



## Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-224



### **B-2 Extremely High Frequency SATCOM and Computer Increment 1 (B-2 EHF Inc 1)**

As of FY 2015 President's Budget

Defense Acquisition Management  
Information Retrieval  
(DAMIR)

# Report Documentation Page

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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**

B-2 Extremely High Frequency SATCOM and Computer Increment 1 (B-2 EHF Inc 1)

**DoD Component**

Air Force

## Responsible Office

**Responsible Office**

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## References

**SAR Baseline (Production Estimate)**

Air Force Acquisition Executive (AFAE) Approved Acquisition Program Baseline (APB) dated September 20, 2012

**Approved APB**

Air Force Acquisition Executive (AFAE) Approved Acquisition Program Baseline (APB) dated September 20, 2012

## Mission and Description

The aging Ultra High Frequency (UHF) Military Satellite Communications (MILSATCOM) system is being phased out and replaced by the Advanced Extremely High Frequency (AEHF) Satellite Communications (SATCOM) system.

B-2 Extremely High Frequency SATCOM and Computer Increment 1 program (B-2 EHF Inc 1) supports the replacement of the present B-2 UHF Terminal Set with an EHF SATCOM system that will be compatible with the legacy EHF Satellite (MILSTAR I/II) constellation and the future AEHF satellite constellation. The B-2 EHF Inc 1 system is one element of a system-of-systems that includes the AEHF satellites, multiple platforms, and the Family of Advanced Beyond-Line-of-Site Terminals. The B-2 EHF upgrade is a three-increment program. Increment 1 will provide upgraded flight management computer processors, increased data storage, a re-hosted Flight Management Operational Flight Program, and a high bandwidth data bus in order to prevent degradation of existing capabilities resulting from EHF SATCOM installation. Additionally, the Increment 1 Integrated Processing Unit and Disk Drive Unit architectures establish a high speed fiber optic structure network as well as maintain connectivity to legacy interfaces. Increment 1 provides a processing growth path to future B-2 upgrades. B-2 EHF Inc 2 would ensure continuing secure, survivable communication capability; and B-2 EHF Inc 3 would enable the B-2 to interface with the Global Information Grid and provide Net Ready capability. This SAR addresses B-2 EHF Inc 1 only.

## Executive Summary

B-2 EHF Inc 1 consists of upgraded flight management processors, increased data storage and a high-bandwidth data bus which provide a processing growth path for future B-2 upgrades. The program realized several significant accomplishments during this period. The Aircraft Monitor and Control final report was released on April 2, 2013 and certified the system as compatible for nuclear operations. On April 26, 2013, Air Force Global Strike Command authorized fielding and full-up (conventional and nuclear) use of EHF modified aircraft.

The Engineering and Manufacturing Development (EMD) program successfully concluded. The projected Variance at Completion was reduced from \$9.0M to \$6.8M (3.2% of EMD contract overrun). The EMD contract is complete and is progressing through financial closeout.

The first production installation occurred at Whiteman Air Force Base, MO on October 21, 2013. The next aircraft began modification on February 6, 2014.

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

## Threshold Breaches

### APB Breaches

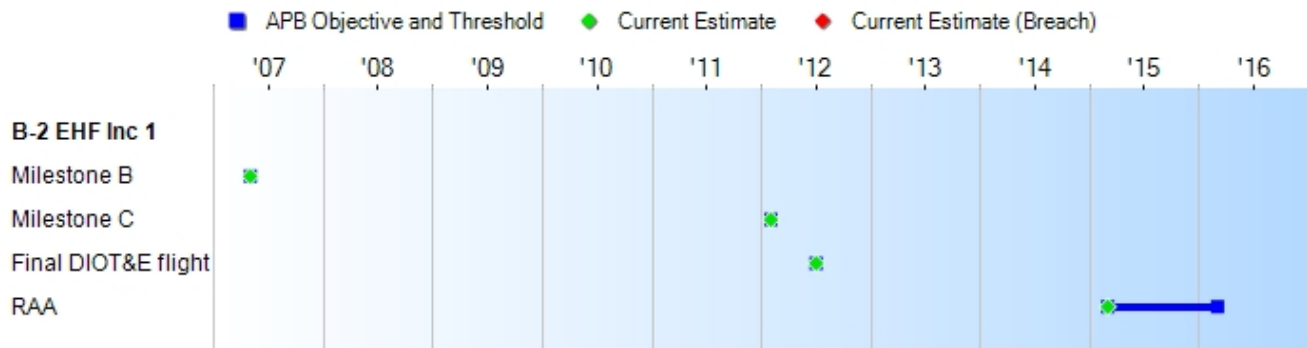
<b>Schedule</b>		<input type="checkbox"/>
<b>Performance</b>		<input type="checkbox"/>
<b>Cost</b>	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
<b>O&amp;S Cost</b>		<input type="checkbox"/>
<b>Unit Cost</b>	PAUC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

### Nunn-McCurdy Breaches

<b>Current UCR Baseline</b>		
	PAUC	None
	APUC	None
<b>Original UCR Baseline</b>		
	PAUC	None
	APUC	None



### Schedule



Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate
Milestone B	MAY 2007	MAY 2007	MAY 2007	MAY 2007
Milestone C	FEB 2012	FEB 2012	FEB 2012	FEB 2012
Final DIOT&E flight	JUL 2012	JUL 2012	JUL 2012	JUL 2012
RAA	MAR 2015	MAR 2015	MAR 2016	MAR 2015

#### Change Explanations

None

#### Memo

RAA is defined as eight assigned aircraft modified, sufficient aircrews and maintenance personnel trained, sufficient aircrew and maintenance trainers upgraded, formal aircrew and maintenance technical orders delivered and adequate spares available to support 509th Bombardment Wing operational tasking. IOC is declared by the Commander, Air Force Global Strike Command when the B-2 operational squadrons have completed each incremental upgrade.

#### Acronyms and Abbreviations

DIOT&E - Dedicated Initial Operational Test and Evaluation  
 RAA - Required Assets Available

## Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Information Assurance (IA)	Protection consistent w/the classification of data being stored, processed, or transferred in compliance with Senior Jersey Security Classification Guide and JAFAN 6/3 Manual, Protection Special Access Program Information Within Information Systems	Protection consistent w/the classification of data being stored, processed, or transferred in compliance with Senior Jersey Security Classification Guide and JAFAN 6/3 Manual, Protection Special Access Program Information Within Information Systems	Protection consistent w/the classification of data being stored, processed, or transferred in compliance with Senior Jersey Security Classification Guide and JAFAN 6/3 Manual, Protection Special Access Program Information Within Information Systems	Protection consistent w/the classification of data being stored, processed, or transferred in compliance with Senior Jersey Security Classification Guide and JAFAN 6/3 Manual, Protection Special Access Program Information Within Information Systems	Protection consistent w/the classification of data being stored, processed, or transferred in compliance with Senior Jersey Security Classification Guide and JAFAN 6/3 Manual, Protection Special Access Program Information Within Information Systems
Flight Management Functionality	IFC-P5 functionality shall be maintained	IFC-P5 functionality shall be maintained	IFC-P5 functionality shall be maintained	IFC-P5 functionality maintained	IFC-P5 functionality shall be maintained

### Requirements Source

Capability Production Document (CPD) dated July 19, 2011

### Change Explanations

None

### Memo

IFC-P5 is the fifth major block software release for the B-2 Weapon System and is specifically tied to the Radar Modernization Program.

**Acronyms and Abbreviations**

IFC - Integrated Functional Capability  
JAFAN - Joint Air Force, Army, Navy

## Track to Budget

### General Memo

This SAR includes funding only for Increment 1 of the B-2 EHF Program.

### RDT&E

Appn	BA	PE		
Air Force 3600	07	0101127F		
			<b>Project</b>	<b>Name</b>
			5345	B-2 EHF Inc 1 SATCOM and Computer Upgrade (Shared) (Sunk)
			<b>Notes:</b>	Complete FY 2011
			6022	B-2 EHF Inc 1 SATCOM and Computer Upgrade (Shared) (Sunk)
Air Force 3600	05	0604240F		
			<b>Project</b>	<b>Name</b>
			3843	B-2 EHF Inc 1 SATCOM and Computer Upgrade (Shared) (Sunk)
			<b>Notes:</b>	Complete FY 2009

Prior to FY 2013, PE 0101127F project 6022 also funded B-2 EHF Increment 2.

### Procurement

Appn	BA	PE		
Air Force 3010	07	0101127F		
			<b>Line Item</b>	<b>Name</b>
			000075	B-2 EHF Inc 1 SATCOM and Computer Upgrade Product Support / Depot Activation (Shared)
Air Force 3010	06	0101127F		
			<b>Line Item</b>	<b>Name</b>
			000999	B-2 EHF Inc 1 SATCOM and Computer Upgrade Initial Spares (Shared)
Air Force 3010	07	0101127F		
			<b>Line Item</b>	<b>Name</b>
			B00200	B-2 EHF Inc 1 SATCOM and Computer Upgrade Interim Contractor Support (Shared) (Sunk)
Air Force 3010	05	0101127F		
			<b>Line Item</b>	<b>Name</b>

	B00200		B-2 EHF Inc 1 SATCOM and Computer Upgrade Modifications	(Shared)
Air Force	3010	07	0101127F	
	<b>Line Item</b>		<b>Name</b>	
	B002B0		B-2 EHF Inc 1 SATCOM and Computer Upgrade Interim Contractor Support	(Shared)

Aircraft Procurement, Air Force BA 05 line is shared for all B-2 Modifications (EHF SATCOM is modification number 110026 on the Exhibit P-40, Budget Item Justification). Funding for Initial Spares is in the shared BA 06 line; funding for Post Production Support is provided in BA 07 (Line Item 000075), and funding for Other Production is provided in BA 07 (Line Item B00200 and Line Item B002B0). The BA 07 line is shared for all B-2 Modifications.

## Cost and Funding

### Cost Summary

#### Total Acquisition Cost and Quantity

Appropriation	BY2012 \$M			BY2012 \$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	450.2	450.2	495.2	430.4	431.5	431.5	411.7
Procurement	129.0	129.0	141.9	121.2	135.2	135.2	127.3
Flyaway	--	--	--	111.6	--	--	117.2
Recurring	--	--	--	111.6	--	--	117.2
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	9.6	--	--	10.1
Other Support	--	--	--	1.2	--	--	1.2
Initial Spares	--	--	--	8.4	--	--	8.9
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	579.2	579.2	N/A	551.6	566.7	566.7	539.0

Confidence Level for Current APB Cost 55% -

This Acquisition Program Baseline (APB) reflects cost and funding data based on the B-2 EHF Increment I Service Cost Position (SCP). This cost estimate was quantified at the Mean (~55%) confidence level.

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E	4	4	4
Procurement	16	16	16
Total	20	20	20

## Cost and Funding

### Funding Summary

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

Appropriation	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
RDT&E	411.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	411.7
Procurement	106.4	11.1	8.8	0.8	0.2	0.0	0.0	0.0	127.3
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	518.1	11.1	8.8	0.8	0.2	0.0	0.0	0.0	539.0
PB 2014 Total	537.9	11.9	9.4	0.5	0.0	0.0	0.0	0.0	559.7
Delta	-19.8	-0.8	-0.6	0.3	0.2	0.0	0.0	0.0	-20.7

Quantity	Undistributed	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
Development		4	0	0	0	0	0	0	0	4
Production		0	16	0	0	0	0	0	0	16
PB 2015 Total		4	16	0	0	0	0	0	0	20
PB 2014 Total		4	16	0	0	0	0	0	0	20
Delta		0	0	0	0	0	0	0	0	0

## Cost and Funding

### Annual Funding By Appropriation

#### Annual Funding TY\$

#### 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
2005	--	--	--	--	--	--	4.4
2006	--	--	--	--	--	--	38.3
2007	--	--	--	--	--	--	75.7
2008	--	--	--	--	--	--	71.6
2009	--	--	--	--	--	--	85.0
2010	--	--	--	--	--	--	49.5
2011	--	--	--	--	--	--	48.5
2012	--	--	--	--	--	--	38.2
2013	--	--	--	--	--	--	0.5
<b>Subtotal</b>	<b>4</b>	--	--	--	--	--	<b>411.7</b>



**Annual Funding BY\$****3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2012 \$M</b>	<b>Non End Item Recurring Flyaway BY 2012 \$M</b>	<b>Non Recurring Flyaway BY 2012 \$M</b>	<b>Total Flyaway BY 2012 \$M</b>	<b>Total Support BY 2012 \$M</b>	<b>Total Program BY 2012 \$M</b>
2005	--	--	--	--	--	--	5.0
2006	--	--	--	--	--	--	42.2
2007	--	--	--	--	--	--	81.4
2008	--	--	--	--	--	--	75.4
2009	--	--	--	--	--	--	88.4
2010	--	--	--	--	--	--	50.8
2011	--	--	--	--	--	--	48.9
2012	--	--	--	--	--	--	37.8
2013	--	--	--	--	--	--	0.5
<b>Subtotal</b>	<b>4</b>	--	--	--	--	--	<b>430.4</b>

**Annual Funding TY\$**  
**3010 | Procurement | Aircraft Procurement, Air Force**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway TY \$M</b>	<b>Non End Item Recurring Flyaway TY \$M</b>	<b>Non Recurring Flyaway TY \$M</b>	<b>Total Flyaway TY \$M</b>	<b>Total Support TY \$M</b>	<b>Total Program TY \$M</b>
2012	5	47.8	1.6	--	49.4	0.1	49.5
2013	11	45.1	7.0	--	52.1	4.8	56.9
2014	--	--	7.5	--	7.5	3.6	11.1
2015	--	--	8.2	--	8.2	0.6	8.8
2016	--	--	--	--	--	0.8	0.8
2017	--	--	--	--	--	0.2	0.2
<b>Subtotal</b>	<b>16</b>	<b>92.9</b>	<b>24.3</b>	<b>--</b>	<b>117.2</b>	<b>10.1</b>	<b>127.3</b>

**Annual Funding BY\$**  
**3010 | Procurement | Aircraft Procurement, Air Force**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2012 \$M</b>	<b>Non End Item Recurring Flyaway BY 2012 \$M</b>	<b>Non Recurring Flyaway BY 2012 \$M</b>	<b>Total Flyaway BY 2012 \$M</b>	<b>Total Support BY 2012 \$M</b>	<b>Total Program BY 2012 \$M</b>
2012	5	46.4	1.6	--	48.0	0.1	48.1
2013	11	42.7	6.6	--	49.3	4.6	53.9
2014	--	--	6.9	--	6.9	3.4	10.3
2015	--	--	7.4	--	7.4	0.6	8.0
2016	--	--	--	--	--	0.7	0.7
2017	--	--	--	--	--	0.2	0.2
<b>Subtotal</b>	<b>16</b>	<b>89.1</b>	<b>22.5</b>	<b>--</b>	<b>111.6</b>	<b>9.6</b>	<b>121.2</b>

## Low Rate Initial Production

	<b>Initial LRIP Decision</b>	<b>Current Total LRIP</b>
<b>Approval Date</b>	2/22/2007	1/14/2011
<b>Approved Quantity</b>	2	5
<b>Reference</b>	ADM	ADM
<b>Start Year</b>	2012	2012
<b>End Year</b>	2012	2012

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the need to achieve cost efficiencies within the small B-2 fleet and to deliver this capability in a timely manner.

The LRIP quantity was increased from two to five units in the Milestone C Acquisition Strategy Panel Acquisition Decision Memorandum (ADM) dated January 14, 2011.

## **Foreign Military Sales**

None

## **Nuclear Costs**

None

## Unit Cost

### Unit Cost Report

	BY2012 \$M	BY2012 \$M	
Unit Cost	Current UCR Baseline (SEP 2012 APB)	Current Estimate (DEC 2013 SAR)	BY % Change

#### Program Acquisition Unit Cost (PAUC)

Cost	579.2	551.6	
Quantity	20	20	
Unit Cost	28.960	27.580	-4.77

#### Average Procurement Unit Cost (APUC)

Cost	129.0	121.2	
Quantity	16	16	
Unit Cost	8.062	7.575	-6.04

	BY2012 \$M	BY2012 \$M	
Unit Cost	Original UCR Baseline (MAY 2007 APB)	Current Estimate (DEC 2013 SAR)	BY % Change

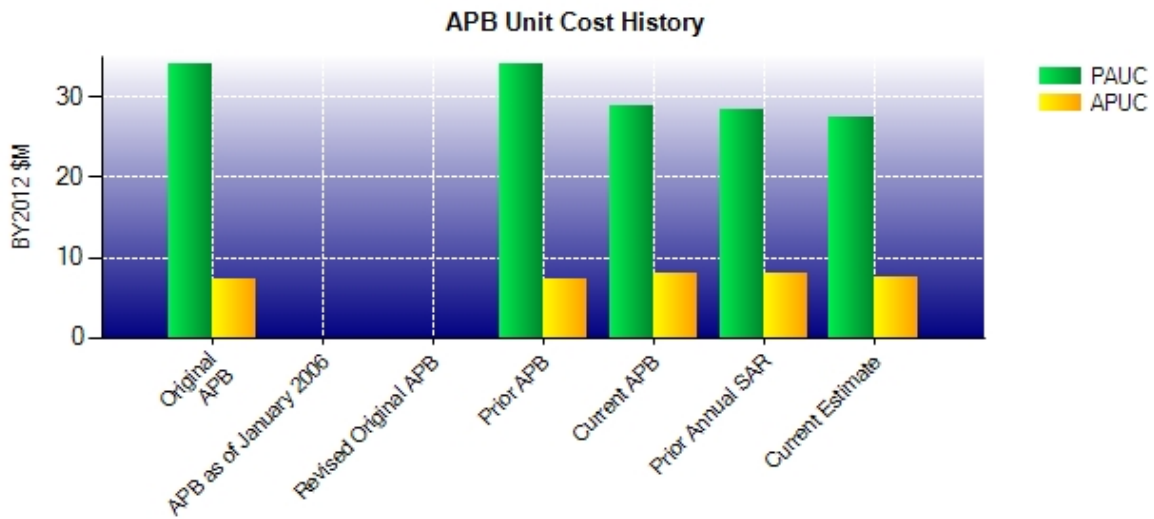
#### Program Acquisition Unit Cost (PAUC)

Cost	718.4	551.6	
Quantity	21	20	
Unit Cost	34.210	27.580	-19.38

#### Average Procurement Unit Cost (APUC)

Cost	125.0	121.2	
Quantity	17	16	
Unit Cost	7.353	7.575	+3.02

### Unit Cost History



	Date	BY2012 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
<b>Original APB</b>	MAY 2007	34.210	7.353	33.624	7.747
<b>APB as of January 2006</b>	N/A	N/A	N/A	N/A	N/A
<b>Revised Original APB</b>	N/A	N/A	N/A	N/A	N/A
<b>Prior APB</b>	MAY 2007	34.210	7.353	33.624	7.747
<b>Current APB</b>	SEP 2012	28.960	8.062	28.335	8.450
<b>Prior Annual SAR</b>	DEC 2012	28.545	7.981	27.985	8.450
<b>Current Estimate</b>	DEC 2013	27.580	7.575	26.950	7.956

### SAR Unit Cost History

#### Initial SAR Baseline to Current SAR Baseline (TY \$M)

Initial PAUC Dev Est	Changes								PAUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
33.624	-0.350	1.381	0.375	0.000	-6.075	0.000	-0.620	-5.289	28.335

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

PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
28.335	0.040	0.000	0.000	0.000	-1.465	0.000	0.040	-1.385	26.950

**Initial SAR Baseline to Current SAR Baseline (TY \$M)**

Initial APUC Dev Est	Changes								APUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
7.747	-0.150	0.109	0.469	0.000	1.050	0.000	-0.775	0.703	8.450

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

APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
8.450	0.031	0.000	0.000	0.000	-0.575	0.000	0.050	-0.494	7.956

**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 B	N/A	FEB 2007	MAY 2007	MAY 2007
Milestone C	N/A	JUL 2011	FEB 2012	FEB 2012
IOC	N/A	MAR 2014	MAR 2015	MAR 2015
Total Cost (TY \$M)	N/A	706.1	566.7	539.0
Total Quantity	N/A	21	20	20
Prog. Acq. Unit Cost (PAUC)	N/A	33.624	28.335	26.950

Required Assets Available is used in place of IOC.



**Cost Variance**

<b>Summary Then Year \$M</b>				
	<b>RDT&amp;E</b>	<b>Proc</b>	<b>MILCON</b>	<b>Total</b>
SAR Baseline (Prod Est)	431.5	135.2	--	566.7
Previous Changes				
Economic	+0.1	+1.6	--	+1.7
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-7.1	-1.5	--	-8.6
Other	--	--	--	--
Support	--	-0.1	--	-0.1
Subtotal	-7.0	--	--	-7.0
Current Changes				
Economic	+0.2	-1.1	--	-0.9
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-13.0	-7.7	--	-20.7
Other	--	--	--	--
Support	--	+0.9	--	+0.9
Subtotal	-12.8	-7.9	--	-20.7
Adjustments	--	--	--	--
Total Changes	-19.8	-7.9	--	-27.7
CE - Cost Variance	411.7	127.3	--	539.0
CE - Cost & Funding	411.7	127.3	--	539.0

<b>Summary Base Year 2012 \$M</b>				
	<b>RDT&amp;E</b>	<b>Proc</b>	<b>MILCON</b>	<b>Total</b>
SAR Baseline (Prod Est)	450.2	129.0	--	579.2
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-7.0	-1.0	--	-8.0
Other	--	--	--	--
Support	--	-0.3	--	-0.3
Subtotal	-7.0	-1.3	--	-8.3
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-12.8	-7.6	--	-20.4
Other	--	--	--	--
Support	--	+1.1	--	+1.1
Subtotal	-12.8	-6.5	--	-19.3
Adjustments	--	--	--	--
Total Changes	-19.8	-7.8	--	-27.6
CE - Cost Variance	430.4	121.2	--	551.6
CE - Cost & Funding	430.4	121.2	--	551.6

Previous Estimate: December 2012

<b>RDT&amp;E</b>	<b>\$M</b>	
<b>Current Change Explanations</b>	<b>Base Year</b>	<b>Then Year</b>
Revised escalation indices. (Economic)	N/A	+0.2
Adjustment for current and prior escalation. (Estimating)	-0.2	-0.2
Decrease due to unrealized risk and fact of life changes and realignment of funds to other B-2 programs in FY 2011 and FY 2013. (Estimating)	-6.1	-6.3
Decrease due to FY 2012 funding sourced for recission. (Estimating)	-6.5	-6.5
<b>RDT&amp;E Subtotal</b>	<b>-12.8</b>	<b>-12.8</b>

<b>Procurement</b>	<b>\$M</b>	
<b>Current Change Explanations</b>	<b>Base Year</b>	<b>Then Year</b>
Revised escalation indices. (Economic)	N/A	-1.1
Adjustment for current and prior escalation. (Estimating)	+0.8	+1.0
Decrease due to fact of life changes and reallocation of management reserve to other B-2 efforts. (Estimating)	-1.0	-0.9
Revised estimate due to Sequestration reductions in FY 2013. (Estimating)	-7.4	-7.8
Adjustment for current and prior escalation. (Support)	+0.2	0.0
Other Support increase due to Depot Activation funding previously reported as non-recurring flyaway. (Support)	+0.1	+0.1
Increase in Initial Spares due to approved program funding not required for contracted deliveries. (Support)	+0.8	+0.8
<b>Procurement Subtotal</b>	<b>-6.5</b>	<b>-7.9</b>

## Contracts

### Appropriation: Procurement

Contract Name	<b>EHF Inc 1 SatCom Production</b>
Contractor	Northrop Grumman Corp.
Contractor Location	Palmdale, CA 93550
Contract Number, Type	F33657-99-D-0028/62, FFP
Award Date	September 27, 2012
Definitization Date	September 27, 2012

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
108.1	N/A	16	108.1	N/A	16	108.1	108.1

### Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this FFP contract.

### Contract Comments

Contract awarded September 27, 2012, for LRIP, with three options, one for Full Rate Production, and two for installs.

## Deliveries and Expenditures

Delivered to Date	Plan to Date	Actual to Date	Total Quantity	Percent Delivered
Development	4	4	4	100.00%
Production	0	0	16	0.00%
Total Program Quantity Delivered	4	4	20	20.00%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	539.0	Years Appropriated	10
Expended to Date	446.2	Percent Years Appropriated	76.92%
Percent Expended	82.78%	Appropriated to Date	529.2
Total Funding Years	13	Percent Appropriated	98.18%

The above data is current as of 2/14/2014.

## Operating and Support Cost

### B-2 EHF Inc 1

#### Assumptions and Ground Rules

##### Cost Estimate Reference:

The cost estimate is based on the FY 2012 Program Office Estimate and Air Force Cost Analysis Agency Independent Cost Estimate which was reviewed by the Air Force Cost Analysis Improvement Group on July 24, 2012 and resulted in the Service Cost Position.

##### Sustainment Strategy:

The maintenance concept for the B-2 EHF Inc 1 is two level (organizational and depot). Organizational maintenance will consist of Air Force maintenance personnel removing and replacing failed items, performing preventative maintenance, and conducting fault isolation actions. All repairs of the Line Replaceable Units (LRUs) removed from the B-2 aircraft will be accomplished at the depot level. The source of repair for depot maintenance for Increment 1 was initially projected to be Warner Robins Air Logistics Complex (WR-ALC) for the two LRUs, the Integrated Processing Unit and the Disk Drive Unit. An Office Under Secretary Defense/Acquisition, Technology & Logistics action item out of July 2011 Defense Acquisition Executive Summary briefing directed reassessment of the organic depot strategy based on LRU reliability projections. In response, a Workload Shift package (from organic repair at WR-ALC to Contractor Depot Repair) was submitted and approved. The System Development and Demonstration (SDD) contract requires delivery of repair data and associated training. The planning for establishing this repair capability will be accomplished during the SDD contract. There are no increased O&S costs associated with B-2 EHF Inc 1, because improved reliability and maintainability provided by this modification are projected to reduce O&S costs incurred for B-2 legacy computers. The B-2 EHF Inc 1 modification is replacing two legacy LRUs with two high reliability LRUs, per Mean Time Between Failure estimates, in each of the 20 aircraft. The unitized cost is the average annual cost to maintain the modification on the entire fleet based on the 35 years of operations covered by the estimate.

##### Antecedent Information:

There is no antecedent system for this modification capability.

Unitized O&S Costs BY2012 \$K			
Cost Element	B-2 EHF Inc 1 1 Aircraft	None (Antecedent) N/A	
Unit-Level Manpower	22.851		0.000
Unit Operations	0.235		0.000
Maintenance	46.634		0.000
Sustaining Support	55.031		0.000
Continuing System Improvements	17.873		0.000
Indirect Support	7.983		0.000
Other	0.000		0.000
Total	150.607		--

##### Unitized Cost Comments:

The annual O&S cost for one aircraft in service for 35 years.  $\$105.4\text{M}/20/35=\$0.15\text{M}$

	Total O&S Cost \$M			
	Current Production APB Objective/Threshold		Current Estimate	
	B-2 EHF Inc 1		B-2 EHF Inc 1	None (Antecedent)
<b>Base Year</b>	105.4	115.9	105.4	N/A
<b>Then Year</b>	151.0	N/A	151.0	N/A

Total O&S Costs Comments:

The estimate covers 35 years of operations (FY 2013 - 2048) for 20 Primary Aircraft Authorized flying over 7,100 flight hours per year at steady state.

**Disposal Costs:**

Disposal costs for this modification are included in the B-2 platform.