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<b>MDA Exhibit R -2 RDT&amp;E Budget Item Justification</b>	Date <b>February 2003</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-1 NOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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COST (\$ in Thousands)	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
Total PECOst	195800	136399	810440	924356	985514	805785	558071	371649
0707 Theater High Altitude Area Defense (THAAD) Block 2004	0	0	621790	635101	64790	0	0	0
0807 Theater High Altitude Area Defense (THAAD) Block 2006	0	0	108781	207964	597783	497533	113220	0
0907 Theater High Altitude Area Defense (THAAD) Block 2008	0	0	0	0	237472	227395	369306	299754
2016/0401 Israeli Arrow Program	126395	132271	64803	64628	64499	64412	64363	64296
2015 Medium Extended Air Defense (MEADS)	64338	0	0	0	0	0	0	0
2090/0602 Program Operations	5067	4128	15066	16663	20970	16445	11182	7599

**A. Mission Description and Budget Item Justification**

[THAAD is included in Program Element (PE) 06048 61C for FY2002 and FY2003 and transition to this Terminal Defense Segment (TDS) PE for FY2004 and out. MEADS, included in this TDS PE in FY2002, moves to the MEADS PE (PE 0603869C) for FY2003 and transition to the Army in FY2004.]

Based on Presidential direction, the Missile Defense Agency (MDA) is developing an initial defensive operational capability that is based on the BMD System Test Bed and augmented with additional development assets. MDA will continue to employ the Test Bed for testing beyond initial fielding to evolve an integrated, layered Ballistic Missile Defense capability.

The MDA develops the Ballistic Missile Defense System (BMDS) using biennial capability blocks. This approach is the most efficient and effective way to get missile defense assets into the hands of the warfighters as quickly as possible while allowing for rapid insertion of emerging technology in the most affordable manner. These capability blocks will subsequently build on and be integrated with predecessor blocks. Block capabilities are built by using complete elements and their individual components to integrate as single BMDS and provide layered defense against ballistic missiles during all flight phases, Boost, Midcourse, and Terminal, using multiple basing modes and phenomena.

As a part of the total BMDS, the Terminal Defense Segment (TDS) Program Element (PE) funds the Terminal -related element portions of Blocks 2004, 2006, and 2008 and other Terminal -related mission area investment activities. The TDS elements and activities include Theater High Altitude Area Defense (THAAD), Medium Extended Air Defense System (MEADS), and the Israeli Arrow Program. The Patriot Advanced Capability (PAC) 3 element is also a part of the Terminal Defense mission, however, it is funded with in-house PE. The BMDS elements in Terminal Defense pursue development and selective upgrades of missile defense capabilities that engage short to medium -range ballistic missiles in the late mid -course and terminal phase of their trajectory.

The Terminal Defense Elements provide the final opportunity to engage short and medium range ballistic missiles not engaged or destroyed in the boost or mid -course of trajectory. Upon direction of the Ballistic Missile Defense System (BMDS) Command and Control/Battle Management (C2BM), the THAAD, AEGIS, and fielded Patriot Systems provide the only capability to defend deployed U.S. forces from short to medium -range ballistic missiles, and protect broadly dispersed assets and population centers or selected U.S. sites (Homeland Defense) from short to medium -range ballistic missile attacks. The THAAD system contributes initial capability to engage and negate ballistic missiles in both the late mid -course (exo -atmospheric engagements) and terminal phase (end -atmospheric engagements) of their trajectory and adds significant capability to the BMDS as the threat missile transitions from the mid -course to terminal phase. Integrated with the AEGIS and PATRIOT systems, the rapidly deployable THAAD system improves the BMDS overall effectiveness by engaging missiles as they transition from exo -to end -atmospheric flight where their entry vehicles are more vulnerable. The flowdown of BMDS system capability specifications resulting from the Missile Defense National Team efforts in Command & Control/Battle Management (C2BM) and Systems Engineering & Integration will guide the integration of the TDS into the BMDS system and the BMDS C2BM architecture.

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<p>Consistent with the MDA block management framework, the THAAD system element consists of Blocks 2004, 2006, and 2008:</p> <p>The THAAD Block 2004 represents the design and development of a significant, fundamental THAAD capability against short and medium range ballistic missiles and demonstration of exo and high end capability against unitary and separating targets in limited battlespace. The Block 2004 THAAD element will have a radar discrimination and missile infrastructure - radar discrimination capability and consists of a Test Missile configuration and C2BM with interactive defense planning and limited interoperability. Flight testing for Block 2004 begins in the 4th quarter, FY 2004, and continues through the 4th quarter, FY 2005 with a total of four (4) flight tests.</p> <p>The THAAD Block 2006 represents the incremental capability delivered as part of THAAD's evolutionary acquisition strategy. This block builds on the core, near-term missile defense capability provided by THAAD Block 2004. This block expands the capabilities of the THAAD system to address improved Exo and Endo capability against increasingly complex targets. The Block 2006 THAAD element will have robust radar discrimination, capability in stressing Exo and Endo battlespace; Salvo firing doctrine; and operate in a full spectrum of tactical missile environments and survivability. Block 2006 also includes C2B Embedded training, automated defense planning, and extensive interoperability. Block 2006 flight testing begins in the 3rd quarter, FY 2006 and continues through the 1st quarter, FY 2008 with a total of five (5) flight tests.</p> <p>The THAAD Block 2008 represents the incremental capability delivered as part of THAAD's evolutionary acquisition/development strategy. This block builds on the core, missile defense capability provided by THAAD Block 2006. This block demonstrates the capabilities of the THAAD system in endo-atmospheric battlespace against the full threat set. Block 2008 flight testing begins in the 2nd quarter, FY 2008 and ends in the 2nd quarter, FY 2009 with a total of seven (7) flight tests. Operational assessment testing begins in the 3rd quarter, FY 2009 and completes in the 1st quarter, FY 2010.</p> <p>The Arrow system (developed jointly by the U.S. and Israel) is another one of the TDS' mission area investments and provides Israel an indigenous capability to defend against short and medium range ballistic missiles and helps ensure U.S. freedom of action in future contingencies. Arrow also provides protection against ballistic missile attacks to U.S. forces deployed to the region. The Arrow program consists of the following major efforts:</p> <p>The Arrow Deployability Program (ADP) supports Israel's acquisition of a third Arrow battery, development of Arrow core manufacturing capability, and Arrow's interoperability with U.S. theater missile defense systems (TMD) via Joint Tactical Information Data System (JTIDS)/Link-16 common communication architecture. The Arrow System Improvement Program (ASIP) will develop upgrades to the existing Arrow Weapon System to allow Arrow to address more stressing ballistic missile threats. Related activities include the Israeli Test Bed (ITB), and studies via the Israeli Systems Architecture and Integration (ISA&amp;I) effort that assess the Arrow performance relative to both existing and emerging threats.</p> <p>Technologies cooperatively developed under the Arrow programs are transitioned to U.S. TMD developmental programs for their use or to provide risk reduction and lessons learned.</p> <p>The Medium Extended Air Defense System (MEADS) is one of the TDS' mission area investments. It is an objective force system. It is an international cooperative program essential to fulfill the requirements of the U.S. Army and the U.S. Marine Corps for a low-medium air defense system in the 21st century. MEADS will offer a significant improvement in tactical mobility and strategic deployability over comparable missile systems. It will defend the maneuver force and other critical forward-deployed assets against short and medium range Theater Ballistic Missiles (TBMs), cruise missiles and other air-breathing threats throughout all phases of tactical operations. MEADS will operate both in an enclave with upper-tier systems in areas of debarkation and assembly and provide continuous coverage alone or with Short-Range Air Defense Systems (SHORAD) in the division area of the battlefield during movement to contact and decisive operations. MEADS will be interoperable with other airborne and ground-based sensors and utilize an integrated and distributed architecture and modularly-configurable battle elements to provide a robust, 360-degree defense against short and medium range TBMs, cruise missiles, unmanned aerial-vehicles, tactical air-to-surface missiles, rotary-wing and fixed-wing threats. Per Congressional direction, MEADS is assigned its own PE for FY 2003 (PE 0603869C MEADS). MEADS is programmed to transfer to the Army beginning with FY 2004 and is thus not budgeted within MDA.</p> <p>Program Operations under this project covers personnel and related support costs, statutory and fiscal requirements. May include funding for government civilians performing program-wide oversight functions such as contracting, program integration, safety, quality and mission assurance at Missile Defense Agency (MDA); cost estimating; audit; technology integration across all MDA projects;</p>		

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<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>	<b>R-1NOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>
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and assessment of schedule, cost and performance, documentation of related programmatic issues and, foreign currency fluctuations on limited number of foreign contracts. Also includes funding for charges on canceled appropriations in accordance with Public Law 101 -510.

<b>B. Program Change Summary</b>	FY2002	FY2003	FY2004	FY2005
Previous President's Budget (FY2003 PB)	200119	169974	200171	234318
Current President's Budget (FY2004 PB)	195800	136399	810440	924356
Total Adjustments	-4319	-33575	610269	690038
Congressional Specific Program Adjustments	0	-30000	0	0
Congressional Undistributed Adjustments	-1617	-2398	0	0
Reprogrammings	1766	-1177	610269	690038
SBIR/STTR Transfer	-4468	0	0	0

THAAD is included in the Theater High Altitude Area Defense System Program Element (PE) 0604861C for FY2002 and FY2003 and is transferred to this PE, BMD Terminal Defense Segment Program Element (PE) 0603881C, for FY2004 and out.

MEAD transfers to the MEAD SMDAPE 0603869C in FY2003 and transfers to the Army beginning in FY2004.

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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-1 NOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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COST (\$ in Thousands)	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
0707 Theater High Altitude Area Defense (THAAD) Block 2004	0	0	621790	635101	64790	0	0	0
RDT & E Articles Qty	0	0	27	14	8	0	0	0

**A. Mission Description and Budget Item Justification**

FY2002 and FY2003 funding for this activity was in PE0604861C.

The Terminal Defense Elements provide the final opportunity to engage short and medium range ballistic missiles not engaged or destroyed in the boost or mid-course phase of trajectory. THAAD contributes to the Missile Defense Agency's Terminal Defense System in its ability to engage and negate ballistic missiles in both the lower mid-course and terminal phases of their trajectory. THAAD's ability to defend against short to medium range ballistic missiles protects U.S. and allied armed forces, broadly dispersed assets and population centers or selected U.S. sites (Homeland Defense) against ballistic missile attacks. THAAD in conjunction with the fielded Patriot System provides the Missile Defense Agency's (MDA) layered Terminal Defense System that further reduces leakage of ballistic missiles.

Five major components (missiles, launchers, radar(s), Command and Control/Battle Management (C2BM), and THAAD -specific support equipment) will be integrated into the THAAD Element and BMDs. THAAD will follow the Missile Defense Agency's (MDA) capability-based acquisition strategy that emphasizes testing, spiral development, and evolutionary acquisition through the use of two-year capability blocks.

Block 2004: Block 2004 represents the design and development of a significant, fundamental THAAD capability against short and medium range Ballistic Missiles (BMs) and demonstration of exo and high end o capability against unitary and separating targets in limited battlespace. The Block 2004 THAAD Element will have a radar discrimination and missile infra-red discrimination capability and consists of a Test Missile configuration and C2BM with interactive defense planning and limited interoperability. Flight testing for Block 2004 begins in 4th quarter, FY2004, and continues through 4th quarter, FY2005 with a total of 4 flight tests.

**RDT & E Articles for Development Tests (DT):**

-FY2004 (Delivery Schedule): 1 Full -up Missile; 3 Engineering Development Unit (EDU) Missiles; 4 Ground Test Units (GTU) Missiles; 16 Missile Mass Property Simulators; one Launcher w/ Missile Round Pallet (MRP); and 2 MRPs (reload) for a total of 27 RDT & E articles.

-FY2004 (Buy Schedule): 2 Full -up Missiles; 2 EDU Missiles; 4 Launchers w/ MRP; one MRP (reload); 3 C2BM Tactical Support Groups (TSG) for a total of 12 RDT & E articles.

-FY2005 (Delivery Schedule): 3 Full -up Missiles and 2 EDU Missiles; one Radar; 4 Launchers w/ MRPs; 1 MRP (reload); and 3 C2BM TSGs for a total of 14 RDT & E articles.

-FY2005 (Buy Schedule): 1 Full -up Missile; 2 Launchers w/ MRPs; 2 MRPs (reloads); and one C2BM TSG for a total of 6 RDT & E articles.

-FY2006 (Delivery Schedule): 2 Full -up Missiles; one Radar; 2 Launchers w/ MRPs; 2 MRPs (reloads); and one C2BM TSG for a total of 8 RDT & E articles

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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>		<b>R-INOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>		
<b>B. Accomplishments/Planned Program</b>				
	FY2002	FY2003	FY2004	FY2005
THAAD Block 2004 ACD&P Prime (Missile)			157560	136700
RDT&E Articles (Quantity)			24	5
<p>FY2002 Accomplishments/FY2003 Planned Program is shown in PE0604861C.</p> <p>FY2004 Planned Program:</p> <p>RDT&amp;E Articles for Developmental Test (DT):</p> <ul style="list-style-type: none"> <li>-FY2004 (Delivery Schedule): 1 Full -up Missile; 3 Engineering Development Unit (EDU) Missiles; 4 Ground Test Units (GTU) Missiles; and 16 Missile Mass Property Simulators for a total of 24 RDT&amp;E articles.</li> <li>-FY2004 (Buy Schedule): 2 Full -up Missiles and 2 EDU Missiles for a total of 4 RDT&amp;E articles.</li> <li>-Support completion of Block 2004 Element CDR.</li> <li>-Complete Missile hardware and software development for first flight.</li> <li>-Initiate System Integration Laboratory (SIL) Hardware -in-the-Loop (HWIL) activities for Missile.</li> <li>-Deliver Missile software for first flight (Build 4.0 for FT -1).</li> <li>-Support first missile test at White Sands Missile Range (WSMR).</li> </ul> <p>FY2005 Planned Program:</p> <p>RDT&amp;E Articles for DT:</p> <ul style="list-style-type: none"> <li>-FY2005 (Delivery Schedule): 3 Full -up Missiles and 2 EDU Missiles for a total of 5 RDT&amp;E articles.</li> <li>-FY2005 (Buy Schedule): 1 Full -up Missile.</li> <li>-Continue SIL Hardware -In-Loop activities for Missile.</li> <li>-Deliver Missile software for first intercept (Build 6.0 for FT -2).</li> <li>-Support first intercept of a Her target with autonomous THAAD system at WSMR.</li> </ul>				
	FY2002	FY2003	FY2004	FY2005
THAAD Block 2004 ACD & P Prime (Radar)			152384	171338
RDT&E Articles (Quantity)			0	1
<p>FY2002 Accomplishments/FY2003 Planned Program is shown in PE0604861C.</p>				

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FY2004 Planned Program:

- Support completion of Block 2004 Element CDR.
- Complete Radar hardware and software development for first intercept.
- Initiate System Integration Laboratory (SIL) Hardware -In-Loop activities for Radar.

FY2005 Planned Program:

RDT&E Articles for Developmental Test (DT):

- FY2005 (Delivery Schedule): One Radar
- Continue SIL Hardware -In-Loop activities for Radar.
- Complete Radar antenna #1.
- Deliver Radar software for 1st intercept (Build 4.1 for FT -2)
- Support first intercept of a Herat target with autonomous THAAD system at WSMR.

	FY2002	FY2003	FY2004	FY2005
THAAD Block 2004 ACD&P Prime (Launcher)			23283	7885
RDT&E Articles (Quantity)			3	5

FY2002 Accomplishments/FY2003 Planned Program is shown in PE0604861C.

FY2004 Planned Program:

RDT&E Articles for Developmental Test (DT):

- FY2004 (Delivery Schedule): One Launcher w/Missile Round Pallet (MRP) and 2 THAAD MRPs (reload) for a total of 3 RDT&E articles.
- FY2004 (Buy Schedule): 4 Launchers w/MRP; 1 MRP (reload) for a total of 5 RDT&E articles.
- Support completion of Block 2004 Element CDR.
- Complete Launcher hardware and software development.
- Initiate SIL Hardware -In-Loop activities for Launcher.
- Support first missile test at White Sands Missile Range (WSMR).

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<b>MDAExhibitR -2ARDT&amp;EProjectJustification</b>	Date <b>February2003</b>
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<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>	<b>R-1NOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>
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FY2005PlannedProgram:

RDT&EArticlesforDevelopmentalTest(DT):

- FY2005(DeliverySchedule):4Launchersw/MRPs;andoneMRP(reload)foratotalof5RDT&Earticles.
- FY2005(BuySchedule):2Launchersw/MRPsand2MRPs(reload)foratotalof4RDT&Earticles.
- ContinueSILHardware -In-LoopactivitiesforLauncher.
- DeliverLaunchersoftwarefor1<sup>st</sup>intercept(Build3.0forFT -2)
- SupportfirstinterceptofaHeratargetwithautonomousTHAADsystematWSMR.

	FY2002	FY2003	FY2004	FY2005
THAADBlock2004ACD&PPrime(C2BM)			40801	36351
RDT&EArticles(Quantity)			0	3

FY2002Accomplishments/FY2003PlannedProgramisshowninPE0604861C.

FY2004PlannedProgram:

RDT&EArticlesforDevelopmentalTest(DT):

- FY2004(BuySchedule):3C2BMTacticalSupportGroups(TSG)
- SupportcompletionofElementCDR.
- CompleteC2BMhardwareandsoftwaredevelopmentfor1stintercept.
- InitiateSILHardware -In-LoopactivitiesforC2BM.

FY2005PlannedProgram:

RDT&EArticlesforDevelopmentalTest(DT):

- FY2005(DeliverySchedule):3C2BMTSGs
- FY2005(BuySchedule):OneC2BMTSG
- ContinueSILHardware -In-LoopactivitiesforC2BM.
- DeliverC2BMsoftwarefor1stintercept(Build4.0forFT -2).
- SupportfirstinterceptofaHeratargetwithautonomousTHAADsystematWSMR.

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MDA Exhibit R -2 ARDT & E Project Justification			Date February 2003	
APPROPRIATION/BUDGET ACTIVITY 4. Advanced Component Development and Prototypes (ACD&P)		R-INOMENCLATURE 0603881C Ballistic Missile Defense Terminal Defense Segment		
	FY2002	FY2003	FY2004	FY2005
THAAD Block 2004 ACD&P Prime (ILS)			15163	12258
RDT&E Articles (Quantity)			0	0
<p>FY2002 Accomplishments/FY2003 Planned Program is shown in PE0604861C.</p> <p>FY2004 Planned Program:</p> <ul style="list-style-type: none"> <li>- Maintain an Integrated Logistics Support program.</li> <li>- Conduct supportability analysis.</li> <li>- Develop support strategy, support documentation, and training materiel.</li> <li>- Develop and procure training devices and Peculiar Support Equipment.</li> <li>- Conduct training to support soldier participation in the Block 2004 Flight Test program.</li> </ul> <p>FY2005 Planned Program:</p> <ul style="list-style-type: none"> <li>- Maintain an Integrated Logistics Support program.</li> <li>- Conduct supportability analysis.</li> <li>- Develop support strategy, support documentation, and training materiel.</li> <li>- Develop and procure training devices and Peculiar Support Equipment.</li> <li>- Conduct training to support soldier participation in the Block 2004 Flight Test program.</li> </ul>				
	FY2002	FY2003	FY2004	FY2005
THAAD Block 2004 ACD&P Prime (Sys Level Prog Mgmt)			26795	20949
RDT&E Articles (Quantity)			0	0
<p>FY2002 Accomplishments/FY2003 Planned Program is shown in PE0604861C.</p> <p>FY2004 Planned Program:</p> <ul style="list-style-type: none"> <li>- Oversee and participate in conduct of Block 2004 Element CDR.</li> <li>- Support and lead first missile flight test at WSMR.</li> <li>- Provide leadership and direction to program.</li> </ul> <p>FY2005 Planned Program:</p> <ul style="list-style-type: none"> <li>- Conduct first intercept at White Sands Missile Range.</li> <li>- Continue to provide guidance and management to program.</li> </ul>				

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MDAExhibitR -2ARDT&EProjectJustification			Date February2003	
APPROPRIATION/BUDGETACTIVITY 4.AdvancedComponentDevelopmentandPrototypes(ACD&P)		R-INOMENCLATURE 0603881CBallisticMissileDefenseTerminalDefenseSegment		
	FY2002	FY2003	FY2004	FY2005
THAADBBlock2004ACD&PPrime(WeaponSysEngr&IntegTeam)			36537	28980
RDT&EArticles(Quantity)			0	0
<p>FY2002Accomplishments/FY2003PlannedProgramisshowninPE0604861C.</p> <p>FY2004PlannedProgram:</p> <ul style="list-style-type: none"> <li>-SupportBlock2004ElementCDR.</li> <li>-AssessTHAADBBlock2004capabilityusingcomprehensive,end-to-end,digitalsimulation.</li> <li>-SupportControlledTestFlight(CTF)-1atWSMR.</li> <li>-BringSystemIntegrationLab(SIL)Hardware-in-the-Looponline to support flight testing.</li> <li>-Participateinwargames,exercisesandinteroperabilitydemonstrations.</li> </ul> <p>FY2005PlannedProgram:</p> <ul style="list-style-type: none"> <li>-ContinueSILHWILintegrationofallTHAADcomponents.</li> <li>-SupportfirstinterceptofaHeratargetwithautonomousTHAADsystematWSMR.</li> <li>-Participateinwargames,exercisesandinteroperabilitydemonstrations.</li> <li>-UpdateassessmentofTHAADBBlock2004capabilityusingcomprehensive,end-to-end,digitalsimulation.</li> </ul>				
	FY2002	FY2003	FY2004	FY2005
THAADBBlock2004ACD&PPrime(GroundandFlightTestSupport)			25550	28546
RDT&EArticles(Quantity)			0	0
<p>FY2002Accomplishments/FY2003PlannedProgramisshowninPE0604861C.</p> <p>FY2004Planned Program:</p> <ul style="list-style-type: none"> <li>-SupportfirstMissiletestatWhiteSandsMissileRange(WSMR).</li> </ul> <p>FY2005PlannedProgram:</p> <ul style="list-style-type: none"> <li>-SupportTHAADseekercharacterizationflightwithHeratargetsatWSMR.</li> <li>-SupportfirstinterceptofHeraTargetatWSMR.</li> </ul>				

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	FY2002	FY2003	FY2004	FY2005
THAAD Block 2004 Government Support Costs			89780	119862
RDT&E Articles (Quantity)				
<p>FY2002 Accomplishments/FY2003 Planned Program is shown in PE0604861C.</p> <p>FY2004 Planned Program:</p> <ul style="list-style-type: none"> <li>-Support Contracts -Continues software independent verification and validation. Perform program management support and technical analyses.</li> <li>-Other Government Agencies (OGAs), Government Furnished Equipment (GFE)/other: Continue THAAD range operations at WSMR and Ballistic Missile Defense Test Bed (BTB) at PMRF and continues system Hardware -In-The-Loop development efforts. Continue C2BM interoperability and simulation efforts. Continue threat vulnerability assessment. Maintain integrated logistics and product assurance efforts. Perform quality and manufacturing technology tasks.</li> <li>-In-house support -Fund government salaries, benefits, travel, and training.</li> </ul> <p>FY2005 Planned Program:</p> <ul style="list-style-type: none"> <li>-Support Contracts -Continues software independent verification and validation. Perform program management support and technical analyses.</li> <li>-Other Government Agencies (OGAs), Government Furnished Equipment (GFE)/other: Continue THAAD range operations at WSMR and BTB at PMRF and continues system Hardware -In-The-Loop development efforts. Continue C2BM interoperability and simulation efforts. Continue threat vulnerability assessment. Maintain integrated logistics and product assurance efforts. Perform quality and manufacturing technology tasks.</li> <li>-In-house support -Fund government salaries, benefits, travel, and training.</li> </ul>				
	FY2002	FY2003	FY2004	FY2005
Block 2004 Government Test & Evaluation			37800	59000
RDT&E Articles (Quantity)				
<p>FY2002 Accomplishments/FY2003 Planned Program is shown in PE0604861C.</p> <p>FY2004 Planned Program:</p> <ul style="list-style-type: none"> <li>-Flight Test Planning -Continue integration into WSMR and PMRF. Support first test at WSMR (controlled test flight without target).</li> <li>-Ground Test Planning -Continue planning for Production Qualification Test (PQT).</li> <li>-Conduct operational assessment of Block 2004 capability; continue planning.</li> <li>-Lethality -Supports led test program at Holloman AFB, and planning for light gas gun test program.</li> </ul>				

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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-INOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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FY2005 Planned Program:

- Flight Test Planning -Continue integration into WSMR, and PMRF. Support test flights at WSMR.
- Ground Test Planning -Continue planning for Production Qualification Testing (PQT).
- Conduct operational assessment of Block 2004 capability; continue planning.
- Lethality -Conduct sled tests and initiate light gas gun test (Development Tests).

	FY2002	FY2003	FY2004	FY 2005
Block 2004 Government Management Svcs			3000	3000
RDT&E Articles (Quantity)				

FY2002 Accomplishments/FY2003 Planned Program is shown in PE0604861C.

FY2004 Planned Program:

- FFRDC technical support from MITRE.

FY2005 Planned Program:

- FFRDC technical support from MITRE.

	FY2002	FY2003	FY2004	FY2005
THAAD Block 2004 ACD&P Prime (Engr Spt Svcs)			13137	10232
RDT&E Articles (Quantity)				

FY2002 Accomplishments/FY2003 Planned Program is shown in PE0604861C.

FY2004/Planned Program:

- Provides specialized test result services.
- Provides specialized engineering support services.

FY2005 Planned Program:

- Provides specialized test result services.
- Provides specialized engineering support services.

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APPROPRIATION/BUDGET ACTIVITY 4. Advanced Component Development and Prototypes (ACD&P)					R-INOMENCLATURE 0603881C Ballistic Missile Defense Terminal Defense Segment					
C. Other Program Funding Summary										
	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	To Complete	Total Cost
PE0603879C Advanced Concepts, Evaluations and Systems	0	0	151696	216778	166308	193949	241947	234484		
PE0603880C Ballistic Missile Defense System Segment	790535	1046652	0	0	0	0	0	0		
PE0603882C Ballistic Missile Defense Midcourse Defense Segment	3655089	3103844	3613266	3841412	2078522	1908511	1482389	1437923		
PE0603883C Ballistic Missile Defense Boost Defense Segment	583463	718036	626264	653612	755163	665772	477109	354346		
PE0603884C Ballistic Missile Defense Sensors	312973	350436	438242	562752	706514	1043454	1152740	1261906		
PE0603886C Ballistic Missile Defense System Interceptors	0	0	301052	541178	1127180	1729613	2558327	2904096		
PE0603890C Ballistic Missile Defense System Engineering and Integration	0	0	483996	522458	604445	628594	703055	706501		
PE0603888C Ballistic Missile Defense Test and Targets	0	0	611522	711181	661416	643302	639839	672396		
PE0603889C Ballistic Missile Defense Products	0	0	343644	384763	333636	343447	349335	360951		
PE0604861C Theater High -Altitude Area Defense System -TMD -EMD	818632	888323	0	0	0	0	0	0		
PE0604865C Patriot PAC -3 Theater Missile Defense Acquisition -EMD	130630	176155	0	0	0	0	0	0		
PE0603869C Meads Concepts -Dem/Val	0	114781	0	0	0	0	0	0		
PE0605502C Small Business Innovative Research -MDA	145102	0	0	0	0	0	0	0		
PE0604867C Navy Area Theater Missile Defense -EMD	96121	0	0	0	0	0	0	0		
PE0901585C Pentagon Reservation	6381	7432	14481	13384	12758	12850	13158	13476		
PE0901598C Management Headquarters -MDA	30191	25365	93441	101373	114107	121743	128972	133499		
PE0603175C Ballistic Missile Defense Technology	145021	151130	240820	205791	200956	247990	287864	306472		

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MDA Exhibit R -2 ARDT&E Project Justification	Date February 2003
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APPROPRIATION/BUDGET ACTIVITY <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	R-1 NOMENCLATURE <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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D. Acquisition Strategy

THAAD will follow the Missile Defense Agency's capability-based acquisition strategy that emphasizes testing, spiral development, and evolutionary acquisition through the use of two-year capability blocks. The THAAD Block 2004 program is already on contract with Lockheed Martin Space Systems Company (LMSSC), Sunnyvale, CA. The 98-month Cost Plus Award Fee contract was awarded effective August 4, 2000, and is 34% complete. Current development activities supporting THAAD Block 2004 could be used to provide limited capability to protect deployed U.S. and allied forces, or selected U.S. sites. Should a decision to procure hardware for possible contingency deployment be made in the Block 2004 timeframe, these separate procurement contract vehicles would likely be a Cost Plus Incentive Fee contract, sole-sourced to LMSSC.

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MDAExhibitR -3RDT&EProjectCostAnalysis									Date February2003			
APPROPRIATION/BUDGETACTIVITY 4.AdvancedComponentDevelopmentandPrototypes(ACD&P)					R-INOMENCLATURE 0603881CBallisticMissileDefenseTerminalDefenseSegment							
I.ProductDevelopmentCost(\$inThousands)												
CostCategories:	Contract Method &Type	Performing Activity& Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Costto Complete	Total Cost	Target Valueof Contract
THAADBlock2004ACD&P Prime(Missile)	SS/CPAF	LMSSC/Various				157560		136700			294260	CONT.
THAADBlock2004ACD&P Prime(Radar)	SS/CPAF	LMSSC/Various				152384		171338			323722	CONT.
THAADBlock2004ACD&P Prime(Launcher)	SS/CPAF	LMSSC/Various				23283		7885			31168	CONT.
THAADBlock2004ACD&P Prime(C2BM)	SS/CPAF	LMSSC/Various				40801		36351			77152	CONT.
THAADBlock2004ACD&P Prime(ILS)	SS/CPAF	LMSSC/Various				15163		12258			27421	CONT.
THAADBlock2004ACD&P Prime(SysLevelProgMgmt)	SS/CPAF	LMSSC/Various				26795		20949			47744	CONT.
THAADBlock2004ACD&P Prime(WeaponSysEngr& IntegTeam)	SS/CPAF	LMSSC/Various				36537		28980			65517	CONT.
THAADBlock2004ACD&P Prime(EngrSptSvcs)	SS/CPAF	LMSSC/Various				13137		10232			23369	CONT.
THAADBlock2004ACD&P Prime(GroundandFli ght TestSupport)	SS/CPAF	LMSSC/Various				25550		28546			54096	
SubtotalProductDevelopment			0	0		491210		453239			944449	
Remarks												

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<b>MDAExhibitR -3RDT&amp;EProjectCostAnalysis</b>	Date <b>February2003</b>
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<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>	<b>R-INOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>
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<b>II.SupportCostsCost(\$inThousands)</b>												
CostCategories:	Contract Method &Type	Performing Activity& Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Costto Complete	Total Cost	Target Valueof Contract
<b>THAADBLOCK2004 GOVERNMENTSUPPORT COSTS</b>												
IV&V/THAADEvalCPR	C/CPAF	COLSA/HSV,AL				9860		9860			19720	CONT.
SPTK/TECHSPT	C/FFP	Various/HSV, AL				18708		38200			56908	CONT.
OGASPT	MIPR	AMCOM/HSV,AL				23300		34500			57800	CONT.
SALARIES/TRAVEL/TRAINING/OTHER	Various	TPO/HSV,AL				28412		27802			56214	CONT.
GFE	MIPR	Various/Various				9500		9500			19000	CONT.
SubtotalSupportCosts			0	0		89780		119862			209642	

**Remarks**

<b>III.TestandEvaluationCost(\$inThousands)</b>												
CostCategories:	Contract Method &Type	Performing Activity& Location	Total PYs Cost	FY20 03 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Costto Complete	Total Cost	Target Valueof Contract
<b>BLOCK2004 GOVERNMENTTEST&amp; EVALUATION</b>												
TESTPLANNING	MIPR	Various/Various				37800		59000			96800	CONT.
SubtotalTestandEvaluation			0	0		37800		59000			96800	

**Remarks**

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<b>MDAExhibitR -3RDT&amp;EProjectCostAnalysis</b>										Date <b>February2003</b>		
<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>					<b>R-INOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>							
<b>IV.ManagementServicesCost(\$inThousands)</b>												
CostCategories:	Contract Method &Type	Performing Activity& Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Costto Complete	Total Cost	Target Valueof Contract
<b>BLOCK2004 GOVERNMENT MANagementsVCS</b>												
MITRE	MIPR	FT.MONMOUTH/ NJ				3000		3000			6000	CONT.
SubtotalManagementServices			0	0		3000		3000			6000	
<b>Remarks</b>												
ProjectTotalCost			0	0		621790		635101			1256891	
<b>Remarks</b>												



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<b>MDAExhibitR -4AScheduleDetail</b>	Date <b>February2003</b>
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<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>	<b>R-1NOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>
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ScheduleProfile	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
<b>TestingMilestones</b>								
Block2004FlightTe st1			4Q					
Block2004FlightTest2				3Q				
Block2004FlightTest3				4Q				
Block2004FlightTest6				2Q				
Block2004Radar1Integration&TestComplete				1Q				
Block2004Radar2Integration&TestComplete					1Q			
<b>CDR</b>								
Block2004ElementCDR			2Q					
<b>Block2004</b>								
C2BMHardwareDesign/Development/Integration			1Q-4Q					
C2BMSoftwareDesign/Development			1Q-4Q	1Q-2Q				
LauncherHardwareDesign/Development/Integration			1Q-3Q					
LauncherSoftwareDesign/Development			1Q-4Q	1Q				
MissileHardwareDesign/Development/Integration			1Q-4Q	1Q-3Q				
MissileSoftwareDesign/Development			1Q-4Q	1Q				
RadarSoftwareDesign/Development			1Q-4Q	1Q				
SILIntegration			2Q-4Q	1Q-4Q	1Q			

Note:ForschedulepriortoFY2004,refertoPE0604861C.

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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>	Date <b>February 2003</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-1 NOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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COST (\$ in Thousands)	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
0807 Theater High Altitude Area Defense (THAAD) Block 2006	0	0	108781	207964	597783	497533	113220	0
RDT&E Articles Qty	0	0	0	0	0	6	0	0

**A. Mission Description and Budget Item Justification**

The Terminal Defense Elements provide the final opportunity to engage short to medium -range ballistic missiles not engaged or destroyed in the boost or mid -course phase of trajectory. THAAD contributes to the Missile Defense Agency's Terminal Defense System in its ability to engage and negate ballistic missiles in both the lower mid -course and terminal phases of their trajectory. THAAD's ability to defend against short to medium -range ballistic missiles protects U.S. and allied armed forces, broadly dispersed assets and population centers or selected U.S. sites (Homeland Defense) against ballistic missile attacks. THAAD in conjunction with the fielded Patriot System provides the Missile Defense Agency's layered Terminal Defense System that further reduces leakage of ballistic missiles.

Five major components (missiles, launchers, radar(s), Command and Control/Battle Management (C2BM), and THAAD -specific support equipment will be integrated into the THAAD element and BMDS. THAAD will follow the Missile Defense Agency's capability -based acquisition strategy that emphasizes testing, spiral development, and evolutionary acquisition through the use of two -year capability blocks.

Block 2006: Block 2006 represents the incremental capability delivered as part of THAAD's evolutionary acquisition/development strategy. This block builds on the core, near -term missile defense capability provided by THAAD Block 2004. This block expands the capabilities of the THAAD system to address improved Exo and Endo capability against increasingly complex targets. The Block 2006 THAAD element will have robust radar discrimination, capability in stressing Exo and Endo battlespace; Salvo firing doctrine; and operate in a full spectrum of tactical missile environments and survivability. Block 2006 also includes C2BM embedded training, automated defense planning, and extensive interoperability. Block 2006 flight testing begins in 3rd quarter, FY 2006 and continues through 1st quarter, FY 2008 with a total of 5 flight tests.

**RDT&E Articles for Development Tests (DT):**

-FY2005 (Buy Schedule): 3 Full -up Missiles.

-FY2006 (Buy Schedule): 8 Full -up Missiles and 2 C2BM Tactical Shelter Groups (TSG s) for a total of 10 RDT&E articles.

-FY2007 (Delivery Schedule): 4 Full -up Missiles and 2 C2BM TSGs, for a total of 6 RDT&E articles.

**B. Accomplishments/Planned Program**

	FY2002	FY2003	FY2004	FY2005
THAAD Block 2006 ACD&P Prime (Missile)			63688	86787
RDT&E Articles (Quantity)			0	0

**FY2004 Planned Program:**

-Initiate upgrade to the Missiles software.

-Begin fabrication, assembly, and test of Missile hardware in preparation for first Block 2006 flight test.

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<b>MDAExhibitR -2ARDT&amp;EProjectJustification</b>			Date <b>February2003</b>	
<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>		<b>R-INOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>		
FY2005PlannedProgram:  RDT&EArticlesforDevelopmentalTest(DT): -FY2005(BuySchedule):3Full -upMissiles.  -ContinueupgradestotheMissilessoftware. -ConductSILHardware -in-the-LoopintegrationactivitiesofhardwareandsoftwareinpreparationofBlock2006flighttesting. -Continuefabrication,assembly,andtestofMissilehardwareinpreparationforBlock2006flighttestingandmissileroundsrequiredforMissileProductionQualificationTesting(PQT).				
	FY2002	FY2003	FY2004	FY2005
THAADBlock2006ACD&PPrime(Radar)			5936	32755
RDT&EArticles(Quantity)			0	0
FY2004PlannedProgram:  -InitiateupgradestotheRadarsoftware.  FY2005PlannedProgram:  -ContinueupgradestotheRadarsoftware. -ConductSILHardware -in-the-LoopintegrationactivitiesofhardwareandsoftwareinpreparationofBlock2006flighttesting.				
	FY2002	FY2003	FY2004	FY2005
THAADBlock2006ACD&PPrime(Launcher)			6175	5178
RDT&EArticles(Quantity)			0	0
FY2004PlannedProgram: -Beginfabrication,assembly,andtestof LauncherhardwareinpreparationforfirstBlock2006flighttesting.  FY2005PlannedProgram: -Completefabrication,assembly,andtestofLauncherhardwareforBlock2006FlightTestingandProductionQualificationTesting(PQT). -ConductSILHardware -in-the-LoopintegrationactivitiesofhardwareandsoftwareinpreparationofBlock2006flighttesting. -InitiateupgradetoLauncherssoftware.				

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<b>MDAExhibitR -2ARDT&amp;EProjectJustification</b>			Date <b>February2003</b>	
<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>		<b>R-INOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>		
	FY2002	FY2003	FY2004	FY2005
THAADBlock2006ACD&PPrimeIntegratedLogisticsSupport(ILS)			3324	6839
RDT&EArticles(Quantity)			0	0
<p>FY2004PlannedProgram:</p> <ul style="list-style-type: none"> <li>-MaintainanIntegratedLogisticsSupportprogram.</li> <li>-ConductsupportabilitydemonstrationsonLauncherandC2BM.</li> <li>-ContinueddevelopmentofsupportdocumentationandtrainingforSoldierin theLoop.</li> <li>-ContinueddevelopmentandprocurementofadditionaltrainingdevicesandPeculiarSupportEquipment.</li> <li>-ConducttrainingtosupporttheBlock2006FlightTestprogram.</li> </ul> <p>FY2005PlannedProgram:</p> <ul style="list-style-type: none"> <li>-MaintainanIntegratedLogisticssupportprogram .</li> <li>-ConductsupportabilitydemonstrationsonRadar.</li> <li>-ContinueddevelopmentofsupportdocumentationandconducttrainingforStaffPlannersandotherMilitaryOccupationalSpecialty(MOS)Training.</li> <li>-Continueddevelopmentandprocurementofadditionaltrain ingdevicesandPeculiarSupportEquipment.</li> <li>-ConducttrainingtosupporttheBlock2006FlightTestprogramandGroundTestProgram.</li> </ul>				
	FY2002	FY2003	FY2004	FY2005
THAADBlock2006ACD&PPrime(SysLevelProgMgmt)			2709	10200
RDT&EArticles(Quan tity)			0	0
<p>FY2004PlannedProgram:</p> <ul style="list-style-type: none"> <li>-ContinueThreatVulnerabilityAssessment.</li> <li>-ContinueTestPlanningandRangeOperationsforBlock2006flighttesting.</li> <li>-Providemanagement,leadership,andplanningforallBlock2006activities.</li> </ul> <p>FY2005Planned Program:</p> <ul style="list-style-type: none"> <li>-ContinueThreatVulnerabilityAssessment.</li> <li>-ContinueTestPlanningandRangeOperationsforBlock2006flighttesting.</li> <li>-Providemanagement,leadership,andplanningforallBlock2006activities.</li> </ul>				

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MDAExhibitR -2ARDT&EProjectJustification			Date February2003	
APPROPRIATION/BUDGETACTIVITY 4.AdvancedComponentDevelopmentandPrototypes(ACD&P)		R-INOMENCLATURE 0603881CBallisticMissileDefenseTerminalDefenseSegment		
	FY2002	FY2003	FY2004	FY2005
THAADBlock2006ACD&PPrime(WeaponSysEngr&IntegTeam)			3532	14311
RDT&EArticles(Quantity)			0	0
FY2004PlannedProgram: -ConductSystemIntegrationLab(SIL)Hardware -in-the-LoopBlock2006integration.				
FY2005PlannedProgram: -ConductSystemIntegrationLab(SIL)Hardware -in-the-LoopBlock2006integration.				
	FY2002	FY2003	FY2004	FY2005
THAADBlock2006ACD&PPrime(EngrSptSvcs)			532	802
RDT&EArticles(Quantity)			0	0
FY2004PlannedProgram: -Providespecializedtestresultsservices. -Providespecializedengineeringsupportservices.				
FY2005PlannedProgram: -Providespecializedtestresultsservices. -Providespecializedengineeringsupportservices.				
	FY2002	FY2003	FY2004	FY2005
THAADBlock2006ACD&PPrime(Groundand FlightTestSupport)			3239	15119
RDT&EArticles(Quantity)			0	0
FY2004PlannedProgram: -SupportProductionQualificationTesting(PQT)planning. -ConductPMRFplanningandintegration.				

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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>	Date <b>February 2003</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-INOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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FY2005 Planned Program:  
 -Support Production Qualification Testing (PQT) planning.  
 -Conduct PMRF planning and integration.

	FY2002	FY2003	FY2004	FY2005
THAAD Block 2006 ACD&P Prime (C2BM)			19646	26768
RDT&E Articles (Quantity)			0	0

FY2004 Planned Program:  
 -Initiate upgrades to the C2BM software.  
 -Begin fabrication, assembly, and test of C2BM hardware.

FY2005 Planned Program:  
 -Continue upgrades to the C2BM software.  
 -Conduct SIL Hardware -in-the-Loop integration activities of hardware and software in preparation of Block 2006 flight testing.  
 -Continue fabrication, assembly, and test of C2BM hardware.

	FY2002	FY2003	FY2004	FY2005
THAAD Block 2006 GOVERNMENT TEST AND EVALUATION				9205
RDT&E Articles (Quantity)				

FY2005 Planned Program:  
 -Continue THAAD Range Operations at WSMRA and BTB at Pacific Missile Range Facility, Barking Sands, Kauai, HI (PMRF).  
 -Acquire targets for Flight Test Program.  
 -Plan for Operational Assessment for Block 2006.

**C. Other Program Funding Summary**

	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY 2008	FY2009	To Complete	Total Cost
PE0603175C Ballistic Missile Defense Technology	145021	151130	240820	205791	200956	247990	287864	306472		
PE0603869C Meads Concepts -Dem/Val	0	114781	0	0	0	0	0	0		

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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>	Date <b>February 2003</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-1 NOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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PE0603879C Advanced Concepts, Evaluations and Systems	0	0	151696	216778	166308	193949	241947	234484		
PE0603880C Ballistic Missile Defense System Segment	790535	1046652	0	0	0	0	0	0		
PE0603882C Ballistic Missile Defense Midcourse Defense Segment	3655089	3103844	3613266	3841412	2078522	1908511	1482389	1437923		
PE0603884C Ballistic Missile Defense Sensors	312973	350436	438242	562752	706514	1043454	1152740	1261906		
PE0603886C Ballistic Missile Defense System Interceptors	0	0	301052	541178	1127180	1729613	2558327	2904096		
PE0603890C Ballistic Missile Defense System Engineering and Integration	0	0	483996	522458	604445	628594	703055	706501		
PE0603888C Ballistic Missile Defense Test and Targets	0	0	611522	711181	661416	643302	639839	672396		
PE0603889C Ballistic Missile Defense Products	0	0	343644	384763	333636	343447	349335	360951		
PE0604861C Theater High Altitude Area Defense System -TMD -EMD	818632	888323	0	0	0	0	0	0		
PE0604865C Patriot PAC -3 Theater Missile Defense Acquisition -EMD	130630	176155	0	0	0	0	0	0		
PE0604867C Navy Area Theater Missile Defense -EMD	96121	0	0	0	0	0	0	0		
PE0605502C Small Business Innovative Research -MDA	145102	0	0	0	0	0	0	0		
PE0901585C Pentagon Reservation	6381	7432	14481	13384	12758	12850	13158	13476		
PE0901598C Management Headquarters - MDA	30191	25365	93441	101373	114107	121743	128972	133499		
PE0603883C Ballistic Missile Defense Boost Defense Segment	583463	718036	626264	653612	755163	665772	477109	354346		

**D. Acquisition Strategy**

THAAD will follow the Missile Defense Agency's capability-based acquisition strategy that emphasizes testing, spiral development, and evolutionary acquisition through the use of two-year capability blocks. The THAAD Block 2006 program is already on contract with Lockheed Martin Space Systems Company (LMSSC), Sunnyvale, CA. The 98-month Cost Plus Award Fee contract was awarded effective August 4, 2000, and is 34% complete. Block 2006 development activities could be used to provide a significant capability to protect deployed U.S. and allied forces, specified civilian population centers, or selected sites within the U.S. Should a decision to procure hardware for possible contingency deployment be made in the Block 2006 timeframe, these separate procurement contract vehicles would likely be a Cost Plus Incentive Fee contract, with a different share ratio from Block 2004.

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MDAExhibitR -3RDT&EProjectCostAnalysis									Date February2003			
APPROPRIATION/BUDGETACTIVITY 4.AdvancedComponentDevelopmentandPrototypes(ACD&P)					R-INOMENCL ATURE 0603881CBallisticMissileDefenseTerminalDefenseSegment							
I.ProductDevelopmentCost(\$inThousands)												
CostCategories:	Contract Method &Type	Performing Activity& Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Costto Complete	Total Cost	Target Valueof Contract
THAADBlock2006ACD&P Prime(Missile)	SS/CPAF	LMSSC/Various				63688		86787			150475	CONT.
THAADBlock2006ACD&P Prime(Radar)	SS/CPAF	LMSSC/Various				5936		32755			38691	CONT.
THAADBlock2006ACD&P Prime(Launcher)	SS/CPAF	LMSSC/Various				6175		5178			11353	CONT.
THAADBlock2006ACD&P Prime(C2BM)	SS/CPAF	LMSSC/Various				19646		26768			46414	CONT.
THAADBlock2006ACD&P Prime(ILS)	SS/CPAF	LMSSC/Various				3324		6839			10163	CONT.
THAADBlock2006ACD&P Prime(SysLevelProgMgmt)	SS/CPAF	LMSSC/Various				2709		10200			12909	CONT.
THAADBlock2006ACD&P Prime(WeaponSys Engr & IntegTeam)	SS/CPAF	LMSSC/Various				3532		14311			17843	CONT.
THAADBlock2006ACD&P Prime(EngrSptSvcs)	SS/CPAF	LMSSC/Various				532		802			1334	CONT.
THAADBlock2006ACD&P Prime(GroundandFlight TestSupport)	SS/CPAF	LMSSC/Various				3239		15119			18358	
SubtotalProductDevelopment			0	0		108781		198759			307540	
<b>Remarks</b>												

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<b>MDAExhibitR -3RDT&amp;EProjectCostAnalysis</b>										Date <b>February2003</b>		
<b>APPROPRIATION/BUDGETACTIVITY</b>					<b>R-INOMENCL ATURE</b>							
<b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>					<b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>							
<b>II.SupportCostsCost(\$inThousands)</b>												
CostCategories:	Contract Method &Type	Performing Activity& Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Costto Complete	Total Cost	Target Valueof Contract
SubtotalSupportCosts												
<b>Remarks</b>												
<b>III.TestandEvaluationCost(\$inThousands)</b>												
CostCategories:	Contract Method &Type	Performing Activity& Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Costto Complete	Total Cost	Target Valueof Contract
<b>THAADBlock2006 GOVERNMENTTESTAND EVALUATION</b>												
TestPlanning	MIPR	Various/Various						9205			9205	
SubtotalTestandEvaluation			0	0		0		9205			9205	
<b>Remarks</b>												
<b>IV.ManagementServicesCost(\$inThousands)</b>												
CostCategories:	Contract Method &Type	Performing Activity& Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Costto Complete	Total Cost	Target Valueof Contract
SubtotalManagementServices												
<b>Remarks</b>												
ProjectTotalC ost			0	0		108781		207964			316745	
<b>Remarks</b>												



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MDAExhibitR -4AScheduleDetail						Date February2003		
APPROPRIATION/BUDGETACTIVITY 4.Advan cedComponentDevelopmentandPrototypes(ACD&P)				R-1NOMENCLATURE 0603881CBallisticMissileDefenseTerminalDefenseSegment				
ScheduleProfile	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
<b>TestingMilestones</b>								
Block2006FlightTest4					3Q			
Block2006FlightTest5						2Q		
Block2006FlightTest7						3Q		
Block2006FlightTest8						4Q		
Block2006FlightTest9							1Q	
<b>CDR</b>								
Block2006ElementCDR					2Q			
<b>Block2006</b>								
C2BMLauncherPQTPhaseI					1Q-4Q	1Q-4Q	1Q	
C2BMSoftwareBuild5.0			1Q-4Q	1Q-4Q	1Q-4Q	1Q-3Q		
MissilePQTPhaseI						4Q	1Q	
MissileSoftwareBuild7.0			1Q-4Q	1Q-4Q	1Q-4Q	1Q		
RadarPQTPhaseI					2Q-4Q	1Q-4Q	1Q	
RadarSoftwareBuild4.2			1Q-4Q	1Q-4Q	1Q-4Q			
SILIntegration			1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q	

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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>	Date <b>February 2003</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-INOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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COST (\$ in Thousands)	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
0907 Theater High Altitude Area Defense (THAAD) Block 2008	0	0	0	0	237472	227395	369306	299754
RDT&E Articles Qty	0	0	0	0	0	0	27	8

**A. Mission Description and Budget Item Justification**

The Terminal Defense Elements provide the final opportunity to engage short to medium range ballistic missiles not engaged or destroyed in the boost or mid-course phase of trajectory. THAAD contributes to the Missile Defense Agency's Terminal Defense System ability to engage and negate ballistic missiles in both the lower mid-course and terminal phases of their trajectory. THAAD's ability to defend against short to medium range ballistic missiles protects U.S. and allied armed forces, broadly dispersed assets and population centers or selected U.S. sites (Homeland Defense) against ballistic missile attacks. THAAD in conjunction with the fielded Patriot System provides the Missile Defense Agency's layered Terminal Defense System that further reduces leakage of ballistic missiles.

Five major components (missiles, launchers, radar(s), Command and Control/Battle Management (C2BM), and THAAD-specific support equipment) will be integrated into the THAAD element and BMDs. THAAD will follow the Missile Defense Agency's capability-based acquisition strategy that emphasizes testing, spiral development, and evolutionary acquisition through the use of two-year capability blocks.

Block 2008: Block 2008 represents the incremental capability delivered as part of THAAD's evolutionary acquisition/development strategy. This block builds on the core, missile defense capability provided by THAAD Block 2006. This block demonstrates the capabilities of the THAAD system in endo-atmospheric battlespace against the full threat set. Block 2008 flight testing begins in 2nd quarter, FY2008 and ends in 2nd quarter, FY2009 with a total of 7 flight tests. Operational assessment testing begins in 2nd quarter, FY2009 and completes in 1st quarter, FY2010.

**RDT&E Articles for Development Tests (DT):**

- FY2006 (Buy Schedule): 5 Full-up Missiles.
- FY2007 (Buy Schedule): 7 Full-up Missiles.
- FY2008 (Delivery Schedule): 13 Full-up Missiles.
- FY2009 (Delivery Schedule): 7 Full-up Missiles.

**RDT&E Articles for Operational Tests (OT):**

- FY2006 (Buy Schedule): 13 Full-up Missiles and one Radar.
- FY2007 (Buy Schedule): 1 Full-up Missile.
- FY2008 (Delivery Schedule): 13 Full-up Missiles, 1 Radar.
- FY2009 (Delivery Schedule): 1 Full-up Missile.

**B. Accomplishments/Planned Program**

There is no funding or activity planned for Block 2008 prior to FY2006.

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MDA Exhibit R -2 ARDT&E Project Justification							Date February 2003			
APPROPRIATION/BUDGET ACTIVITY 4. Advanced Component Development and Prototypes (ACD&P)					R-1 NOMENCLATURE 0603881C Ballistic Missile Defense Terminal Defense Segment					
C. Other Program Funding Summary										
	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	To Complete	Total Cost
PE0603175C Ballistic Missile Defense Technology	145021	151130	240820	205791	200956	247990	287864	306472		
PE0603869C Meads Concepts -Dem/Val	0	114781	0	0	0	0	0	0		
PE0603879C Advanced Concepts, Evaluations and Systems	0	0	151696	216778	166308	193949	241947	234484		
PE0603880C Ballistic Missile Defense System Segment	790535	1046652	0	0	0	0	0	0		
PE0605502C Small Business Innovative Research -MDA	145102	0	0	0	0	0	0	0		
PE0901585C Pentagon Reservation	6381	7432	14481	13384	12758	12850	13158	13476		
PE0901598C Management Headquarters - MDA	30191	25365	93441	101373	114107	121743	128972	133499		
PE0603883C Ballistic Missile Defense Boost Defense Segment	583463	718036	626264	653612	755163	665772	477109	354346		
PE0603884C Ballistic Missile Defense Sensors	312973	350436	438242	562752	706514	1043454	1152740	1261906		
PE0603886C Ballistic Missile Defense System Interceptors	0	0	301052	541178	1127180	1729613	2558327	2904096		
PE0603890C Ballistic Missile Defense System Engineering and Integration	0	0	483996	522458	604445	628594	703055	706501		
PE0603888C Ballistic Missile Defense Test and Targets	0	0	611522	711181	661416	643302	639839	672396		
PE0603889C Ballistic Missile Defense Products	0	0	343644	384763	333636	343447	349335	360951		
PE06 04861C Theater High -Altitude Area Defense System -TMD -EMD	818632	888323	0	0	0	0	0	0		
PE0604865C Patriot PAC -3 Theater Missile Defense Acquisition -EMD	130630	176155	0	0	0	0	0	0		
PE0604867C Navy Area Theater Missile Defense -EMD	96121	0	0	0	0	0	0	0		
PE0603882C Ballistic Missile Defense Midcourse Defense Segment	3655089	3103844	3613266	3841412	2078522	1908511	1482389	1437923		

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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>	Date <b>February 2003</b>
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APPROPRIATION/BUDGET ACTIVITY <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	R-1 NOMENCLATURE <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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D. Acquisition Strategy

THAAD will follow the Missile Defense Agency's capability-based acquisition strategy that emphasizes testing, spiral development, and evolutionary acquisition through the use of two-year capability blocks. The THAAD Block 2008 program is already on contract with Lockheed Martin Space Systems Company (LMSSC), Sunnyvale, CA. The 98-month Cost Plus Award Fee contract was awarded effective August 4, 2000, and is 34% complete. Block 2008 development activities could be used to provide a significant capability to protect deployed U.S. and allied forces, dispersed assets, specified population centers, or wide areas of the U.S. Should a decision to procure hardware for possible contingency deployment be made in the Block 2008 timeframe, these separate procurement contract vehicles would likely be a Fixed Price Incentive, Firm Target contract, possibly transitioning into a Firm Fixed Price contract as further buys developed.

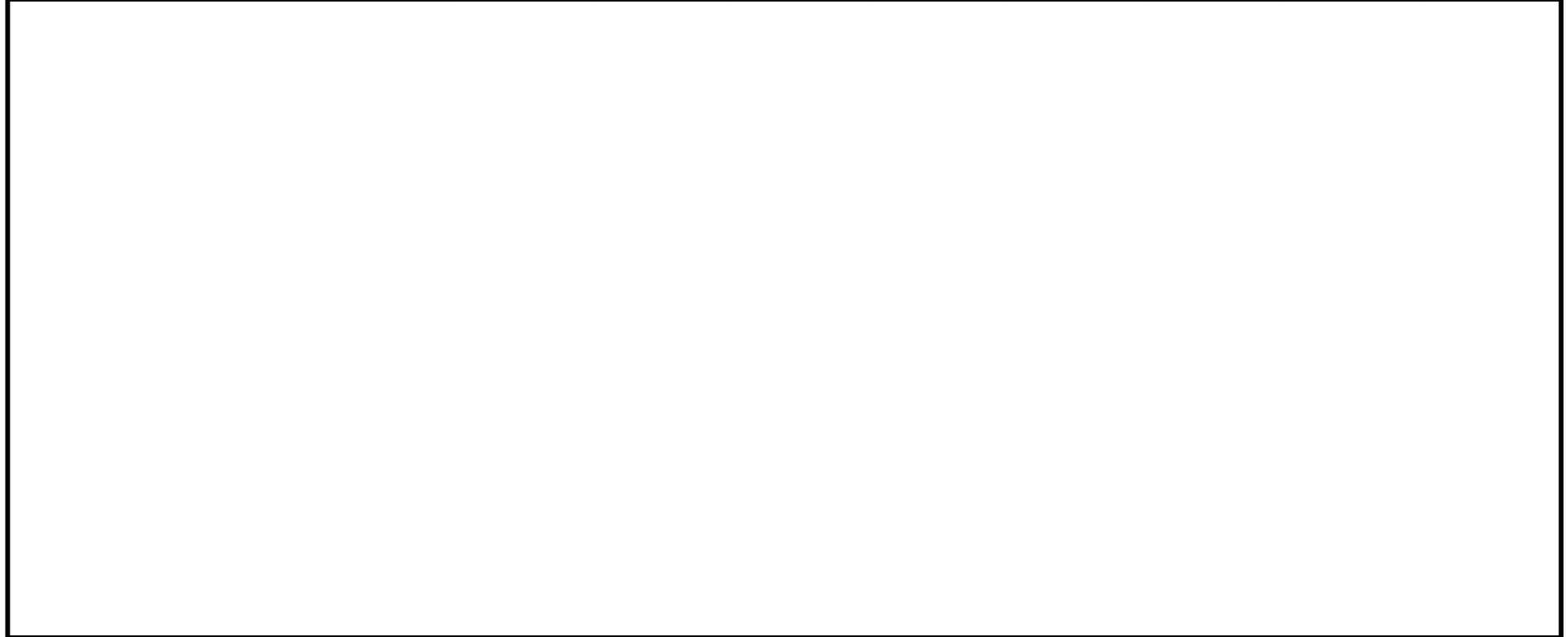


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<b>MDAExhibitR -4AScheduleDetail</b>						Date <b>February2003</b>		
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<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmen tandPrototypes(ACD&amp;P)</b>				<b>R-INOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>				
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ScheduleProfile	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
<b>TestingMilestones</b>								
Block2008FlightTest10							2Q	
Block2008FlightTest11							3Q	
Block2008FlightTest12							3Q	
Block2008FlightTest13							4Q	
Block2008FlightTest14								1Q
Block2008FlightTest15								1Q
Block2008FlightTest16								2Q
Block2008Radar3Integration&TestCompletion							2Q	



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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>	Date <b>February 2003</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-1 NOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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COST (\$ in Thousands)	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
2016/0401 Israeli Arrow Program	126395	132271	64803	64628	64499	64412	64363	64296
RDT&E Articles Qty	16	42	6	2	0	0	0	0

**A. Missi on Description and Budget Item Justification**

This project provides funding for the Arrow system development, to include the Arrow System Improvement Program (ASIP), testing of the Arrow Weapon System in the U.S., enhancement of Arrow interoperability with U.S. missile defense systems, Israeli Systems Architecture and Integration (ISA&I) studies to assess Arrow's effectiveness against emerging threats, and Israeli Test Bed (ITB) experiments to evaluate human-in-the-loop battle management and command, control, and communications. The United States derives considerable benefits from its participation in these projects. The presence of a ballistic missile defense system in Israel developed under this project helps ensure U.S. freedom of action in future contingencies and provides protection against ballistic missile attacks to U.S. forces deployed to the region. The cooperative effort also provides risk reduction and alternative technologies for U.S. ballistic missile defense programs as well as phenomenology and kill assessment data. The ASIP effort will enhance the performance of the Arrow Weapon System (AWS) to defeat longer-range and more robust Tactical Ballistic Missile (TBM) threats expected to be introduced in the Middle East in the near future. The ASIP also includes baselinetesting of the AWS at a U.S. test range against today's existing TBM threats as well as testing of the enhanced AWS against long range threats. The ITB and ISA&I efforts will continue to support AWS and ASIP development as well as to develop future missile defense architectures to maintain pace with emerging threats.

**B. Accomplishments/Planned Program**

	FY2002	FY2003	FY2004	FY2005
Arrow Deployability Program (ADP)	34000			
RDT&E Articles (Quantity)	11			

FY2002: Achieved initial operational capability for Arrow Block 2, which includes enhanced capability against long range missiles and Link-16 interoperability capability. Completed funding third Arrow battery.

RDT&E Articles: Arrow II interceptormissiles (11) dual-qualified for operational ortest use.

	FY2002	FY2003	FY2004	FY2005
Arrow System Improvement Program (ASIP)	47000	55000	58727	58473
RDT&E Articles (Quantity)	5	2	6	2

FY2002: Initiated Phase II of the Arrow System Improvement Program that included technology development, enhanced interoperability, preparatory activities for flight tests of the baseline AWS at a U.S. test range. Developed and tested enhanced interoperability capability.

FY2003: Continue ASIP Phase II to develop and test technologies to improve Arrow Weapon System performance to defend Israel from emerging TBM threats. Conduct Arrow flight tests in Israel. Continue enhancing and testing Arrow interoperability capability.

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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>			Date <b>February 2003</b>	
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>		<b>R-1 NOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>		
<p>FY2004: Conduct Arrow testing in the U.S. against representative regional TBM threats. Continue ASIP Phase II to develop and test technologies to improve Arrow Weapon System performance to defend Israel from emerging TBM threats. Continue enhancing Arrow interoperability. Obtain Joint Interoperability Test Command certification of interoperability enhancements.</p> <p>FY2005: Continue ASIP Phase II to develop and test technologies to improve Arrow Weapon System performance to defend Israel from emerging TBM threats. Conduct Arrow flight test in Israel. Continue enhancing Arrow interoperability development and validation to include engagement coordination.</p> <p>RDT&amp;E Articles: Two Arrow II test missiles, three Arrow short burn -tim test missiles, two Black Sparrow Air Launched Targets.</p>				
	FY2002	FY2003	FY2004	FY2005
Arrow Enhanced Component Production	37384	1271		
RDT&E Articles (Quantity)				
<p>FY2002: Initiated development of capability in the U.S. to produce Arrow components to accelerate Israeli acquisition of Arrow interceptors.</p> <p>FY2003: Completed development of Arrow component production capability.</p>				
	FY2002	FY2003	FY2004	FY2005
Israeli Test Bed (ITB)	2500	3100	3100	3100
RDT&E Articles (Quantity)				
<p>FY2002: Conducted Israeli Test Bed (ITB) experiments to evaluate battle management concepts and to assess interoperability between the AWS and U.S. TMD systems. Provided support to U.S. European Command and Israeli Air Force (EUCOM/IAF) to conduct experiments to support the addition of the operational AWS into the combined Operations Plan (OPLAN) and Combined Standard Operating Procedures (CSOP).</p> <p>FY2003: Conduct ITB experiments to evaluate ASIP performance specifications against future threats and assess Arrow enhanced interoperability between Israeli and U.S. missile defense systems. Support EUCOM/IAF revision to the combined OPLAN and CSOP. Conduct experiments of planned Arrow blockupgrades to the AWS and assess their impact on EUCOM/IAF combined operations.</p> <p>FY2004: Conduct ITB experiments to support development of centralized battle management. Assess Arrow interoperability between Israeli and U.S. missile defense systems. Support EUCOM/IAF revision to the combined OPLAN and CSOP and conduct experiments leading up to the EUCOM/IAF major field exercise. Conduct experiments of planned Arrow blockupgrades to the AWS and assess their impact on EUCOM/IAF combined operations.</p> <p>FY2005: Conduct ITB experiments to support development of centralized battle management. Evaluate ASIP performance specifications against future threats and assess Arrow enhanced interoperability between Israeli and U.S. missile defense systems. Support EUCOM/IAF revision to the combined OPLAN and CSOP. Conduct experiments of planned Arrow blockupgrades to the AWS and assess their impact on EUCOM/IAF combined operations.</p>				

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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>			Date <b>February 2003</b>	
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>		<b>R-1 NOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>		
	FY2002	FY2003	FY2004	FY2005
Israeli Systems Architecture and Integration (ISA&I)	1511	1900	1976	2055
RDT&E Articles (Quantity)				
<p>FY2002: Initiated Israeli Systems Architecture and Integration (ISA&amp;I) assessment to develop options for 2015 Israeli Missile Defense architectures.</p> <p>FY2003: Assess Arrow performance against emerging regional TBM threats and identify growth path refinements necessary for the Arrow missile defense system to remain an effective ballistic missile defense for the State of Israel. Conduct joint architecture studies to assess near-term U.S. missile defense systems and their impact on future Israeli missile defense architectures.</p> <p>FY2004: Develop initial Israeli Missile Defense System (IMDS) architecture and system level design.</p> <p>FY2005: Assess IMDS performance against emerging regional TBM threats. Refine growth path options necessary for the Arrow missile defense system to remain an effective ballistic missile defense for the State of Israel. Conduct joint architecture studies to assess near-term U.S. missile defense systems and their impact on future Israeli missile defense architectures.</p>				
	FY2002	FY2003	FY2004	FY2005
Program Support	4000	1000	1000	1000
RDT&E Articles (Quantity)				
<p>FY 2002: Completed Program Executive Office (PEO) Air and Missile Defense Technical Integration Services. Developed hardware -in-the-loop test tools for assessment of interoperability. Developed security plans and classification guides.</p> <p>FY2003: Develop documentation of background/foreground data rights for ASIP, Arrow co -production, and ITB. Complete background/foreground documentation for Arrow Deployability Program (ADP). Develop and maintain security plans and classification guides. Modify Missile Defense System Exerciser (MDSE) to support interoperability assessment. Manage and support ITB modifications and experiments.</p> <p>FY2004: Complete initial documentation of background/foreground data rights for ASIP, Arrow co -production, and ITB. Maintain security plans and classification guides. Manage and support ITB modifications and experiments.</p> <p>FY2005: Continued documentation of background/foreground data rights for ASIP, Arrow co -production, and ITB. Maintain security plans and classification guides. Manage and support ITB modifications and experiments.</p>				

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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>	Date <b>February 2003</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-INOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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	FY2002	FY2003	FY2004	FY2005
Arrow Missile Production		70000		
RDT&E Articles (Quantity)		40		

FY2003: Cooperatively produce Arrow missile to meet Israel's defense requirements. The cooperative production program will consist of the manufacture of certain Arrow components in the U.S. with other components manufactured in Israel. Missile final assembly will take place in Israel.

RDT&E Articles: Forty Arrow II missiles.

**C. Other Program Funding Summary**

	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	To Complete	Total Cost
PE0603175C Ballistic Missile Defense Technology	145021	151130	240820	205791	200956	247990	287864	306472		
PE0603869C Meads Concepts - De m/Val	0	114781	0	0	0	0	0	0		
PE0603879C Advanced Concepts, Evaluations and Systems	0	0	151696	216778	166308	193949	241947	234484		
PE0603880C Ballistic Missile Defense System Segment	790535	1046652	0	0	0	0	0	0		
PE0603882C Ballistic Missile Defense Midcourse Defense Segment	3655089	3103844	3613266	3841412	2078522	1908511	1482389	1437923		
PE0603883C Ballistic Missile Defense Boost Defense Segment	583463	718036	626264	653612	755163	665772	477109	354346		
PE0603884C Ballistic Missile Defense Sensors	312973	350436	438242	562752	706514	1043454	1152740	1261906		
PE0603886C Ballistic Missile Defense System Interceptors	0	0	301052	541178	1127180	1729613	2558327	2904096		
PE0603888C Ballistic Missile Defense Test and Targets	0	0	611522	711181	661416	643302	639839	672396		
PE0603889C Ballistic Missile Defense Products	0	0	343644	384763	333636	343447	349335	360951		
PE0603890C Ballistic Missile Defense System Engineering and Integration	0	0	483996	522458	604445	628594	703055	706501		
PE0604861C Theater High -Altitude Area Defense System -TMD -EMD	818632	888323	0	0	0	0	0	0		

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<b>MDAExhibitR -2ARDT&amp;EProjectJustification</b>	Date <b>February2003</b>
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<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>	<b>R-INOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminal DefenseSegment</b>
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PE0604865CPatriotPAC -3TheaterMissile DefenseAcquisition -EMD	130630	176155	0	0	0	0	0	0	0		
PE0604867CNavyAreaTheaterMissile Defense -EMD	96121	0	0	0	0	0	0	0	0		
PE06 05502CSmallBusinessInnovative Research -MDA	145102	0	0	0	0	0	0	0	0		
PE0901585CPentagonReservation	6381	7432	14481	13384	12758	12850	13158	13476			
PE0901598CManagementHeadquarters - MDA	30191	25365	93441	101373	114107	121743	128972	133499			

**D. AcquisitionStrategy**

ASIP -IsraelMinistryofDefense(IMoD)contractsonbehalfofU.S.governmenttoIAIandotherASIPcontractors.MDATargetsOfficecontractsforproductionandinstrumentationoftargetsfor U.S.flighttesting.

ArrowEnhancedCo mponentsProduction -IMoDcontractsonbehalfofU.S.governmenttoIAI.IAIsubcontractstoBoeingfordevelopmentofU.S.productioncapability.

ArrowMissileProduction -IMoDcontractsonbehalfofU.S.governmenttoIAI.IAIsubcontractstoBoeing formanufactureofU.S.components.IAImanufacturesIsraelicomponentsandperforms finalassembly.

IsraeliTestBed -SMDCcontractstoTadiran.

IsraeliSystemArchitectureandIntegration -MDAcontractstoWALES,Ltd.

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MDA Exhibit R -3 RDT&E Project Cost Analysis										Date February 2003		
APPROPRIATION/BUDGET ACTIVITY 4. Advanced Component Development and Prototypes (ACD&P)					R-INOMENCLATURE 0603881C Ballistic Missile Defense Terminal Defense Segment							
I. Product Development Cost (\$ in Thousands)												
Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Cost to Complete	Total Cost	Target Value of Contract
<b>Arrow System Improvement Program (ASIP)</b>												
Arrow System Improvement Program (ASIP)	Other	IAI/Israel	47000	55000	1Q	58727	1Q	58473	1Q	TBD	219200	
<b>Arrow Enhanced Component Production</b>												
Arrow Enhanced Component Production	Other	Boeing/IAI/Alabama/Israel	37384	1271	1Q						38655	
<b>Israeli Test Bed (ITB)</b>												
Israeli Test Bed (ITB)	FFP	Tadiran/Israel	2500	3100	1Q	3100	1Q	3100	1Q	TBD	11800	
<b>Israeli Systems Architecture and Integration (ISA&amp;I)</b>												
Israeli Systems Architecture and Integration (ISA&I)	FFP	Wales, Ltd/Israel	1511	1900	1Q	1976	1Q	2055	1Q	TBD	7442	
<b>Arrow Deployability Program (ADP)</b>												
ADP	Various	IAI/Israel	34000								34000	
<b>Arrow Missile Production</b>												
Arrow Missile Prod	Various	Boeing/IAI/Alabama/Israel		70000							70000	
Subtotal Product Development			122395	131271		63803		63628			381097	
<b>Remarks</b>												

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<b>MDAExhibitR -3RDT&amp;EProjectCostA nalysis</b>	Date <b>February2003</b>
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<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>	<b>R-INOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>
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<b>II.SupportCostsCost(\$inThousands)</b>												
CostCategories:	Contract Method &Type	Performing Activity& Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Costto Complete	Total Cost	Target Valueof Contract
<b>ProgramSupport</b>												
ProgramSupport	Various	Various/Alabama/ Virginia	4000	1000	1Q	1000	1Q	1000	1Q	TBD	7000	
SubtotalSupportCosts			4000	1000		1000		1000			7000	

**Remarks**

<b>III.TestandEvaluationCost(\$inThousands)</b>												
CostCategories:	Contract Method &Type	Performing Activity& Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Costto Complete	Total Cost	Target Valueof Contract
SubtotalTestandEvaluation												

**Remarks**

<b>IV.ManagementServicesCost(\$inThousands)</b>												
CostCategories:	Contract Method &Type	Performing Activity& Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Costto Complete	Total Cost	Target Valueof Contract
SubtotalManagementServices												

**Remarks**

ProjectTotalCost			126395	132271		64803		64628			388097	
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**Remarks**



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MDAExhibitR -4AScheduleDetail						Date February2003		
APPROPRIATION/BUDGETACTIVITY 4.AdvancedComponentDevelopmentandPrototypes(ACD&P)				R-1NOMENCLATURE 0603881CBallisticMissileDefenseTerminalDefenseSe gment				
ScheduleProfile	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
<b>ProductionMilestones</b>								
ASIPProductionInitiated						4Q		
CooperativeProductionInitiated		3Q						
<b>IntegratedFlightTest</b>								
ASIPFlightTestsinIsrael		2Q,4Q		1Q-4Q	1Q-4Q	1Q		
ASIPFlightTestsinU.S.			3Q-4Q					
ASIPFollow -onFlightTest							1Q-4Q	1Q-4Q
EnhancedArrowTestsinU.S.						3Q-4Q		
<b>Other</b>								
MissileDefenseArchitecture		4Q						
MissileDefenseArchitectureAssessment			1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
<b>Communications</b>								
InteroperabilityFieldDemonstration		2Q		2Q		2Q		2Q
InteroperabilityTestsw/MDS E		1Q,4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	
<b>ProgramMilestones</b>								
ASIPFollow -OnDevelopment							2Q-4Q	1Q-4Q
ASIPFollow -OnFeasibilityStudy						3Q-4Q	1Q	
ASIPPhaseII		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q		
ASIPPhaseIII						2Q-4Q	1Q	
CompleteADP		4Q						
ITBExperiments(Threeeachyear)		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q

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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>	Date <b>February 2003</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-1 NOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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COST (\$ in Thousands)	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
2015 Medium Extended Air Defense (MEADS)	64338	0	0	0	0	0	0	0
RDT&E Articles Qty	0	0	0	0	0	0	0	0

**A. Mission Description and Budget Item Justification**

Note: MEADS was included as an element of the Terminal Defense Segment Program Element (PE) 0603881C in FY2002. MEADS was programmed to transfer to the Army in FY2003 but, per Congressional direction remained with MDA and was assigned its own MDA PE (0603869C MEADS) for FY2003. MEADS is programmed to transfer to the Army in FY2004.

The Medium Extended Air Defense System (MEADS) is an Objective Force system. As an international co-development program, MEADS is a Terminal Defense Segment Mission Area Investment that is essential to fulfill the requirements of the U.S. Army and the U.S. Marine Corps for a -medium air and missile defense system in the 21st century. MEADS will offer a significant improvement in tactical mobility and strategic deployability over comparable missile systems. It will defend the maneuver force and other critical forward -deployed assets against short and medium range Theater Ballistic Missiles (TBMs), cruise missiles and other air -breathing threats throughout all phases of tactical operations. MEADS will operate with upper -tiers systems in areas of debarkation and assembly and provide continuous coverage alone, or with Short -Range Air Defense Systems (SHORAD) systems in the division area of the battlefield during movement to contact and decisive operations. MEADS will be interoperable with other airborne and ground -based sensors and utilize an etched and distributed architecture and modular ly-configurable battle elements to provide a robust, 360 -degree defense against short and medium range TBMs, cruise missiles, unmanned -aerial-vehicles, tactical air -to-surface missiles, rotary -wing and fixed -wing threats.

The MEADS program has been restructured to leverage the interceptor from the PATRIOT Advanced Capability -3 (PAC -3) program and to extend the Program Definition/Validation (PD/V) phase with a thirty-two and half month Risk Reduction Effort (RRE) that focuses on developing the critical technologies required for maneuver force protection and overall risk reduction. U.S. funded bridging effort commenced on 14 August 2000 to begin work on the highest risk and long -lead items in the RRE Scope of Work. The International Memorandum of Understanding (MOU) was signed 27 June 2001, and the RRE contract was awarded 10 July 2001.

There remains a critical void in maneuver force defense against the current and future Air and Missile Defense (AMD) threat of short and medium range TBMs, cruise missiles , and low -to-medium altitude advanced air -breathing threats. This program will meet this challenge by integrating the PAC -3 missile and developing the critical technologies required for maneuver force protection, including development and testing of a lightweight launcher, 360 -degree multifunction fire control radar and an etched and distributed Battle Management/Command, Control, Communications, Computers and Intelligence (BM/C4I) Tactical Operations Center (TOC). The PAC -3 missile is the baseline interceptor for MEADS. Sensor and battle management software technology from both U.S. and international programs will be examined to enhance and augment organic -equipment functions, reducing development cost and risk. Improvements will be balanced against costs and the projected threat to develop a U.S. and allied capability to counter the current and future AMD threats. The approach emphasizes prototyping of system -specific and surrogate hardware in key areas of BM/C4I, fire control radar, and lightweight launchers to satisfy mobility, strategic deployability and interoperability requirements.

**B. Accomplishments/Planned Program**

	FY2002	FY2003	FY2004	FY2005
Risk Reduction Effort (RRE)	39316			
RDT&E Articles (Quantity)				

Continue U.S. contribution to the North Atlantic Treaty Organization (NATO) MEADS Management Agency (NAMEADSMA) International Program Office operational and administrative budgets for the MEADS RRE contract and continued development of digital end -to-ends simulation, continued development of a prototype launcher, fire control radar, prototype BM/C4I hardware/software, test planning, technology transfer and anti -tamper. Continued tri -national planning for seamless transition to the Design and Development (D&D) Phase Contract.

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<b>MDAExhibitR -2ARDT&amp;EProjectJustification</b>			Date <b>February2003</b>	
<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>		<b>R-INOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>		
	FY2002	FY2003	FY2004	FY2005
ProgramIntegration	6057			
RDT&EArticles(Quantity)				
ConductprogramintegrationeffortsthatwillexamineDepartmentofDefense(DoD),JointVisionandArmyTransformationobjectiveforcemixandintegrationissues;supportMEADSinthetest andevaluationofAirandMissileDefense(AMD)taskforceinteroperability;supportdevelopmentandmaintenanceofJointDataNetworkinterfacerequirementsandplanningandappropriate planningofMEADSmanpower,training, humanfactors,safetyissues,costreductioninitiativesandU.S.onlysecurity.				
	FY2002	FY2003	FY2004	FY2005
GovernmentAgenciesandSupportContracts	7480			
RDT&EArticles(Quantity)				
Continuefundingforgovernmentagenciesandsupportcontractstoprovidetechnicalanalysisandtoolsinspecialtyareasoflethality,BM/C4Iandsystemsimulations,aswellassupportconducting independentevaluationsofcontractortradesandanalysis.				
	FY2002	FY2003	FY2004	FY2005
InternalOperating	5350			
RDT&EArticles(Quantity)				
ContinueMEADSprogrammanagement,supportandsalariesforboththenationalandinternationalprogramoffices.IncludeseffortstosupportUSUniquerequirementforMEADSdocumentation plan.				
	FY2002	FY2003	FY2004	FY2005
Multi-SpectraRFDatalink	6135			
RDT&EArticles(Quantity)				
ProvidesforthedevelopmentoftheMulti-SpectralRadioFrequency(RF)Datalink(MRFDL)inthePAC-3Missile(HardwareOnly).				

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<b>MDAExhibitR -2ARDT&amp;EProjectJustification</b>	Date <b>February2003</b>
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<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>	<b>R-INOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefenseSegment</b>
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<b>C.OtherProgramFundingSummary</b>										
	FY2 002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	To Complete	Total Cost
PE0603175CBallisticMissileDefense Technology	145021	151130	240820	205791	200956	247990	287864	306472		
PE0603869CMeadsConcepts -Dem/Val	0	114781	0	0	0	0	0	0		
PE 0603889CBallisticMissileDefense Products	0	0	343644	384763	333636	343447	349335	360951		
PE0604861CTheaterHigh -AltitudeArea DefenseSystem -TMD -EMD	818632	888323	0	0	0	0	0	0		
PE0604865CPatriotPAC -3TheaterMissile DefenseAcquisition -EMD	130630	176155	0	0	0	0	0	0		
PE0604867CNavyAreaTheaterMissile Defense -EMD	96121	0	0	0	0	0	0	0		
PE0605502CSmallBusinessInnovative Research -MDA	145102	0	0	0	0	0	0	0		
PE0901585CPentagonReservation	6381	7432	14481	13384	12758	12850	13158	13476		
PE0901598CManagementHeadquarters - MDA	30191	25365	93441	101373	114107	121743	128972	133499		
PE0603888CBallisticMissileDefenseTest andTargets	0	0	611522	711181	661416	643302	639839	672396		
PE0603880CBallisticMissileDefense SystemSegment	790535	1046652	0	0	0	0	0	0		
PE0603882CBallisticMissileDefense MidcourseDefenseSegment	3655089	3103844	3613266	3841412	2078522	1908511	1482389	1437923		
PE0603883CBallisticMissileDefenseBoost DefenseSegment	583463	718036	626264	653612	755163	665772	477109	354346		
PE0603884CBallisticMissileDefense Sensors	312973	350436	438242	562752	706514	1043454	1152740	1261906		
PE0603886CBallisticMissileDefense SystemInterceptors	0	0	301052	541178	1127180	1729613	2558327	2904096		
PE0603 890CBallisticMissileDefense SystemEngineeringandIntegration	0	0	483996	522458	604445	628594	703055	706501		
PE0603879CAdvancedConcepts, EvaluationsandSystems	0	0	151696	216778	166308	193949	241947	234484		

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MDA Exhibit R -2 ARDT & E Project Justification	Date February 2003
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APPROPRIATION/BUDGET ACTIVITY <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	R-1 NOMENCLATURE <b>0603881C Ballistic Missile Defense Terminal Defense Segment</b>
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**D. Acquisition Strategy**

The MEADS acquisition strategy includes the competition between two transatlantic industrial teams in the Program Definition/Validation (PD/V) phase. These two international entities prepared and competed for the PD/V phases. As the Department of Defense and partner nations restructured the program, the PD/V phase was extended with the selection of a single contractor team to conduct a three-year risk reduction effort (RRE). In August 2000, the Defense Acquisition Executive (DAE) approved entry into RRE. In this phase, technology from Germany, Italy and the United States, including the PAC-3 missile, will be leveraged to define the most cost effective solution to meet the MEADS operational requirements. The MEADS Product Office is also pursuing integration of MEADS Block 4I with the Project Manager, Air & Missile Defense Command and Control Systems (AMDCCS), to take advantage of other Army developments that can be incorporated into the MEADS program. A U.S. funded bridging effort commenced on 14 August 2000 to work on the high risk areas and long lead items within the scope of the RRE effort. The international MOU was signed 27 June 2001 and the RRE contract was awarded 10 July 2001. Per the 2 January 2002 Secretary of Defense direction memo, the U.S. national unique requirements of the MEADS program will be developed in consultation with the Missile Defense Agency (MDA). The international requirements of the MEADS program will be directed per the International Memorandum of Understanding (MOU) and as modified in the future for international participation in the Ballistic Missile Defense System (BMDS).

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MDA Exhibit R - 3RDT & E Project Cost Analysis										Date February 2003		
APPROPRIATION/BUDGET ACTIVITY 4. Advanced Component Development and Prototypes (ACD&P)					R-INOMENCLATURE 0603881C Ballistic Missile Defense Terminal Defense Segment							
<b>I. Product Development Cost (\$in Thousands)</b>												
Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Cost Categories:												
<b>Risk Reduction Effort (RRE)</b>												
<b>Multi-Spectra RFDatalink</b>												
Subtotal Product Development		0	0		0		0			0		
<b>Remarks</b>												
Note: MEADS is assigned its own MDAPE (0603869C) for FY2003. Total Prior Year costs (including FY2002) are captured in the Total Prior Year column of the MEADS PE 0603869C.												
<b>II. Support Costs Cost (\$in Thousands)</b>												
Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Cost Categories:												
<b>Program Integration</b>												
<b>Government Agencies and Support Contracts</b>												
Subtotal Support Costs		0	0		0		0			0		
<b>Remarks</b>												
Note: MEADS is assigned its own MDAPE (0603869C) for FY2003. Total Prior Year costs (including FY2002) are captured in the Total Prior Year column of the MEADS PE 0603869C.												
<b>III. Test and Evaluation Cost (\$in Thousands)</b>												
Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY2003 Cost	FY2003 Award Date	FY2004 Cost	FY2004 Award Date	FY2005 Cost	FY2005 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Cost Categories:												
Subtotal Test and Evaluation												
<b>Remarks</b>												
Note: MEADS is assigned its own MDAPE (0603869C) for FY2003. Total Prior Year costs (including FY2002) are captured in the Total Prior Year column of the MEAD SPE 0603869C.												



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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>	Date <b>February 2003</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-1 NOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defens eSegment</b>
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COST (\$ in Thousands)	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
2090/0602 Program Operations	5067	4128	15066	16663	20970	16445	11182	7599
RDT&E Articles Qty	0	0	0	0	0	0	0	0

**A. Mission Description and Budget Item Justification**

Fiscal Years 2002 and 2003 are reflected in Project 2090 and Fiscal Years 2004 and out are in Project 0602.

This project covers personnel and related support costs, statutory and fiscal requirements.

Personnel covers government civilians performing program -wide oversight functions such as contracting, program integration, safety, quality and mission assurance at Missile Defense Agency (MDA), Executing Agents within the US Army Space & Missile Defense Command, US Army PEO Air and Missile Defense, US Navy PEO for Theater Surface Combatants, Office of Naval Research, and US Air Force.

Assistance required to support Missile Defense Agency program -wide management functions is also contained in this project. Typical efforts include cost estimating; audit; technology integration across MDA projects; and assessment of schedule, cost and performance, with attendant documentation of the many related programmatic issues. The requirements for this area are based on most economical and efficient utilization of contractors versus government personnel.

Fiscal Requirements include reimbursable services acquired through the Defense Working Capital Fund (DWCF) such as accounting services provided by the Defense Finance and Accounting Services (DFAS); reserves for special termination costs on designated contracts; and provisions for terminating other programs as required. MDA has additional requirements to provide for foreign currency fluctuation on its limited number of foreign contracts. Also includes funding for charges to canceled appropriations in accordance with Public Law 101 -510.

Note that these funds are allocated across multiple Program Elements in accordance with the Fiscal Year 1996 Authorization Act, which directed these funds be allocated to the programs being supported rather than managed from a single source. This structure often makes it difficult to level -fund all PE's while maintaining an orderly fiscal structure for executing the individual Program Operation efforts.

**B. Accomplishments/Planned Program**

	FY2002	FY2003	FY2004	FY2005
Personnel	2779	2403	6507	6159
RDT&E Articles (Quantity)				

Provides funding for government salaries and benefits at the Missile Defense Agency that are associated with program -wide support.

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<b>MDA Exhibit R -2 ARDT&amp;E Project Justification</b>	Date <b>February 2003</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>4. Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>R-INOMENCLATURE</b> <b>0603881C Ballistic Missile Defense Terminal Defense eSegment</b>
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	FY2002	FY2003	FY2004	FY2005
Management Support	900	1650	6087	7212
RDT&E Articles (Quantity)				

Funds the contract SETA support costs directly associated with Missile Defense Agency program - wide support organizations. This effort provides the funding for the Missile Defense Agency's executing agents (Army Space and Missile Defense Command, Army PEO -AMD, Air Force, and Navy) including government salaries & benefits, seta support, and various management/overhead costs.

	FY2002	FY2003	FY2004	FY2005
Fiscal Requirements	1388	75	2472	3292
RDT&E Articles (Quantity)				

This effort funds various requirements at the Missile Defense Agency, to include accounting services, special termination costs, foreign currency fluctuations, and charges from cancelled appropriations.

**C. Other Program Funding Summary**

	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	To Complete	Total Cost
PE0603175C Ballistic Missile Defense Technology	145021	151130	240820	205791	200956	247990	287864	306472		
PE0603869C Meads Concepts -Dem/Val	0	114781	0	0	0	0	0	0		
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PE0603880C Ballistic Missile Defense System Segment	790535	1046652	0	0	0	0	0	0		
PE0603882C Ballistic Missile Defense Midcourse Defense Segment	3655089	3103844	3613266	3841412	2078522	1908511	1482389	1437923		
PE0603883C Ballistic Missile Defense Boost Defense Segment	583463	718036	626264	653612	755163	665772	477109	354346		
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<b>MDAExhibitR -2ARDT&amp;EProjectJustification</b>	Date <b>February2003</b>
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<b>APPROPRIATION/BUDGETACTIVITY</b> <b>4.AdvancedComponentDevelopmentandPrototypes(ACD&amp;P)</b>	<b>R-INOMENCLATURE</b> <b>0603881CBallisticMissileDefenseTerminalDefens eSegment</b>
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PE0603889CBallisticMissileDefense Products	0	0	343644	384763	333636	343447	349335	360951		
PE0603890CBallisticMissileDefense SystemEngineeringandIntegration	0	0	483996	522458	604445	628594	703055	706501		
PE0604861CTheaterHigh -AltitudeArea DefenseSystem -TMD -EMD	818632	888323	0	0	0	0	0	0		
PE0604865CPatriotPAC -3TheaterMissile DefenseAcquisition -EMD	130630	176155	0	0	0	0	0	0		
PE0604867CNavyAreaTheaterMissile Defense -EMD	96121	0	0	0	0	0	0	0		
PE0605502CSmallBusinessInnovative Research -MDA	145102	0	0	0	0	0	0	0		
PE0901585CPentagonReservation	6381	7432	14481	13384	12758	12850	13158	13476		
PE0901598CManagementHeadquarters - MDA	30191	25365	93441	101373	114107	121743	128972	133499		
PE0603888CBallisticMissileDefenseTest andTargets	0	0	611522	711181	661416	643302	639839	672396		