Missile Defense Agency (MDA) Exhibit R-2 RDT&E Bu	dget Item Jus	tification		Date <b>Februa</b> r	y 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes	(ACD&P)		NCLATURE <b>Sea Based X</b>	-Band Rada	ar (SBX)		
COST (\$ in Thousands)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	0	165,243	0	0	0	0	0
XX46 Sea Based X-Band Radar (SBX) Sustainment	0	165,243	0	0	0	0	0

Note: The FY07 effort is captured under the Ground Based Midcourse Defense Program Element (0603882C). FY09 effort continues in Project XX11 under the BMDS Sensors Program Element (0603884C).

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

#### A.1 System Element Description

As part of the effort to develop a Ballistic Missile Defense System (BMDS), the Missile Defense Agency (MDA) has developed and deployed a large BMDS Sea-Based X-Band (SBX) Radar. The SBX provides the capability to the Combatant Commanders to engage ballistic missiles in the midcourse phase of flight.

The SBX consists of four major operating systems: vessel; X-Band Radar (XBR); In-Flight Interceptor Communications System (IFICS) Data Terminal (IDT), and the Ground-Based Midcourse Defense (GMD) Communications Network (GCN). The vessel is a commercially designed, selfpropelled, semi-submersible oil drilling platform that was modified to meet the functional requirements of the SBX. The vessel has a dynamic positioning capability to enable precision station keeping in potential adverse sea states and weather conditions. The XBR is a phased-array system that also features a mechanical slewing capability in azimuth and elevation. The XBR operates in the X-Band portion of the frequency spectrum and represents the world's largest X-band radar. When fully integrated with the GMD system, it will become a primary midcourse discrimination sensor for Ballistic Missile Defense. X-band technology provides this midcourse sensor with the ability to perform high resolution cued search, acquisition, tracking, and target discrimination. To perform this effort, highly sophisticated algorithms are designed to enhance target acquisition and discrimination of more complex and off-nominal threat sets and targets.

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

The SBX provides the capability to the Combatant Commanders to engage ballistic missiles in the midcourse phase of flight.

				Date
Missile Defens	se Agency (MDA) Exhil	bit R-2 RDT&E Budget Item Jus	tification	February 2008
APPROPRIATION/BUDGET ACT RDT&E, DW/04 Advanced Con		nt and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603907C Sea Based X	-Band Radar (SBX)
A.3 Maior System Element (	Goals			
• Complete integration of X		2.2.1.x.		
1 0			ergency Capability Delive	ery (ECD) decision for SBX incorporation
into the GMD System	1	I I I I I I I I I I I I I I I I I I I	8 9 9	
0	ich demonstrates the	functionality of GBI engage	on SBX using XBR Buil	ld 1.6.1.x Software
1 ,		, , , , , , , , , , , , , , , , , , , ,	U	(CD) and Full Capability Delivery (FCD)
decision for SBX incorpor		11		
• Participate in GTD-03		5		
1	ch demonstrates the	functionality of GBI engage	on SBX using XBR Soft	ware Build 2.2.1 x
• Participate in FTG-05 white				
1			0	
• Participate in DoD Targets	s of Opportunity as a	vailable for viewing by the S	0	
<ul><li>Participate in DoD Targets</li><li>Complete Phase I and Phase</li></ul>	s of Opportunity as a se II Operational Enl	vailable for viewing by the S	BX	
<ul> <li>Participate in DoD Targets</li> <li>Complete Phase I and Phase</li> <li>Complete required 5-Year</li> </ul> A.4 Major Events Schedule a	s of Opportunity as a se II Operational Enl mid-cycle Americar and Description	vailable for viewing by the S hancement to the vessel n Bureau of Shipping (ABS)	BX special survey of the vess	
<ul> <li>Participate in DoD Targets</li> <li>Complete Phase I and Phase</li> <li>Complete required 5-Year</li> <li><u>A.4 Major Events Schedule a</u> Major Event</li> </ul>	s of Opportunity as a se II Operational Enl mid-cycle Americar	vailable for viewing by the S hancement to the vessel n Bureau of Shipping (ABS)	BX	
<ul> <li>Participate in DoD Targets</li> <li>Complete Phase I and Phase</li> <li>Complete required 5-Year</li> <li>A.4 Major Events Schedule a</li> <li>Major Event</li> <li>Flight Test</li> </ul>	s of Opportunity as a se II Operational Enl mid-cycle Americar and Description	vailable for viewing by the S hancement to the vessel n Bureau of Shipping (ABS)	BX special survey of the vess	
<ul> <li>Participate in DoD Targets</li> <li>Complete Phase I and Phase</li> <li>Complete required 5-Year</li> <li>A.4 Major Events Schedule a</li> <li>Major Event</li> <li>Flight Test</li> <li>Flight Tests</li> </ul>	s of Opportunity as a se II Operational Enl mid-cycle Americar and Description	vailable for viewing by the S hancement to the vessel n Bureau of Shipping (ABS)	BX special survey of the vess escription	sel
<ul> <li>Participate in DoD Targets</li> <li>Complete Phase I and Phase</li> <li>Complete required 5-Year</li> <li>A.4 Major Events Schedule a Major Event</li> <li>Flight Tests</li> <li>FIG-04</li> </ul>	s of Opportunity as a se II Operational Enl mid-cycle Americar and Description Project	vailable for viewing by the S hancement to the vessel n Bureau of Shipping (ABS) s Timeframe D	BX special survey of the vess escription Demonstrate the functionality	
<ul> <li>Participate in DoD Targets</li> <li>Complete Phase I and Phase</li> <li>Complete required 5-Year</li> <li>A.4 Major Events Schedule a Major Event</li> <li>Flight Test</li> <li>Flight Tests</li> <li>FTG-04</li> <li>FTG-05</li> <li>Ground Test</li> </ul>	s of Opportunity as a se II Operational Enl mid-cycle Americar and Description Project XX46	vailable for viewing by the S         hancement to the vessel         n Bureau of Shipping (ABS)         Timeframe         3Q FY 2008	BX special survey of the vess escription Demonstrate the functionality Participate in FTG-05 which c	of GBI engage on SBX using XBR 1.6.1x Software
<ul> <li>Participate in DoD Targets</li> <li>Complete Phase I and Phase</li> <li>Complete required 5-Year</li> <li>A.4 Major Events Schedule a Major Event</li> <li>Flight Test</li> <li>Flight Tests</li> <li>FTG-04</li> <li>FTG-05</li> <li>Ground Test</li> <li>Integrated/Distributed Ground Tests</li> </ul>	s of Opportunity as a se II Operational Enl mid-cycle Americar and Description Project XX46 XX46	vailable for viewing by the S         hancement to the vessel         n Bureau of Shipping (ABS)         Timeframe       D         3Q FY 2008       •         4Q FY 2008       •	BX special survey of the vess escription Demonstrate the functionality Participate in FTG-05 which of XBR Build 2.2.1.x. Software.	of GBI engage on SBX using XBR 1.6.1x Software demonstrates the functionality of GBI engage on SBX using
<ul> <li>Participate in DoD Targets</li> <li>Complete Phase I and Phase</li> <li>Complete required 5-Year</li> <li>A.4 Major Events Schedule a Major Event</li> <li>Flight Test</li> <li>Flight Tests</li> <li>FTG-04</li> <li>FTG-05</li> <li>Ground Test</li> <li>Integrated/Distributed Ground Tests</li> <li>GTD-02</li> </ul>	s of Opportunity as a se II Operational Enl mid-cycle Americar and Description Project XX46 XX46 XX46	vailable for viewing by the S         hancement to the vessel         n Bureau of Shipping (ABS)         Timeframe       D         3Q FY 2008       •         4Q FY 2008       •         1Q FY 2008       •	BX special survey of the vess escription Demonstrate the functionality Participate in FTG-05 which of XBR Build 2.2.1.x. Software. Acquire performance information decision for SBX incorporation	sel of GBI engage on SBX using XBR 1.6.1x Software lemonstrates the functionality of GBI engage on SBX using tion to support an Emergency Capability Delivery (ECD) on into the GMD System.
<ul><li>Participate in DoD Targets</li><li>Complete Phase I and Phase</li></ul>	s of Opportunity as a se II Operational Enl mid-cycle Americar and Description Project XX46 XX46	vailable for viewing by the S         hancement to the vessel         n Bureau of Shipping (ABS)         Timeframe       D         3Q FY 2008       •         4Q FY 2008       •	BX special survey of the vess escription Demonstrate the functionality Participate in FTG-05 which of XBR Build 2.2.1.x. Software. Acquire performance information decision for SBX incorporation Acquire performance information	of GBI engage on SBX using XBR 1.6.1x Software demonstrates the functionality of GBI engage on SBX using tion to support an Emergency Capability Delivery (ECD)

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Missile Defense Agency (MDA)	Exhibit R-2 RDT&I	E Budget Item	Justification	Date February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Develo	opment and Prototy	ypes (ACD&I		OMENCLATURE OTC Sea Based X-Band Radar (SBX)
B. Program Change Summary	FY 2007	FY 2008	FY 2009	
Previous President's Budget (FY 2008 PB)	0	0	0	
Current President's Budget (FY 2009 PB)	0	165,243	0	
Total Adjustments	0	165,243	0	
Congressional Specific Program Adjustments	0	166,300	0	
Congressional Undistributed Adjustments	0	-1,057	0	
Reprogrammings	0	0	0	
SBIR/STTR Transfer	0	0	0	
Adjustments to Budget Years	0	0	0	

FY08 increase of \$165.243 million includes the Congressionally specific transfer of the SBX program and associate \$166.3 million in FY08 funding to a unique PE and a portion of the MDA Congressional undistributed reduction.

Missile Defense Agency (MDA) Exhibit R-2A RDT&E	Project Justif	ication		Date <b>Februar</b>	·y 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes	(ACD&P)	. –	NCLATURE Sea Based X	-Band Rada	ar (SBX)		
COST (\$ in Thousands)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
XX46 Sea Based X-Band Radar (SBX) Sustainment	0	165,243	0	0	0	0	0
RDT&E Articles Qty	0	0	0	0	0	0	0

### A. Mission Description and Budget Item Justification

The Sea-Based X-Band (SBX) Radar consists of four major operating systems: vessel; X-Band Radar (XBR); In-Flight Interceptor Communications System (IFICS) Data Terminal (IDT), and the Ground-Based Midcourse Defense (GMD) Communications Network (GCN). The vessel is a commercially designed, self-propelled, semi-submersible oil drilling platform that was modified to meet the functional requirements of the SBX. The vessel has a dynamic positioning capability to enable precision station keeping in potential adverse sea states and weather conditions. The XBR is a phased-array system that also features a mechanical slewing capability in azimuth and elevation. The XBR operates in the X-Band portion of the frequency spectrum and represents the world's largest X-band radar. When fully integrated with the GMD system, it will become the primary midcourse discrimination sensor for Ballistic Missile Defense. X-band technology provides this midcourse sensor with the ability to perform high resolution cued search, acquisition, tracking, and target discrimination. To perform this effort, highly sophisticated algorithms are designed to enhance target acquisition and discrimination of more complex and off-nominal threat sets and targets.

The SBX will operate from various locations in the Pacific Ocean in FY08 continuing its integration into the Ballistic Missile Defense System (BMDS) through support of system flight and ground tests. Additionally, the SBX is scheduled to spend time at the Pearl Harbor shipyard to implement enhancements to the SBX vessel that resulted from recommendations of an Operational Viability Assessment (OVA) panel. Security surrounding the SBX is a vital part of the operations of the SBX.

			Date	
Missile Defense Agency (MDA) Exhibit R-2A R	RDT&E Project Justif	ication	February 2008	
APPROPRIATION/BUDGET ACTIVITY		R-1 NOMENCLATU	RE	
RDT&E, DW/04 Advanced Component Development and Prot	totypes (ACD&P)	0603907C Sea Bas	ed X-Band Radar (SBX)	
<b>B.</b> Accomplishments/Planned Program				
	FY	2007	FY 2008	FY 2009
Sea-Based X-Band Radar Development		0	43,643	0
RDT&E Articles (Quantity)		0	0	0
The X-Band Radar is a phased-array radar mounted on a med	chanical slewing ca	pability in azimuth a	and elevation. The XBR op	perates in the X-band

The X-Band Radar is a phased-array radar mounted on a mechanical slewing capability in azimuth and elevation. The XBR operates in the X-band portion of the frequency spectrum and is the world's largest X-band radar. The XBR is affixed to a commercially designed, self-propelled, semi-submersible oil drilling platform that was modified to meet the functional requirements of the SBX. The SBX consists of four major operating systems:

- The Vessel (self-propelled, semi-submersible oil drilling platform)
- The X-Band Radar (XBR)
- In-Flight Interceptor Communications System (IFICS) Data Terminal
- The Ground-Based Midcourse Defense (GMD) Communications Network (GCN)

When fully integrated with the GMD System, it will become the primary midcourse discrimination sensor for Ballistic Missile Defense. The XBR has the ability to perform high resolution cued search, acquisition, tracking, target discrimination, and debris assessments.

The SBX will operate from various locations in the Pacific Ocean in FY08 continuing its integration into the Ballistic Missile Defense System (BMDS) through support of system flight and ground tests. Additionally, the SBX is scheduled to spend time at the Pearl Harbor shipyard to implement enhancements to the SBX vessel that resulted from recommendations of an Operational Viability Assessment (OVA) panel.

FY08 Planned Program:

- Software development and maintenance
- System Engineering and Program Management
- Discrimination and Algorithm development
- Enhancement of Liquid Conditioning Control System (Radar Cooling)
- Certification of Mooring for SBX in Kulak Bay, Adak, AK

Date February 2008           APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)         R-1 NOMENCLATURE 0603907C Sea Based X-Band Radar (SBX)           SEX System Inregration         R 12 NOMENCLATURE 0603907C Sea Based X-Band Radar (SBX)           SEX System Inregration         P 2007         P 2008           RDT&EL Articles (Quantity)         P 2007         P 2008         P 2009           System Force Protection         A COL ON TO THE SBX program requires management and oversight of the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Fhight Interceptor Communications System Data Terminal, a GMD Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support o BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.           System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel and its Off-Shore Support (OSS) vessel, currently the Motor/Vessel (M/V) Dove while docked. On-board protection security functions include: inspection and control of all supplies and equipment, and deterring of vessels encrotaching into the SBX's restric		ICLASSII <sup>,</sup>					
APPROPRIATION/BUDGET ACTIVITY       R.1 NOMENCLATURE         RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)       Re1 NOMENCLATURE         BRS system Integration       FY 2007       FY 2008       FY 2009         RDT&E Articles (Quantity)       0       0       28,200       0         The XBR in coordination with the other SBX payloads functions as the primary BMDS midcourse sensor. The SBX program requires managemen and oversight of the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications System Data designed within the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications System Data designed within the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications System Data Terminal, a GMD Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support o BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.         System Force Protection       FY 2007       FY 2008       FY 2009       System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security functions include: on-board visitor control, access control to sensitive areas, protection against hostile boarding of the SBX, inspection and control of incom p		D	· 4 •				
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)         0603907C Sea Based X-Band Radar (SBX)           SW System Integration         PY 2007         PY 2008         FY 2009           SBX System Integration         0         28.200         0         0           SDT&EX Articles (Quantity)         0         0         0         0         0           The XBR in coordination with the other SBX payloads functions as the primary BMDS midcourse sensor. The SBX program requires management and oversight of the overall SBX System, which includes integration of these on-board major sub-system payloads to successfully operate as designed within the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications System Data Terminal, a GMD Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system integration efforts include: vessel payload modification and integration, testing and operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.           System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel (MVN) Dove while docked. On-board protection security for the SBX vessel and its Off-Shore Support (OSS) vessel, currently the Motor/Vessel (M/V) Dove while docked. On-board protection security functions include: inspection and control of incoms personnel, supplies and equipment, and deterring of vessels encroaching into the SBX's restricted zone. Portside security functions include: inspection and control of all supplies and equipment bein		Project Justifi			February 2008		
FY 2007         FY 2008         FY 2009           SBX System Integration         0         28.200         0 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
SBX System Integration         0         28,200           RDT&E Articles (Quantity)         0         0         0           The XBR in coordination with the other SBX payloads functions as the primary BMDS midcourse sensor. The SBX program requires management and oversight of the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications System Data Terminal, a GMD Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support o BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.           System Force Protection         FY 2007         FY 2008         FY 2009           System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel ontrol to sensitive areas, protection against hostile boarding of the SBX, inspection and control of incom personnel, supplies and equipment, and deterring of vessels encroaching into the SBX's restricted zone. Portside security functions include:           SBX Yessel Operations and Support         FY 2007         FY 2008         FY 2009           System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security functions include: on-board visitor control, access control to sensitive areas, protection against hosti	RDT&E, DW/04 Advanced Component Development and Prototypes	(ACD&P)	0603907C Sea	Based X-Ba	nd Radar (SBX)		
SBX System Integration         0         28,200           RDT&E Articles (Quantity)         0         0         0           The XBR in coordination with the other SBX payloads functions as the primary BMDS midcourse sensor. The SBX program requires management and oversight of the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications System Data Terminal, a GMD Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support o BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.           System Force Protection         FY 2007         FY 2008         FY 2009           System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel ontrol to sensitive areas, protection against hostile boarding of the SBX, inspection and control of incom personnel, supplies and equipment, and deterring of vessels encroaching into the SBX's restricted zone. Portside security functions include:           SBX Yessel Operations and Support         FY 2007         FY 2008         FY 2009           System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security functions include: on-board visitor control, access control to sensitive areas, protection against hosti				Γ			
RDT&E Articles (Quantity)       0       0         The XBR in coordination with the other SBX payloads functions as the primary BMDS midcourse sensor. The SBX program requires managemen and oversight of the overall SBX System, which includes integration of these on-board major sub-system payloads to successfully operate as designed within the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support o BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.         System Force Protection       FY 2007       FY 2008       FY 2009         System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security functions include: on-board visitor control, access control to sensitive areas, protection against hostile boarding of the SBX, inspection and control of incom personnel, supplies and equipment, and deterring of vessels encroaching into the SBX, access control of the docking area, and visitor control to HSBX and M/V Dove.         SBX Vessel Operations and Support       FY 2007       FY 2008       FY 2009         System Force Protection and equipment being readied for transport onto the SBX, access control of the docking area, and visitor control to the SBX and M/V Dove.       FY 2008       FY 2009		FY		FY		FY 2009	
The XBR in coordination with the other SBX payloads functions as the primary BMDS midcourse sensor. The SBX program requires management and oversight of the overall BBX System, which includes integration of these on-board major sub-system payloads to successfully operate as designed within the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications System Data Terminal, a GMD Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support o BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.         System Force Protection       FY 2007       FY 2008       FY 2009         System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel and its Off-Shore Support (OSS) vessel, currently the Motor/Vessel (M/V) Dove while docked. On-board protection security functions include: inspection and control of all supplies and equipment, and deterring of vessels encroaching into the SBX, access control of the docking area, and visitor control to the SBX and equipment being readied for transport onto the SBX, access control of the docking area, and visitor control to the SBX and M/V Dove.         System Force Protection for the SBX in FY08 is divided into two functions; onto the SBX, access control of the docking area, and visitor control incom personnel, supplies and equipment being readied for transport onto the SBX, access control of the docking area, and					28,200		0
and oversight of the overall SBX System, which includes integration of these on-board major sub-system payloads to successfully operate as designed within the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications System Data Terminal, a GMD Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support o BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.           System Force Protection         PY 2007         FY 2008         FY 2009           System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel and its Off-Shore Support (OSS) vessel, currently the Motor/Vessel (M/V) Dove while docked. On-board protection security functions include: inspection and control of secure security of the control to sensitive areas, protection against hostle boarding of the SBX, inspection and control of incom personnel, supplies and equipment being readied for transport onto the SBX, access control of the docking area, and visitor control to the SBX and M/V Dove.           SBX Vessel Operations and Support         FY 2007         FY 2008         FY 2009           SBX vessel Operations and Support         FY 2007         FY 2008         FY 2009           SBX Vessel Operations and Support         FY 2007         FY 2008         FY 2009	RDT&E Articles (Quantity)		0		0		0
designed within the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications System Data         Terminal, a GMD Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system         integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support o         BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.         System Force Protection       FY 2007       FY 2008       FY 2009         System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel and its Off-Shore Support (OSS) vessel, currently the Motor/Vessel (M/V) Dove while docked. On-board protection security functions include: on-board visitor control, access control to sensitive areas, protection against hostile boarding of the SBX, inspection and control of incom personnel, supplies and equipment being readied for transport onto the SBX, access control of the docking area, and visitor contr to the SBX and M/V Dove.         SBX Vessel Operations and Support       0       52,200         FY 2007       FY 2008       FY 2009         SBX vessel Operations and Support       0       0       0         Operations and Sustainment (O&S) of the SBX vessel refers to the general O&S functions associated with the SBX platform, its support vessel	The XBR in coordination with the other SBX payloads functions as	the primary	BMDS midcou	rse sensor. T	The SBX progra	m requires manageme	nt
designed within the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications System Data         Terminal, a GMD Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system         integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support o         BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.         System Force Protection       FY 2007       FY 2008       FY 2009         System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel and its Off-Shore Support (OSS) vessel, currently the Motor/Vessel (M/V) Dove while docked. On-board protection security functions include: on-board visitor control, access control to sensitive areas, protection against hostile boarding of the SBX, inspection and control of incom personnel, supplies and equipment being readied for transport onto the SBX, access control of the docking area, and visitor contr to the SBX and M/V Dove.         SBX Vessel Operations and Support       0       52,200         FY 2007       FY 2008       FY 2009         SBX vessel Operations and Support       0       0       0         Operations and Sustainment (O&S) of the SBX vessel refers to the general O&S functions associated with the SBX platform, its support vessel	and oversight of the overall SBX System, which includes integration	n of these on	-board major su	ub-system pa	yloads to succe	essfully operate as	
Ferminal, a GMD Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support o BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.         FY 2007       FY 2008       FY 2009         System Force Protection       FY 2007       FY 2009         System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel and its Off-Shore Support (OSS) vessel, currently the Motor/Vessel (M/V) Dove while docked. On-board protection accord visitor control, access control to sensitive areas, protection against hostile boarding of the SBX, inspection and control of incom personnel, supplies and equipment being readied for transport onto the SBX's restricted zone. Portside security functions include: inspection and control of all supplies and equipment being readied for transport onto the SBX, access control of the docking area, and visitor control to the SBX and M/V Dove.       FY 2007       FY 2008       FY 2009         SBX Vessel Operations and Support       O       O         Operations and support       O       OPERATE Articles (Quantity)         Ope				• 1	•	• 1	a
integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support o         BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/US concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.							
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concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.         FY 2007         FY 2008         System Force Protection         0         Concept to the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel and its Off-Shore Support (OSS) vessel, currently the Motor/Vessel (M/V) Dove while docked. On-board protection security functions include: on-board visitor control, access control to sensitive areas, protection against hostile boarding of the SBX, inspection and control of incom personnel, supplies and equipment, and deterring of vessels encroaching into the SBX's restricted zone. Portside security functions include: inspection and control of all supplies and equipment being readied for transport onto the SBX, access control of the docking area, and visitor control to the SBX and M/V Dove.         FY 2007         FY 2008         FY 2009         SBX Vessel Operations and Support         O         OPerations and Support         Pry 2007         FY 2008         FY 2009         SBX Vessel Operations and Support         OPerations and Support         O         OPerations and Support         SBX Vessel Operations and Support							
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RDT&E Articles (Quantity)00System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel and its Off-Shore Support (OSS) vessel, currently the Motor/Vessel (M/V) Dove while docked. On-board protection security functions include: on-board visitor control, access control to sensitive areas, protection against hostile boarding of the SBX, inspection and control of incom personnel, supplies and equipment, and deterring of vessels encroaching into the SBX's restricted zone. Portside security functions include: inspection and control of all supplies and equipment being readied for transport onto the SBX, access control of the docking area, and visitor contr to the SBX and M/V Dove.SBX Vessel Operations and SupportFY 2007FY 2008FY 2009SBX Vessel Operations and Support000Operations and Sustainment (O&S) of the SBX vessel refers to the general O&S functions associated with the SBX platform, its support vessel, ar land-based support facilities. The maritime functions of the SBX include the vessel maritime crew which provides safety at sea functions, navigati and propulsion of the vessel, lodging and food services/provisions, vessel maintenance (spares and repair parts), and fuel procurement and power	System Force Protection					112009	0
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include: on-board visitor control, access control to sensitive areas, protection against hostile boarding of the SBX, inspection and control of incom personnel, supplies and equipment, and deterring of vessels encroaching into the SBX's restricted zone. Portside security functions include: inspection and control of all supplies and equipment being readied for transport onto the SBX, access control of the docking area, and visitor contr to the SBX and M/V Dove. <u>SBX Vessel Operations and Support</u> FY 2008 FY 2009 <u>SBX Vessel Operations and Support</u> 0 52,200 <u>RDT&amp;E Articles (Quantity)</u> 0 0 0 Operations and Sustainment (O&S) of the SBX vessel refers to the general O&S functions associated with the SBX platform, its support vessel, ar land-based support facilities. The maritime functions of the SBX include the vessel maritime crew which provides safety at sea functions, navigati and propulsion of the vessel, lodging and food services/provisions, vessel maintenance (spares and repair parts), and fuel procurement and power			1		· 1	5	
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to the SBX and M/V Dove. Image: Description of the Vessel, lodging and food services/provisions, vessel maintenance (spares and repair parts), and fuel procurement and power							
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SBX Vessel Operations and Support052,200RDT&E Articles (Quantity)00Operations and Sustainment (O&S) of the SBX vessel refers to the general O&S functions associated with the SBX platform, its support vessel, ar land-based support facilities. The maritime functions of the SBX include the vessel maritime crew which provides safety at sea functions, navigati and propulsion of the vessel, lodging and food services/provisions, vessel maintenance (spares and repair parts), and fuel procurement and power	to the SBX and $M/V$ Dove.						
SBX Vessel Operations and Support052,200RDT&E Articles (Quantity)00Operations and Sustainment (O&S) of the SBX vessel refers to the general O&S functions associated with the SBX platform, its support vessel, ar land-based support facilities. The maritime functions of the SBX include the vessel maritime crew which provides safety at sea functions, navigati and propulsion of the vessel, lodging and food services/provisions, vessel maintenance (spares and repair parts), and fuel procurement and power							
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RDT&E Articles (Quantity)       0       0         Operations and Sustainment (O&S) of the SBX vessel refers to the general O&S functions associated with the SBX platform, its support vessel, ar land-based support facilities. The maritime functions of the SBX include the vessel maritime crew which provides safety at sea functions, navigati and propulsion of the vessel, lodging and food services/provisions, vessel maintenance (spares and repair parts), and fuel procurement and power		FY	2007	FY	2008	FY 2009	
Operations and Sustainment (O&S) of the SBX vessel refers to the general O&S functions associated with the SBX platform, its support vessel, ar land-based support facilities. The maritime functions of the SBX include the vessel maritime crew which provides safety at sea functions, navigati and propulsion of the vessel, lodging and food services/provisions, vessel maintenance (spares and repair parts), and fuel procurement and power	SBX Vessel Operations and Support		0		52,200		0
land-based support facilities. The maritime functions of the SBX include the vessel maritime crew which provides safety at sea functions, navigati and propulsion of the vessel, lodging and food services/provisions, vessel maintenance (spares and repair parts), and fuel procurement and power	RDT&E Articles (Quantity)		0		0		0
land-based support facilities. The maritime functions of the SBX include the vessel maritime crew which provides safety at sea functions, navigati and propulsion of the vessel, lodging and food services/provisions, vessel maintenance (spares and repair parts), and fuel procurement and power	Operations and Sustainment (O&S) of the SBX vessel refers to the s	general O&S	functions asso	ciated with t	he SBX platfor	m, its support vessel, a	ind
and propulsion of the vessel, lodging and food services/provisions, vessel maintenance (spares and repair parts), and fuel procurement and power							
Senerations for cour the vesser and mission equipment. The support vesser operations mende operation the worker (Wi V) Dove. The function							
	Senerations for over the vesser and mission equipment. The support						10115

		Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justifi	cation	February 2008
APPROPRIATION/BUDGET ACTIVITY	<b>R-1 NOMENCLATURE</b>	
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	0603907C Sea Based X-B	and Radar (SBX)

of the M/V Dove include: SBX maritime and mission equipment crew transport and transfer, fueling of the SBX, provision re-supply, transport and transfer of all equipment and hardware to and from the SBX, anchor handling, and when necessary, towing of the SBX. Logistical shore facilities are also required to support the SBX mission. There are two shore sites associated with the operations and support of the SBX: the Primary Support Base (PSB) located in Adak, Alaska (the home port for the SBX), and the Operational Support Site (OSS) located in Anchorage, Alaska. The PSB provides the functions of fuel coordination, environmental response capabilities, and is the shipping/receiving point for personnel and supplies to/from the SBX-1. The OSS manages SBX schedules, provides administrative and logistical support, and is the primary coordination point with Combatant Commanders (COCOMs) and MDA Test Schedules.

	FY 2007	FY 2008	FY 2009
XBR Operations and Support	0	35,000	0
RDT&E Articles (Quantity)	0	0	0

The X-Band Radar (XBR) aboard the SBX is the primary midcourse sensor for the BMDS. Operations and Support (O&S) efforts for the XBR include: manpower for operating and maintaining the radar, spare and repair parts procurement, and hardware maintenance. The on-vessel XBR personnel perform the functions of 24/7 radar operations, calibration of the radar and support/test equipment, maintenance and repair of the radar associated equipment, and system test planning and post mission analysis for radar specific and BMDS tests. Spares and repair parts procurement includes the supply chain management, quality inspection of the spares, repair part logistics tracking, and procurement of spares and repair parts. Hardware maintenance functions include the repair, at the contractor's site, or replacement of hardware components necessary in the operation of the XBR.

#### C. Other Program Funding Summary

								Total
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost
PE 0207998C BRAC	0	103,219	159,938	61,931	8,724	0	0	333,812
PE 0603175C Ballistic Missile Defense Technology	183,849	108,423	118,718	115,234	120,152	127,012	130,358	903,746
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,082,454	1,045,276	1,019,073	795,659	719,847	548,283	439,752	5,650,344
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment	2,985,140	2,243,213	2,209,262	2,276,848	1,385,258	946,437	1,103,532	13,149,690
PE 0603883C Ballistic Missile Defense Boost Defense Segment	622,218	510,241	421,229	423,927	652,642	799,792	991,839	4,421,888
PE 0603884C Ballistic Missile Defense Sensors	514,989	586,121	1,221,143	1,184,280	1,099,649	1,077,632	823,583	6,507,397

Project: XX46 Sea Based X-Band Radar (SBX) Sustainment

Line Item 91 -

7 of 12 UNCLASSIFIED MDA Exhibit R-2A (PE 0603907C)

Missile Defense Agency (MDA) I	Exhibit R-2A F	DT&E Projec	et Justifica	ation		Date <b>Feb</b>	ruary 2008		
APPROPRIATION/BUDGET ACTIVITY					IOMENCLAT				
RDT&E, DW/04 Advanced Component Developm	nent and Pro	totypes (ACD	&P)	0603	907C Sea Ba	sed X-Band I	Radar (SBX)		
									Total
	FY 2007	FY 2008	FY 200	19	FY 2010	FY 2011	FY 2012	FY 2013	Cost
PE 0603886C Ballistic Missile Defense System Interceptors	341,358	340,107	386,	,817	500,966	708,803	815,433	553,136	3,646,620
PE 0603888C Ballistic Missile Defense Test and Targets	584,615	621,861	673,	,691	672,976	690,938	708,991	719,209	4,672,281
PE 0603890C Ballistic Missile Defense System Core	425,889	413,934	432,	,262	482,947	605,219	561,947	571,498	3,493,696
PE 0603891C Special Programs - MDA	347,377	196,892	288,	,315	304,234	538,050	818,136	786,349	3,279,353
PE 0603892C Ballistic Missile Defense Aegis	1,125,426	1,126,337	1,157,	,783	1,234,220	1,078,539	1,066,712	1,102,542	7,891,559
PE 0603893C Space Tracking & Surveillance System	311,402	231,528	242,	,441	266,509	560,130	735,727	938,191	3,285,928
PE 0603894C Multiple Kill Vehicle	133,615	229,943	354,	,455	488,294	649,632	708,582	879,385	3,443,906
PE 0603895C BMD System Space Program	0	16,552	29,	,771	41,638	56,199	133,915	157,548	435,623
PE 0603896C BMD C2BMC	249,179	447,616	289,	,277	287,194	270,762	256,767	259,159	2,059,954
PE 0603897C BMD Hercules	46,268	52,462	55,	,955	55,289	56,400	51,902	52,784	371,060
PE 0603898C BMD Joint Warfighter Support	49,833	49,394	69,	,982	73,997	77,205	80,168	81,948	482,527
PE 0603904C Missile Defense Integration & Operations Center	104,389	78,557	96,	,404	100,437	100,366	101,512	102,840	684,505
PE 0603905C BMD Concurrent Test and Operations	21,870	0		0	0	0	0	0	21,870
PE 0603906C Regarding Trench	0	1,986	2,	,978	4,964	4,963	8,933	8,933	32,757
PE 0605502C Small Business Innovative Research - MDA	142,510	0		0	0	0	0	0	142,510
PE 0901585C Pentagon Reservation	15,527	6,019	19,	,734	5,040	5,284	5,370	5,456	62,430
PE 0901598C Management Headquarters - MDA	93,350	80,392	86,	,453	70,355	69,855	69,855	69,855	540,115

#### **D.** Acquisition Strategy

The SBX will continue to follow the Missile Defense Agency's capability-based acquisition strategy that emphasizes testing, development and evolutionary acquisition through the use of MDA's new block structure and spiral development.

N.C. 11						Date Eabr	2008	
		y (MDA) Exhibit R-3	RDT&E Pro				uary 2008	
APPROPRIATION/BUDGET A RDT&E, DW/04 Advanced		Development and P	rototypes (A		R-1 NOMENCLAT <b>)603907C Sea Ba</b>		adar (SBX)	
I. Product Development		*	J <b>F</b> (-				(2)	
					FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/	
	Method	Activity &	PYs	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost
Sea-Based X-Band Radar Development								
-		Boeing/						
SBX and XBR Development	SS/CPAF	AL/AK/AZ/CA/CO /HI/MA/TX/VA		43,	543 2/3Q		) N/A	43,643
SBX System Integration								
• •		Boeing/						
		AL/AK/AZ/CA/CO						
								20.200
SBX Systems Integration	SS/CPAF	/HI/MA/TX/VA		28,			) N/A	28,200
SBX Systems Integration Subtotal Product Development Remarks	SS/CPAF			28, 0 71,			) N/A )	71843
Subtotal Product Development Remarks		/HI/MA/TX/VA						
Subtotal Product Development		/HI/MA/TX/VA						
Subtotal Product Development Remarks	( <b>\$ in Thousa</b> Contract	/HI/MA/TX/VA	Total	71,	343		)	
Subtotal Product Development Remarks II. Support Costs Cost (	( <b>\$ in Thousa</b> Contract Method	/HI/MA/TX/VA		FY 2008	543 FY 2008	FY 2009	) FY 2009	71843 Total
Subtotal Product Development Remarks II. Support Costs Cost ( Cost Categories:	( <b>\$ in Thousa</b> Contract	/HI/MA/TX/VA	Total	71,	343 FY 2008 Award/		) FY 2009 Award/	71843
Subtotal Product Development Remarks II. Support Costs Cost (	( <b>\$ in Thousa</b> Contract Method	/HI/MA/TX/VA	Total PYs	FY 2008	FY 2008 Award/ Oblg	FY 2009	FY 2009 Award/ Oblg	71843 Total
Subtotal Product Development Remarks II. Support Costs Cost ( Cost Categories: Sea-Based X-Band Radar	( <b>\$ in Thousa</b> Contract Method	/HI/MA/TX/VA	Total PYs	FY 2008	FY 2008 Award/ Oblg	FY 2009	FY 2009 Award/ Oblg	71843 Total
Subtotal Product Development Remarks II. Support Costs Cost ( Cost Categories: Sea-Based X-Band Radar Development	( <b>\$ in Thousa</b> Contract Method	/HI/MA/TX/VA	Total PYs	FY 2008	FY 2008 Award/ Oblg	FY 2009	FY 2009 Award/ Oblg	71843 Total
Subtotal Product Development Remarks II. Support Costs Cost ( Cost Categories: Sea-Based X-Band Radar Development	( <b>\$ in Thousa</b> Contract Method	/HI/MA/TX/VA	Total PYs Cost	FY 2008 Cost	FY 2008 Award/ Oblg	FY 2009 Cost	FY 2009 Award/ Oblg	71843 Total
Subtotal Product Development Remarks II. Support Costs Cost ( Cost Categories: Sea-Based X-Band Radar Development System Force Protection	Contract Method & Type	/HI/MA/TX/VA	Total PYs Cost	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	) FY 2009 Award/ Oblg Date	71843 Total Cost
Subtotal Product Development Remarks II. Support Costs Cost ( Cost Categories: Sea-Based X-Band Radar Development System Force Protection Systems Force Protection SBX Vessel Operations and	Contract Method & Type	/HI/MA/TX/VA	Total PYs Cost	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	) FY 2009 Award/ Oblg Date	71843 Total Cost
Subtotal Product Development Remarks II. Support Costs Cost ( Cost Categories: Sea-Based X-Band Radar Development System Force Protection Systems Force Protection SBX Vessel Operations and	Contract Method & Type	/HI/MA/TX/VA       mds )       Performing       Activity &       Location       ALUTIIA/       AK/VA	Total PYs Cost	FY 2008 Cost	FY 2008           Award/           Oblg           Date           200         30	FY 2009 Cost	) FY 2009 Award/ Oblg Date	71843 Total Cost

Project: XX46 Sea Based X-Band Radar (SBX) Sustainment

Missile 1	Defense Agency	(MDA) Exhibit R-3	3 RDT&F Proje	et Cost Analysis		Februar	rv 2008	
APPROPRIATION/BUDGET A		(WIDA) Exhibit K-	5 KDT&L I TOJE		IOMENCLATU		ly 2000	
RDT&E, DW/04 Advanced		Development and 1	Prototypes (AC		907C Sea Base		ar (SBX)	
					FY 2008		FY 2009	
	Contract	Performing	Total		Award/		Award/	
	Method	Activity &	PYs	FY 2008	Oblg	FY 2009	Oblg	Total
Cost Categories:	& Type	Location	Cost	Cost	Date	Cost	Date	Cost
<b>KBR</b> Operations and Support								
		Raytheon/						
KBR Operations and Support	SS/CPIF	AL/AK/HI	0	35,000	3/4Q	0	N/A	35,000
Subtotal Support Costs			0	93,400		0		93400
Remarks								
III. Test and Evaluation	Cost (\$ in T	'housands )						
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					FY 2008		FY 2009	
	Contract	Performing	Total		FY 2008 Award/		FY 2009 Award/	
	Contract Method	Performing Activity &	Total PYs	FY 2008		FY 2009		Total
Cost Categories:		•		FY 2008 Cost	Award/	FY 2009 Cost	Award/	Total Cost
	Method	Activity &	PYs		Award/ Oblg		Award/ Oblg	
Subtotal Test and Evaluation	Method	Activity &	PYs		Award/ Oblg		Award/ Oblg	
Subtotal Test and Evaluation	Method	Activity &	PYs		Award/ Oblg		Award/ Oblg	
Subtotal Test and Evaluation	Method	Activity &	PYs		Award/ Oblg		Award/ Oblg	
Subtotal Test and Evaluation Remarks	Method & Type	Activity & Location	PYs		Award/ Oblg		Award/ Oblg	
Subtotal Test and Evaluation Remarks	Method & Type	Activity & Location	PYs		Award/ Oblg		Award/ Oblg	
Subtotal Test and Evaluation Remarks	Method & Type	Activity & Location	PYs		Award/ Oblg Date		Award/ Oblg Date	
Subtotal Test and Evaluation Remarks	Method & Type	Activity & Location Thousands )	PYs Cost		Award/ Oblg Date		Award/ Oblg Date	
Subtotal Test and Evaluation Remarks IV. Management Services Cost Categories:	Method & Type	Activity & Location Thousands ) Performing	PYs Cost Total	Cost	Award/ Oblg Date FY 2008 Award/	Cost	Award/ Oblg Date FY 2009 Award/	Cost
Subtotal Test and Evaluation Remarks IV. Management Services Cost Categories:	Method & Type	Activity & Location Thousands ) Performing Activity &	PYs Cost Total PYs	Cost FY 2008	Award/ Oblg Date FY 2008 Award/ Oblg	Cost FY 2009	Award/ Oblg Date FY 2009 Award/ Oblg	Cost
Subtotal Test and Evaluation Remarks IV. Management Services Cost Categories: Subtotal Management Services	Method & Type	Activity & Location Thousands ) Performing Activity &	PYs Cost Total PYs	Cost FY 2008	Award/ Oblg Date FY 2008 Award/ Oblg	Cost FY 2009	Award/ Oblg Date FY 2009 Award/ Oblg	Cost
Cost Categories: Subtotal Test and Evaluation <b>Remarks</b> <b>IV. Management Service:</b> Cost Categories: Subtotal Management Services <b>Remarks</b> Project Total Cost	Method & Type	Activity & Location Thousands ) Performing Activity &	PYs Cost Total PYs	Cost FY 2008	Award/ Oblg Date FY 2008 Award/ Oblg	Cost FY 2009	Award/ Oblg Date FY 2009 Award/ Oblg	Cost

Missile Defense A	genc	: <b>у</b> (М	IDA)	) Exl	hibit	R-4	Sch	edul	e Pro	ofile								Da Fe		ary i	2008	8						
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Do	evelo	opm	ent a	and	Pro	toty	pes (	AC	<b>D&amp;</b> ]	P)		-1 NO 6039						and	Ra	dar	(SB)	X)						
Fiscal Year		20	07			20	08			20	09			20	010			20	)11			20	)12			20	)13	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Flight Tests	-				_												_								_			
FTG-04							Δ																					
FTG-05								Δ																				
Integrated/Distributed Ground Tests	_											_					_								_			
GTD-02																												
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Project: XX46 Sea Based X-Band Radar (SBX) Sustainment

Missile Defense Ag	Date February 20	Date February 2008								
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Dev		R-1 NOMENCLATURE 0603907C Sea Based X-Band Radar (SBX)								
Schedule Profile	FY 2007	FY 2008	FY	2009	FY 2010	FY 2011	FY 2012	FY 2013		
Flight Tests										
FTG-04		3Q								
FTG-05		4Q								
Integrated/Distributed Ground Tests										
GTD-02		1Q								
GTI-03		3Q								
GTD-03		4Q								