

## UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2003

BUDGET ACTIVITY

05 - System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604441F Space Based Infrared Systems (SBIRS)  
High EMD

PROJECT

3616

COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
3616 SBIRS High Element EMD	524,459	775,395	617,229	508,919	375,645	311,900	381,936	342,046	282,400	6,295,120
Quantity of RDT&E Articles	0	1	1	0	1	1	0	0	0	4

(U) **A. Mission Description**

(U) The Space-Based Infrared System's (SBIRS) primary mission is to provide initial warning of a ballistic missile attack on the US, its deployed forces or its allies. SBIRS will incorporate new technologies to enhance detection, and improve reporting of intercontinental ballistic missile launches, submarine launched ballistic missile launches, and tactical ballistic missile launches. SBIRS supports Battlespace Characterization and Technical Intelligence missions by providing reliable, accurate, and timely data to Unified Combatant Commanders, Joint Task Force (JTF) Commanders, the intelligence community, and other users. The SBIRS System provides increased detection and tracking performance in order to meet requirements in US Space Command's Capstone Requirements Document and Air Force Space Command's Operational Requirements Document. SBIRS will consist of satellites in Geosynchronous Earth Orbit (GEO), payloads hosted on satellites in Highly Elliptical Orbit (HEO), an integrated centralized ground station serving all SBIRS space elements, and Defense Support Program (DSP) satellites and program and other related support activities.

(U) **FY 2002 (\$ in Thousands)**

(U) \$0 Accomplishments/Planned Program

(U) \$498,592 Continued EMD contracts for Space and Ground segment development (includes Government Furnished Equipment (GFE), continued GEO satellite development, GEO 1&2 integration, assembly and test, HEO development/production, HEO 1 integration, assembly, and test, Ground System development, System Engineering and Program Management, Increment 1 Pre-operations support and Host System Program Office support).

(U) \$7,004 Continued System Program Office Support.

(U) \$18,863 Continued technical analysis and independent verification and validation of contractor by Federally Funded Research and Development Center (FFRDC).

(U) \$524,459 Total

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<p>(U) <b><u>A. Mission Description Continued</u></b></p> <p>(U) <u>FY 2003 (\$ in Thousands)</u></p> <p>(U) \$0 Accomplishments/Planned Program</p> <p>(U) \$744,132 Continue EMD contracts for Space and Ground segment development (includes GFE, continued GEO satellite development, GEO 1&amp;2 integration, assembly and test, HEO development/production, HEO 2 integration, assembly, and test, Ground System development, System Engineering and Program Management, Increment 1 Pre-operations support, Host SPO support, Combined Task Force (CTF) support activities, and continue systems integration and test studies, and related support activities).</p> <p>(U) \$6,645 Continue System Program Office Support.</p> <p>(U) \$24,618 Continue technical analysis and independent verification and validation of contractor by FFRDC.</p> <p>(U) \$775,395 Total</p> <p>(U) <u>FY 2004 (\$ in Thousands)</u></p> <p>(U) \$0 Accomplishments/Planned Program</p> <p>(U) \$585,832 Continue EMD contracts for Space and Ground segment development (includes GFE, continued GEO development, GEO 1&amp;2 integration, assembly and test, HEO development/production/on-orbit support, HEO 2 integration, assembly, and test, Ground System development, System Engineering and Program Management, Host SPO support, Technical Intelligence activities, CTF support activities, and continue systems integration and test studies, and related support activities).</p> <p>(U) \$6,777 Continue System Program Office support.</p> <p>(U) \$24,620 Continue technical analysis and independent verification and validation of contractor by FFRDC.</p> <p>(U) \$617,229 Total</p> <p>(U) <b><u>B. Budget Activity Justification</u></b></p> <p>(U) This program is assigned to Budget Activity 5, System Development and Demonstration (SDD), because it funds the development activities for the SBIRS High program.</p>		
<div style="display: flex; justify-content: space-between;"> <span>Project 3616</span> <span>Page 2 of 6 Pages</span> <span>Exhibit R-2 (PE 0604441F)</span> </div>		

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(U) C. Program Change Summary (\$ in Thousands)

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U) Previous President's Budget	443,720	814,927	620,348	5,769,700
(U) Appropriated Value	445,229	784,927		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-9,070	-9,532		
b. Small Business Innovative Research				
c. Omnibus or Other Above Threshold Reprogram	88,300			
d. Below Threshold Reprogram				
e. Rescissions				
(U) Adjustments to Budget Years Since FY 2003 PBR			-3,119	525,429
(U) Current Budget Submit/FY 2004 PBR	524,459	775,395	617,229	6,295,120
(U) <u>Significant Program Changes:</u>				
(FY2002) SBIRS High was restructured following Nunn-McCurdy Act certification.				
(FY2002) SBIRS High requested Above Threshold Reprogram (ATR) for \$88.3 million approved by Congressional defense committees.				

(U) D. Other Program Funding Summary (\$ in Thousands)

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Missile Procurement (PE 0305915F, BA-05)	0	0	0	0	273,000	1,051,595	0	0		1,324,595
(U) Other Procurement (PE 0305915F, BA-03, P-61)	0	0	95,421	0	666	1,140	0	0	0	97,227
(U) Related RDT&E:										

(U) E. Acquisition Strategy

The pre-EMD SBIRS contracts were competed in full and open competition. Two contracts were awarded to Lockheed/Loral/Aerojet and Hughes/TRW in 1995 for the pre-EMD phase. A single contract was awarded to Lockheed Martin in 1996 for the EMD phase.

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(U) F. Schedule Profile

	<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Ground Inc-1- Consolidated DSP Stations	*											
(U) USD(AT&L) Nunn McCurdy Act certification to Congress			*									
(U) Interim Mission Control Station - Backup (IMCS-B) Certification					*							
(U) HEO Payload #1 Delivery						X						
(U) Integrated Training System (ITS) IOC								X				
(U) HEO Payload #2 Delivery									X			
(U) HEO message certification (FY05)												
(U) DSP Multimission Mobile Processors (DM3P) delivered (FY05)												
(U) GEO Satellite #1 Launch Ready (FY06)												
(U) GEO Satellite #2 Launch Ready (FY07)												
*-Completed Event X-Planned Event												

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2003			
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT			
05 - System Development and Demonstration (SDD)				0604441F Space Based Infrared Systems (SBIRS) High EMD				3616			
(U) A. Project Cost Breakdown (\$ in Thousands)											
				FY 2002		FY 2003		FY 2004			
(U) Engineering and Manufacturing Development				498,592		744,132		585,832			
(U) System Program Office Support				7,004		6,645		6,777			
(U) FFRDC				18,863		24,618		24,620			
(U) Total				524,459		775,395		617,229			
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)											
(U) Performing Organizations:											
Contractor or Government		Contract Method/Type	Award or Obligation	Performing Activity	Project Office	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Performing Activity		Vehicle	Date	EAC	EAC						
Product Development Organizations											
LMMS & Hughes (Pre-EMD)		C/CPFF	Aug 95	159,600	159,600	159,600				0	159,600
LMMS/Other (EMD)		C/CPAF	Nov 96	5,434,799	5,434,799	1,853,972	498,592	744,132	585,832	1,994,965	5,677,493
SBIRS Pre-EMD Contract				4,780	4,780	4,780				0	4,780
Adjustment											
Technology		Various	Sep 95	11,600	11,600	11,600				0	11,600
Phenomenology		Various	Sep 95	17,350	17,350	17,350				0	17,350
Sandia Natl Lab (Cobra Brass)		Various	Sep 95	10,000	10,000	10,000				0	10,000
Support and Management Organizations											
Aerospace Corp		MORD	Sep 95	210,308	210,308	79,495	18,863	24,618	24,620	146,731	294,327
Prgm Mgmt Supt		Various	Sep 95	76,848	76,848	38,430	7,004	6,645	6,777	61,114	119,970
Test and Evaluation Organizations											
Not Applicable											
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE February 2003	
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(U) <u>Government Furnished Property:</u>						
<u>Item</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Delivery Date</u>	<u>Total Prior to FY 2002</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>
<u>Description</u>				<u>Budget FY 2004</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Product Development Property</u>						
Not Applicable						
<u>Support and Management Property</u>						
<u>Test and Evaluation Property</u>						
				<u>Total Prior to FY 2002</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>
				<u>Budget FY 2004</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Subtotals</u>						
Subtotal Product Development				2,057,302	498,592	744,132
Subtotal Support and Management				117,925	25,867	31,263
Subtotal Test and Evaluation						31,397
Total Project				2,175,227	524,459	775,395
						617,229
						2,202,810
						6,295,120

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