



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-237



Global Broadcast Service (GBS)

As of FY 2011 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
\$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
\$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
\$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost

PB - President's Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name

Global Broadcast Service (GBS)

DoD Component

AirForce

Joint Participants

Army; Navy; Marine Corp

Responsible Office

Brig Gen Samuel Greaves
MCSW/CC
483 N. Aviation Blvd.
Los Angeles AFB, CA 90245-2808

samuel.greaves@losangeles.af.mil

Phone: 310-653-9006

Fax: 310-653-9636

DSN Phone: 633-9006

DSN Fax: 633-9636

Date Assigned: June 19, 2008

References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated November 14, 1997

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated September 15, 2006

Mission and Description

The Global Broadcast Service (GBS) is an extension of the Global Information Grid that provides worldwide, high capacity, one-way transmission of video (especially from Unmanned Aerial Vehicles [UAV]), imagery and geospatial intelligence products, and other high-bandwidth information supporting the nation's command centers and joint combat forces in garrison, in transit, and deployed within global combat zones. It employs readily available satellite-based commercial technologies that are relatively inexpensive and easily integrated into existing systems and processes, yet are not so unwieldy as to be unusable by smaller and more mobile units. To this end, GBS currently uses broadcast payloads on two Ultra-High Frequency Follow-On (UFO) satellites and three leased commercial satellite transponders. GBS is now broadcasting over the first and second Wideband Global SATCOM satellites. Theater Injection Point (TIP) terminals provide a deployable Ka-band uplink capability that can operate directly from a Combatant Commander's (COCOM's) Area of Responsibility (AOR). Information sources deliver products for daily broadcast to two Satellite Broadcast Managers (SBMs) based on defined mission profiles approved by COCOM Theater Information Managers (TIMs). At the SBM, the Planning and Management application schedules broadcasts to users as well as keeps users, products, and mission profiles current.

Executive Summary

Executive Summary

On October 22, 2008, Air Force Space Command (AFSPC) declared GBS had attained Initial Operational Capability (IOC) 2 & 3.

The Communications-Electronics Command (CECOM) Acquisition Center (Army) awarded a contract to Raytheon in May 2008 for the FY08 procurement of 205 GBS Receive Suites (RS) and associated spares. Final deliveries on this contract were made in May 2009. The FY09-13 Production acquisition strategy was modified due to a 14-month gap from Army FY08 RS fielding and the Joint Internet Protocol Modem (JIPM) delivery schedule. The GBS Joint Program Office (JPO) will procure current baseline RS in FY09 and FY10 and then compete the FY10-15 contract for new JIPM baseline RS. A sole-source production contract to Raytheon was awarded on September 30, 2009, for the FY09 and FY10 RS; there is a \$30M contract ceiling. Twenty-eight RS have been delivered as of December 16, 2009.

The FY10-15 RS Production effort is dependent on the JIPM program which is managed by the Army. The JIPM program has experienced several program slips throughout the year. To mitigate risk, the GBS JPO has purchased 20 preproduction JIPM modems through a Space and Naval Warfare Systems Command (SPAWAR) contract with ViaSat so that JIPM modems can be provided to potential offerors. The GBS JPO will continue to coordinate closely with the JIPM program office. The FY10-15 Production solicitation activities completed the first round of Electronic Systems Center (ESC) Functional Reviews and a System Requirements Document (SRD) Industry Day in July 2009. The Request for Proposal (RFP) is scheduled to be released second quarter FY10. Contract award is anticipated for first quarter FY11.

Warfighter Rapid Acquisition Process (WRAP) funded development of the Rucksack Portable Receive Suite (RPRS) has continued at Windmill International, Inc.. Preliminary Design Review (PDR) was held January 21, 2009, and Critical Design Review (CDR) February 19, 2009. The Test Readiness Review (TRR) started on November 4, 2009, however, the RPRS prototypes were found to be 2.18 lbs over the weight limit requirement. The Government has directed Windmill to provide a weight reduction plan for the RPRS. Testing will commence once redesign has been completed.

Efforts also continued on development of a Digital Video Broadcast S2 Mini Receiver by Scientific Research Corporation. The GBS JPO plans to incorporate this item into the GBS Portable Receive Suite variants to meet the Transmission Security (TRANSEC) requirement. PDR for this effort was held on January 14, 2009; CDR was held on February 25, 2009.

In late July 2009, CENTCOM requested GBS provide an additional 10 Full Motion Video (FMV) feeds into their Area of Responsibility (AOR). A solution was approved for fielding on October 22, 2009. Successful fielding of this capability satisfied an immediate operational need for more video. Additional video capability is being planned for fielding in May 2010.

Each service works within their service Certification & Accreditation (C&A) process to accredit their Receive Broadcast Manager (RBM) and Transportable Satellite Broadcast Manager (TSBM) assets. The GBS JPO submitted an accreditation package to AFSPC Communications (A6) for the Air Force RBM; AFSPC/A6 issued a one-year Authority to Operate (ATO) February 20, 2009. An updated accreditation package is currently in coordination. The Air Force TSBM accreditation package is expected to be completed by March 2010. The Army previously received a three-year ATO for the Army TSBM effective December 31, 2008, and received a three-year ATO for the Army RBM in May 2009.

The GBS JPO continued efforts to address Information Assurance (IA) control issues in order to achieve an Authority to Operate (ATO) for the Satellite Broadcast Managers (SBM). The GBS JPO executed to an ATO way-ahead plan developed in November 2008. The 92nd Information Operations Squadron (IOS) completed a Blue Team Assessment in July 2009 with the final report received October 2, 2009. Concurrently, Army Forces Strategic Command (ARSTRAT) had been working to transfer the Designated Accrediting Authority (DAA) from ARSTRAT to AFSPC/A6. The DAA designation letter appointing AFSPC/A6 as the GBS SBM DAA was signed November 30, 2009; a one-year Authority to Operate (ATO) for the GBS SBM's was signed on December 2, 2009.

In the FY11 President's Budget (PB), which was submitted to Congress on February 1, 2010, the Army, Navy and Air Force

increased RS quantities and funding to procure 1,005 more Receive Suites (RS), bringing the total procurement quantity to 2090.

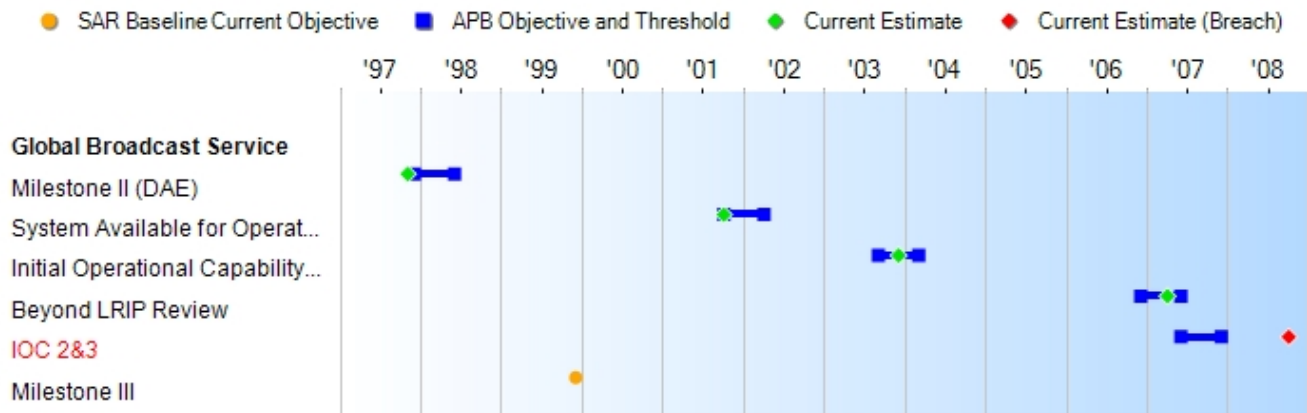
There are no significant software-related issues with the program at this time.

Threshold Breaches

APB Breaches		Explanation of Breach
Schedule	<input checked="" type="checkbox"/>	This breach in procurement cost was caused by significant increases in Army, Navy, and Air Force funding to procure additional Receive Suites (RS). The current APB for procurement is based on a procurement quantity of 1,085 and a threshold of \$397.4M (BY97). The Current Estimate (CE) in procurement is now a quantity of 2,090 and \$495.6M (BY97).
Performance	<input type="checkbox"/>	
Cost	<input type="checkbox"/>	
RDT&E	<input type="checkbox"/>	
Procurement	<input checked="" type="checkbox"/>	
MILCON	<input type="checkbox"/>	The Air Force is currently staffing an APB breach notification.
Acq O&M	<input type="checkbox"/>	
O&S Cost	<input type="checkbox"/>	
Unit Cost	<input type="checkbox"/>	
PAUC	<input type="checkbox"/>	
APUC	<input type="checkbox"/>	

Nunn-McCurdy Breaches	
Current UCR Baseline	
PAUC	None
APUC	None
Original UCR Baseline	
PAUC	None
APUC	None

Schedule



Schedule Events				
Events	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate
Milestone II (DAE)	Dec 1997	Dec 1997	Jun 1998	Nov 1997
System Available for Operational Use	Jun 1999	Oct 2001	Apr 2002	Oct 2001
Initial Operational Capability (IOC)	Dec 1999	Sep 2003	Mar 2004	Dec 2003
Beyond LRIP Review	N/A	Dec 2006	Jun 2007	Apr 2007
IOC 2&3	N/A	Jun 2007	Dec 2007	Oct 2008¹ (Ch-1)
Milestone III	Dec 1999	N/A	N/A	N/A

¹ APB Breach

Change Explanations

(Ch-1) Initial Operational Capability (IOC) 2 & 3 changed from Jun 2008 to Oct 2008 because of delays in the release of the Multi-Service Operational Test and Evaluation (MOT&E) Test Report. BGen Stanley Kresge, AFSPC/A3, declared that GBS attained IOC 2 & 3 capability on October 22, 2008.

Notes

An incremental IOC approach was approved by the Joint Requirements Oversight Council memo 111-00 (JROCM 111-00) dated June 27, 2000. GBS Phase II requirements are grouped into IOC 1, 2 and 3. The following summarizes the threshold requirements associated with each IOC:

IOC 1:

- Primary Injection Point (PIPs) operational on Ultra High Frequency (UHF) Follow-On (UFO) 8, 9, 10.
- Full Satellite Broadcast Manager capability.
- Field 20% of Joint Program Office (JPO) Receive Suites (19 units).
- Personnel training in operations and maintenance of fielded equipment.
- Logistically support the system to effectively sustain GBS.
- Independently assess system capabilities.
- Augment UFO GBS with leased commercial satellite services to cover gaps over continental United States

(CONUS).

(Note: IOC 1 is based on the performance of the currently fielded Asynchronous Transfer Mode (ATM) based system.)

IOC 2:

- Field 90% of JPO receive Suites (86 units).
- Provide classified video capability.
- Remote Receive Suite enable/disable.

IOC 3:

- Tactically suitable Ground Receive Suite (two-person lift).
- Protect all information from exploitation.

Acronyms and Abbreviations

DAE - Defense Acquisition Executive

LRIP - Low Rate Initial Production

Performance

Performance Characteristics				
SAR Baseline Development Estimate	Current APB Development Objective/Threshold	Demonstrated Performance	Current Estimate	
System Coverage				
65 deg South to 65 deg North	65 deg South to 65 deg North	65 deg South to 65 deg North	65 deg South to 65 deg North	65 deg South to 65 deg North
Space Segment Resources				
N/A	WGS with UFO GBS	WGS with UFO GBS	WGS with UFO GBS	WGS with UFO GBS
Spot Beams				
Two 500nm steerable, one 2000 nm steerable	Two 500nm steerable, one 2000 nm steerable	Two 500nm steerable, One 2000 nm steerable	Two 500nm steerable, One 2000 nm steerable	Two 500nm steerable, One 2000 nm steerable
Simultaneous Uplinks				
One PIP and up to 3 TIPs simultan-eously	One PIP and up to 3 TIPs simultan-eously	One PIP and one TIP	One PIP and one TIP	One PIP and one TIP
Security				
Pass unclassified to TS/SCI traffic	Pass unclassified to TS/SCI traffic	Pass unclassified to TS/SCI traffic	Pass unclassified to TS/SCI traffic	Pass unclassified to TS/SCI traffic
Receive Frequency Band				
20.2-21. 2 GHz UFO GBS, one or more commercial satellite frequency bands	N/A	N/A	20.2-21. 2 GHz UFO GBS and 11.7 to 12.2 GHz Ku Commercial	20.2-21. 2 GHz UFO GBS and 11.7 to 12.2 GHz Ku Commercial
Support operations with multiple satellite beams and terminal types (i.e., Receive Variable Data Rates)				
2000nm: add SSRS and ART 500nm: add ART	2000nm: add SSRS and ART 500nm: Add ART	2000nm: FGRS, TGRS and SRS 500nm: FGRS, TGRS, SRS and SSRS	2000nm: FGRT, TGRT and SRT 500nm: FGRT, TGRT, SRT and SSRT	2000nm: FGRT, TGRT and SRT 500nm: FGRT, TGRT, SRT and SSRT
Pointing of Steerable Spot Beam Antenna				
Frequent	Frequent	Frequent	Frequent	Frequent
Steerable Antenna Tasking				
SBM Primary means	SBM Primary Means	SBM Primary Means	SBM Primary Means	SBM Primary Means
Interoperability				
N/A	100% IERs	100% critical IERs	100% IERs satisfied	100% IERs satisfied

	satisfied	satisfied		
Network Ready				
N/A	TBD	TBD	All but JIPM accomplished	JIPM-enabled TGRS to be fielded beginning FY12 (Ch-1)

Requirements Reference

Operational Requirements Document (ORD) dated January 12, 2005

Change Explanations

(Ch-1) Updated Demonstrated Performance and Current Estimate information

Acronyms and Abbreviations

- ART - Airborne Receive Terminal
- FGRS/FGRT - Fixed Ground Receive Suite/Terminal
- GBS - Global Broadcast Service
- GHz - Gigahertz
- IER - Information Exchange Requirements
- JIPM - Joint Integrated Protocol Modem
- Ku - Commercial Band Frequency
- nm - Nautical Miles
- PIP - Primary Injection Point
- SBM - Satellite Broadcast Manager
- SRS/SRT - Shipboard Receive Suite/Terminal
- SSRS/SSRT - SubSurface (submarine) Receive Suite/Terminal
- TGRS/TGRT - Transportable Ground Receive Suite/Terminal
- TIP - Theater Injection Point
- TS/SCI - Top Secret/Sensitive Compartmented Information
- UFO - UHF Follow-on Satellite
- WGS - Wideband Global Satellite

Track to Budget

General Notes

The Defense Emergency Response Funds (DERF) are located in appropriation 97X0833.0200; Reference Air Force Manual 65-604, October 1, 2006, Page 13. Department of Defense appropriation for DERF is 97X0833. The 0200 is the designator for the Air Force. GBS received \$7M; no Program Element is assigned. These funds were part of a supplemental funding measure. DERF funds are not reported in this Selected Acquisition Report.

RDT&E

Appn	BA	PE	
Air Force	3600	05	0603840F
	Project	Name	
	4887	Global Broadcast Service/Global Broadcast Service (Shared)	
Air Force	3600	05	0603854F
	Project	Name	
	2679	Global Broadcast Service/Global Broadcast Service	
Air Force	3600	07	0303601F
	Project	Name	
	2487	MILSATCOM Terminals/Global Broadcast Service (Shared)	

Procurement

Appn	BA	PE	
Navy	1810	02	0303109N
	Line Item	Name	
	33109N	GBS (Shared)	
Navy	1109	03	0206313M
	Line Item	Name	
	463300	GBS (Shared)	
Air Force	3080	03	0303601F
	Line Item	Name	
	83678V	GBS (Shared)	
Army	2035	02	0310703A
	Line Item	Name	
	BC4120	GBS (Shared)	

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 1997 \$M			BY 1997 \$M	TY \$M		
	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Development Estimate	Current APB Development Objective	Current Estimate
RDT&E	397.5	423.5	465.9	394.9	439.2	450.5	417.1
Procurement	53.9	361.3	397.4	495.6 ¹	57.9	412.3	599.8
Flyaway	--	--	--	475.5	--	--	576.4
Recurring	--	--	--	394.1	--	--	481.5
Non Recurring	--	--	--	81.4	--	--	94.9
Support	--	--	--	20.1	--	--	23.4
Other Support	--	--	--	5.3	--	--	5.7
Initial Spares	--	--	--	14.8	--	--	17.7
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	451.4	784.8	N/A	890.5	497.1	862.8	1016.9

¹ APB Breach

Total Quantity			
Quantity	SAR Baseline Development Estimate	Current APB Development	Current Estimate
RDT&E	221	136	136
Procurement	125	1085	2090
Total	346	1221	2226

Quantity Notes

The RDT&E quantity of 136 is comprised of 10 First Generation Increment One (I1E) Air Force Receive Suites (RS), 27 I1E Shipboard RS, 96 Joint Program Office funded Air Force RS, and 3 Primary Injection Points (PIPs).

The Procurement quantity includes 3 Army Theater Injection Points (TIPs) and 2 Air Force TIPs; all others are RS.

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2011 President's Budget / December 2009 SAR (TY\$ M)									
Appropriation	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
RDT&E	413.6	3.5	0.0	0.0	0.0	0.0	0.0	0.0	417.1
Procurement	357.9	27.2	39.1	120.7	42.4	6.2	6.3	0.0	599.8
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 2011 Total	771.5	30.7	39.1	120.7	42.4	6.2	6.3	0.0	1016.9
PB 2009 Total	780.4	11.1	4.9	5.1	4.0	0.0	0.0	0.0	805.5
Delta	-8.9	19.6	34.2	115.6	38.4	6.2	6.3	0.0	211.4

Quantity Summary										
FY 2011 President's Budget / December 2009 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
Development	136	0	0	0	0	0	0	0	0	136
Production	0	1063	39	180	452	344	6	6	0	2090
PB 2011 Total	136	1063	39	180	452	344	6	6	0	2226
PB 2009 Total	136	945	25	7	8	0	0	0	0	1121
Delta	0	118	14	173	444	344	6	6	0	1105

Cost and Funding

Annual Funding By Appropriation

Annual Funding							
3600 RDT&E Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1996	--	--	--	--	--	--	14.0
1997	--	--	--	--	--	--	37.9
1998	--	--	--	--	--	--	70.2
1999	--	--	--	--	--	--	64.3
2000	--	--	--	--	--	--	41.1
2001	--	--	--	--	--	--	31.6
2002	--	--	--	--	--	--	33.6
2003	--	--	--	--	--	--	20.9
2004	--	--	--	--	--	--	35.9
2005	--	--	--	--	--	--	21.8
2006	--	--	--	--	--	--	18.6
2007	--	--	--	--	--	--	23.2
2008	--	--	--	--	--	--	0.5
2009	--	--	--	--	--	--	--
2010	--	--	--	--	--	--	3.5
Subtotal	136	--	--	--	--	--	417.1

Annual Funding 3600 RDT&E Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	BY 1997 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1996	--	--	--	--	--	--	14.1
1997	--	--	--	--	--	--	37.7
1998	--	--	--	--	--	--	69.4
1999	--	--	--	--	--	--	62.9
2000	--	--	--	--	--	--	39.6
2001	--	--	--	--	--	--	30.0
2002	--	--	--	--	--	--	31.6
2003	--	--	--	--	--	--	19.4
2004	--	--	--	--	--	--	32.5
2005	--	--	--	--	--	--	19.2
2006	--	--	--	--	--	--	15.9
2007	--	--	--	--	--	--	19.4
2008	--	--	--	--	--	--	0.4
2009	--	--	--	--	--	--	--
2010	--	--	--	--	--	--	2.8
Subtotal	136	--	--	--	--	--	394.9

In accordance with Space and Missile Systems Center Commander (SMC/CC) Memorandum dated March 27, 2008, the Defense Enterprise Computing Center (DECC) transition has been designated an ACAT III program and approval authority resides at the Program Executive for Space; therefore, the DECC program status will no longer be reported as part of the ACAT ID program. The funding associated with the ACAT III program was realigned in FY08 into a separate account in PE 63840F.

The RDT&E funds starting in FY10 are associated with terminal (receive suite) functionality. These funds are considered part of the ACAT I program and are within program element 33601F. The FY10 funds are associated with portable receive suite development.

Annual Funding 1109 Procurement Procurement, Marine Corps							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	--	2.4	2.4	--	2.4
2005	48	5.7	--	--	5.7	--	5.7
2006	20	3.1	--	3.4	6.5	--	6.5
2007	--	--	--	0.1	0.1	--	0.1
2008	--	--	--	2.4	2.4	--	2.4
2009	--	--	--	0.7	0.7	--	0.7
Subtotal	68	8.8	--	9.0	17.8	--	17.8

Annual Funding 1109 Procurement Procurement, Marine Corps							
Fiscal Year	Quantity	BY 1997 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	--	2.1	2.1	--	2.1
2005	48	4.9	--	--	4.9	--	4.9
2006	20	2.6	--	2.8	5.4	--	5.4
2007	--	--	--	0.1	0.1	--	0.1
2008	--	--	--	1.9	1.9	--	1.9
2009	--	--	--	0.6	0.6	--	0.6
Subtotal	68	7.5	--	7.5	15.0	--	15.0

Annual Funding 1810 Procurement Other Procurement, Navy								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1997	11	0.6	--	--	0.6	--	0.6	
1998	--	--	--	--	--	--	--	
1999	20	4.2	--	--	4.2	--	4.2	
2000	8	0.8	--	--	0.8	--	0.8	
2001	13	1.1	--	--	1.1	--	1.1	
2002	16	2.1	--	--	2.1	--	2.1	
2003	--	--	--	5.5	5.5	--	5.5	
2004	--	--	--	19.3	19.3	--	19.3	
2005	--	--	--	7.9	7.9	--	7.9	
2006	--	--	--	2.7	2.7	--	2.7	
2007	2	0.9	--	--	0.9	--	0.9	
2008	1	1.8	--	--	1.8	--	1.8	
2009	15	26.1	--	--	26.1	--	26.1	
2010	19	8.0	--	4.0	12.0	--	12.0	
2011	6	2.2	--	3.3	5.5	--	5.5	
2012	6	2.2	--	--	2.2	--	2.2	
2013	6	2.2	--	--	2.2	--	2.2	
2014	6	2.2	--	--	2.2	--	2.2	
2015	6	2.2	--	--	2.2	--	2.2	
Subtotal	135	56.6	--	42.7	99.3	--	99.3	

Annual Funding 1810 Procurement Other Procurement, Navy								
Fiscal Year	Quantity	BY 1997 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1997	11	0.6	--	--	0.6	--	0.6	
1998	--	--	--	--	--	--	--	
1999	20	4.1	--	--	4.1	--	4.1	
2000	8	0.8	--	--	0.8	--	0.8	
2001	13	1.0	--	--	1.0	--	1.0	
2002	16	2.0	--	--	2.0	--	2.0	
2003	--	--	--	5.0	5.0	--	5.0	
2004	--	--	--	17.2	17.2	--	17.2	
2005	--	--	--	6.9	6.9	--	6.9	
2006	--	--	--	2.3	2.3	--	2.3	
2007	2	0.7	--	--	0.7	--	0.7	
2008	1	1.5	--	--	1.5	--	1.5	
2009	15	20.9	--	--	20.9	--	20.9	
2010	19	6.3	--	3.2	9.5	--	9.5	
2011	6	1.7	--	2.6	4.3	--	4.3	
2012	6	1.7	--	--	1.7	--	1.7	
2013	6	1.7	--	--	1.7	--	1.7	
2014	6	1.6	--	--	1.6	--	1.6	
2015	6	1.6	--	--	1.6	--	1.6	
Subtotal	135	46.2	--	37.2	83.4	--	83.4	

Annual Funding								
2035 Procurement Other Procurement, Army								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1998	1	3.0	--	2.2	5.2	2.1	7.3	
1999	8	4.3	--	--	4.3	1.5	5.8	
2000	17	9.4	--	4.0	13.4	1.5	14.9	
2001	--	--	--	--	--	0.2	0.2	
2002	27	7.6	--	--	7.6	0.8	8.4	
2003	13	4.9	--	--	4.9	1.0	5.9	
2004	24	13.6	--	0.3	13.9	0.1	14.0	
2005	1	12.2	--	--	12.2	1.2	13.4	
2006	59	12.1	--	--	12.1	1.0	13.1	
2007	62	16.7	--	--	16.7	1.2	17.9	
2008	332	46.6	--	--	46.6	3.5	50.1	
2009	153	34.4	--	--	34.4	3.3	37.7	
2010	20	6.5	--	--	6.5	0.3	6.8	
2011	7	4.5	--	--	4.5	0.1	4.6	
2012	360	101.1	--	--	101.1	1.0	102.1	
2013	337	39.3	--	--	39.3	0.5	39.8	
2014	--	--	--	4.0	4.0	--	4.0	
2015	--	--	--	4.1	4.1	--	4.1	
Subtotal	1421	316.2	--	14.6	330.8	19.3	350.1	

Annual Funding 2035 Procurement Other Procurement, Army							
Fiscal Year	Quantity	BY 1997 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1998	1	2.9	--	2.1	5.0	2.1	7.1
1999	8	4.1	--	--	4.1	1.5	5.6
2000	17	9.0	--	3.7	12.7	1.5	14.2
2001	--	--	--	--	--	0.2	0.2
2002	27	7.1	--	--	7.1	0.7	7.8
2003	13	4.5	--	--	4.5	0.9	5.4
2004	24	12.1	--	0.3	12.4	0.1	12.5
2005	1	10.6	--	--	10.6	1.0	11.6
2006	59	10.2	--	--	10.2	0.9	11.1
2007	62	13.8	--	--	13.8	1.0	14.8
2008	332	37.8	--	--	37.8	2.9	40.7
2009	153	27.6	--	--	27.6	2.6	30.2
2010	20	5.1	--	--	5.1	0.3	5.4
2011	7	3.5	--	--	3.5	0.1	3.6
2012	360	77.5	--	--	77.5	0.7	78.2
2013	337	29.6	--	--	29.6	0.4	30.0
2014	--	--	--	3.0	3.0	--	3.0
2015	--	--	--	3.0	3.0	--	3.0
Subtotal	1421	255.4	--	12.1	267.5	16.9	284.4

Annual Funding 3080 Procurement Other Procurement, Air Force								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2000	5	2.9	--	--	2.9	--	2.9	
2001	16	4.5	--	--	4.5	--	4.5	
2002	28	6.7	--	--	6.7	--	6.7	
2003	6	1.0	--	13.8	14.8	--	14.8	
2004	88	19.1	--	--	19.1	0.1	19.2	
2005	2	12.0	--	--	12.0	0.1	12.1	
2006	65	14.3	--	--	14.3	0.1	14.4	
2007	--	--	--	0.5	0.5	--	0.5	
2008	--	--	--	1.2	1.2	--	1.2	
2009	2	2.1	--	--	2.1	--	2.1	
2010	--	--	--	7.7	7.7	0.7	8.4	
2011	167	20.8	--	5.1	25.9	3.1	29.0	
2012	86	16.4	--	--	16.4	--	16.4	
2013	1	0.1	--	0.3	0.4	--	0.4	
Subtotal	466	99.9	--	28.6	128.5	4.1	132.6	

Annual Funding 3080 Procurement Other Procurement, Air Force								
Fiscal Year	Quantity	BY 1997 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2000	5	2.7	--	--	2.7	--	2.7	
2001	16	4.2	--	--	4.2	--	4.2	
2002	28	6.1	--	--	6.1	--	6.1	
2003	6	0.9	--	12.8	13.7	--	13.7	
2004	88	17.3	--	--	17.3	0.1	17.4	
2005	2	10.6	--	--	10.6	0.1	10.7	
2006	65	12.3	--	--	12.3	--	12.3	
2007	--	--	--	0.4	0.4	--	0.4	
2008	--	--	--	1.0	1.0	--	1.0	
2009	2	1.7	--	--	1.7	--	1.7	
2010	--	--	--	6.1	6.1	0.6	6.7	
2011	167	16.4	--	4.1	20.5	2.4	22.9	
2012	86	12.7	--	--	12.7	--	12.7	
2013	1	0.1	--	0.2	0.3	--	0.3	
Subtotal	466	85.0	--	24.6	109.6	3.2	112.8	

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	11/14/1997	6/21/2006
Approved Quantity	500	628
Reference	ADM	MFR
Start Year	1997	1997
End Year	1999	2007

Acquisition Decision Memorandum (ADM), November 1997, approved the GBS Phase II entry into Engineering and Manufacturing Development and a Low Rate Initial Production (LRIP) of up to 500 Receive Suites (RS) and 140 shipboard antennas.

Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) Memorandum For Record (June 2006) authorized an LRIP increase of 128 RS to an approved quantity of 628.

On April 13, 2007, USD(AT&L) signed an ADM that authorized the Joint Program Office (JPO) to procure Beyond Low-Rate Initial Production (BLRIP) quantity of RS.

Foreign Military Sales

None

Nuclear Costs

None

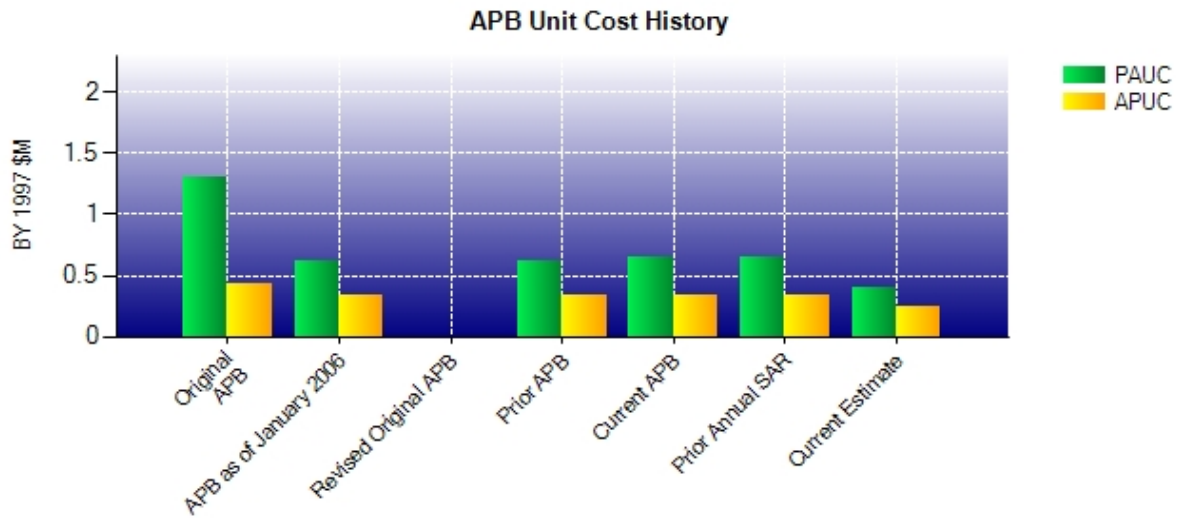
Unit Cost

Unit Cost Report

Item	BY 1997 \$M	BY 1997 \$M	% Change
	Current UCR Baseline (Sep 2006 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost			
Cost	784.8	890.5	
Quantity	1221	2226	
Unit Cost	0.643	0.400	-37.79
Average Procurement Unit Cost			
Cost	361.3	495.6	
Quantity	1085	2090	
Unit Cost	0.333	0.237	-28.83

Item	BY 1997 \$M	BY 1997 \$M	% Change
	Original UCR Baseline (Nov 1997 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost			
Cost	451.4	890.5	
Quantity	346	2226	
Unit Cost	1.305	0.400	-69.35
Average Procurement Unit Cost			
Cost	53.9	495.6	
Quantity	125	2090	
Unit Cost	0.431	0.237	-45.01

Unit Cost History



Item	Date	BY 1997 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Nov 1997	1.305	0.431	1.437	0.463
APB as of January 2006	Feb 2003	0.614	0.333	0.673	0.380
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Feb 2003	0.614	0.333	0.673	0.380
Current APB	Sep 2006	0.643	0.333	0.707	0.380
Prior Annual SAR	Dec 2007	0.649	0.340	0.719	0.398
Current Estimate	Dec 2009	0.400	0.237	0.457	0.287

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
1.437	-0.005	-1.027	0.035	0.065	-0.056	0.000	0.008	-0.980	0.457

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.463	0.002	-0.236	0.037	0.038	-0.026	0.000	0.009	-0.176	0.287

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone I	N/A	N/A	N/A	N/A
Milestone II	N/A	Dec 1997	N/A	Nov 1997
Milestone III	N/A	Dec 1999	N/A	N/A
IOC	N/A	Dec 1999	N/A	Dec 2003
Total Cost (TY \$M)	N/A	497.1	N/A	1016.9
Total Quantity	N/A	346	N/A	2226
PAUC	N/A	1.437	N/A	0.457

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	439.2	57.9	--	497.1
Previous Changes				
Economic	-14.7	+4.5	--	-10.2
Quantity	-2.7	+268.7	--	+266.0
Schedule	--	+43.3	--	+43.3
Engineering	+62.1	+39.8	--	+101.9
Estimating	-70.3	-31.6	--	-101.9
Other	--	--	--	--
Support	--	+9.3	--	+9.3
Subtotal	-25.6	+334.0	--	+308.4
Current Changes				
Economic	+0.1	-1.1	--	-1.0
Quantity	--	+150.1	--	+150.1
Schedule	--	+33.9	--	+33.9
Engineering	+3.5	+39.6	--	+43.1
Estimating	-0.1	-23.1	--	-23.2
Other	--	--	--	--
Support	--	+8.5	--	+8.5
Subtotal	+3.5	+207.9	--	+211.4
Total Changes	-22.1	+541.9	--	+519.8
Current Estimate	417.1	599.8	--	1016.9

Summary BY 1997 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	397.5	53.9	--	451.4
Previous Changes				
Economic	--	--	--	--
Quantity	-2.6	+233.8	--	+231.2
Schedule	--	+35.8	--	+35.8
Engineering	+54.2	+31.6	--	+85.8
Estimating	-57.0	-27.7	--	-84.7
Other	--	--	--	--
Support	--	+7.5	--	+7.5
Subtotal	-5.4	+281.0	--	+275.6
Current Changes				
Economic	--	--	--	--
Quantity	--	+115.8	--	+115.8
Schedule	--	+25.7	--	+25.7
Engineering	+2.8	+29.6	--	+32.4
Estimating	--	-17.6	--	-17.6
Other	--	--	--	--
Support	--	+7.2	--	+7.2
Subtotal	+2.8	+160.7	--	+163.5
Total Changes	-2.6	+441.7	--	+439.1
Current Estimate	394.9	495.6	--	890.5

Previous Estimate: December 2007

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+0.1
Funds added for Rucksack Portable Receive Suite development (Engineering)	+2.8	+3.5
Adjustment for current and prior escalation. (Estimating)	0.0	-0.1
RDT&E Subtotal	+2.8	+3.5

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-1.1
Total Quantity variance resulting from an increase of 237 receive suites from 229 to 466 (Air Force). (Subtotal)	+28.3	+36.2
Quantity variance resulting from an increase of 237 receive suites from 229 to 466 (Air Force). (Quantity)	(+26.1)	(+33.3)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-1.2)	(-1.6)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(+1.6)	(+2.1)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(+1.8)	(+2.4)
Total Quantity variance resulting from an increase of 831 receive suites from 590 to 1421 (Army). (Subtotal)	+109.5	+143.9
Quantity variance resulting from an increase of 831 receive suites from 590 to 1421 (Army). (Quantity)	(+85.8)	(+111.7)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-11.9)	(-15.7)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(+17.1)	(+22.9)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(+18.5)	(+25.0)
Total Quantity variance resulting from an increase of 37 receive suites from 98 to 135 (Navy). (Subtotal)	+10.7	+14.0
Quantity variance resulting from an increase of 37 receive suites from 98 to 135 (Navy). (Quantity)	(+3.9)	(+5.1)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-3.5)	(-4.8)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(+4.9)	(+6.5)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(+5.4)	(+7.2)
Acceleration of procurement buy profile (Army). (Schedule)	0.0	-0.9
Stretch-out of procurement buy profile (Navy). (Schedule)	0.0	+0.1
Stretch-out of procurement buy profile (Air Force). (Schedule)	0.0	+0.1
Funding for contracted program support (Marines) (Estimating)	+0.7	+0.7
Correction of total funding authorized (Army) (Estimating)	+0.8	+1.1
Reduction of funds related to Joint Internet Protocol Modem (JIPM) modifications (Air Force). (Estimating)	-1.2	-1.2
Additional contracted program support costs (Air Force). (Estimating)	+0.4	+0.6
Adjustment for current and prior escalation. (Estimating)	+0.5	+0.7
Reallocation of funds for installations (Navy) (Estimating)	-2.2	-2.9
Increase for JIPM modifications (Army) (Engineering)	+6.0	+8.1
Adjustment for current and prior escalation. (Support)	+0.1	+0.1
Increase in Initial Spares to support increased quantity (Army). (Support) (QR)	+4.2	+4.8

Decrease in Other Support (Air Force). (Support)	-0.1	-0.1
Increase in Initial Spares to support increased quantity (Air Force). (Support) (QR)	+3.0	+3.7
Procurement Subtotal	+160.7	+207.9
(QR) Quantity Related		

Contracts

Contract Identification

Appropriation: RDT&E
Contract Name: GBS
Contractor: Raytheon Intelligence and Information Systems
Contractor Location: Reston, VA 20191
Contract Number: F04701-97-C-0044
Contract Type: Cost Plus Award Fee (CPAF), Firm Fixed Price (FFP)
Award Date: November 17, 1997
Definitization Date: November 17, 1997

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
84.8	N/A	221	447.5	N/A	721	447.5	447.5

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (CPAF/FFP) contract.

Notes

Target Price has increased from \$84.8 million to \$447.5 million due to the inclusion of the system architecture transition from Asynchronous Transfer Mode to Internet Protocol, Spiral 4A and 4B System Development, additional production quantities, and operation and maintenance tasks since the contract was awarded in November 1997.

The current contract quantity of 721 is based on 10 Research, Development, Test & Engineering (RDT&E) First Generation Increment One (I1E) Air Force Receive Suites (RS), 27 RDT&E I1E Shipboard RS, 96 RDT&E JPO funded Air Force RS, 208 procurement Air Force RS, 68 procurement Navy RS, 209 procurement Army RS, 27 RS for Other Organizations, Marine Corps 68 RS, 3 RDT&E Primary Injection Points (PIPs), and 3 procurement Army Theater Injection Points (TIPs) and 2 procurement Air Force TIPs.

Earned Value Management data reporting ended on the CPAF portion in December 2005, and since the contract was completed on September 30, 2007, it will no longer be reported in the SAR.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	136	136	136	100.00%
Production	985	837	2090	40.05%
Total Program Quantity Delivered	1121	973	2226	43.71%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	1016.9	Years Appropriated	15
Expended to Date	774.2	Percent Years Appropriated	75.00%
Percent Expended	76.13%	Appropriated to Date	802.2
Total Funding Years	20	Percent Appropriated	78.89%

Operating and Support Cost

Assumptions and Ground Rules

There is no antecedent system.

Operations and Support costs include all costs for operating, maintaining and supporting the GBS assets for an assumed life of ten years (2010-2019) for all services. Assets include: Transmit Suites (TS), Receive Suites (RS), and Theater Injection Points (TIP). The costs include all Depot Level Repairables (DLR) costs for GBS assets as well as the operating, logistics and personnel support costs associated with operating the transmit sites.

The costs in the table below are based on an estimate prepared in March 2010. From the estimate an average annual cost was calculated for the system by cost element. Some of the cost elements listed in the table encompass more than one task. Unit Level Consumption encompasses all Petroleum, Oil and Lubricants costs for the TIPs, and transportation costs for sending defective items back to the depot as well as Organic DLR for the RSs. Depot Maintenance includes organic software maintenance, Primary Injection Point (PIP) hardware, and technical orders. Contractor Support encompasses all the operating costs at the TS sites. In May 2009 efforts began to transfer broadcast capabilities from the current Satellite Broadcast Manager (SBM) locations to the Defense Enterprise Computing Centers (DECC). This change in architecture has been considered in this estimate, the estimate assumes simultaneous support of facilities during FY11 and FY12, after which the legacy SBM will be decommissioned. Sustaining Support encompasses sustaining engineering support costs for all GBS assets. Other includes the cost for continental United States (CONUS) Kurtz-under band (Ku) satellite lease and Cable News Network (CNN) Broadcast.

Cost Estimate Reference:

None

Sustainment Strategy:

None

Antecedent Information:

None

Unitized O&S Costs BY1997 \$M		
Cost Element	Global Broadcast Service Avg Annual Cost Total System	Antecedent (Antecedent) N/A
Mission Pay & Allowance	--	--
Unit Level Consumption	2.000	--
Intermediate Maintenance	--	--
Depot Maintenance	4.800	--
Contractor Support	19.300	--
Sustaining Support	0.600	--
Indirect	0.000	--
Other	1.700	--
Total	28.400	--

Unitized Cost Comments:

None

Item	Total O&S Cost \$M				
	Global Broadcast Service			Antecedent (Antecedent)	
	Current Development APB Objective/Threshold		Current Estimate		
Base Year	308.1	338.9	284.2		N/A
Then Year	382.5	N/A	386.8		N/A

Total O&S Cost Comment

None

Disposal Estimate Details

Date of Estimate:

Source of Estimate:

Disposal/Demilitarization Total Cost (BY 1997 \$M):