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Missile Defense Agency (MDA) Exhibit R-2 RDT&E Budget Item Justification						Date May 2009		
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APPROPRIATION/BUDGET ACTIVITY				R-1 NOMENCLATURE				
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)				0603912C BMD European Communications Support				

COST (\$ in Thousands)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total PE Cost	0	27,008	0					
DX48 European Capability Block 4	0	27,008	0					

European Communications Interface (ECI) efforts began in FY08 in the Command and Control, Battle Management, and Communications (C2BMC) PE 0603896C, Project DX01 - BMD C2BMC Block 4.0. For FY10 and out these efforts are contained in the European Capability PE 0603911C.

A. Mission Description and Budget Item Justification

The BMDS Block 4.0 mission is to defend allies and deployed forces in Europe from limited Iranian long-range threats, and expand protection of United States.

A.1 System Element Description

The European Communications Interface (ECI) located in Ramstein, Europe will provide an integrated layered defense by networking and unifying (common purpose) individual element components (sensors, weapon systems, fire control) with all military echelons across the globe. This will allow the President and Secretary of Defense and commanders at strategic and tactical levels to systematically plan the fight (BMD Planner), commonly see it unfold (situational awareness), and dynamically direct/adjust (Global Engagement Manager (GEM)/Battle Management) networked sensors and weapons systems (BMD Network) to optimally engage (one shot - one kill) ballistic missile threats at any range, in any phase of flight, at any time.

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

The Ballistic Missile Defense System (BMDS) Communications System Complex (BCSC) consolidates all of the communications systems in one facility: Satellite Communications (SATCOM), Defense Information Systems Network (DISN) core, campus communications (includes the Defense Systems Network (DSN), Secret Internet Protocol Router Network (SIPRNET), Non-Secure Internet Protocol Router Network (NIPRNET) to include Video Teleconferencing Internet Protocol (VTCoIP) capability, and unclassified telephone service), Gateway, communications management, and wide area networks. This capability will provide the communications connectivity from the ECI to the BMDS Network.

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A.3 Major System Element Goals

Establish European Communications Interface (ECI) communications in support of the BMDS Block 4.0 mission to defend allies and deployed forces in Europe from limited Iranian long-range threats, and expand protection of United States.

A.4 Major Events Schedule and Description

Major Event	Project	Timeframe
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B. Program Change Summary	FY 2008	FY 2009	FY 2010	FY 2011
Previous President's Budget (FY2009 PB)	0	0	0	0
Current President's Budget (FY2010 PB)	0	27,008	0	0
Total Adjustments	0	27,008	0	0
Congressional Program Reductions	0	-92	0	0
Congressional Rescissions	0	0	0	0
Total Congressional Increases	0	27,100	0	0
Total Reprogrammings	0	0	0	0
SBIR/STTR Transfer	0	0	0	0
Adjustments to Budget Years	0	0	0	0

FY09 Congressional specific program adjustments include transfer of \$27.1 million to the new European Communications Support PE (0603912C), and a reduction of \$.092 million for Congressional undistributed adjustments.

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APPROPRIATION/BUDGET ACTIVITY				R-1 NOMENCLATURE				
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)				0603912C BMD European Communications Support				

COST (\$ in Thousands)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
DX48 European Capability Block 4	0	27,008	0					
RDT&E Articles Qty	0	0	0					

A. Mission Description and Budget Item Justification

The European Communications Interface (ECI) located in Ramstein, Germany will provide an integrated layered defense by networking and unifying (common purpose) individual element components (sensors, weapon systems, fire control) with all military echelons across the globe. This will allow the President and Secretary of Defense and commanders at strategic and tactical levels to systematically plan the fight (BMD Planner), commonly see it unfold (situational awareness), and dynamically direct/adjust (Global Engagement Manager (GEM)/Battle Management) networked sensors and weapons systems (BMD Network) to optimally engage (one shot - one kill) ballistic missile threats at any range, in any phase of flight, at any time.

The Command and Control, Battle Management, and Communications (C2BMC) system provides the means to move information and data from theater and regional to a global missile defense. This communications network, part of the larger U.S. command and control system, transmits and receives data on threat missile launches, missile flight profiles, and projected target locations, enabling political and military leaders to determine when and where to launch weapons to intercept them. The system is designed to rapidly provide a wide range of information to decision-makers because of the short distances in Europe and the great speed of ballistic missiles that require threat assessment and interceptor launch decisions in just minutes.

B. Accomplishments/Planned Program

	FY 2008	FY 2009	FY 2010	FY 2011
European Communications Interface (ECI) Communications	0	27,008	0	
RDT&E Articles (Quantity)	0	0	0	

The Ballistic Missile Defense System (BMDS) Communications System Complex (BCSC) consolidates all of the communications systems in one facility: Satellite Communications (SATCOM), Defense Information Systems Network (DISN) core, campus communications (includes the Defense Systems Network (DSN), Secret Internet Protocol Router Network (SIPRNET), Non-Secure Internet Protocol Router Network (NIPRNET) to include Video Teleconferencing Internet Protocol (VTCoIP) capability, and unclassified telephone service), Gateway, communications management, and wide area networks. This capability will provide the communications connectivity from the ECI to the BMDS Network.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603912C BMD European Communications Support	
FY 09 Planned Program: <ul style="list-style-type: none">• Engineering support to ensure ECI integration into the overall BMDS• Provide Ballistic Missile Defense System (BMDS) network and communications installation and support at the European Communications Interface (ECI)• Continue BMDS Communications System Complex (BCSC) acquisition• Continue acquisition of Modernization Enterprise Terminal (MET) Satellite Communications (SATCOM) X/Ka-Band capability• Continue acquisition of Communications Power System• Continue acquisition of Defense Red Switch Network (DRSN) equipment• Initiate acquisition and leases of terrestrial communications capability (fiber optic cable, microwave, etc.) to support circuit requirements of the ECI		

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C. Other Program Funding Summary

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Total Cost
PE 0603175C Ballistic Missile Defense Technology	106,437	119,308	109,760						-
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,034,478	956,686	719,465						-
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment	2,198,664	1,507,481	982,922						-
PE 0603883C Ballistic Missile Defense Boost Defense Segment	503,475	400,751	186,697						-
PE 0603884C Ballistic Missile Defense Sensors	574,231	777,693	636,856						-
PE 0603886C Ballistic Missile Defense System Interceptors	330,874	385,493	0						-
PE 0603888C Ballistic Missile Defense Test and Targets	619,137	919,956	966,752						-
PE 0603890C Ballistic Missile Defense Enabling Programs	416,937	402,778	369,145						-
PE 0603891C Special Programs – MDA	193,157	175,712	301,566						-
PE 0603892C Ballistic Missile Defense Aegis	1,126,337	1,113,655	1,690,758						-
PE 0603893C Space Tracking & Surveillance System	226,499	208,923	180,000						-
PE 0603894C Multiple Kill Vehicle	223,084	283,481	0						-
PE 0603895C BMD System Space Program	16,237	24,686	12,549						-
PE 0603896C BMD C2BMC	439,997	288,287	340,014						-
PE 0603897C BMD Hercules	51,387	55,764	48,186						-
PE 0603898C BMD Joint Warfighter Support	45,400	69,743	60,921						-
PE 0603904C Missile Defense Integration & Operations Center (MDIOC)	77,102	106,040	86,949						-
PE 0603906C Regarding Trench	1,945	2,968	6,164						-
PE 0603907C Sea Based X-Band Radar (SBX)	155,244	146,895	174,576						-
PE 0603908C BMD Europ Intercep Site	0	362,007	0						-
PE 0603909C BMD Europ Midcourse Radar	0	76,537	0						-
PE 0603911C BMD European Capability	0	0	50,504						-
PE 0603913C Israeli Cooperative	0	0	119,634						-
PE 0605502C Small Business Innovative Research BMDO	137,409	0	0						-
PE 0901585C Pentagon Reservation	5,971	19,667	19,709						-
PE 0901598C Management Headquarters – MDA	83,907	81,174	57,403						-

Note: The Ballistic Missile Defense System (BMDS) is an integrated, interoperable, global defense system. The programs which comprise the BMDS are interdependent.

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<p><u>D. Acquisition Strategy</u></p> <p>The Command and Control, Battle Management, and Communications (C2BMC) acquisition strategy is consistent with the Missile Defense Agency's capability-based acquisition strategy that emphasizes testing, spiral development, evolutionary acquisition, and knowledge-based funding. Lockheed Martin Mission Systems is the C2BMC prime contractor via an Other Transactions Agreement. Major team members to Lockheed are Northrop Grumman, Boeing, Raytheon, and General Dynamics. They are charged with the development, testing, fielding, training, and operations and sustainment support of the C2BMC system. They perform development and testing of C2BMC products in Arlington, VA; Huntsville, AL; and Colorado Springs, CO; and provide worldwide on-site operations and maintenance support. Additionally, the Defense Information Systems Agency (DISA) supports C2BMC worldwide long-haul communications. C2BMC Program Office government, Federally Funded Research Development Center/University Affiliated Research Centers (FFRDC/UARC), and Advisory and Assistance Services (A&AS) personnel are also fully integrated as part of the Prime contractor's team to function in an Integrated Product Team environment.</p>		

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Missile Defense Agency (MDA) Exhibit R-3 Project Cost Analysis							Date May 2009			
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)					R-1 NOMENCLATURE 0603912C BMD European Communications Support					
I. Product Development Cost (\$ in Thousands)										
Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2009 Cost	FY 2009 Award/ Oblg Date	FY 2010 Cost	FY 2010 Award/ Oblg Date	FY 2011 Cost	FY 2011 Award/ Oblg Date	Total Cost
European Communications Interface (ECI) Communications										
ECI - BCSC	MIPR	PM DCATS/ VA	0	14,226	1Q	0	N/A			14,226
ECI - SATCOM	MIPR	DISA/ VA	0	5,331	1Q	0	N/A			5,331
ECI - Comms Engineering Support	SS/CPAF	Lockheed Martin Team/ VA	0	5,028	1Q	0	N/A			5,028
ECI - Comms Power	MIPR	DISA/ VA	0	1,696	1Q	0	N/A			1,696
ECI - Terrestrial Communications Capability	MIPR	DISA/USAFE	0	606	1Q	0	N/A			606
ECI - Comms Support	MIPR	DISA/ VA	0	121	1Q	0	N/A			121
Subtotal Product Development			0	27,008		0				27,008
Remarks										

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APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)					R-1 NOMENCLATURE 0603912C BMD European Communications Support					
II. Support Costs Cost (\$ in Thousands)										
Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2009 Cost	FY 2009 Award/ Oblg Date	FY 2010 Cost	FY 2010 Award/ Oblg Date	FY 2011 Cost	FY 2011 Award/ Oblg Date	Total Cost
Subtotal Support Costs										
Remarks										
III. Test and Evaluation Cost (\$ in Thousands)										
Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2009 Cost	FY 2009 Award/ Oblg Date	FY 2010 Cost	FY 2010 Award/ Oblg Date	FY 2011 Cost	FY 2011 Award/ Oblg Date	Total Cost
Subtotal Test and Evaluation										
Remarks										
IV. Management Services Cost (\$ in Thousands)										
Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2009 Cost	FY 2009 Award/ Oblg Date	FY 2010 Cost	FY 2010 Award/ Oblg Date	FY 2011 Cost	FY 2011 Award/ Oblg Date	Total Cost
Subtotal Management Services										
Remarks										
Project Total Cost			0	27,008		0				27,008
Remarks										