

UNCLASSIFIED

PE NUMBER: 0604441F

PE TITLE: Space Based Infrared Systems (SBIRS) High EMD

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2005
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604441F Space Based Infrared Systems (SBIRS) High EMD
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Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	621.830	594.169	756.630	653.713	532.587	382.062	336.678	268.962	31.400	7,673.611
3616 SBIRS High Element EMD	621.830	594.169	756.630	653.713	532.587	382.062	336.678	268.962	31.400	7,673.611

(U) A. Mission Description and Budget Item Justification

(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 Missile Defense, 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. SBIRS 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, Defense Support Program (DSP) satellites, and program and other related support activities.

(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.

(U) B. Program Change Summary (\$ in Millions)

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	610.230	508.448	373.353	310.628
(U) Current PBR/President's Budget	621.830	594.169	756.630	653.713
(U) Total Adjustments	11.600	85.721		
(U) Congressional Program Reductions		-5.279		
Congressional Rescissions				
Congressional Increases		91.000		
Reprogrammings	11.600			
SBIR/STTR Transfer				

(U) Significant Program Changes:

Congress appropriated an additional \$91 million over the President's Budget request in FY 2005 to address development program shortfalls. Additional funding added in fiscal year 2006-2010 to address cost growth inherent with program delay.

Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)					PE NUMBER AND TITLE 0604441F Space Based Infrared Systems (SBIRS) High EMD			PROJECT NUMBER AND TITLE 3616 SBIRS High Element EMD			
Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total	
3616 SBIRS High Element EMD	621.830	594.169	756.630	653.713	532.587	382.062	336.678	268.962	31.400	7,673.611	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0			

(U) A. Mission Description and Budget Item Justification

(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 Missile Defense, 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. SBIRS 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, Defense Support Program (DSP) satellites, and program and other related support activities.

(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.

(U) B. Accomplishments/Planned Program (\$ in Millions)

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Continue EMD contracts for Space and Ground segment development (includes GFE, continued GEO development, GEO 1&2 integration, assembly and test, design activities for GEO block upgrades, HEO integration and test, HEO message certification, Ground System Development, System Engineering and Program Management, Host SPO support, Technical Intelligence activities, CTF support activities, continuation of systems integration and test studies and related support activities).	587.173	554.447	714.607	609.719
(U) Continue System Program Office Support.	6.720	9.385	10.578	10.977
(U) Continue technical analysis and independent verification and validation of contractor by Federally Funded Research and Development Center (FFRDC).	27.937	30.337	31.445	33.017
(U) Total Cost	621.830	594.169	756.630	653.713

(U) C. Other Program Funding Summary (\$ in Millions)

	<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>FY 2010</u>	<u>FY 2011</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) MPAF (PE 0305915F, BA-05, P-30)	0.000	0.000	0.000	115.962	592.368	570.052	464.448	43.260	0.000	1,786.090
(U) Other Procurement (PE 0305915F, BA-03, P-61)	94.713	0.000	3.689	4.217	3.977	1.946	1.955	1.948	0.000	112.445

Exhibit R-2a, RDT&E Project Justification

DATE

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

**0604441F Space Based Infrared
Systems (SBIRS) High EMD**

PROJECT NUMBER AND TITLE

3616 SBIRS High Element EMD**(U) C. Other Program Funding Summary (\$ in Millions)****(U)** Related RDT&E:**(U) D. Acquisition Strategy**

The pre-SDD 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-SDD phase. A single contract was awarded to Lockheed Martin in 1996 for the SDD phase.

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Exhibit R-3, RDT&E Project Cost Analysis

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BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)			0604441F Space Based Infrared Systems (SBIRS) High EMD								3616 SBIRS High Element EMD			
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2004 Cost</u>	<u>FY 2004 Cost</u>	<u>FY 2004 Award Date</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>														
LMMS & Hughes (Pre-SDD)	C/CPFF		159.600									0.000	159.600	
LMMS (SDD)	C/CPAF	Lockheed Martin, Sunnyvale, CA	3,110.512	587.173	Oct-03	554.447	Oct-04	714.607	Oct-05	609.719	Oct-06	1,354.952	6,931.410	6,305.386
SBIRS Pre-SDD Contract Adjustment			4.780									0.000	4.780	
Technology	Various		11.600									0.000	11.600	
Phenomenology	Various		17.350									0.000	17.350	
Sandia Natl Lab (Cobra Brass)	Various		10.000									0.000	10.000	
Not Applicable													0.000	
Subtotal Product Development			3,313.842	587.173		554.447		714.607		609.719		1,354.952	7,134.740	TBD
Remarks:														
(U) <u>Support</u>														
Aerospace Corp	MORD	Aerospace Corp, El Segundo CA	122.590	27.937	Oct-03	30.337	Oct-04	31.445	Oct-05	33.017	Oct-06	149.424	394.750	329.623
Prgm Mgmt Supt	Various	Various	59.148	6.720	Oct-03	9.385	Oct-04	10.578	Oct-05	10.977	Oct-06	47.313	144.121	153.542
Subtotal Support			181.738	34.657		39.722		42.023		43.994		196.737	538.871	483.165
Remarks:														
(U) <u>Test & Evaluation</u>														
Not Applicable													0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) <u>Management</u>														
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) Total Cost			3,495.580	621.830		594.169		756.630		653.713		1,551.689	7,673.611	TBD

Exhibit R-4, RDT&E Schedule Profile

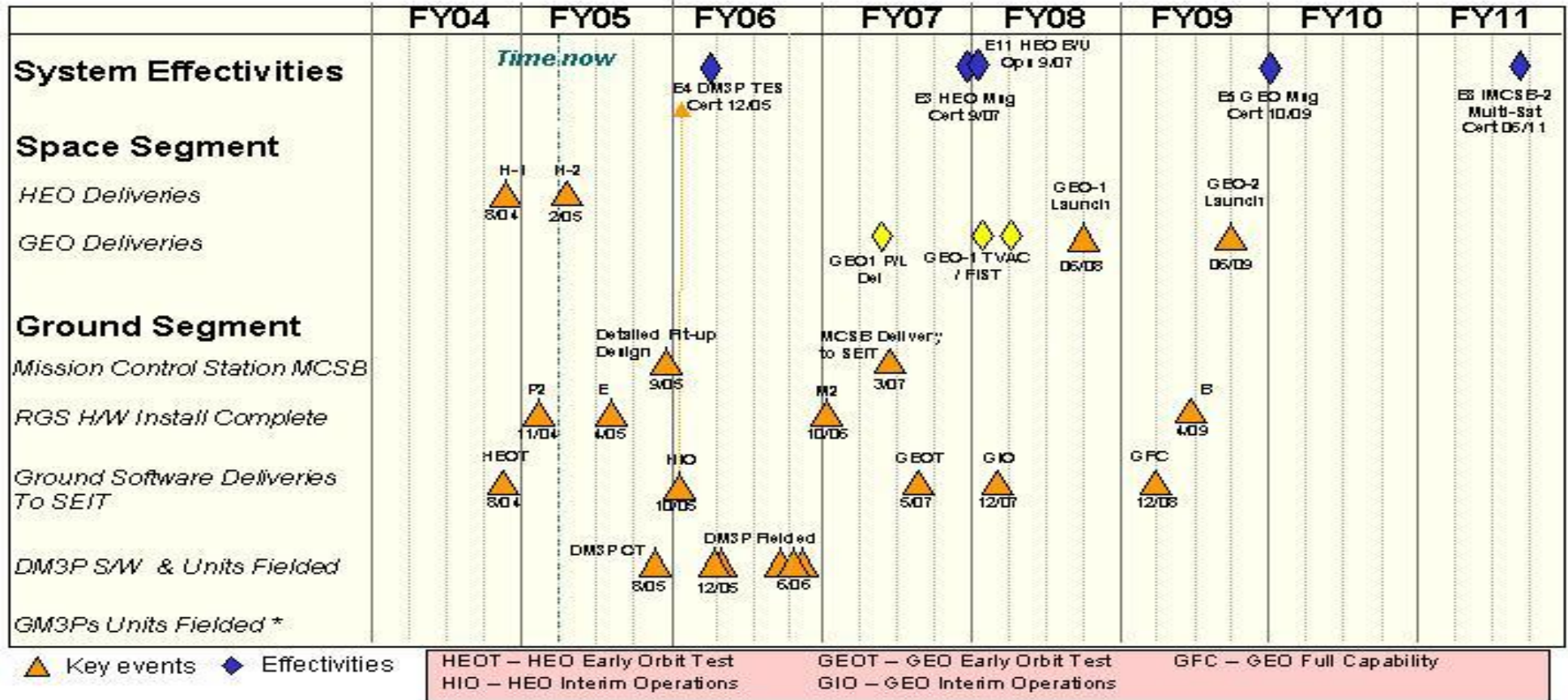
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BUDGET ACTIVITY
05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE
0604441F Space Based Infrared
Systems (SBIRS) High EMD

PROJECT NUMBER AND TITLE
3616 SBIRS High Element EMD



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Exhibit R-4a, RDT&E Schedule Detail	DATE February 2005
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(U) <u>Schedule Profile</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) HEO sensor #1 delivery	4Q			
(U) HEO Sensor #2 Delivery		2Q		
(U) DSP capable M3P to Systems engineering, integration & test team (SEIT)		2Q		
(U) Relay Ground Station hardware installation		3Q		
(U) HEO Interim operations software delivered to Systems Engineering, Integration, and Test			1Q	
(U) Effectivity 4 - DM3P Theater Event System (TES) Certification			1Q	
(U) DM3P final unit delivered			4Q	
(U) GEO-1 payload delivered to SEIT				2Q
(U) Effectivity 3 HEO message certification				4Q
(U) HEO Back-up Operations				4Q