation, Information Systems & Global Solutions, Gaithersburg, Maryland (HQ0147-12-D-0003). Under this follow-on contract, the contractor will develop, model, fabricate, integrate, test, verify, evaluate, validate, document, deliver, field, train, operate, sustain, and support updates and new capabilities to the Command and Control, Battle Management and Communications system. The ordering period is from January 1, 2012 through December 31, 2016.

Appropriation: RDT&E

Contract Name	**Targets and Countermeasures Prime Contract**
Contractor	Lockheed Martin Corporation Space Systems Company
Contractor Location	Huntsville, AL 35806
Contract Number, Type	HQ0006-04-D-0006, CPAF
Award Date	December 09, 2003
Definitization Date	April 19, 2004

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
210.7	N/A	N/A	1950.6	N/A	N/A	2053.3	2056.9

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	-64.5	-15.0
Previous Cumulative Variances	-54.1	-6.9
Net Change	-10.4	-8.1

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to Delivery Order 22 Enhanced Medium-Range Ballistic Missile (eMRBM) efforts. Cost variance due to unplanned efforts for Preliminary Design Review closeout, Critical Design Review development, and Failure Modes and Effects Analysis releases. Also due to late start on Interface Control Document development for design and scope changes; increased Risk Management responses; overrun in proposal preparation expenses; Avionics Control Module; and Orbital subcontractor effort. Negative variance is partially offset by efficiencies in Program Operations, Business Operations and Program Control.

The unfavorable net change in the schedule variance is due to Delivery Order 22 eMRBM efforts. Behind schedule due to late hardware deliveries in Support Equipment and Avionics Control Module areas. This is caused by late loads, redesigns and late engineering releases. All components are expected to be delivered in time for Lockheed Martin Space System Company to deliver targets on time to meet mission dates.

Contract Comments

The difference between the initial contract price target and the current contract price target is due to evolving BMDS test requirements. These requirements, documented through semi-annual changes to the Integrated Master Test Plan, drive modifications to the Lockheed Martin Prime Contract. The modifications have resulted in additional costs which increased the current contract price target.

The net increase in contract actions for CY 2011 totaled $526.5M due to Integrated Master Test Plan requirements.

The following actions have added scope to this Indefinite Delivery/Indefinite Quantity (ID/IQ) contract over the course of CY 2011: Delivery Order 022 Hardware, in the amount of $290M; Delivery Order 023 Sustainment and Maintenance, in the amount of $175M; Delivery Order 024 Mission Planning and Program Management, in the amount of $60M; Delivery Order 025 Launch Activities, in the amount of $4.7M; Delivery Order 027 Medium-Range Ballistic Missile (MRBM) T-3 Unfunded Contract Action (UCA), in the amount of $3.1M; Delivery Order 029 MRBM Re-Entry Vehicles, in the amount of $5.6M; Delivery Order 030 Foreign Military Assets (FMAs) UCA, in the amount of $3.1M; Delivery Order 08 Hardware was de-scoped in the amount of $15M.

Appropriation: RDT&E

Contract Name	**Ground-Based Midcourse Defense Program**
Contractor	Boeing, Co. Missile Defense Systems
Contractor Location	Huntsville, AL 35806
Contract Number, Type	HQ0147-09-C-0008, CPFF/CPAF
Award Date	December 30, 2008
Definitization Date	June 25, 2009

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
397.8	N/A	N/A	1455.1	N/A	N/A	1365.1	1372.7

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	+93.5	-2.1
Previous Cumulative Variances	+43.6	-10.8
Net Change	+49.9	+8.7

Cost And Schedule Variance Explanations

The favorable net change in the cost variance is due to a reduction in workforce realized by consolidating management responsibilities in Program Management and Systems Engineering, Integration and Test.

The favorable net change in the schedule variance is due to attributed to definitization and re-phasing of multiple Engineering Change Proposals.

Contract Comments

This contract is more than 90% complete; therefore, this is the final report for this contract.

The difference between the initial contract price target and the current contract price target is due to definitization of Engineering Change Proposal (ECP) 0004 in contract modification P00032 dated March 10, 2010 for the Ground-Based Midcourse Defense Bridge Follow-on Contract.

Letter Contract -0008 was awarded December 30, 2008 at a not-to-exceed (NTE) cost of $397.8M for performance through June 30, 2009. Mod P00004 dated June 25, 2009 definitized the NTE at $325.3M and extended performance through July 31, 2009. An undefinitized change order was issued on August 7, 2009 to extend performance through January 31, 2010 at an NTE value of $310.1M. On September 4, 2009 a proposal was requested from Boeing for the extension January 31, 2010 plus an additional extension through January 31, 2012. A total contract value of $1,422.4M was awarded March 10, 2010 under Mod P00032 for extended performance through December 31, 2011. Issuance of Task Instructions and other contract actions have increased the current contract value to $1,454B as of Mod P00124. The current ongoing contract action is to extend the Critical Skills Task Instructions until all effort from 0008 is transitioned to the Development & Sustainment Contract 0004, and completion of CTV-01 test event.

Appropriation: RDT&E

Contract Name	**Development and Sustainment Contract**
Contractor	Boeing, Co., Missile Defense Systems
Contractor Location	Huntsville, AL 35806
Contract Number, Type	HQ0147-12-C-0004, CR/CPFF/CPIF/CPAF/FPIF
Award Date	December 30, 2011
Definitization Date	December 30, 2011

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
2816.8	N/A	N/A	2816.8	N/A	N/A	2816.8	2816.8

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	0.0	0.0
Previous Cumulative Variances	--	--
Net Change	+0.0	+0.0

Cost And Schedule Variance Explanations

None

Contract Comments

The Development & Sustainment Contract (DSC) was competitively awarded to The Boeing Company on December 30, 2011. Post Award Conference was held on February 2-3, 2012. All effort from the Core Completion Contract (0008) and the Sustainment Contract (0007) will transition to the DSC within 91 days after the Post Award Conference. EVM data will not be available until the next SAR reporting period. Period of Performance December 30, 2011 - December 20, 2018.

This is the first time this contract is being reported.

Appropriation: RDT&E

Contract Name	**SM-3 Technology Development of Block IA/IB Missiles**
Contractor	Raytheon Missile Systems
Contractor Location	Tuscon, AZ 85706
Contract Number, Type	HQ0276-08-C-0001, CPAF
Award Date	December 31, 2007
Definitization Date	December 31, 2007

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
656.0	N/A	N/A	839.0	N/A	N/A	839.0	839.0

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	-70.0	0.0
Previous Cumulative Variances	-94.0	-28.0
Net Change	+24.0	+28.0

Cost And Schedule Variance Explanations

The favorable net change in the cost variance is due to the cost growth at Aerojet for the Throttleable Divert Attitude Control System (TDACS), engineering at Boeing for the Avionics Assembly (AA) units, and Special Test Equipment (STE). Major sub-material price variance is due largely to support of Interim and Critical Design Reviews for TDACS Demonstration Unit (TDU-3).

The favorable net change in the schedule variance is due to the mitigation of previous variances driven by Attitude Control System (ACS) Thrusters. This was primarily driven by late hardware, thruster housings, actuators, and production level drawings.

Contract Comments

The difference between the initial contract price target and the current contract price target is due to Contract Period of Performance.

Appropriation: RDT&E

Contract Name	**Aegis Ballistic Missile Defense (BMD)**
Contractor	Lockheed Martin
Contractor Location	Moorestown, NJ 08057
Contract Number, Type	HQ0276-10-C-0001, CPIF/CPAF
Award Date	October 15, 2009
Definitization Date	October 15, 2009

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
443.2	N/A	N/A	901.7	N/A	N/A	901.4	901.4

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	+6.0	-4.0
Previous Cumulative Variances	--	--
Net Change	+6.0	-4.0

Cost And Schedule Variance Explanations

The favorable cumulative cost variance is due to the 5.0 Software Baseline. The effort is experiencing underruns due to efficiencies in regression testing, as well as efficiencies in Integrated Logistics Manual development.

The unfavorable cumulative schedule variance is due to the Multi Mission Signal Processor effort. The processor delivery has been delayed due to unplanned complexity. Delays are also driven by the 5.0 Software Baseline Radar Systems Development, and Radar Systems I&T accounts. Efforts associated with 5.0 Software Baseline Build 9 Integration & Test (I&T) have been more complex than planned.

Contract Comments

The difference between the initial contract price target and the current contract price target is due to additional software effort being put on contract. As software efforts are awarded and modified, the effort will continue to increase in value.

This is the first time this contract is being reported.

Appropriation: RDT&E

Contract Name	**SM-3 Technology Development of Production Missiles**
Contractor	Raytheon Missile Systems
Contractor Location	Tucson, AZ 85701
Contract Number, Type	N00024-07-C-6119, CPIF
Award Date	May 14, 2007
Definitization Date	February 15, 2008

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
146.9	N/A	N/A	895.0	N/A	N/A	895.0	895.0

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	-6.0	-15.0
Previous Cumulative Variances	+7.0	-2.0
Net Change	-13.0	-13.0

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to missile dry-time process update requirements, which resulted in delayed delivery of units. Additional manufacture readiness efforts at suppliers created increased actions and increased cost as a result.

The unfavorable net change in the schedule variance is due to the Third Stage Rocket Motor (TSRM). Deliveries were put on hold as directed after the energetic event (failure) of Flight Test Mission (FTM)-16 in September 2011. The failure review board is expected to release corrective actions early in 2012, and subsequently allow production to continue. All assets are held at their locations until that time.

Contract Comments

The difference between the initial contract price target and the current contract price target is due to additional missile purchases. Contract Price has increased yearly as Missile Production Contract Line Item Numbers (CLIN) are turned on. The contract began with CLIN 1 IA Missile Deliveries; the effort is now on CLIN 16 IB Missiles.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	0	0	0	--
Total Program Quantities Delivered	0	0	0	--

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	126206.1	Years Appropriated	11
Expenditures To Date	76305.0	Percent Years Appropriated	68.75%
Percent Expended	60.46%	Appropriated to Date	88457.2
Total Funding Years	16	Percent Appropriated	70.09%

Operating and Support Cost

There are no Operating & Support Costs data to display.