

UNCLASSIFIED

MDA RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)								DATE February 2002	
BUDGET ACTIVITY 4 - Program Definition and Risk Reduction				PE NUMBER AND TITLE 0603876C Intelligence Program					
<i>COST (In Thousands)</i>	FY2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY2005 Estimate	FY2006 Estimate	FY2007 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	25853	0	0	0	0	0	0	Continuing	Continuing
3155 Systems Engineering and Integration	8379	0	0	0	0	0	0	Continuing	Continuing
3270 Threat and Countermeasures Program	12974	0	0	0	0	0	0	Continuing	Continuing
3359 Test Evaluation and Assessment	4500	0	0	0	0	0	0	Continuing	Continuing

The BMD Program and resulting FY 2002 President's Budget request has been developed based on revised Secretary of Defense direction to develop capabilities to defend against the missile threat and sustain appropriate deterrence levels. Beginning in FY 2002, funding from this Program Element is moved to the Ballistic Missile Defense (BMD) System Program Element 0603880C to facilitate BMD system capability evolution, allow timely responses and reactions to changes in the BMD program, and provide the programmatic agility to mitigate unforeseen consequences.

A. Mission Description and Budget Item Justification

The purpose of this Intelligence program is to define potential adversary military force missile threats. The program consists of two component tasks: Intelligence Program and Intelligence Applications. A new Program Element (PE) was consolidated under project 3155. This provision calls for the establishment of a PE to be referred as the "Systems Engineering and Integration Program." The purpose of this program is to assist Theater Missile Defense (TMD) and National Missile Defense (NMD) acquisition program offices in developing ballistic missile defense systems that are robust to potential countermeasures and are practical and within the means of anticipated adversaries.

MDA RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY 4 - Program Definition and Risk Reduction	PE NUMBER AND TITLE 0603876C Intelligence Program
--	--

<u>B. Program Change Summary</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>
Previous President's Budget (<u>FY 2002 PB</u>)	22621		
Congressional Adjustments	0		
Appropriated Value	22621		
Adjustments to Appropriate Amount			
a. Congressional General Reductions	-207		
b. SBIR/STTR	-491		
c. Omnibus or Other Above Threshold Reductions	0		
d. Intl Realign	3930		
e. Rescissions	0		
Adjustments to Budget Years Since <u>FY 2002 PB</u>	3332		
Current Budget Submit (<u>FY 2003 Budget Estimates</u>)	25853		

Change Summary Explanation:

Funding: Funding adjustments made to support revisions in TMD core program schedules and requirements. Beginning in FY 2002, funding from this PE is moved to the BMD System Program Element 0603880C.

Schedule: None

Technical: None

UNCLASSIFIED

MDA RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY 4 - Program Definition and Risk Reduction	PE NUMBER AND TITLE 0603876C Intelligence Program	PROJECT 3155
--	--	-------------------------------

COST (<i>In Thousands</i>)	FY2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY2005 Estimate	FY2006 Estimate	FY2007 Estimate	Cost to Complete	Total Cost
3155 Systems Engineering and Integration	8379	0	0	0	0	0	0	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program is part of the System Engineering and Integration (SE&I) project. BMDO has realigned Systems Engineering functional tasks, previously accomplished under a number of projects. In this PE, Threat Systems Engineering activities are consolidated under this project 3155. This Program Element contains only the Threat Systems Engineering Program. A more complete description of the overall System Engineering and Integration project, can be found in the Mission Description for project 3155 in Program Element 0603873C, Family of Systems E & I and Program Element 0603874C, Ballistic Missile Defense (BMD) Technical Operations.

The Ballistic Missile Defense Organization (BMDO) Threat Systems Engineering Program assists Theater Missile Defense (TMD) and National Missile Defense (NMD) acquisition program offices in developing ballistic missile defense systems that are robust to potential countermeasures and are practical and within the means of anticipated adversaries. Included in this mission are Countermeasures Integration Program (CMIP) support to the TMD and NMD threat development process and advance warning to BMDO system designers. The BMDO CMIP reviews TMD and NMD systems for susceptibilities and identifies potential countermeasures, determines credibility through analyses and tests, characterizes credible countermeasures by providing designs and performance parameters, informs intelligence and system threat developers of potential countermeasures, informs TMD and NMD system designers with advance warning of potential countermeasures, and assists TMD and NMD system designers in developing counter-countermeasures. Providing vulnerability and susceptibility information, or "threat risk assessments", to the system designers early on enables them to build robustness into their designs during the early stages of the system development process, a cost-effective means for providing a flexible high-performance design. The program takes a "rest-of-world" perspective in developing credible, potential countermeasures.

FY 2001 Planned Program:

- 5900 Threat Systems Eng Prog
 - 2479 Support Contractors
- Total 8379

B. <u>Other Program Funding Summary</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	To <u>Compl</u>	Total <u>Cost</u>
PE 0603873C	227965							Compl.	Compl.
PE 0603874C	307859							Compl.	Compl.

MDA RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY 4 - Program Definition and Risk Reduction	PE NUMBER AND TITLE 0603876C Intelligence Program
--	--

C. Acquisition Strategy:

The 3155 Project acquisition strategy leverages existing system acquisition programs (which are subject to milestone decisions and testing) and accomplishes supporting tasks to satisfy Systems Engineering performance requirements. A portion of this project entails systems engineering of separately funded and managed service programs so that all systems will interoperate when fielded.

D. <u>Schedule Profile</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Threat Risk Assessments	X						
Support the CHOP missions	X						
Maintain the Threat Systems Engineering Library	X						
DTT baseline Maintenance and update	X						
Provide Red Team Leadership and support for BMD related Working Groups and Study Teams	X						

UNCLASSIFIED

MDA RDT&E COST ANALYSIS (R-3)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY 4 - Program Definition and Risk Reduction	PE NUMBER AND TITLE 0603876C Intelligence Program	PROJECT 3155
--	--	-------------------------------

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Threat Systems Eng Prog	Various	Various	5900						5900	
Subtotal Product Development:			5900						5900	

Remark:

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Support Contractors	Various	Various	2479						2479	
Subtotal Support Costs:			2479						2479	

Remark:

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a.										
Subtotal Test and Evaluation:										

Remark:

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a.										
b.										
Subtotal Management Services:										

Remark:

Project Total Cost:			8379						8379	
---------------------	--	--	------	--	--	--	--	--	------	--

Remark:

MDA RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY 4 - Program Definition and Risk Reduction	PE NUMBER AND TITLE 0603876C Intelligence Program	PROJECT 3270
---	---	------------------------

COST (In Thousands)	FY2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY2005 Estimate	FY2006 Estimate	FY2007 Estimate	Cost to Complete	Total Cost
3270 Threat and Countermeasures Program	12974	0	0	0	0	0	0	Continuing	Continuing

A. Mission Description and Budget Item Justification

Intelligence Directorate. The Ballistic Missile Defense Organization (BMDO) Directorate of Intelligence defines potential adversary military force missile threats. To accomplish this mission, BMDO has a threat definition program, which is based on intelligence community projections and is traceable to quantifiable analysis. This project produces capstone threat and countermeasure documentation to ensure consistent technical threat definitions across all the Services. It does not duplicate Service-unique activities. The program consists of two component tasks: Intelligence Program and Intelligence Applications; and a secondary task providing funds for an Executing Agent at USASMDC to support the Intelligence Threat task.

Intelligence Program Task. The purpose of this task is to provide an Intelligence Community-Validated Theater Missile Defense (TMD) and National Missile Defense (NMD) threat description. The threat is divided into four major categories under this task: Operational Threat Environment, Targets, System Specific Threats (SST), and Reactive Threats. The Operational Threat Environment includes assessments of the operational and technological environments and projects the effects of developments and trends on TMD and NMD mission capability. The Targets category includes a projection of foreign missile systems and countermeasures that enhance their performance. This includes force structure, performance characteristics, and sample signatures. SST addresses threats to NMD and the TMD "family of systems" including reconnaissance, surveillance, and target acquisition; lethal and non-lethal threats; and regional integrated SST assessments. The Reactive Threats category includes those that an adversary may develop as a result of deployment of NMD and the TMD "family of systems."

Intelligence Applications Task. The accurate specification and characterization of ballistic missiles and the appropriate development and integration of scenarios using these characterizations are critical to the analysis of alternative ballistic missile architectures, the performance assessments of potential technology applications, and the operational performance evaluations of candidate designs. This task provides baseline and excursion scenario descriptions in documentary and digital form for use in analysis of BMD architectures and operational effectiveness. These descriptions are the only approved threat employment portrayals authorized for acceptable BMDO analysis. This task:

- Identifies user needs for threat scenario descriptions.
- Identifies analyses needed to fully specify and characterize the threat missile systems, penetration aids, tactics, etc., and ensures the analyses are accomplished.
- Provides the analysis results to all interested agencies for review and comment.
- Addresses critical threat issues, which arise during the analysis process.
- Ensures all supporting agencies' views on threat issues are fully aired.
- Reviews, approves, produces, and distributes all threat scenario descriptions.
- Produces threat computer digital media (threat tapes) and supporting documentation for use by the development and acquisition communities.

Project 3270 Page 6 of 11 Pages Exhibit R-2A (PE 0603876C)

MDA RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY 4 - Program Definition and Risk Reduction	PE NUMBER AND TITLE 0603876C Intelligence Program	PROJECT 3270
---	---	------------------------

FY 2001 Planned Program:

- 5697 Intelligence Program:
- 192 GOV PROJECT PER & SUPT
- 3171 Support Contracts
- 51 OSD RESERVE
- 3863 Intelligence Applications

Total 12974

B. Other Program Funding Summary (\$In Thousands)	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	To <u>Compl</u>	Total <u>Cost</u>
PE 0603873C	227965							Compl.
PE 0603874C	307859							Compl.

C. Acquisition Strategy: Funding is provided to executing agents who accomplish tasks under existing contracts via Military Interdepartmental Purchase Requests (MIPR); Scientific, Engineering, and Technical Assistance (SETA) contracts; and Federally Funded Research and Development Centers (FFRDCs) contracts.

D. Schedule Profile

	<u>FY 2001</u>				<u>FY 2002</u>				<u>FY 2003</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
NMD STAR			X									
TMD Capstone STAR			X									
Threat Risk Assessment				X								
NEA III Scenario (Update)			X									
South East Europe Scenario				X								
RT-2 Campaign Scenario		X										

UNCLASSIFIED

MDA RDT&E COST ANALYSIS (R-3)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY 4 - Program Definition and Risk Reduction	PE NUMBER AND TITLE 0603876C Intelligence Program	PROJECT 3270
---	---	------------------------

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Intelligence Program:			5697						5697	
b. Intelligence Application			3863						3863	
Subtotal Product Development:			9560						9560	

Remark:

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Support Contracts	Various	Various	3171						3171	
b. OSD RESERVE	Various	Various	51						51	
c. Gov Proj Per & Supt	Allot	SMDC, Huntsville, AL	192						192	
Subtotal Support Costs:			3414						3414	

Remark:

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a.										
Subtotal Test and Evaluation:										

Remark:

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a.										
Subtotal Management Services:										

Remark:

Project Total Cost:			12974						12974	
---------------------	--	--	-------	--	--	--	--	--	-------	--

Remark:

UNCLASSIFIED

MDA RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY 4 - Program Definition and Risk Reduction	PE NUMBER AND TITLE 0603876C Intelligence Program	PROJECT 3359
--	--	-------------------------------

COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
3359 Test Evaluation and Assessment	4500	0	0	0	0	0	0	Continuing	Continuing

A. Mission Description and Budget Item Justification

Beginning in FY 2001, this project represents a consolidation of activities previously preformed and funded from multiple projects in the Family of Systems Program Element.

This project funds detailed planning, execution and analysis of Ballistic Missile Defense Organization's (BMDO) primary corporate test events directed by BMDO/TE and for flight test signature analysis, interoperability support to systems engineering and other test needs reporting across the Theater Ballistic Missile (TBM) community. The primary TE-directed test events are flight tests associated with the Critical Measurements Program (CMP). Live Flight Overlays includes the System Integration Test (SIT) II and the Hardware-in-the-Loop testing conducted at the Joint National Test Facility (JNTF) using the Theater Ballistic Missile Defense System Exerciser (TMDSE). In addition to these dedicated test programs, corporate data collection, analysis and reporting is funded across various other data collection events to include CINC TAMD exercises, MDAP flight testing, service testing, and allied TBMD testing as appropriate to meet BMDO test objectives. Specifically, subtasks are further defined as follows:

Critical Measurements Program (CMP) - Designs, builds, and flies threat representative test articles in realistic scenarios that address critical Ballistic Missile Defense (BMD) system functions and is an integral part of BMDO's Corporate Testing program contributing to the development of robust BMD systems. Includes test planning, execution and analysis associated with the CMP.

Test Planning and Management Support - Includes technical analysis, planning and evaluation of Corporate Test opportunities and pre-test predictions with detailed models. Also provides management support for the Director, Program Support and Assessment and his staff.

System Integration Test (SIT)/Live Flight Overlays - SITs/ Overlays are dedicated, controlled live flight test with interceptors and targets to measure FoS interoperability response. This task includes the planning, execution, analysis and reporting from each test.

Hardware-in-the-Loop Testing (HWILT) - HWILT combines actual tactical hardware and software to provide cost effective assessments of the latest interoperability software upgrades. Models & Simulations are the only approach of simultaneously representing joint interoperability of all the TAMD weapons, sensors and command centers under a wide variety of operational conditions against the full set of threats in the TMD Capstone Requirements Document.

Corporate Data Collection and Analysis - This task funds corporate data collection, analysis and reporting on test events outside of the CMP, SIT/Overlay and HWILT testing programs. It also funds the TSCC, a deployable link data collection and analysis equipment suite, that is fielded in live joint play and testing events.

MDA RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY 4 - Program Definition and Risk Reduction	PE NUMBER AND TITLE 0603876C Intelligence Program	PROJECT 3359
---	---	------------------------

FY 2001 Accomplishments:

- 4500 Provides funding for the Critical Measurements Program (CMP) which designs, builds, and flies threat representative test articles in realistic scenarios that address critical BMD system functions and is an integral part of BMDO's Corporate Testing program contributing to the development of robust BMD systems. Includes test planning, execution and analysis associated with the CMP.
-

Total 4500

B. <u>Other Program Funding Summary</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	To Compl	Total Cost
PE 0603873C	227965							Compl.	Compl.
PE 0603874C	307859							Compl.	Compl.

C. Acquisition Strategy:
 Corporate testing supports MDAP and interceptor development. Ballistic Missile phenomenology/signature and Family of Systems interoperability data is collected, analyzed and reported to insert in the systems engineering process for product improvement.

D. <u>Schedule Profile</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>

UNCLASSIFIED

MDA RDT&E COST ANALYSIS (R-3)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY 4 - Program Definition and Risk Reduction	PE NUMBER AND TITLE 0603876C Intelligence Program	PROJECT 3359
---	---	------------------------

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Critical Measure Program (CMP)	Allot	SMDC, Huntsville, AL	4500					TBD	4500	TBD
Subtotal Product Development:			4500						4500	

Remark:

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a.										
Subtotal Support Costs:										

Remark:

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a.										
Subtotal Test and Evaluation:										

Remark:

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a.										
Subtotal Management Services:										

Remark:

Project Total Cost:			4500						4500	
---------------------	--	--	------	--	--	--	--	--	------	--

Remark: