Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-199

FAB-T

As of December 31, 2011

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Designation And Nomenclature (Popular Name)

Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)

DoD Component

Air Force

Joint Participants

US Navy (E-6 TACAMO aircraft)

Responsible Office

Responsible Office

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Date Assigned April 4, 2011

References

SAR Baseline (Development Estimate)

FY 2008 President's Budget dated February 1, 2007

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 22, 2007

Mission and Description

The FAB-T program will develop nuclear survivable terminals capable of communicating with the Milstar and AEHF satellite constellations using both the Extremely High Frequency (EHF) and Advanced Extremely High Frequency (AEHF) jam-resistant low probability of intercept/low probability of detect (LPI/LPD) waveforms. These terminals will be an essential component of the strategic nuclear execution system. FAB-T terminals are planned for the B-2, B-52, and RC-135 aircraft and to upgrade the existing Command Post Terminals (CPTs) located on the ground (fixed and transportable) and airborne on the E-4B and E-6 Take Charge and Move Out (TACAMO) aircraft. Mission capabilities include Presidential and National Voice Conferencing (PNVC); Integrated Tactical Warning Attack Assessment (ITW/AA); Emergency Action Message (EAM) Dissemination; Telemetry, Tracking & Control (TT&C); and Force Reportback.

Executive Summary

A Resource Management Directive was issued in January 2011 requiring the FAB-T Program to introduce an Alternate Source Strategy.

In April, a senior Air Force Colonel was assigned to the FAB-T program as its new Program Manager. One of the first changes implemented was the development of programmatic metrics used to track the Contractor's progress. The Program of Record (PoR) Prime Contractor has also replaced its Program Manager and Deputy Program Manager.

In parallel with the Air Force development of the Alternate Source Acquisition Strategy, the Office of the Secretary of Defense (OSD) commissioned two Independent Strategic Advisory Group (ISAG) events (May and August 2011) to assess the current PoR. The Department was, and continues to be, concerned with the performance of the Prime Contractor, Boeing, during the terminal Development Phase of the program and with associated product affordability. The ISAG completed their assessments and their results confirmed that although the Program Office was successfully implementing earlier ISAG recommendations and there weren't any technical "show stoppers" associated with the program, the PoR was at least 12-16 months behind schedule with an additional cost estimated to be in the range of $180M-$240M. Due to this schedule delay, the warfighter's FY 2015 need date for Presidential & National Voice Conferencing (PNVC) capabilities is at risk.

Based on the ISAG's assessments of PoR Prime Contractor progress and performance metrics, OSD provided additional acquisition strategy guidance and released a January 3, 2012 Acquisition Decision Memorandum (ADM) that directed the Air Force to "establish a competitively awarded fixed price development and production approach with priority on the air (E-4B, E-6B) and ground command post terminals with Presidential & National Voice Conferencing (PNVC) capabilities." In concert with this memorandum, the Program Office is working closely with the requirements community to ensure validation of the modified requirements set described in the ADM.

The Program Office is aggressively moving forward to meet ADM direction by driving towards a March 2012 Alternate Source Request For Proposal (RFP) release date and converting the current PoR Cost Plus Award Fee (CPAF) contract to Firm Fixed Price (FFP). In conjunction with the Alternate Source source selection process, the Program Office will also be supporting a Cost Assessment and Program Evaluation (CAPE)-sponsored Independent Cost Estimate (ICE), the development of a revised Acquisition Program Baseline (APB), and a pre-award In-Process Review (IPR) Defense Acquisition Board (DAB) event planned for the third quarter FY 2012 timeframe.

Specific Program Achievements for 2011 Include:

· Successfully flight tested FAB-T terminal and Large Aircraft Antenna (LAA) onboard RC-135 aircraft; successful connectivity to Milstar satellite
· Successfully logged onto on-orbit Advanced Extremely High Frequency (AEHF) satellite at both Low Data Rates (LDR), at 2.4 kbps, and Extended Data Rates (XDR), at 8 Mbps, using the High Resolution Coverage Area (HRCA), Medium Resolution Coverage Area (MRCA), and Low Gain Earth Coverage (LGEC) satellite beam antennas
· Successfully passed Air Force Report Back (AFRB) and Emergency Action Messages (EAMs) using LDR over the air
· In support of System Integration & Test (SI&T) 1,915 out of 2,272 test cases completed (84%)
· To help with tracking, program broke out major integration test tasks into functional capabilities referred to as "Boulders," in 2011 Contractor completed 28 out of 52 Boulders (54% complete)
· 20 out of 22 Line Replaceable Unit (LRU) baseline qualifications completed
· Completed 11 out of 14 Software Product Configuration Item (SPCI) Software Qualification Tests (SQT)

The data contained within this report reflects the previous programmatics based solely under the Boeing contract. Revised program data will be provided with the new APB.

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

Threshold Breaches

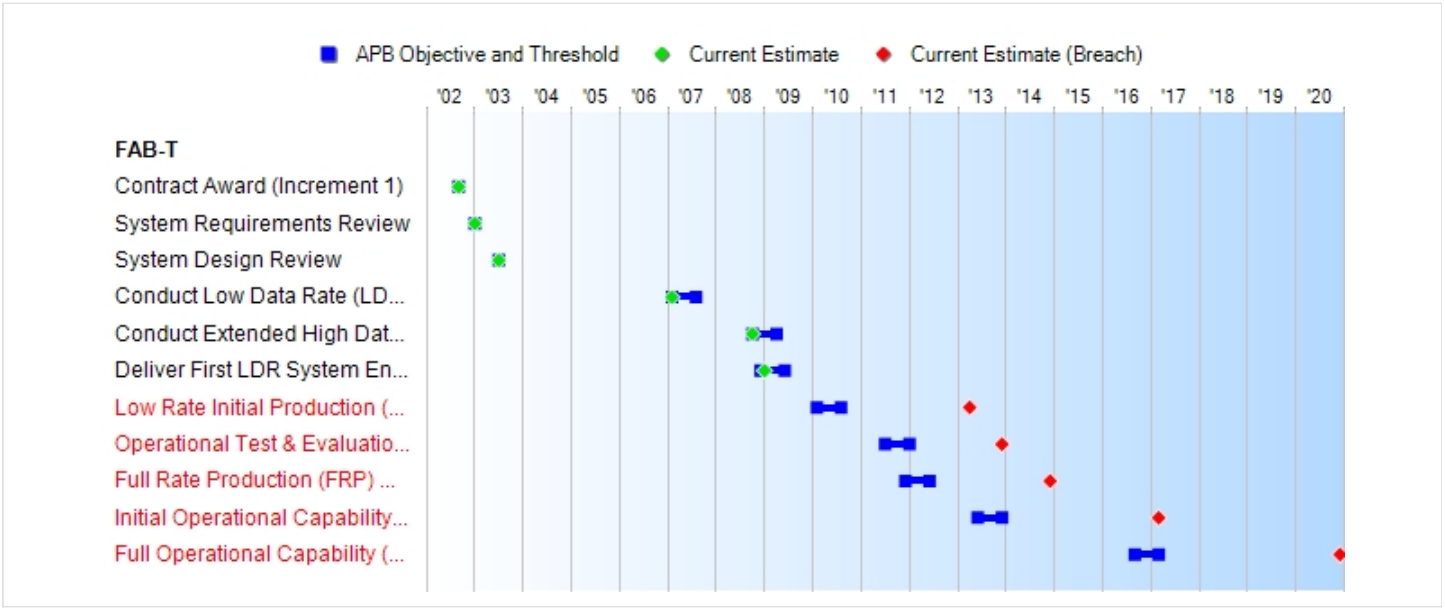
APB Breaches		
Schedule		☑
Performance		☐
Cost	RDT&E	☑
	Procurement	☐
	MILCON	☐
	Acq O&M	☐
Unit Cost	PAUC	☑
	APUC	☐

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

Explanation of Breach

Research, Development, Test, & Evaluation cost growth was driven by hardware qualification failures and integration and test complexities that resulted in a schedule delays for the Program of Record Development contract. These breaches were reported in the December 2010 SAR.

Schedule



Milestones	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	
Contract Award (Increment 1)	SEP 2002	SEP 2002	SEP 2002	SEP 2002	
System Requirements Review	JAN 2003	JAN 2003	JAN 2003	JAN 2003	
System Design Review	JUL 2003	JUL 2003	JUL 2003	JUL 2003	
Conduct Low Data Rate (LDR) System Critical Design Review (CDR)	FEB 2007	FEB 2007	AUG 2007	FEB 2007	
Conduct Extended High Data Rate (XDR) System CDR	JUL 2008	OCT 2008	APR 2009	OCT 2008	
Deliver First LDR System Engineering Development Model (EDM)	DEC 2008	DEC 2008	JUN 2009	JAN 2009	
Low Rate Initial Production (LRIP) Decision System LDR	FEB 2010	FEB 2010	AUG 2010	**APR 2013**[1]	(Ch-1)
Operational Test & Evaluation (OT&E) Complete	JUL 2011	JUL 2011	JAN 2012	**DEC 2013**[1]	
Full Rate Production (FRP) Decision	JUL 2011	DEC 2011	JUN 2012	**DEC 2014**[1]	
Initial Operational Capability (IOC)	JUN 2013	JUN 2013	DEC 2013	**MAR 2017**[1]	
Full Operational Capability (FOC)	SEP 2016	SEP 2016	MAR 2017	**DEC 2020**[1]	

[1] *APB Breach*

Change Explanations

(Ch-1) Change in date ocurred after Over Threshold Baseline (OTB) rebaselining was completed due to the LRIP Decision System LDR from February 2010 to April 2013.

Memo

The reason for the breach is that FAB-T continues to report against the 2007 Acquisition Program Baseline (APB). A new APB will be required based on Milestone Decision Authority (MDA) direction via a January 3, 2011 Acquisition Decision Memorandum (ADM). Estimated completion date for the APB is August 2012.

Performance

Characteristics	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
Interoperability	Enable all top-level IERs, as depicted by mission area and designated critical between sending and receiving nodes	Enable all top-level IERs, as depicted by mission area and designated critical between sending and receiving nodes	Enable all top-level IERs, as depicted by mission area and designated critical between sending and receiving nodes	Flight test conducted with LDR AWT August 2009 showing transmit and receive interoperability with legacy AF Command Post Terminal (CPT) for text, voice, and data through operational Milstar satellites, included reception of test EAMs.	Enable all top-level IERs, as depicted by mission area and designated critical between sending and receiving nodes
Information Assurance	Meet DoD IA criteria and be certified/accredited IAW DoD 8510.1-M, DoD 8500.1, and DoDI 8500.2, or DoD certification and accreditation process at time of contract award	Meet DoD IA criteria and be certified/accredited IAW DoD 8510.1-M, DoD 8500.1, and DoDI 8500.2, or DoD certification and accreditation process at time of contract award	Meet DoD IA criteria and be certified/accredited IAW DoD 8510.1-M, DoD 8500.1, and DoDI 8500.2, or DoD certification and accreditation process at time of contract award	During 2007, FAB-T TPO created a DITSCAP to DIACAP transition plan. This has now been approved by the Air Force Space Command DAA and FABT is on the DIACAP C&A path.	Meet DoD IA criteria and be certified/accredited IAW DoD 8510.1 M, DoD 8500.1, and DoDI 8500.2, or DoD certification and accreditation process at time of contract award
Survivability	FMC w/o damage/degradation, throughout the nuclear	FMC w/o damage/degradation, throughout the nuclear	FMC w/o damage/degradation, throughout the nuclear	TBD	FMC w/o damage/degradation, throughout the nuclear

	environment that the air craft is expected to survive, while meeting PCMR requirements	environment that the aircraft is expected to survive, while meeting PCMR requirements	environment that the aircraft is expected to survive, while meeting PCMR requirements		environment that the air craft is expected to survive, while meeting PCMR requirements
AWT Legacy Milstar Support	Provide legacy Milstar dedicated connections to transmit/receive functions associated with individual Milstar service/nets (Milstar LDR BC and AEHF equivalent BC)	Provide legacy Milstar dedicated connections to transmit/receive functions associated with individual Milstar service/nets (Milstar LDR BC and AEHF equivalent BC)	Provide legacy Milstar dedicated connections to transmit/receive functions associated with individual Milstar service/nets (Milstar LDR BC and AEHF equivalent BC)	Block 6 LDR terminal acquired downlink,uplink and logged on operational Milstar satellite.	Provide legacy Milstar dedicated connections to transmit /receive functions associated with individual Milstar service/nets (Milstar LDR BC and AEHF equivalent BC)
AWT Nuclear Interoperability	Inter-operate with platform required JCS nuclear protected IER	Inter-operate with platform required JCS nuclear protected IER	Inter-operate with platform required JCS nuclear protected IER	Flight test conducted with LDR AWT August 2009 showing transmit and receive interoperability with legacy AF Command Post Terminal (CPT) for text, voice, and data through operational Milstar satellites, included reception of test EAMs.	Interoperate with platform required JCS nuclear protected IER
AWT Security Protection	Protect all transmitted	Protect all transmitted	Protect all transmitted	NSA Evaluation of	Protect all transmitted

	and received Information	and received Information	and received Information	Block 6 completed June 2009. Multiple Interim Authority To Test (IATT) authorizations received in 2009. Full certification expected FY 2012.	and received Information
AWT Security Levels	Process and/or disseminate information products at any single level of classification up to and including TS/SCI	Process and/or disseminate information products at any single level of classification up to and including TS/SCI	Process and/or disseminate information products at any single level of classification up to and including TS/SCI	TBD	Process and/or disseminate information products at any single level of classification up to and including TS/SCI
AWT Force Direction/Reportback	Enable EAM dissemination and FE report back	Enable EAM dissemination and FE report back	Enable EAM dissemination and FE report back	Successful demonstration via laboratory test completed in FY 2011	Enable EAM dissemination and FE reportback
CPT Control Interface	Support use of ASMCS and MPSS satellite / network / terminal control equipment	Support use of ASMCS and MPSS satellite/network/terminal control equipment	Support use of ASMCS and MPSS satellite/network/terminal control equipment	Demonstration partially completed (33% complete) in FY 2011; planning to be fully complete in FY 2012	Support use of ASMCS and MPSS satellite/network/terminal control equipment
CPT Backwards Compatability	Compatibility with legacy EHF baseband functions associated with individual AEHF service / networks, SCIS,	Compatibility with legacy EHF baseband functions associated with individual AEHF service/networks, SCIS, NPES, I	Compatibility with legacy EHF baseband functions associated with individual AEHF service/networks, SCIS, NPES, I	Serial interface demonstration planned in FY 2012.	Compatibility with legacy EHF baseband functions associated with individualEHF service/networks, SCIS, NPES,

	NPES, I EMATS, DIRECT and the Red Switch	EMATS, DIRECT and the Red Switch	EMATS, DIRECT and the Red Switch		IEMATS, DIRECT and the Red Switch
CPT Existing Terminal Coexistence	Inter-operable with existing EHF terminals	Inter-operable with existing EHF terminals	Inter-operable with existing EHF terminals	Block 6 interoperability testing with legacy EHF CPT terminals has been completed using Milstar.	Interoperable with existing EHF terminals
CPT Satellite Constellation Coexistences	Inter-operable with the AEHF, APS, Milstar, and UFO-E/EE	Inter-operable with the AEHF, APS, Milstar, and UFO-E/EE	Inter-operable with the AEHF, APS, Milstar, and UFO-E/EE	Milstar connectivity has been extensively tested; partial AEHF on-orbit testing has been conducted	Interoperable with the AEHF, EPS and Milstar

Requirements Source: Advanced Wideband Terminal (AWT) Operational Requirement Document (ORD), dated March 29, 2004 Command Post Terminal (CPT) Operational Requirement Document (ORD) dated March 12, 2002

Acronyms And Abbreviations

AEHF - Advanced Extremely High Frequency
AFSPC - Air Force Space Command
ANDVT - Advanced Narrowband Digital Voice Terminal
APB - Acquisition Program Baseline
ASMCS - AEHF Satellite Mission Control Subsystem
AWT - Advanced Wideband Terminal
BC - Backward Compatible
C&A - Certification & Accreditation
CDD - Capabilities Development Document
DAA - Designated Approving Authority
DAMA - Demand Assignment Multiple Access
DIACAP - DoD Information Assurance Certification & Accreditation Process
DIRECT - Defense IEMATS Replacement Command and Control Terminal
DITSCAP - Defense Information Technology Security Certification and Accreditation Process
DoD - Department of Defense
DSVT - Digital Secure Voice Terminal
EAM - Emergency Action Message
EHF - Extremely High Frequency
EPS - Enhanced Polar System
FE - Force Element
FMC - Fully Mission Capable
IA - Information Assurance
IATT - Interim Authority to Test

IAW - In Accordance With
IEMATS - Improved Emergency Message Automatic Transmission System
IER - Information Exchange Requirement
JCS - Joint Chief of Staff
JROC - Joint Requirements Oversight Council
KPP - Key Performance Parameter
LDR - Low Data Rate
MDR - Medium Data Rate
MPSS - Mission Planning Support System
NPES - Nuclear Planning and Execution System
NSA - National Security Agency
ORD - Operational Requirements Document
PCMR - Probability of Correct Message Receipt
SCIS - Secure Communications Integrated System
SPCI - Software Product Configuration Item
TS/SCI - Top Secret/Special Compartmented Information
TT&C - Tracking Telemetry and Control
UFO-E/EE - UHF Follow On - EHF/EHF Enhanced
XDR - Extended Data Rate

Change Explanations

None

Memo

Notes:
- The following footnotes 1 through 13 apply to the above sections as listed:
Interoperability: 1 & 9
Information Assurance: 2 & 9
Survivability: 2 & 9
AWT Legacy Milstar Support: 3 & 9
AWT Nuclear Interoperability: 3 & 9
AWT Security Protection: 3 & 9
AWT Security Levels: 4, 9, & 10
AWT Force Direction/Reportback: 3 & 9
CPT Control Interface: 5 & 11
CPT Backwards Compatability: 6 & 12
CPT Existing Terminal Coexistence: 7
CPT Satellite Constellation Coexistences: 8 & 13

Footnotes:
1. Threshold requirements (critical IERs) placed on contract; objective requirements (noncritical IERs) not proposed by contractor. This performance parameter applies to both the AWT and CPT configurations (AWT ORD March 29, 2004 and CPT ORD March 6, 2002).
2. This performance parameter applies to both AWT and CPT.
3. This performance parameter only applies to AWT configuration.
4. Threshold requirements (single level security) placed on contract; objective requirements (multi-level security) not proposed by contractor. This performance parameter only applies to the AWT configuration.
5. For FAB-T, access to privileged TT&C capabilities and resource controller capabilities is restricted through mission planning data sets and through dedicated COMSEC algorithms and associated keys. Terminal software shall assign privileges to ensure that only designated terminals at TT&C nodes will have TT&C capabilities and that only designated terminals at resource controller nodes will have resource controller capabilities. This performance parameter only applies to the CPT configuration.

6. The FAB-T interface to the Red Switch is via the ANDVT, and the interface to NPES is via SCIS. This performance parameter only applies to the CPT
configuration.
7. FAB-T complies with the CPT interoperability requirements defined in the Terminal Segment Specification for the Milstar II Satellite Communications Program SR-2300 (excluding DSVT KY-68, Asynchronous T1, DAMA Limited Beam Management, LDR Full Beam Management of default agile locations, and MDR Capabilities) and Joint Terminal Segment Specification for the EHF Satellite
8. Interoperability with UFO/E and UFO/EE is predicated on the development by the AEHF Program of the capability for the terminal to receive mission planning data and TRANSEC keys from the Mission Planning Element. FAB-T is not expected to produce or deploy the capability associated with Advanced Polar System satellite interoperability. Terminal modifications for Advanced Polar System satellites are not funded. This performance parameter only applies to the CPT configuration. Note: Advanced Polar System is now Enhanced Polar System.
9. The LDR System provided to the strategic forces must meet the following Performance parameters in Section A: Interoperability, Information Assurance, Survivability, AWT Legacy Milstar, AWT Nuclear Interoperability, AWT Security Protection, AWT Security Levels, and AWT Force Direction/Reportback. The XDR System must meet all the Performance parameters in Section A.
10. Test event was delayed to FY 2012 as a result of software delays
11. Demo was delayed when the first integration event revealed interoperability issues. Resolution is being worked and fixes will be available for demonstration in FY 2012.
12. Due to end user terminal availability, compatibility will be tested via serial interface in FY2012; operational testing is not planned until FY 2013 during IOT&E.
13. Extensive testing with on-orbit Milstar satellite has occured; two LDR tests with the AEHF payload (prior to launch) have been completed; AEHF satellite is now on-orbit and when available for testing we will conduct interoperability testing.

Track To Budget

General Memo

FAB-T shares PE 0303601F Project 672487 with funding for non-Major Defense Acquisition Program (MDAP) efforts. FAB-T shares the other aircraft (OTHACF) line item with other modification programs, shares the 000999 Initial Spares line item with other programs, and shares 836780 with other Military Satellite Communication (MILSATCOM) programs.

RDT&E

APPN 3600	BA 07	PE 0303601F	(Air Force)
	Project 672487	MILSATCOM Terminals	(Shared)

Procurement

APPN 3010	BA 06	PE 0303601F	(Air Force)
	ICN 000999	(USAF)	(Shared)
APPN 3010	BA 05	PE 0303601F	(Air Force)
	ICN OTHACF	(USAF)	(Shared)
APPN 3080	BA 03	PE 0303601F	(Air Force)
	ICN 836780	(USAF)	(Shared)

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

Appropriation	BY2002 $M			BY2002 $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	1273.8	1283.2	1411.5	**1890.4**[1]	1431.1	1456.1	2201.0
Procurement	1368.5	1677.3	1845.0	1800.0	1736.3	2166.1	2501.7
Flyaway	1097.8	--	--	1315.5	1393.0	--	1834.1
Recurring	1069.1	--	--	1315.5	1357.6	--	1834.1
Non Recurring	28.7	--	--	0.0	35.4	--	0.0
Support	270.7	--	--	484.5	343.3	--	667.6
Other Support	0.0	--	--	165.5	0.0	--	224.0
Initial Spares	270.7	--	--	319.0	343.3	--	443.6
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	2642.3	2960.5	N/A	3690.4	3167.4	3622.2	4702.7

[1] ***APB Breach***

Quantity	SAR Baseline Dev Est	Current APB Development	Current Estimate
RDT&E	25	25	30
Procurement	191	197	216
Total	216	222	246

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2013 President's Budget / December 2011 SAR (TY$ M)

Appropriation	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
RDT&E	1675.4	227.4	97.9	150.1	50.2	0.0	0.0	0.0	2201.0
Procurement	7.4	3.8	9.6	9.3	118.9	303.0	270.7	1779.0	2501.7
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 2013 Total	1682.8	231.2	107.5	159.4	169.1	303.0	270.7	1779.0	4702.7
PB 2012 Total	1766.7	348.7	555.3	320.8	129.5	131.7	541.5	818.6	4612.8
Delta	-83.9	-117.5	-447.8	-161.4	39.6	171.3	-270.8	960.4	89.9

Distribution of procurement funds will be adjusted based on terminal schedules and priorities.

Quantity	Undistributed	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
Development	30	0	0	0	0	0	0	0	0	30
Production	0	0	0	0	0	10	20	24	162	216
PB 2013 Total	30	0	0	0	0	10	20	24	162	246
PB 2012 Total	30	0	0	28	25	11	12	46	94	246
Delta	0	0	0	-28	-25	-1	8	-22	68	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
2001	--	--	--	--	--	--	5.3
2002	--	--	--	--	--	--	10.5
2003	--	--	--	--	--	--	51.8
2004	--	--	--	--	--	--	114.8
2005	--	--	--	--	--	--	173.1
2006	--	--	--	--	--	--	196.2
2007	--	--	--	--	--	--	193.0
2008	--	--	--	--	--	--	277.6
2009	--	--	--	--	--	--	210.2
2010	--	--	--	--	--	--	189.5
2011	--	--	--	--	--	--	253.4
2012	--	--	--	--	--	--	227.4
2013	--	--	--	--	--	--	97.9
2014	--	--	--	--	--	--	150.1
2015	--	--	--	--	--	--	50.2
Subtotal	**30**	**--**	**--**	**--**	**--**	**--**	**2201.0**

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 $M	Non End Item Recurring Flyaway BY 2002 $M	Non Recurring Flyaway BY 2002 $M	Total Flyaway BY 2002 $M	Total Support BY 2002 $M	Total Program BY 2002 $M
2001	--	--	--	--	--	--	5.3
2002	--	--	--	--	--	--	10.4
2003	--	--	--	--	--	--	50.7
2004	--	--	--	--	--	--	109.7
2005	--	--	--	--	--	--	161.2
2006	--	--	--	--	--	--	177.4
2007	--	--	--	--	--	--	170.0
2008	--	--	--	--	--	--	239.7
2009	--	--	--	--	--	--	179.1
2010	--	--	--	--	--	--	159.5
2011	--	--	--	--	--	--	209.0
2012	--	--	--	--	--	--	184.2
2013	--	--	--	--	--	--	78.0
2014	--	--	--	--	--	--	117.6
2015	--	--	--	--	--	--	38.6
Subtotal	**30**	**--**	**--**	**--**	**--**	**--**	**1890.4**

Annual Funding TY$
3010 | Procurement | Aircraft 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
2007	--	4.3	--	--	4.3	--	4.3
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	--	1.3	--	--	1.3	--	1.3
2011	--	--	--	--	--	--	--
2012	--	3.8	--	--	3.8	--	3.8
2013	--	4.6	--	--	4.6	--	4.6
2014	--	4.3	--	--	4.3	--	4.3
2015	8	38.8	--	--	38.8	38.4	77.2
2016	16	155.4	--	--	155.4	49.5	204.9
2017	19	126.4	--	--	126.4	53.6	180.0
2018	12	11.4	--	--	11.4	35.0	46.4
2019	11	26.4	--	--	26.4	11.6	38.0
2020	41	262.6	--	--	262.6	55.1	317.7
2021	37	260.2	--	--	260.2	52.2	312.4
Subtotal	**144**	**899.5**	**--**	**--**	**899.5**	**295.4**	**1194.9**

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 $M	Non End Item Recurring Flyaway BY 2002 $M	Non Recurring Flyaway BY 2002 $M	Total Flyaway BY 2002 $M	Total Support BY 2002 $M	Total Program BY 2002 $M
2007	--	3.7	--	--	3.7	--	3.7
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	--	1.1	--	--	1.1	--	1.1
2011	--	--	--	--	--	--	--
2012	--	3.0	--	--	3.0	--	3.0
2013	--	3.6	--	--	3.6	--	3.6
2014	--	3.3	--	--	3.3	--	3.3
2015	8	29.2	--	--	29.2	29.0	58.2
2016	16	115.1	--	--	115.1	36.6	151.7
2017	19	91.9	--	--	91.9	39.0	130.9
2018	12	8.1	--	--	8.1	25.1	33.2
2019	11	18.5	--	--	18.5	8.2	26.7
2020	41	181.1	--	--	181.1	38.0	219.1
2021	37	176.2	--	--	176.2	35.4	211.6
Subtotal	**144**	**634.8**	**--**	**--**	**634.8**	**211.3**	**846.1**

Cost Quantity Information
3010 | Procurement | Aircraft Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2002 $M
2007	--	--
2008	--	--
2009	--	--
2010	--	--
2011	--	--
2012	--	--
2013	--	--
2014	--	--
2015	8	35.3
2016	16	70.5
2017	19	83.8
2018	12	52.9
2019	11	48.4
2020	41	180.8
2021	37	163.1
Subtotal	**144**	**634.8**

Annual Funding TY$
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
2010	--	1.8	--	--	1.8	--	1.8
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	5.0	--	--	5.0	--	5.0
2014	--	5.0	--	--	5.0	--	5.0
2015	2	28.1	--	--	28.1	13.6	41.7
2016	4	46.6	--	--	46.6	51.5	98.1
2017	5	35.7	--	--	35.7	55.0	90.7
2018	30	380.9	--	--	380.9	144.2	525.1
2019	31	431.5	--	--	431.5	107.9	539.4
Subtotal	**72**	**934.6**	**--**	**--**	**934.6**	**372.2**	**1306.8**

Annual Funding BY$
3080 | Procurement | Other Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 $M	Non End Item Recurring Flyaway BY 2002 $M	Non Recurring Flyaway BY 2002 $M	Total Flyaway BY 2002 $M	Total Support BY 2002 $M	Total Program BY 2002 $M
2010	--	1.5	--	--	1.5	--	1.5
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	4.0	--	--	4.0	--	4.0
2014	--	3.9	--	--	3.9	--	3.9
2015	2	21.7	--	--	21.7	10.4	32.1
2016	4	35.3	--	--	35.3	39.0	74.3
2017	5	26.5	--	--	26.5	40.9	67.4
2018	30	278.2	--	--	278.2	105.4	383.6
2019	31	309.6	--	--	309.6	77.5	387.1
Subtotal	**72**	**680.7**	**--**	**--**	**680.7**	**273.2**	**953.9**

Cost Quantity Information
3080 | Procurement | Other Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2002 $M
2010	--	--
2011	--	--
2012	--	--
2013	--	--
2014	--	--
2015	2	18.9
2016	4	37.9
2017	5	47.2
2018	30	283.6
2019	31	293.1
Subtotal	**72**	**680.7**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	12/22/2007	1/13/2009
Approved Quantity	40	101
Reference	Acquisition Program Baseline	Acquisition Strategy Addendum
Start Year	2010	2010
End Year	2011	2012

The Program has developed a revised Acquisition Strategy with approval expected in second quarter FY 2012. The approved Acquisition Strategy will include revised estimates for Low Rate Initial Production (LRIP) and future milestones. The target timeframe for an LRIP Decision is FY 2014. It should be noted that until this Acquisition Strategy is approved and the program has been given a signed Acquisition Decision Memorandum (ADM) to implement this strategy, the current Program of Record (PoR) LRIP data will remain in force.

The number of terminals procured in the LRIP years will exceed ten percent of the total number of terminals and were included in the approved Acquisition Strategy signed in December 2008. Per the January 2009 Acquisition Strategy Addendum, the increased LRIP quantity is the result of the program meeting Director, Operational Test & Evaluation (DOT&E) direction to conduct Initial Operational Test and Evaluation (IOT&E) with production representative hardware including integration of the new cryptographic module.

Foreign Military Sales

None

Nuclear Cost

None

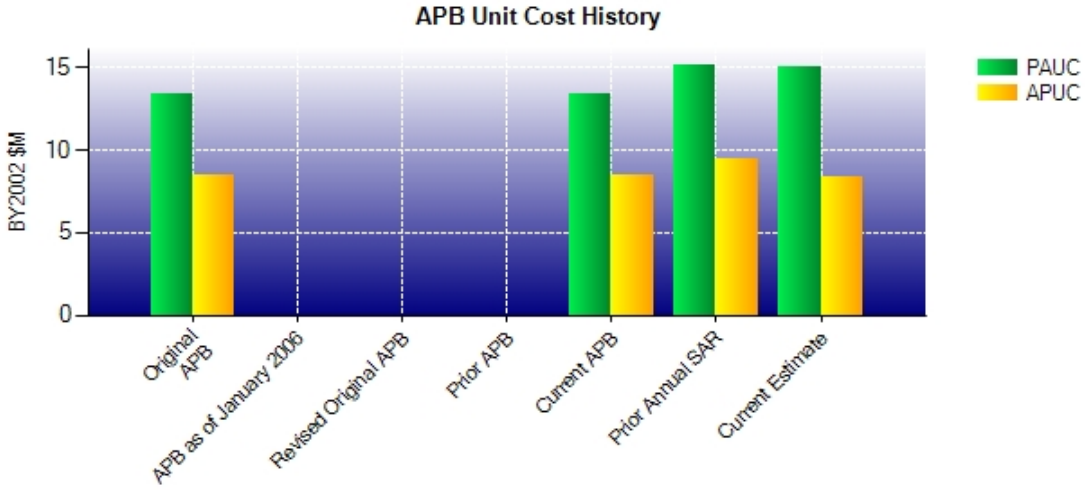
Unit Cost

Unit Cost Report

Unit Cost	BY2002 $M Current UCR Baseline (DEC 2007 APB)	BY2002 $M Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	2960.5	3690.4	
Quantity	222	246	
Unit Cost	13.336	15.002	+12.49
Average Procurement Unit Cost (APUC)			
Cost	1677.3	1800.0	
Quantity	197	216	
Unit Cost	8.514	8.333	-2.13

Unit Cost	BY2002 $M Original UCR Baseline (DEC 2007 APB)	BY2002 $M Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	2960.5	3690.4	
Quantity	222	246	
Unit Cost	13.336	15.002	+12.49
Average Procurement Unit Cost (APUC)			
Cost	1677.3	1800.0	
Quantity	197	216	
Unit Cost	8.514	8.333	-2.13

Unit Cost History



		BY2002 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	DEC 2007	13.336	8.514	16.316	10.995
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	N/A	N/A	N/A	N/A	N/A
Current APB	DEC 2007	13.336	8.514	16.316	10.995
Prior Annual SAR	DEC 2010	15.168	9.485	18.751	12.406
Current Estimate	DEC 2011	15.002	8.333	19.117	11.582

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	
14.664	-0.004	-1.001	0.690	0.710	2.744	0.000	1.314	4.453	19.117

Current SAR Baseline to Current Estimate (TY $M)

Initial APUC Dev Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
9.091	-0.057	-0.222	0.786	0.000	0.487	0.000	1.497	2.491	11.582

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	FEB 2010	N/A	APR 2013
IOC	N/A	JUN 2013	N/A	MAR 2017
Total Cost (TY $M)	N/A	3167.4	N/A	4702.7
Total Quantity	N/A	216	N/A	246
Prog. Acq. Unit Cost (PAUC)	N/A	14.664	N/A	19.117

Cost Variance

Cost Variance Summary

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	1431.1	1736.3	--	3167.4
Previous Changes				
Economic	+4.2	-51.2	--	-47.0
Quantity	+14.1	+179.5	--	+193.6
Schedule	--	+100.4	--	+100.4
Engineering	+174.7	--	--	+174.7
Estimating	+309.1	+196.6	--	+505.7
Other	--	--	--	--
Support	--	+518.0	--	+518.0
Subtotal	+502.1	+943.3	--	+1445.4
Current Changes				
Economic	+7.1	+38.9	--	+46.0
Quantity	--	--	--	--
Schedule	--	+69.3	--	+69.3
Engineering	--	--	--	--
Estimating	+260.7	-91.4	--	+169.3
Other	--	--	--	--
Support	--	-194.7	--	-194.7
Subtotal	+267.8	-177.9	--	+89.9
Total Changes	+769.9	+765.4	--	+1535.3
CE - Cost Variance	2201.0	2501.7	--	4702.7
CE - Cost & Funding	2201.0	2501.7	--	4702.7

Summary Base Year 2002 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	1273.8	1368.5	--	2642.3
Previous Changes				
Economic	--	--	--	--
Quantity	+11.9	+135.3	--	+147.2
Schedule	--	+0.6	--	+0.6
Engineering	+145.8	--	--	+145.8
Estimating	+251.1	+160.9	--	+412.0
Other	--	--	--	--
Support	--	+383.5	--	+383.5
Subtotal	+408.8	+680.3	--	+1089.1
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+207.8	-79.1	--	+128.7
Other	--	--	--	--
Support	--	-169.7	--	-169.7
Subtotal	+207.8	-248.8	--	-41.0
Total Changes	+616.6	+431.5	--	+1048.1
CE - Cost Variance	1890.4	1800.0	--	3690.4
CE - Cost & Funding	1890.4	1800.0	--	3690.4

Previous Estimate: December 2010

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+7.1
Revised estimate due to complexities with software integration and testing (Estimating)	+97.2	+117.8
Revised estimate for new Acquisition Strategy with Competitive Acquisition (Estimating)	+114.8	+148.0
Adjustment for current and prior escalation. (Estimating)	-4.2	-5.1
RDT&E Subtotal	+207.8	+267.8

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+38.9
Stretch-out of procurement buy profile to FY 2015 - FY 2021. (3010) (Schedule)	0.0	+38.2
Stretch-out of procurement buy profile to FY 2015 - FY 2019 (3080) (Schedule)	0.0	+31.1
Funding reduced based on Production start slip to FY 2015 (3010) (Estimating)	-101.6	-122.7
Revised and rephased estimate based on new Acquisition Strategy and fixed price contract (3010) (Estimating)	-130.8	-190.3
Funding reduced based on Production start slip to FY 2015 (3080) (Estimating)	-69.9	-86.8
Revised and rephased estimate based on new Acquisition Strategy and fixed price contract (3080) (Estimating)	+225.9	+311.5
Adjustment for current and prior escalation. (Estimating)	-2.7	-3.1
Adjustment for current and prior escalation. (Support)	-0.1	-0.3
Decrease in Other Support based on revised Acquisition Strategy and competitive acquisition (3010) (Support)	-65.3	-85.4
Decrease in Initial Spares based on revised Acquisition Strategy and competitive acquisition (3010) (Support)	+17.9	+30.3
Decrease in Other Support based on revised Acquisition Strategy and competitive acquisition (3080) (Support)	-76.7	-92.2
Decrease in Initial Spares based on revised Aquisition Strategy and competitive acquisition (3080) (Support)	-45.5	-47.1
Procurement Subtotal	-248.8	-177.9

Contracts

Appropriation: RDT&E	
Contract Name	**FAB-T**
Contractor	Boeing
Contractor Location	Huntington Beach, CA 92647-2099
Contract Number, Type	F19628-02-C-0048, CPAF/FFP/CR/LH/CPFF
Award Date	September 20, 2002
Definitization Date	September 20, 2002

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
266.8	N/A	18	1672.4	N/A	30	1492.0	1543.1

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/26/2012)	-30.3	-14.6
Previous Cumulative Variances	-0.3	-6.7
Net Change	-30.0	-7.9

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to the following unfavorable Cost Variance drivers:
-Extended surge support to meet Terminal Integration & Test schedule
-Late completion of Qualification Testing and EHF Waveform

The unfavorable net change in the schedule variance is due to the following unfavorable Schedule Variance drivers:
-Integration & Test inefficiencies

Contract Comments

The difference between the initial contract price target and the current contract price target is due to cost overruns and design and requirements changes.

The FAB-T contract price, which changed from $266.8M to $1,672.4M, includes work effort on all Contract Line Items (CLINs) and reflects multiple contract types. The contract performance section reflects only CLIN 0001 (FAB-T Increment 1 Development) data reported on the Cost Performance Report (CPR) for the month of January 2012.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	7	7	30	23.33%
Production	0	0	216	0.00%
Total Program Quantities Delivered	7	7	246	2.85%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	4702.7	Years Appropriated	12
Expenditures To Date	1637.2	Percent Years Appropriated	57.14%
Percent Expended	34.81%	Appropriated to Date	1914.0
Total Funding Years	21	Percent Appropriated	40.70%

Operating and Support Cost

Assumptions And Ground Rules

FAB-T consists of Command Post Terminals (CPT) and Airborne Wideband Terminals (AWT). For CPTs, FAB-T is a replacement terminal for the existing Milstar CPTs at ground (fixed and mobile) sites and E-4 and E-6 airborne platforms. There are no Milstar CPT terminals to be replaced in the B-52, B-2, and RC-135 aircraft.

Operating and Support (O&S) costs include all costs for operating, maintaining and supporting FAB-T assets for an assumed 20-year life per FAB-T terminal after installation. The costs include all Depot Level Repairables (DLR) for FAB-T assets as well as operating and logistics costs associated with 216 terminals. No additional manpower requirements are assumed and no increase to existing Indirect Support is required. Sustaining Support consists of sustaining engineering and software maintenance.

Hardware maintenance for FY 2016 and FY 2017 will be handled via Interim Contractor Support (ICS). Software maintenance for FY 2016-FY 2019 will be handled via Interim Contractor Support. ICS costs are included in the Procurement estimate and are not included under Operating and Support.

Cost totals do not include disposal costs.

Costs BY2002 $M		
Cost Element	**FAB-T Average Annual Cost per Terminal**	**Milstar Average Annual Cost per Terminal**
Unit-Level Manpower	0.000	0.000
Unit Operations	0.905	0.178
Maintenance	0.000	0.000
Sustaining Support	0.095	0.132
Continuing System Improvements	0.000	0.000
Indirect Support	0.000	0.000
Other	0.000	0.000
Total Unitized Cost (Base Year 2002 $)	1.000	0.310

Total O&S Costs $M	FAB-T	Milstar
Base Year	4318.1	0.0
Then Year	7181.0	0.0

Operating & Support (O&S) costs are based on the 2009 Independent Cost Estimate (ICE) conducted by the Office of the Secretary of Defense's Cost Analysis Improvement Group (CAIG).