



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-210



Space Based Infrared System High (SBIRS High)

As of FY 2015 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Common Acronyms and Abbreviations

Acq O&M - Acquisition-Related Operations and Maintenance
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
BA - Budget Authority/Budget Activity
BY - Base Year
DAMIR - Defense Acquisition Management Information Retrieval
Dev Est - Development Estimate
DoD - Department of Defense
DSN - Defense Switched Network
Econ - Economic
Eng - Engineering
Est - Estimating
FMS - Foreign Military Sales
FY - Fiscal Year
IOC - Initial Operational Capability
\$K - Thousands of Dollars
LRIP - Low Rate Initial Production
\$M - Millions of Dollars
MILCON - Military Construction
N/A - Not Applicable
O&S - Operating and Support
Oth - Other
PAUC - Program Acquisition Unit Cost
PB - President's Budget
PE - Program Element
Proc - Procurement
Prod Est - Production Estimate
QR - Quantity Related
Qty - Quantity
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
Sch - Schedule
Spt - Support
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting

Program Information

Program Name

Space Based Infrared System High (SBIRS High)

DoD Component

Air Force

Responsible Office

Responsible Office

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Date Assigned May 8, 2011

References

Baseline (GEO 1-4, HEO 1-2, and Ground)

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated March 19, 1998

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated February 27, 2013

Block Buy (GEO 5-6)

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated September 4, 2012

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated February 27, 2013

Mission and Description

The Space Based Infrared System (SBIRS) High program is intended to satisfy key requirements delineated in the SBIRS Operational Requirements Document dated August 15, 1996, with Annex 1 dated July 17, 1998, within the available budget and schedule. SBIRS High is an integrated system consisting of multiple space and ground elements, with incremental deployment phasing, simultaneously satisfying requirements in the following mission areas: Missile Warning, Missile Defense, Technical Intelligence and Battlespace Awareness. The constellation architecture for SBIRS High includes Highly Elliptical Orbit (HEO) sensors and Geosynchronous Earth Orbit (GEO) satellites, in addition to the following ground elements: a Continental United States-based Mission Control Station and Mission Control Station Backup, overseas Relay Ground Stations, Mobile Ground Stations, and associated communication links. The first increment of the SBIRS ground system was certified for operations in December 2001 and supports mission processing of the legacy Defense Support Program system satellites and fusion of HEO monotracks and other data. The SBIRS HEO system was certified for the Integrated Tactical Warning/Attack Assessment (ITW/AA) mission in November 2008 and technical intelligence mission in August 2009. The SBIRS GEO 1 and 2 systems were ITW/AA mission certified in August 2013 and December 2013, respectively.

The SBIRS High Major Defense Acquisition Program (MDAP) includes two subprograms: the Baseline subprogram, comprised of GEO satellites 1-4, HEO payloads 1-2 and associated ground elements; and the GEO 5-6 Satellites Replenishment Production "Block Buy" subprogram. HEO payloads 3 and 4 are not part of this MDAP, but are closely related, so programmatic information is included in the Executive Summary of this SAR.

Executive Summary

SBIRS Geosynchronous Earth Orbit (GEO) Satellite 1

SBIRS GEO-1 completed its planned 60-day trial period on November 27, 2012, but was returned to developmental testing to further investigate the root cause and pursue a fix for a sporadic spacecraft issue. SBIRS GEO-1 resumed operations on April 15, 2013 after the issue was understood. On May 16, 2013, after a successful 30 day trial period, the National Geospatial Intelligence Agency (NGA) accepted the GEO-1 system for Technical Intelligence operations and on May 17, 2013, Air Force Space Command (AFSPC) operationally accepted it for the remaining mission areas. On August 23, 2013, United States Strategic Command (USSTRATCOM) granted Integrated Tactical Warning/Attack Assessment (ITW/AA) GEO Message certification successfully meeting its October 2013 APB milestone. Lastly, on September 27, 2013, USSTRATCOM granted Combatant Command (COCOM) acceptance.

SBIRS GEO Satellite 2

The SBIRS GEO-2 satellite launched from Cape Canaveral Air Force Station on March 19, 2013 and completed all early-orbit testing 20 days ahead of schedule. The sensor tuning and test campaign was successfully completed in seven months; five months ahead of the contract baseline. The tuning campaign showed GEO-2 scanner performance to be exceptional with slightly better sensitivity than GEO-1. After a successful 30-day trial period, AFSPC operationally accepted the GEO-2 system on November 25, 2013. USSTRATCOM granted COCOM acceptance on December 10, 2013 and provided ITW/AA message certification on December 13, 2013. NGA's GEO-2 operational acceptance evaluation for Technical Intelligence started on October 15, 2013 and is planned for completion in May 2014.

Ground Development

The SBIRS Ground system continues to mature and is on track to meet upcoming ground related APB milestones. Block 10 code and unit test completed in November 2013 and the Block 10 hardware and software are currently in integration testing to demonstrate readiness to support GEO-3 launch. Block 10 hardware build and delivery is complete at the Buckley Air Force Base (AFB) Operations (Ops) Center, at all relay ground stations, and at all factory sites. The Block 10 training system delivered on December 5, 2013 to support the start of 460th Operations Group training. The final Engineering, Manufacturing & Development (EMD) software ground system development block, Block 20, will also begin initial design in 2014.

The SBIRS Survivable Endurable Evolution (S2E2) Increment 1 for the first two Mobile Ground Terminals (MGTs) with Defense Support Program mono capability occurred in June 2013 as a contract modification on the Contract Logistics Support/Combined Task Force contract. Critical Design Review is scheduled for August 2014. S2E2 Increment 2 contract modification for the third MGT and the GEO processing capability for MGT 1, 2 and 3 is planned for July 2014.

SBIRS GEO 3-4 and Highly Elliptical Orbit (HEO) 3-4 Production

The Program Office continues to aggressively manage the SBIRS GEO 3-4 and HEO 3-4 contract. The program's cost and schedule performance remained stable over the past 24 months.

On June 12, 2013, the Program Office delivered the HEO-3 payload to the Host satellite provider. This marked the first major delivery of the Production program.

The third GEO satellite (GEO-3) met significant milestones in 2013. The GEO-3 spacecraft core was shipped to Sunnyvale, CA in February 2013. Integration and baseline testing successfully completed for the spacecraft subsystem components in November 2013. The payload sub-contractor completed payload testing and shipped the GEO-3 payload to Lockheed Martin in Sunnyvale, CA on December 18, 2013; one month ahead of the plan. The GEO-3 payload and spacecraft began integration efforts in December 2013. Although GEO-3 delivery remains on-track, the current launch manifest supports the first opportunity to launch no earlier than the end of April 2016. Consequently, the Program Office is assessing Space Vehicle storage options.

The GEO-4 and HEO-4 production efforts also continue to make strong progress. The GEO-4 spacecraft core is undergoing propulsion integration and shipped from Stennis, MS to Sunnyvale, CA on January 30, 2014. In addition, the GEO-4 payload assembly is complete and will enter into Thermal Vacuum (TVAC) testing in April 2014. Lastly, the HEO-4 sensor and pallet assemblies are both complete with final integration projected prior to the beginning of TVAC testing in the first quarter FY 2015.

SBIRS GEO 5-6 Production

SBIRS GEO 5-6 utilizes a three-phased Efficient Space Procurement Acquisition Strategy for the Initial Non-Recurring Engineering (I-NRE), Advance Procurement (AP) and full Production efforts. The Program Office awarded the I-NRE effort on September 10, 2012, and the Advance Procurement contract on February 19, 2013. The award of the Production contract is projected for April 2014.

SBIRS Acquisition Program Baseline (APB)

The Under Secretary of Defense (Acquisition, Technology & Logistics) signed the SBIRS High APB update incorporating a revised O&S cost estimate for the SBIRS Baseline (GEOs 1-4, HEOs 1-2 and Ground) subprogram, and establishing the O&S parameters for the SBIRS Block Buy (GEOs 5-6) subprogram on February 27, 2013. The APB will be updated for GEO 5-6 delivery milestones after negotiations of the Production contract to reflect negotiated delivery dates.

Software Statement

There are no significant software-related issues with this program at this time.

Threshold Breaches

Baseline (GEO 1-4, HEO 1-2, and Ground)

APB Breaches		
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Schedule		<input type="checkbox"/>
Performance		<input type="checkbox"/>
Cost	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
O&S Cost		<input type="checkbox"/>
Unit Cost	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

Nunn-McCurdy Breaches		
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Current UCR Baseline

PAUC	None
APUC	None

Original UCR Baseline

PAUC	None
APUC	None

Block Buy (GEO 5-6)

APB Breaches		
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Schedule		<input type="checkbox"/>
Performance		<input type="checkbox"/>
Cost	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
O&S Cost		<input type="checkbox"/>
Unit Cost	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

Nunn-McCurdy Breaches		
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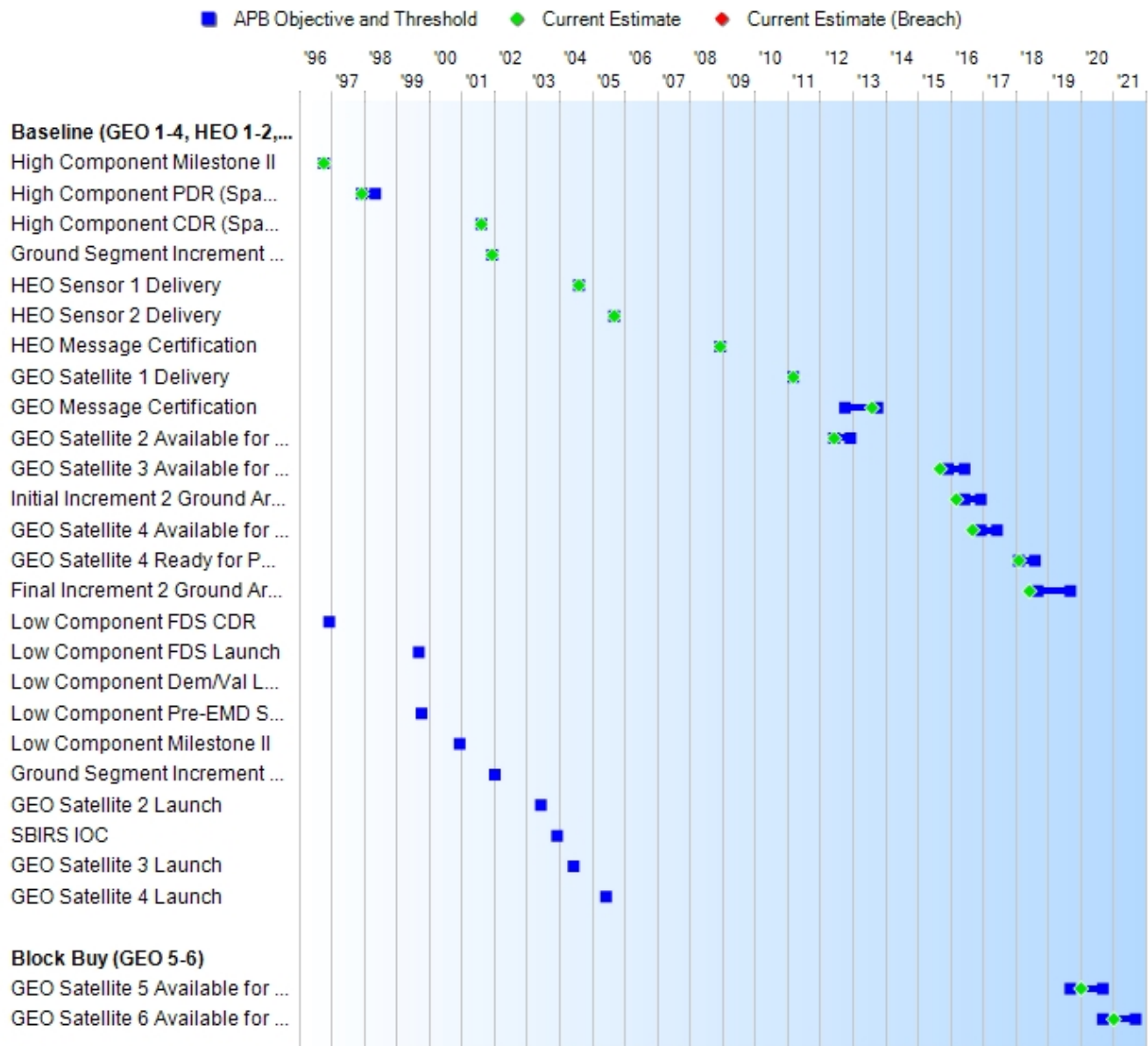
Current UCR Baseline

PAUC	None
APUC	None

Original UCR Baseline

PAUC	None
APUC	None

Schedule



Baseline (GEO 1-4, HEO 1-2, And Ground)				
Milestones	SAR Baseline Dev Est	Current APB Production Objective/Threshold		Current Estimate
High Component Milestone II	OCT 1996	OCT 1996	OCT 1996	OCT 1996
High Component PDR (Space and Ground Increment 2)	DEC 1997	DEC 1997	MAY 1998	DEC 1997
High Component CDR (Space and Ground Increment 2)	SEP 1999	AUG 2001	AUG 2001	AUG 2001
Ground Segment Increment 1 Certification	AUG 1999	DEC 2001	DEC 2001	DEC 2001
HEO Sensor 1 Delivery	SEP 2001	AUG 2004	AUG 2004	AUG 2004
HEO Sensor 2 Delivery	SEP 2003	SEP 2005	SEP 2005	SEP 2005
HEO Message Certification	N/A	DEC 2008	DEC 2008	DEC 2008
GEO Satellite 1 Delivery	N/A	MAR 2011	MAR 2011	MAR 2011
GEO Message Certification	N/A	OCT 2012	OCT 2013	AUG 2013 (Ch-1)
GEO Satellite 2 Available for Delivery	N/A	JUN 2012	DEC 2012	JUN 2012
GEO Satellite 3 Available for Delivery	N/A	DEC 2015	JUN 2016	SEP 2015 (Ch-2)
Initial Increment 2 Ground Architecture	N/A	JUN 2016	DEC 2016	MAR 2016
GEO Satellite 4 Available for Delivery	N/A	DEC 2016	JUN 2017	SEP 2016 (Ch-3)
GEO Satellite 4 Ready for PEO Certification	N/A	FEB 2018	AUG 2018	FEB 2018
Final Increment 2 Ground Architecture	N/A	SEP 2018	SEP 2019	JUN 2018
Low Component FDS CDR	DEC 1996	N/A	N/A	N/A
Low Component FDS Launch	SEP 1999	N/A	N/A	N/A
Low Component Dem/Val Launch	TBD	N/A	N/A	N/A
Low Component Pre-EMD Start	OCT 1999	N/A	N/A	N/A
Low Component Milestone II	DEC 2000	N/A	N/A	N/A
Ground Segment Increment 2 Certification	JAN 2002	N/A	N/A	N/A
GEO Satellite 2 Launch	JUN 2003	N/A	N/A	N/A
SBIRS IOC	DEC 2003	N/A	N/A	N/A
GEO Satellite 3 Launch	JUN 2004	N/A	N/A	N/A
GEO Satellite 4 Launch	JUN 2005	N/A	N/A	N/A

Change Explanations

(Ch-1) The GEO Message Certification Current Estimate changed from May 2013 to August 2013 based on USSTRATCOM/J65 granting GEO Message certification on August 23, 2013.

(Ch-2) The GEO Satellite 3 Available for Delivery Current Estimate improved from December 2015 to September 2015 based on the new SRA which takes into account the good performance over the last 12+ months.

(Ch-3) The GEO Satellite 4 Available for Delivery Current Estimate improved from December 2016 to September 2016 based on the new SRA which takes into account the good performance over the last 12+ months.

Memo

GEO Satellite "Delivery" is defined as a Directorate-accepted satellite ready for shipment to the launch facility.

GEO Satellite "Available for Delivery" is defined as the satellite successfully completing Final Integrated System Test and the space vehicle available such that if operational priorities require the satellite to launch at the earliest opportunity, then the satellite will continue final install processing to proceed to a Consent to Ship Review. If operational priorities indicate a later manifest, then the satellite will be configured for storage.

Acronyms and Abbreviations

CDR - Critical Design Review
 Dem/Val - Demonstration/Validation
 EMD - Engineering, Manufacturing and Development
 FDS - Flight Demonstration System
 GEO - Geosynchronous Earth Orbit
 HEO - Highly Elliptical Orbit
 PDR - Preliminary Design Review
 PEO - Program Executive Officer
 SRA - Schedule Risk Assessment
 USSTRATCOM - United States Strategic Command

Block Buy (GEO 5-6)

Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	
GEO Satellite 5 Available for Delivery	SEP 2019	SEP 2019	SEP 2020	JAN 2020	(Ch-1)
GEO Satellite 6 Available for Delivery	SEP 2020	SEP 2020	SEP 2021	JAN 2021	(Ch-2)

Change Explanations

(Ch-1) The GEO Satellite 5 Available for Delivery Current Estimate changed from September 2019 to January 2020 to reflect contract negotiation delay.

(Ch-2) The GEO Satellite 6 Available for Delivery Current Estimate changed from September 2020 to January 2021 to reflect contract negotiation delay.

Memo

GEO Satellite "Available for Delivery" is defined as the satellite successfully completing Final Integrated System Test and the space vehicle available such that if operational priorities require the satellite to launch at the earliest opportunity, then the satellite will continue final install processing to proceed to a Consent to Ship Review. If operational priorities indicate a later manifest, then the satellite will be configured for storage.

Acronyms and Abbreviations

GEO - Geosynchronous Earth Orbit

Performance

Baseline (GEO 1-4, HEO 1-2, And Ground)

Classified Performance information is provided in the classified annex to this submission.

Block Buy (GEO 5-6)

Track to Budget

Baseline (GEO 1-4, HEO 1-2, and Ground)

General Memo

RDT&E Program Element (PE) 0604441F and Missile Procurement Air Force PE 0305915F, Line Item MSSBIR and 836720, are shared. PE 0604441F includes funds for the Commercially Hosted Infrared Payload, Space Modernization Initiative and architecture studies that are not part of this Major Defense Acquisition Program (MDAP). Line Item MSSBIR and 836720 include funds for Highly Elliptical Orbit payloads 3 and 4 that are not part of this MDAP.

RDT&E

Appn	BA	PE
Air Force 3600	05	0604441F
	Project	Name
	3616	SBIR High Element EMD/SBIRS High EMD

Procurement

Appn	BA	PE
Air Force 3020	05	0305915F
	Line Item	Name
	MSSBIR	SBIR High Missile Procurement (Shared)
Air Force 3080	03	0305915F
	Line Item	Name
	836720	Space Based IR Sensor Program Space

MILCON

Appn	BA	PE
Air Force 3300	01	0604441F
	Project	Name
	F0300051	SBIRS ARCHI-EMD (SPACE) Military Construction (Sunk)

Acq O&M

Appn	BA	PE
Air Force 3400	01	0305915F
	Project	Name

1G01

SBIRS Operation and
Maintenance

(Sunk)

Block Buy (GEO 5-6)

Procurement

Appn	BA	PE
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Air Force 3020 05 0305915F

Line Item	Name
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MSSBIR SBIR High Missile Procurement (Shared)

Cost and Funding

Cost Summary - Total Program

Total Acquisition Cost and Quantity - Total Program

Appropriation	BY1995 \$M			BY1995 \$M	TY \$M		
	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Dev Est	Current APB Development Objective	Current Estimate
RDT&E	3016.6	8544.3	--	8446.6	3386.5	10299.1	10188.8
Flyaway	--	--	--	0.0	--	--	0.0
Recurring	--	--	--	0.0	--	--	0.0
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	0.0	--	--	0.0
Procurement	3178.3	5193.6	--	4680.0	4449.9	7193.2	6573.9
Flyaway	--	--	--	3959.9	--	--	5542.1
Recurring	--	--	--	3262.2	--	--	4594.6
Non Recurring	--	--	--	697.7	--	--	947.5
Support	--	--	--	720.1	--	--	1031.8
Other Support	--	--	--	720.1	--	--	1031.8
Initial Spares	--	--	--	0.0	--	--	0.0
MILCON	26.0	52.0	--	52.0	28.5	57.0	57.0
Acq O&M	140.2	137.5	--	137.4	147.8	161.1	161.1
Total	6361.1	13927.4	N/A	13316.0	8012.7	17710.4	16980.8

Cost and Funding

Cost Summary - Baseline (GEO 1-4, HEO 1-2, and Ground)

Total Acquisition Cost and Quantity - Baseline (GEO 1-4, HEO 1-2, and Ground)

Appropriation	BY1995 \$M			BY1995 \$M	TY \$M		
	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Dev Est	Current APB Development Objective	Current Estimate
RDT&E	3016.6	8544.3	9398.7	8446.6	3386.5	10299.1	10188.8
Procurement	496.7	2512.0	2763.2	2380.5	584.5	3327.8	3165.5
Flyaway	--	--	--	2026.4	--	--	2699.3
Recurring	--	--	--	1667.5	--	--	2229.3
Non Recurring	--	--	--	358.9	--	--	470.0
Support	--	--	--	354.1	--	--	466.2
Other Support	--	--	--	354.1	--	--	466.2
Initial Spares	--	--	--	0.0	--	--	0.0
MILCON	26.0	52.0	57.2	52.0	28.5	57.0	57.0
Acq O&M	140.2	137.5	151.3	137.4	147.8	161.1	161.1
Total	3679.5	11245.8	N/A	11016.5	4147.3	13845.0	13572.4

Confidence Level for Current APB Cost 55% -

Research, Development, Test and Evaluation cost profile is based on the April 2011 Air Force Service Cost Position (SCP) at a 57% confidence level. The Missile Procurement, Air Force cost profile for Geosynchronous Earth Orbit (GEO) satellites 3 and 4 is based on the April 2011 SCP at a 54% confidence level, with fact-of-life modifications.

The costs above reflect the FY 2015 PB for the Future Years Defense Program (FYDP) for Geosynchronous Earth Orbit (GEO) satellites 1-4, Highly Elliptical Orbit payloads 1 and 2, and ground modifications to meet the requirements in the SBIRS Operational Requirements Document, plus the cost to complete beyond the FYDP.

Quantity	SAR Baseline Dev Est	Current APB Development	Current Estimate
RDT&E		3	2
Procurement		2	2
Total		5	4

The above quantity represents four Geosynchronous Earth Orbit (GEO) satellites.

Cost Summary - Block Buy (GEO 5-6)**Total Acquisition Cost and Quantity - Block Buy (GEO 5-6)**

Appropriation	BY1995 \$M			BY1995 \$M	TY \$M		
	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	0.0	0.0	--	0.0	0.0	0.0	0.0
Flyaway	--	--	--	0.0	--	--	0.0
Recurring	--	--	--	0.0	--	--	0.0
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	0.0	--	--	0.0
Procurement	2681.6	2681.6	2949.8	2299.5	3865.4	3865.4	3408.4
Flyaway	--	--	--	1933.5	--	--	2842.8
Recurring	--	--	--	1594.7	--	--	2365.3
Non Recurring	--	--	--	338.8	--	--	477.5
Support	--	--	--	366.0	--	--	565.6
Other Support	--	--	--	366.0	--	--	565.6
Initial Spares	--	--	--	0.0	--	--	0.0
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	2681.6	2681.6	N/A	2299.5	3865.4	3865.4	3408.4

Confidence Level for Current APB Cost 50% -

The Independent Cost Estimate (ICE) to support the SBIRS Geosynchronous Earth Orbit (GEO) 5-6 procurement, like all life-cycle cost estimates previously performed by the Cost Assessment Program Evaluation (CAPE), is built upon a product-oriented work breakdown structure, based on historical actual cost information to the maximum extent possible, and, most importantly, based on conservative assumptions that are consistent with actual demonstrated contractor and government performance for a series of acquisition programs in which the Department has been successful.

It is difficult to calculate mathematically the precise confidence levels associated with life-cycle cost estimates prepared for Major Defense Acquisition Programs (MDAPs). Based on the rigor in methods used in building estimates, the strong adherence to the collection and use of historical cost information, and the review of applied assumptions, we project that it is about equally likely that the estimate will prove too low or too high for execution of the program described.

The Procurement profile above reflects costs for the delivery of the GEO satellites 5 and 6, as documented in the FY 2015 PB.

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E	0	0	0
Procurement	2	2	2
Total	2	2	2

The above quantity represents two Geosynchronous Earth Orbit satellites.

Cost and Funding

Funding Summary - Total Program

Appropriation and Quantity Summary - Total Program FY2015 President's Budget / December 2013 SAR (TY\$ M)

Appropriation	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
RDT&E	9297.3	267.0	230.9	185.6	110.8	97.2	0.0	0.0	10188.8
Procurement	3517.9	501.3	439.8	431.4	371.0	984.4	107.9	220.2	6573.9
MILCON	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.0
Acq O&M	161.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	161.1
PB 2015 Total	13033.3	768.3	670.7	617.0	481.8	1081.6	107.9	220.2	16980.8
PB 2014 Total	13069.4	830.2	759.6	722.8	669.4	1241.1	207.4	99.0	17598.9
Delta	-36.1	-61.9	-88.9	-105.8	-187.6	-159.5	-99.5	121.2	-618.1

Cost and Funding

Funding Summary - Baseline (GEO 1-4, HEO 1-2, and Ground)

Appropriation and Quantity Summary - Baseline (GEO 1-4, HEO 1-2, and Ground) FY2015 President's Budget / December 2013 SAR (TY\$ M)

Appropriation	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
RDT&E	9297.3	267.0	230.9	185.6	110.8	97.2	0.0	0.0	10188.8
Procurement	2723.0	140.6	121.3	52.7	84.0	36.0	7.9	0.0	3165.5
MILCON	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.0
Acq O&M	161.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	161.1
PB 2015 Total	12238.4	407.6	352.2	238.3	194.8	133.2	7.9	0.0	13572.4
PB 2014 Total	12214.3	410.9	349.1	309.6	196.6	134.2	114.9	0.0	13729.6
Delta	24.1	-3.3	3.1	-71.3	-1.8	-1.0	-107.0	0.0	-157.2

Quantity	Undistributed	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
Development		2	0	0	0	0	0	0	0	2
Production		0	2	0	0	0	0	0	0	2
PB 2015 Total		2	2	0	0	0	0	0	0	4
PB 2014 Total		2	2	0	0	0	0	0	0	4
Delta		0	0	0	0	0	0	0	0	0

Funding Summary - Block Buy (GEO 5-6)**Appropriation and Quantity Summary - Block Buy (GEO 5-6)
FY2015 President's Budget / December 2013 SAR (TY\$ M)**

Appropriation	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
RDT&E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Procurement	794.9	360.7	318.5	378.7	287.0	948.4	100.0	220.2	3408.4
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2015 Total	794.9	360.7	318.5	378.7	287.0	948.4	100.0	220.2	3408.4
PB 2014 Total	855.1	419.3	410.5	413.2	472.8	1106.9	92.5	99.0	3869.3
Delta	-60.2	-58.6	-92.0	-34.5	-185.8	-158.5	7.5	121.2	-460.9

Quantity	Undistributed	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	2	0	0	0	0	0	0	0	2
PB 2015 Total	0	2	0	0	0	0	0	0	0	2
PB 2014 Total	0	2	0	0	0	0	0	0	0	2
Delta	0	0	0	0	0	0	0	0	0	0

Cost and Funding

Annual Funding By Appropriation - Baseline (GEO 1-4, HEO 1-2, and Ground)

Annual Funding TY\$ - Baseline (GEO 1-4, HEO 1-2, and Ground)

3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
1995	--	--	--	--	--	--	113.0
1996	--	--	--	--	--	--	164.0
1997	--	--	--	--	--	--	193.0
1998	--	--	--	--	--	--	337.9
1999	--	--	--	--	--	--	502.6
2000	--	--	--	--	--	--	400.0
2001	--	--	--	--	--	--	550.1
2002	--	--	--	--	--	--	524.5
2003	--	--	--	--	--	--	782.9
2004	--	--	--	--	--	--	621.8
2005	--	--	--	--	--	--	587.1
2006	--	--	--	--	--	--	706.6
2007	--	--	--	--	--	--	693.0
2008	--	--	--	--	--	--	583.3
2009	--	--	--	--	--	--	542.4
2010	--	--	--	--	--	--	521.5
2011	--	--	--	--	--	--	501.7
2012	--	--	--	--	--	--	603.9
2013	--	--	--	--	--	--	368.0
2014	--	--	--	--	--	--	267.0
2015	--	--	--	--	--	--	230.9
2016	--	--	--	--	--	--	185.6
2017	--	--	--	--	--	--	110.8
2018	--	--	--	--	--	--	97.2
Subtotal	2	--	--	--	--	--	10188.8

Annual Funding BY\$ - Baseline (GEO 1-4, HEO 1-2, and Ground)
3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway BY 1995 \$M	Non End Item Recurring Flyaway BY 1995 \$M	Non Recurring Flyaway BY 1995 \$M	Total Flyaway BY 1995 \$M	Total Support BY 1995 \$M	Total Program BY 1995 \$M
1995	--	--	--	--	--	--	111.3
1996	--	--	--	--	--	--	158.7
1997	--	--	--	--	--	--	184.3
1998	--	--	--	--	--	--	320.6
1999	--	--	--	--	--	--	471.9
2000	--	--	--	--	--	--	370.0
2001	--	--	--	--	--	--	501.7
2002	--	--	--	--	--	--	473.3
2003	--	--	--	--	--	--	696.9
2004	--	--	--	--	--	--	540.0
2005	--	--	--	--	--	--	497.2
2006	--	--	--	--	--	--	580.8
2007	--	--	--	--	--	--	555.0
2008	--	--	--	--	--	--	458.0
2009	--	--	--	--	--	--	420.3
2010	--	--	--	--	--	--	399.1
2011	--	--	--	--	--	--	376.8
2012	--	--	--	--	--	--	445.6
2013	--	--	--	--	--	--	266.8
2014	--	--	--	--	--	--	190.3
2015	--	--	--	--	--	--	161.7
2016	--	--	--	--	--	--	127.5
2017	--	--	--	--	--	--	74.6
2018	--	--	--	--	--	--	64.2
Subtotal	2	--	--	--	--	--	8446.6

Funds for the Commercially Hosted Infrared Payload, project number A040, were removed from this report. Those Research and Development funds are not associated with the baseline SBIRS program.

The removed profile is TY\$:

FY 2011 \$22.1M
FY 2012 \$17.7M

Funds for Space Modernization Initiative efforts, project number 7009, were excluded from this report. Those Research and Development funds are not associated with the baseline SBIRS program.

The omitted profile is TY\$:

FY 2013 \$78.7M
FY 2014 \$55.4M
FY 2015 \$88.6M
FY 2016 \$89.3M
FY 2017 \$89.5M
FY 2018 \$89.2M
FY 2019 \$90.9M

Funds for Evolved SBIRS, project number 7106, were excluded from this report. Those Research and Development funds are not associated with the baseline SBIRS program.

The omitted profile is TY\$:

FY 2018 \$297.5M
FY 2019 \$523.1M

PE0604441F is shared with Highly Elliptical Orbit replenishment Payload's ground effort, which is not part of the MDAP. \$40.0M in FY 2013 funds associated with that effort are excluded from the report.

Annual Funding TY\$ - Baseline (GEO 1-4, HEO 1-2, and Ground)**3020 | Procurement | Missile Procurement, Air Force**

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
2008	--	208.6	--	54.9	263.5	5.9	269.4
2009	1	916.4	--	356.3	1272.7	21.3	1294.0
2010	--	144.2	1.1	5.6	150.9	28.4	179.3
2011	1	581.0	--	21.0	602.0	33.0	635.0
2012	--	42.4	0.4	0.8	43.6	23.2	66.8
2013	--	12.6	16.7	3.8	33.1	17.0	50.1
2014	--	81.9	--	21.2	103.1	12.1	115.2
2015	--	61.7	16.9	2.7	81.3	13.9	95.2
2016	--	11.7	29.2	3.7	44.6	0.4	45.0
2017	--	--	76.3	--	76.3	--	76.3
2018	--	--	28.2	--	28.2	--	28.2
Subtotal	2	2060.5	168.8	470.0	2699.3	155.2	2854.5

**Annual Funding BY\$ - Baseline (GEO 1-4, HEO 1-2, and Ground)
3020 | Procurement | Missile Procurement, Air Force**

Fiscal Year	Quantity	End Item Recurring Flyaway BY 1995 \$M	Non End Item Recurring Flyaway BY 1995 \$M	Non Recurring Flyaway BY 1995 \$M	Total Flyaway BY 1995 \$M	Total Support BY 1995 \$M	Total Program BY 1995 \$M
2008	--	162.7	--	42.8	205.5	4.6	210.1
2009	1	704.6	--	273.9	978.5	16.4	994.9
2010	--	109.3	0.8	4.2	114.3	21.6	135.9
2011	1	431.4	--	15.6	447.0	24.5	471.5
2012	--	30.9	0.3	0.6	31.8	16.9	48.7
2013	--	8.9	11.9	2.7	23.5	12.1	35.6
2014	--	57.1	--	14.8	71.9	8.4	80.3
2015	--	42.2	11.6	1.8	55.6	9.5	65.1
2016	--	7.9	19.5	2.5	29.9	0.3	30.2
2017	--	--	50.2	--	50.2	--	50.2
2018	--	--	18.2	--	18.2	--	18.2
Subtotal	2	1555.0	112.5	358.9	2026.4	114.3	2140.7

The Missile Procurement Air Force (MPAF) funding profile above represents funding for Geosynchronous Earth Orbit satellites 3 and 4 as displayed in the associated P-5 exhibits in the FY 2015 PB. MPAF funds for Highly Elliptical Orbit 3 and 4 payloads are excluded above, but are reflected in the associated P-5 exhibit in the FY 2015 PB.

The omitted profile is TY\$:

FY 2008 \$124.5M
FY 2009 \$529.5M
FY 2010 \$282.3M
FY 2011 \$60.4M
FY 2012 \$14.6M
FY 2013 \$34.1M
FY 2014 \$48.6M
FY 2015 \$37.2M
FY 2016 \$10.4M
FY 2017 \$20.9M
FY 2018 \$7.6M

**Cost Quantity Information - Baseline (GEO 1-4, HEO 1-2, and Ground)
3020 | Procurement | Missile Procurement, Air Force**

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 1995 \$M
2008	--	--
2009	1	996.8
2010	--	--
2011	1	558.2
2012	--	--
2013	--	--
2014	--	--
2015	--	--
2016	--	--
2017	--	--
2018	--	--
Subtotal	2	1555.0

Annual Funding TY\$ - Baseline (GEO 1-4, HEO 1-2, and Ground)

3080 | Procurement | Other Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
2004	--	--	--	--	--	96.4	96.4
2005	--	--	--	--	--	--	--
2006	--	--	--	--	--	3.6	3.6
2007	--	--	--	--	--	6.5	6.5
2008	--	--	--	--	--	3.8	3.8
2009	--	--	--	--	--	1.9	1.9
2010	--	--	--	--	--	2.0	2.0
2011	--	--	--	--	--	24.7	24.7
2012	--	--	--	--	--	49.6	49.6
2013	--	--	--	--	--	39.9	39.9
2014	--	--	--	--	--	25.4	25.4
2015	--	--	--	--	--	26.1	26.1
2016	--	--	--	--	--	7.7	7.7
2017	--	--	--	--	--	7.7	7.7
2018	--	--	--	--	--	7.8	7.8
2019	--	--	--	--	--	7.9	7.9
Subtotal	--	--	--	--	--	311.0	311.0

Annual Funding BY\$ - Baseline (GEO 1-4, HEO 1-2, and Ground)**3080 | Procurement | Other Procurement, Air Force**

Fiscal Year	Quantity	End Item Recurring Flyaway BY 1995 \$M	Non End Item Recurring Flyaway BY 1995 \$M	Non Recurring Flyaway BY 1995 \$M	Total Flyaway BY 1995 \$M	Total Support BY 1995 \$M	Total Program BY 1995 \$M
2004	--	--	--	--	--	84.1	84.1
2005	--	--	--	--	--	--	--
2006	--	--	--	--	--	3.0	3.0
2007	--	--	--	--	--	5.2	5.2
2008	--	--	--	--	--	3.0	3.0
2009	--	--	--	--	--	1.5	1.5
2010	--	--	--	--	--	1.5	1.5
2011	--	--	--	--	--	18.6	18.6
2012	--	--	--	--	--	36.6	36.6
2013	--	--	--	--	--	29.0	29.0
2014	--	--	--	--	--	18.2	18.2
2015	--	--	--	--	--	18.3	18.3
2016	--	--	--	--	--	5.3	5.3
2017	--	--	--	--	--	5.2	5.2
2018	--	--	--	--	--	5.2	5.2
2019	--	--	--	--	--	5.1	5.1
Subtotal	--	--	--	--	--	239.8	239.8

\$82M in FY 2009 Other Procurement Air Force funds for Highly Elliptical Orbit (HEO) 3 ground modifications are excluded. It is a replenishment effort and is baselined separately. Increase from FY 2012 SAR (\$78M) due to Follow on Production 3080 HEO ground Request for Equitable Adjustment (REA) change.

**Annual Funding TY\$ - Baseline (GEO 1-4,
HEO 1-2, and Ground)
3300 | MILCON | Military Construction, Air
Force**

Fiscal Year	Total Program TY \$M
1997	14.5
1998	14.0
1999	--
2000	--
2001	2.8
2002	18.8
2003	6.9
Subtotal	57.0

**Annual Funding BY\$ - Baseline (GEO 1-4,
HEO 1-2, and Ground)
3300 | MILCON | Military Construction, Air
Force**

Fiscal Year	Total Program BY 1995 \$M
1997	13.7
1998	13.1
1999	--
2000	--
2001	2.5
2002	16.7
2003	6.0
Subtotal	52.0

**Annual Funding TY\$ - Baseline (GEO 1-4,
HEO 1-2, and Ground)
3400 | Acq O&M | Operation and
Maintenance, Air Force**

Fiscal Year	Total Program TY \$M
1998	10.4
1999	17.0
2000	15.6
2001	17.6
2002	18.2
2003	0.3
2004	6.9
2005	7.0
2006	5.4
2007	7.6
2008	9.7
2009	10.2
2010	10.2
2011	11.5
2012	13.5
Subtotal	161.1

**Annual Funding BY\$ - Baseline (GEO 1-4,
HEO 1-2, and Ground)
3400 | Acq O&M | Operation and
Maintenance, Air Force**

Fiscal Year	Total Program BY 1995 \$M
1998	9.9
1999	16.0
2000	14.4
2001	16.1
2002	16.4
2003	0.3
2004	6.0
2005	5.9
2006	4.4
2007	6.1
2008	7.6
2009	7.9
2010	7.8
2011	8.6
2012	10.0
Subtotal	137.4

Annual Funding By Appropriation - Block Buy (GEO 5-6)

Annual Funding TY\$ - Block Buy (GEO 5-6)

3020 | Procurement | Missile Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
2011	--	103.6	--	139.7	243.3	--	243.3
2012	--	192.0	--	51.5	243.5	--	243.5
2013	2	196.2	--	89.8	286.0	22.1	308.1
2014	--	245.9	--	77.9	323.8	36.9	360.7
2015	--	218.2	--	59.5	277.7	40.8	318.5
2016	--	283.7	--	25.5	309.2	69.5	378.7
2017	--	203.4	1.2	15.2	219.8	67.2	287.0
2018	--	689.4	172.5	6.3	868.2	80.2	948.4
2019	--	18.3	--	4.8	23.1	76.9	100.0
2020	--	19.7	--	5.8	25.5	82.7	108.2
2021	--	21.2	--	1.5	22.7	89.3	112.0
Subtotal	2	2191.6	173.7	477.5	2842.8	565.6	3408.4

Annual Funding BY\$ - Block Buy (GEO 5-6)
3020 | Procurement | Missile Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway BY 1995 \$M	Non End Item Recurring Flyaway BY 1995 \$M	Non Recurring Flyaway BY 1995 \$M	Total Flyaway BY 1995 \$M	Total Support BY 1995 \$M	Total Program BY 1995 \$M
2011	--	76.9	--	103.7	180.6	--	180.6
2012	--	140.1	--	37.5	177.6	--	177.6
2013	2	139.3	--	63.7	203.0	15.7	218.7
2014	--	171.5	--	54.4	225.9	25.7	251.6
2015	--	149.3	--	40.8	190.1	27.9	218.0
2016	--	190.4	--	17.1	207.5	46.6	254.1
2017	--	133.8	0.8	10.0	144.6	44.2	188.8
2018	--	444.7	111.2	4.1	560.0	51.7	611.7
2019	--	11.6	--	3.0	14.6	48.6	63.2
2020	--	12.2	--	3.6	15.8	51.3	67.1
2021	--	12.9	--	0.9	13.8	54.3	68.1
Subtotal	2	1482.7	112.0	338.8	1933.5	366.0	2299.5

The procurement profile above reflects procurement costs for the delivery of the Geosynchronous Earth Orbit (GEO) satellites 5 and 6, as documented in the FY 2015 PB. The costs above reflect the requirements for GEOs 5 and 6 production, launch, operations, checkout and support.

Cost Quantity Information - Block Buy (GEO 5-6)
3020 | Procurement | Missile Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 1995 \$M
2011	--	--
2012	--	--
2013	2	1482.7
2014	--	--
2015	--	--
2016	--	--
2017	--	--
2018	--	--
2019	--	--
2020	--	--
2021	--	--
Subtotal	2	1482.7

Low Rate Initial Production

There is no LRIP for this Program.

Foreign Military Sales

Baseline (GEO 1-4, HEO 1-2, and Ground)

Country	Date of Sale	Quantity	Total Cost \$M	Memo
Australia	3/8/2012	0	18.0	The FMS case with Australia established the agreement for the sale of a SBIRS satellite data processor, satellite data interface system, and contractor logistics support.

Block Buy (GEO 5-6)

None

Nuclear Costs

Baseline (GEO 1-4, HEO 1-2, and Ground)

None

Block Buy (GEO 5-6)

None

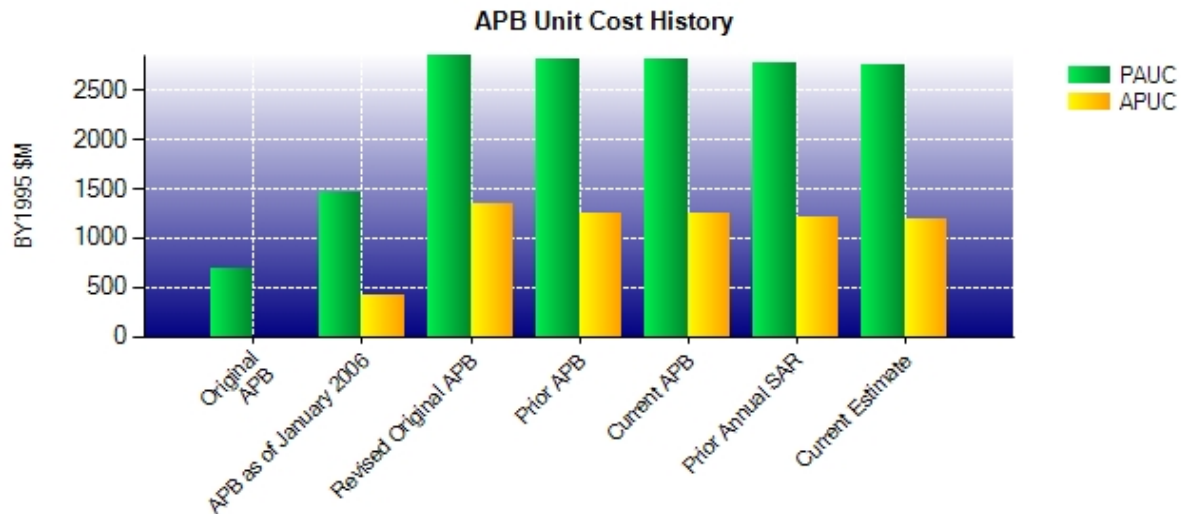
Unit Cost**Baseline (GEO 1-4, HEO 1-2, and Ground)****Unit Cost Report**

	BY1995 \$M	BY1995 \$M	
Unit Cost	Current UCR Baseline (FEB 2013 APB)	Current Estimate (DEC 2013 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	11245.8	11016.5	
Quantity	4	4	
Unit Cost	2811.450	2754.125	-2.04
Average Procurement Unit Cost (APUC)			
Cost	2512.0	2380.5	
Quantity	2	2	
Unit Cost	1256.000	1190.250	-5.23

	BY1995 \$M	BY1995 \$M	
Unit Cost	Revised Original UCR Baseline (MAR 2006 APB)	Current Estimate (DEC 2013 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	8569.3	11016.5	
Quantity	3	4	
Unit Cost	2856.433	2754.125	-3.58
Average Procurement Unit Cost (APUC)			
Cost	1342.8	2380.5	
Quantity	1	2	
Unit Cost	1342.800	1190.250	-11.36

Baseline (GEO 1-4, HEO 1-2, and Ground)

Unit Cost History



	Date	BY1995 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	OCT 1996	693.980	N/A	732.340	N/A
APB as of January 2006	SEP 2002	1467.640	420.500	1684.180	499.133
Revised Original APB	MAR 2006	2856.433	1342.800	3386.200	1723.200
Prior APB	SEP 2012	2811.450	1256.000	3461.250	1663.900
Current APB	FEB 2013	2811.450	1256.000	3461.250	1663.900
Prior Annual SAR	DEC 2012	2774.900	1216.500	3432.400	1627.250
Current Estimate	DEC 2013	2754.125	1190.250	3393.100	1582.750

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)

Initial PAUC Dev Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
829.460	25.575	169.190	129.200	126.600	1995.325	0.000	117.750	2563.640	3393.100

Current SAR Baseline to Current Estimate (TY \$M)

Initial APUC Dev Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
292.250	37.900	0.000	0.000	0.000	1017.100	0.000	235.500	1290.500	1582.750

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone I	N/A	N/A	N/A	N/A
Milestone II	N/A	OCT 1996	N/A	OCT 1996
Milestone III	N/A	N/A	N/A	N/A
IOC	N/A	DEC 2003	N/A	N/A
Total Cost (TY \$M)	2670.3	4147.3	N/A	13572.4
Total Quantity	N/A	5	N/A	4
Prog. Acq. Unit Cost (PAUC)	N/A	829.460	N/A	3393.100

Block Buy (GEO 5-6)**Unit Cost Report**

	BY1995 \$M	BY1995 \$M	
Unit Cost	Current UCR Baseline (FEB 2013 APB)	Current Estimate (DEC 2013 SAR)	BY % Change

Program Acquisition Unit Cost (PAUC)

Cost	2681.6	2299.5	
Quantity	2	2	
Unit Cost	1340.800	1149.750	-14.25

Average Procurement Unit Cost (APUC)

Cost	2681.6	2299.5	
Quantity	2	2	
Unit Cost	1340.800	1149.750	-14.25

	BY1995 \$M	BY1995 \$M	
Unit Cost	Original UCR Baseline (SEP 2012 APB)	Current Estimate (DEC 2013 SAR)	BY % Change

Program Acquisition Unit Cost (PAUC)

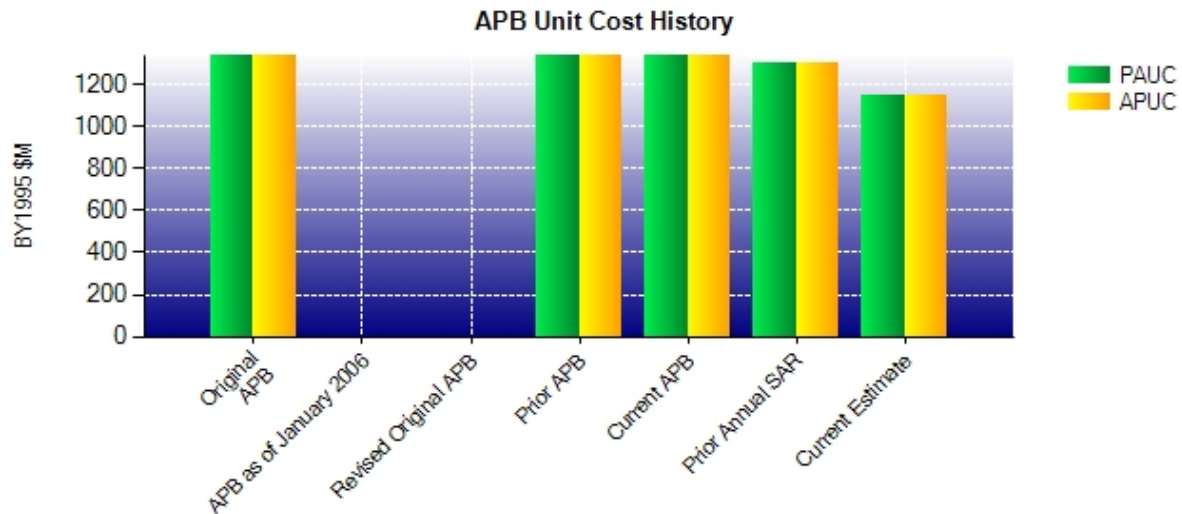
Cost	2681.6	2299.5	
Quantity	2	2	
Unit Cost	1340.800	1149.750	-14.25

Average Procurement Unit Cost (APUC)

Cost	2681.6	2299.5	
Quantity	2	2	
Unit Cost	1340.800	1149.750	-14.25

Block Buy (GEO 5-6)

Unit Cost History



	Date	BY1995 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	SEP 2012	1340.800	1340.800	1932.700	1932.700
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	SEP 2012	1340.800	1340.800	1932.700	1932.700
Current APB	FEB 2013	1340.800	1340.800	1932.700	1932.700
Prior Annual SAR	DEC 2012	1297.750	1297.750	1934.650	1934.650
Current Estimate	DEC 2013	1149.750	1149.750	1704.200	1704.200

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)

Initial PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
1932.700	52.050	0.000	0.000	0.000	-284.050	0.000	3.500	-228.500	1704.200

Current SAR Baseline to Current Estimate (TY \$M)

Initial APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
1932.700	52.050	0.000	0.000	0.000	-284.050	0.000	3.500	-228.500	1704.200

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	N/A	N/A	N/A
Milestone C	N/A	N/A	N/A	N/A
IOC	N/A	N/A	N/A	N/A
Total Cost (TY \$M)	N/A	N/A	3865.4	3408.4
Total Quantity	N/A	N/A	2	2
Prog. Acq. Unit Cost (PAUC)	N/A	N/A	1932.700	1704.200

Cost Variance**Baseline (GEO 1-4, HEO 1-2, and Ground)**

Summary Then Year \$M					
	RDT&E	Proc	MILCON	Acq O&M	Total
SAR Baseline (Dev Est)	3386.5	584.5	28.5	147.8	4147.3
Previous Changes					
Economic	+41.7	+84.4	-1.4	+2.0	+126.7
Quantity	-152.7	--	--	--	-152.7
Schedule	+561.0	--	--	--	+561.0
Engineering	+514.2	--	+7.8	-15.6	+506.4
Estimating	+5906.3	+2101.7	+22.1	+26.9	+8057.0
Other	--	--	--	--	--
Support	--	+483.9	--	--	+483.9
Subtotal	+6870.5	+2670.0	+28.5	+13.3	+9582.3
Current Changes					
Economic	-15.7	-8.6	--	-0.1	-24.4
Quantity	--	--	--	--	--
Schedule	-44.2	--	--	--	-44.2
Engineering	--	--	--	--	--
Estimating	-8.3	-67.5	--	+0.1	-75.7
Other	--	--	--	--	--
Support	--	-12.9	--	--	-12.9
Subtotal	-68.2	-89.0	--	--	-157.2
Total Changes	+6802.3	+2581.0	+28.5	+13.3	+9425.1
CE - Cost Variance	10188.8	3165.5	57.0	161.1	13572.4
CE - Cost & Funding	10188.8	3165.5	57.0	161.1	13572.4

Summary Base Year 1995 \$M					
	RDT&E	Proc	MILCON	Acq O&M	Total
SAR Baseline (Dev Est)	3016.6	496.7	26.0	140.2	3679.5
Previous Changes					
Economic	--	--	--	--	--
Quantity	-128.4	--	--	--	-128.4
Schedule	+416.6	--	--	--	+416.6
Engineering	+460.5	--	+6.8	-13.5	+453.8
Estimating	+4712.0	+1573.1	+19.2	+10.6	+6314.9
Other	--	--	--	--	--
Support	--	+363.2	--	--	+363.2
Subtotal	+5460.7	+1936.3	+26.0	-2.9	+7420.1
Current Changes					
Economic	--	--	--	--	--
Quantity	--	--	--	--	--
Schedule	-31.8	--	--	--	-31.8
Engineering	--	--	--	--	--
Estimating	+1.1	-43.4	--	+0.1	-42.2
Other	--	--	--	--	--
Support	--	-9.1	--	--	-9.1
Subtotal	-30.7	-52.5	--	+0.1	-83.1
Total Changes	+5430.0	+1883.8	+26.0	-2.8	+7337.0
CE - Cost Variance	8446.6	2380.5	52.0	137.4	11016.5
CE - Cost & Funding	8446.6	2380.5	52.0	137.4	11016.5

Previous Estimate: December 2012

RDT&E	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	-15.7
Congressional add for Starer acceleration. (Estimating)	+28.8	+40.0
Adjustment for current and prior escalation. (Estimating)	+6.5	+9.0
Budgetary reductions to reflect FY 2015 PB. (Estimating)	-34.2	-57.3
Reduction due to sequestration. (Schedule)	-31.8	-44.2
RDT&E Subtotal	-30.7	-68.2

Procurement	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	-8.6
Adjustment for current and prior escalation. (Estimating)	+2.8	+3.8
Revised estimate due to reduction in allocation of funds to the Highly Elliptical Orbit (HEO) payload effort. These costs are not part of the approved SBIRS High Program. (Estimating)	+22.2	+29.9
Reduced to Government Estimate at Completion. (Estimating)	-67.9	-100.5
Revised estimate reflects FY 2015 funding. (Estimating)	+5.2	+7.1
Reduction due to sequestration (3020 appropriation). (Estimating)	-0.5	-0.7
Reduction due to sequestration (3080 appropriation). (Estimating)	-5.2	-7.1
Adjustment for current and prior escalation. (Support)	+1.0	+1.4
Decrease in Other Support due to reduced program office support requirements partially resulting from an updated allocation of cost-sharing across the portfolio. (Support)	-7.0	-9.7
Decrease in Other Support. (Support)	-3.1	-4.6
Procurement Subtotal	-52.5	-89.0

Acq O&M	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	-0.1
Adjustment for current and prior escalation. (Estimating)	+0.1	+0.1
Acq O&M Subtotal	+0.1	0.0

Cost Variance**Block Buy (GEO 5-6)**

Summary Then Year \$M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	--	3865.4	--	3865.4
Previous Changes				
Economic	--	+133.4	--	+133.4
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	-18.1	--	-18.1
Other	--	--	--	--
Support	--	-111.4	--	-111.4
Subtotal	--	+3.9	--	+3.9
Current Changes				
Economic	--	-29.3	--	-29.3
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	-550.0	--	-550.0
Other	--	--	--	--
Support	--	+118.4	--	+118.4
Subtotal	--	-460.9	--	-460.9
Total Changes	--	-457.0	--	-457.0
CE - Cost Variance	--	3408.4	--	3408.4
CE - Cost & Funding	--	3408.4	--	3408.4

Summary Base Year 1995 \$M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	--	2681.6	--	2681.6
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	-14.7	--	-14.7
Other	--	--	--	--
Support	--	-71.4	--	-71.4
Subtotal	--	-86.1	--	-86.1
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	-368.6	--	-368.6
Other	--	--	--	--
Support	--	+72.6	--	+72.6
Subtotal	--	-296.0	--	-296.0
Total Changes	--	-382.1	--	-382.1
CE - Cost Variance	--	2299.5	--	2299.5
CE - Cost & Funding	--	2299.5	--	2299.5

Previous Estimate: December 2012

Procurement	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	-29.3
Adjustment for current and prior escalation. (Estimating)	+6.0	+8.4
Congressional reduction for FY 2013. (Estimating)	-42.6	-60.0
Revised estimate for fixed price proposal. (Estimating)	-237.0	-362.4
Revised estimate reflects FY 2015 funding. (Estimating)	-54.2	-77.5
Reduction due to sequestration. (Estimating)	-40.8	-58.5
Adjustment for current and prior escalation. (Support)	+0.4	+0.6
Increase in Other Support for additional year of funding. (Support)	+72.2	+117.8
Procurement Subtotal	-296.0	-460.9

Contracts

Appropriation: RDT&E

Contract Name	SBIRS High EMD Mod
Contractor	Lockheed Martin Corporation
Contractor Location	Sunnyvale, CA 94089
Contract Number, Type	F04701-95-C-0017, CPAF
Award Date	November 08, 1996
Definitization Date	November 08, 1996

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
1590.1	N/A	2	6437.6	N/A	4	9391.7	9449.0

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to multiple program restructures and program extensions.

The change in quantity reflects the inclusion of the Highly Elliptical Orbit Payloads 1-2 as deliverables to align with the Contract Performance Report. Previously quantities were only considered to be Geosynchronous Earth Orbit (GEO) satellites 1-2. There is no increase in contract quantity since the previous SAR.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/26/2014)	-331.3	-13.7
Previous Cumulative Variances	-299.3	-3.8
Net Change	-32.0	-9.9

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to ground software rework and the extension of GEO-2 launch and post launch support.

The unfavorable net change in the schedule variance is due to the timing of ground material receipts and rework slowing progress on software integration tasks.

Contract Comments

This contract is more than 90% complete; therefore, this is the final report for this contract.

The current Engineering, Manufacturing, and Development contractor Estimated Price at Completion is \$9,391.7M compared to \$9,276.2M in the December 2012 SAR. The increase since the previous SAR is due to added scope for GEO-2 Launch Delay & Storage, Defense Support Program Telemetry Tracking and Command, Joint Overhead Persistent Infrared Ground Electronic Tasking, additional Ground system upgrades, and the extension of Flight Operations and Factory support for FY 2014. The Government's Estimated Price at Completion is \$9,449.0M and is consistent with both the scope of the contractor's estimate and the 2013 Single Best Estimate.

The difference between the current target contract price and the contractor and program manager's estimated price at completion is due to the multiple contract re-baselines. The current target price does not include the cumulative Over Target Baseline (OTB) value, while the estimated price at completion does incorporate the OTBs.

Appropriation: Procurement

Contract Name	SBIRS Follow-on Production
Contractor	Lockheed Martin Corporation
Contractor Location	Sunnyvale, CA 94089
Contract Number, Type	FA8810-08-C-0002, CPAF
Award Date	March 14, 2008
Definitization Date	April 08, 2009

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
370.0	N/A	0	3069.1	N/A	4	3159.4	3495.0

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to additional scope. The program office exercised the Highly Elliptical Orbit (HEO) 3 and 4, and Geosynchronous Earth Orbit (GEO) satellite 3 and 4 production efforts, increasing the quantity from zero to two, HEO-3 ground modification effort, and various studies and launch vehicle integration Contract Line Items.

The change in quantity reflects the inclusion of the HEO Payloads 3-4 as deliverables to align with the Contract Performance Report. Previously reported quantities were only considered to be GEO satellites 3-4. There is no increase in contract quantity since the previous SAR. The HEO 3-4 satellites are not part of the baseline and not included in the reported quantities.

The contractor Estimated Price at Completion is \$3,159.4M compared to \$3,100.0M in the December 2012 SAR. The increase is due to additional scope for HEO-4 and GEO-4 Launch/Early On-Orbit Support and various special studies. The Government's Estimated Price at Completion is \$3,495.0M, derived from the 2013 Single Best Estimate, which assumes a February 2015 HEO-4 Payload delivery, a September 2015 GEO-3 delivery, and a September 2016 GEO-4 delivery. HEO-3 Payload was delivered in June 2013.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/26/2014)	-44.1	-49.2
Previous Cumulative Variances	-56.2	-52.4
Net Change	+12.1	+3.2

Cost and Schedule Variance Explanations

The favorable net change in the cost variance is due to favorable retroactive rate changes, the transfer of proposal preparation costs for follow on production efforts to overhead, and the resolution of the request for equitable adjustment on ground effort.

The favorable net change in the schedule variance is due to delivery of the HEO-3 Payload, recovery on the HEO-4 Payload, and GEO-3 subsystem builds and associated testing.

Appropriation: Procurement

Contract Name **SBIRS 5-6 Initial Non-Recurring Engineering**
 Contractor Lockheed Martin Corporation
 Contractor Location Sunnyvale, CA 94089
 Contract Number, Type FA8810-12-C-0001, CPIF
 Award Date September 11, 2012
 Definitization Date September 11, 2012

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
81.9	N/A	N/A	148.6	N/A	N/A	148.1	148.6

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the Geosynchronous Earth Orbit (GEO) 5 and 6 Initial Non-Recurring Engineering (I-NRE) contract was awarded in September 2012, and an Engineering Change Proposal (ECP) to modify the contract to complete all component builds through component qualification was added in December 2012.

There is no contract quantity associated with this I-NRE contract.

The Contractor Estimated Price at Completion is \$148.1M compared to \$81.9M in the December 2012 SAR. The increase is additional scope (\$66.2M) from the ECP added in December 2012. The government's Estimated Price at Completion is \$148.1M.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/26/2014)	+7.8	+12.2
Previous Cumulative Variances	+0.1	+0.2
Net Change	+7.7	+12.0

Cost and Schedule Variance Explanations

The favorable net change in the cost variance is due to under-runs in program and subcontractor management and has benefited from early subcontractor performance.

The favorable net change in the schedule variance is due to early subcontractor deliveries.

Appropriation: Procurement

Contract Name	SBIRS 5-6 Advance Procurement
Contractor	Lockheed Martin Corp.
Contractor Location	Sunnyvale, CA 94089
Contract Number, Type	FA8810-13-C-0001, FPIF
Award Date	February 19, 2013
Definitization Date	February 19, 2013

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
284.4	350.2	N/A	326.8	350.2	N/A	323.7	326.8

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to The Geosynchronous Earth Orbit (GEO) 5 and 6 Advance Procurement contract was awarded in February 2013. An Engineering Change Proposal (ECP) was added in September 2013.

There is no contract quantity associated with the Advanced Procurement portion of this contract.

The Contractor Estimated Price at Completion is \$323.7M represents the initial Advanced Procurement award plus the ECP as provided by Lockheed Martin. The ECP pulled scope forward from the production proposal to reduce schedule risk and obligated expiring FY 2011 funds. The government Estimated Price at Completion is \$326.8M which equates to the current government contract price.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/26/2014)	+6.4	+17.5
Previous Cumulative Variances	--	--
Net Change	+6.4	+17.5

Cost and Schedule Variance Explanations

The favorable cumulative cost variance is due to under-runs in program and subcontractor management.

The favorable cumulative schedule variance is due to early subcontractor deliveries.

Contract Comments

This is the first time this contract is being reported.

Appropriation: Acq O&M

Contract Name	SBIRS CLS-CTF
Contractor	Lockheed Martin Corp.
Contractor Location	Sunnyvale, CA 94089
Contract Number, Type	FA8810-13-C-0002, CPIF
Award Date	March 15, 2013
Definitization Date	March 15, 2013

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
105.9	N/A	N/A	295.2	N/A	N/A	293.5	295.2

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to The Contractor Logistics Support and Combined Task Force (CLS/CTF) contract was awarded in March 2013, and the SBIRS Survivable Endurable Evolution (S2E2) ground mobiles contract added in July 2013 is \$67.2M. The CLS FY 2014 option extension was awarded in September 2013. The total Contractor Target Price is \$295.2M for all efforts.

The Contractor Estimated Price at Completion is \$293.5M represents the initial CLS/CTF portion, its FY 2014 extension, and the S2E2 ground mobiles as provided by Lockheed Martin. The government Estimated Price at Completion is \$295.2M which equates to the current government contract price.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/26/2014)	+6.9	0.0
Previous Cumulative Variances	--	--
Net Change	+6.9	+0.0

Cost and Schedule Variance Explanations

The favorable cumulative cost variance is due to level of effort under-runs for sustainment efforts.

Contract Comments

This is the first time this contract is being reported.

The contract consists of CLS (APPN 3400), CTF (APPN 3600) and S2E2 Block 1 (APPN 3080).

Deliveries and Expenditures

Baseline (GEO 1-4, HEO 1-2, and Ground)

Delivered to Date	Plan to Date	Actual to Date	Total Quantity	Percent Delivered
Development		2	2	100.00%
Production		0	2	0.00%
Total Program Quantity Delivered		2	4	50.00%

Expended and Appropriated (TY \$M)

Total Acquisition Cost	13572.4	Years Appropriated	20
Expended to Date	11796.9	Percent Years Appropriated	80.00%
Percent Expended	86.92%	Appropriated to Date	12646.0
Total Funding Years	25	Percent Appropriated	93.17%

The above data is current as of 3/4/2014.

Block Buy (GEO 5-6)

Delivered to Date	Plan to Date	Actual to Date	Total Quantity	Percent Delivered
Development		0	0	--
Production		0	2	0.00%
Total Program Quantity Delivered		0	2	0.00%

Expended and Appropriated (TY \$M)

Total Acquisition Cost	3408.4	Years Appropriated	4
Expended to Date	145.4	Percent Years Appropriated	36.36%
Percent Expended	4.27%	Appropriated to Date	1155.6
Total Funding Years	11	Percent Appropriated	33.90%

The above data is current as of 3/4/2014.

Operating and Support Cost

Baseline (GEO 1-4, HEO 1-2, and Ground)

Assumptions and Ground Rules

Cost Estimate Reference:

The current estimate is based on the Program Office Estimate that was completed in December 2012.

Sustainment Strategy:

Operation and Maintenance funds support the activation of the SBIRS High System, including Component ground operating and training facilities at worldwide sites. The SBIRS Increment 1 ground system was operational in December 2001. These funds purchase temporary facilities, minor construction, office equipment, furniture, travel, supplies, and communication links necessary for the activation of the SBIRS Mission Control Station, the Mission Control Station Backup, Outside Continental United States Relay Ground Stations, Initial Qualification Training facility, and repair and transportation of Government Furnished Equipment and Temporary Duty costs for training of the initial cadre of operators. Also included in this estimate are all manpower and indirect costs required to operate and sustain the SBIRS system.

The current SBIRS sustainment strategy is Contractor Logistics Support (CLS) under one contract with a balanced fee structure of performance and cost incentives with limited organic depot partnership.

The SBIRS High Baseline subprogram profile reflects the first 30 years of the 35 year SBIRS High Life Cycle Cost, from 1999-2028. Average annual costs have been updated to reflect the new Life Cycle Cost estimate. Manpower and other indirect costs were added, other costs were updated to reflect actuals to date and incorporate efficiencies. The average annual costs are based on the entire 35 year life cycle.

Antecedent Information:

Comparable O&S cost estimates for the legacy system, Defense Support Program, are not available.

Unitized O&S Costs BY1995 \$M			
Cost Element	Baseline (GEO 1-4, HEO 1-2, and Ground) Avg Annual Cost for SBIRS High System	Defense Support Program (Antecedent) N/A	
Unit-Level Manpower	60.400		0.000
Unit Operations	2.600		0.000
Maintenance	31.400		0.000
Sustaining Support	37.700		0.000
Continuing System Improvements	6.300		0.000
Indirect Support	4.400		0.000
Other	0.000		0.000
Total	142.800		--

Unitized Cost Comments:

Unitized costs reflect the Average Annual cost for the SBIRS High system.

Average annual cost of SBIRS High System = (Total cost of SBIRS High Baseline + Total cost of SBIRS High Block Buy)/service life of system = (4203.4 + 795.3) / 35 = 142.82.

	Total O&S Cost \$M			
	Current Development APB Objective/Threshold	Current Estimate		
	Baseline (GEO 1-4, HEO 1-2, and Ground)	Baseline (GEO 1-4, HEO 1-2, and Ground)	Defense Support Program (Antecedent)	
Base Year	4203.4	4623.7	4203.4	N/A
Then Year	6404.5	N/A	6404.5	N/A

Total O&S Costs Comments:

None

Disposal Costs:

Disposal costs are not included in the above estimate. The disposal estimate is to be determined.

Block Buy (GEO 5-6)**Assumptions and Ground Rules**Cost Estimate Reference:

The current estimate is based on the Program Office Estimate that was completed in December 2012.

Sustainment Strategy:

Operation and Maintenance funds support the activation of the SBIRS High System, including Component ground operating and training facilities at worldwide sites. The SBIRS Increment 1 ground system became operational in December 2001. These funds purchase temporary facilities, minor construction, office equipment, furniture, travel, supplies, and communication links necessary for the activation of the SBIRS Mission Control Station, the Mission Control Station Backup, Outside Continental United States Relay Ground Stations, Initial Qualification Training facility, and repair and transportation of Government Furnished Equipment and Temporary Duty costs for training of the initial cadre of operators. Also included in this estimate are all manpower and indirect costs required to operate and sustain the SBIRS system.

The current SBIRS sustainment strategy is Contractor Logistics Support (CLS) under one contract with a balanced fee structure of performance and cost incentives with limited organic depot partnership.

The SBIRS High Block Buy subprogram total O&S costs reflect the last 5 years of the SBIRS High Major Defense Acquisition Program (MDAP) 35 year Life Cycle Cost, from 2029-2033, representing the extension to the SBIRS High Baseline life cycle due to the addition of Geosynchronous Earth Orbit satellites 5 and 6. The average annual costs are based on the entire 35 year MDAP life cycle.

Antecedent Information:

Comparable O&S cost estimates for the legacy system, Defense Support Program, are not available.

Unitized O&S Costs BY1995 \$M		
Cost Element	Block Buy (GEO 5-6) Avg Annual Cost for SBIRS High System	Defense Support Program (Antecedent) N/A
Unit-Level Manpower	60.400	0.000
Unit Operations	2.600	0.000
Maintenance	31.400	0.000
Sustaining Support	37.700	0.000
Continuing System Improvements	6.300	0.000
Indirect Support	4.400	0.000
Other	0.000	0.000
Total	142.800	--

Unitized Cost Comments:

Unitized costs reflect the Average Annual cost for the SBIRS High system.

Average annual cost of SBIRS High System = (Total cost of SBIRS High Baseline + Total cost of SBIRS High Block Buy)/service life of system = (4203.4 + 795.3) / 35 = 142.82.

	Total O&S Cost \$M			
	Current Production APB Objective/Threshold		Current Estimate	
	Block Buy (GEO 5-6)		Block Buy (GEO 5-6)	Defense Support Program (Antecedent)
Base Year	795.3	874.8	795.3	N/A
Then Year	1551.1	N/A	1551.1	N/A

Total O&S Costs Comments:

None

Disposal Costs:

Disposal costs are not included in the above estimate. The disposal estimate is to be determined.