Selected Acquisition Report (SAR)

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

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

As of December 31, 2012

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Program Name

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

DoD Component

Air Force

Joint Participants

US Navy (E-6 TACAMO aircraft); US Navy (Ground Terminals); US Army (Ground Terminals)

Responsible Office

Responsible Office

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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 Advanced Extremely High Frequency (AEHF) satellite constellations using both the Extremely High Frequency (EHF) and 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

In 2012, the Department took significant steps to reintroduce competition and make the Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) program more affordable. The program converted the Program of Record contract with Boeing from Cost Plus Award Fee to Firm Fixed Price, introduced competition to the program with the award of an Alternate Source development contract to Raytheon, and developed an Acquisition Strategy to competitively award Production contracts in 2013 to contain cost.

Additionally, the Program implemented specific program management efficiencies. The Program Office now directly reports to the Program Executive Officer (PEO) which aids in streamlined decision-making. The Program Office also increased staffing to support the parallel strategies the program is executing.

Affordability concerns remain due to uncertainty of projected Advanced Wideband Terminal funding by the Air Force in 2013, sequestration, and contractor schedule risks. The program will leverage the newly introduced competition to focus on affordability and will lock in production prices in 2013, further preserving the Department's trade space.

By the end of 2012, Boeing reduced schedule risk by completing both hardware and software integration testing and software qualification testing. Boeing is engaged in resolving remaining hardware and software anomalies in final preparation for Functional Qualification Testing scheduled for the first quarter of calendar year 2013. They are presently tracking close to their detailed program schedule with flight testing planned to start in second quarter of calendar year 2013.

The Alternate Source contract was awarded to Raytheon in September 2012. The initial award included completion of Critical Design Review with a demonstration by the end of second quarter of calendar year 2013. Raytheon completed System Requirements Review and are on track to conduct Preliminary Design Review in the second quarter, fiscal year 2013. The effort is aggressively scheduled requiring a high degree of concurrency in hardware and software development.

The introduction of competition will have a significant impact on production pricing. Updated Independent Cost Estimate and new Acquisition Program Baseline are pending the assessment of production proposals and will be established with the award of production contracts.

There are no signification software-related issues with this program at this time, however, risk remains for both contractors to complete software development within the aggressive schedule.

Threshold Breaches

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

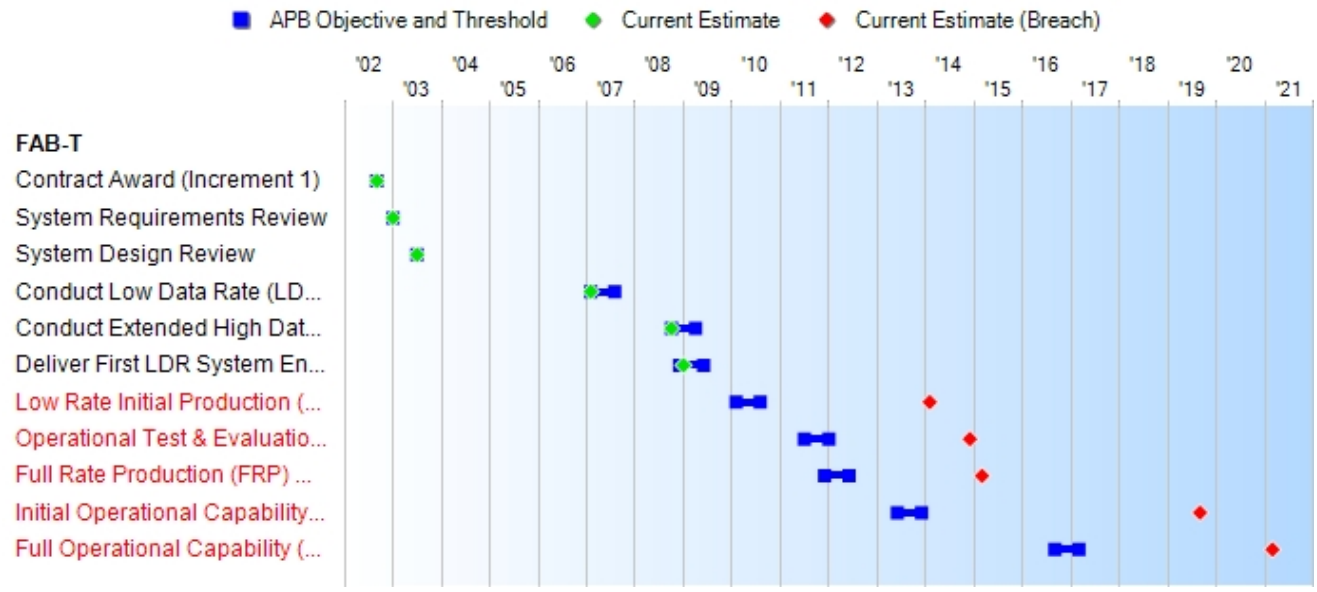
Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Explanation of Breach

Research, Development, Test, & Evaluation (RDT&E) cost growth was driven by hardware qualification failures and integration and test complexities that resulted in schedule delays for the Boeing Development contract. The Schedule, RDT&E Cost, and Program Acquisition Unit Cost (PAUC) Acquisition Program Baseline (APB) breaches were reported in the December 2011 SAR.

In Calendar Year (CY) 2012, the entire program was restructured to control costs and introduce competition. Competitive production proposals were received 1st quarter CY 2013. A revised Independent Cost Estimate and APB to rebaseline the program is targeted for 4th quarter FY 2013.

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	**FEB 2014**[1]	(Ch-1)
Operational Test & Evaluation (OT&E) Complete	JUL 2011	JUL 2011	JAN 2012	**DEC 2014**[1]	(Ch-1)
Full Rate Production (FRP) Decision	JUL 2011	DEC 2011	JUN 2012	**MAR 2015**[1]	(Ch-1)
Initial Operational Capability (IOC)	JUN 2013	JUN 2013	DEC 2013	**SEP 2019**[1]	(Ch-1)
Full Operational Capability (FOC)	SEP 2016	SEP 2016	MAR 2017	**MAR 2021**[1]	(Ch-1)

[1] *APB Breach*

Change Explanations

(Ch-1) The date changes are a result of the program restructure in accordance with revised Acquisition Strategy. LRIP Decision from APR 2013 to FEB 2014, OT&E Complete from DEC 2013 to DEC 2014; FRP Decision from DEC 2014 to MAR 2015, IOC from MAR 2017 to SEP 2019, and FOC from DEC 2020 to MAR 2021.

Memo

Breached Milestone dates have been reported in previous SAR cycles. The FAB-T SAR continues to report against the 2007 Acquisition Program Baseline (APB). The Under Secretary of Defense (Acquisition, Technology & Logistics) Acquisition Decision Memorandum, dated August 23, 2012, directed a new APB be developed prior to the Production pre-award In-Process Review Defense Acquisition Board (DAB). To support this DAB, planned for 4th quarter FY 2013, an Independent Cost Estimate (ICE) will be developed to support an updated APB. The revised APB will include an accurate and applicable schedule for the program to report against.

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 interoperabil-ity with legacy AF 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 accredita-tion 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 accredita-tion 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 accredita-tion 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 environment that the air	FMC w/o damage/ degradation, throughout the nuclear environment that the	FMC w/o damage/ degradation, throughout the nuclear environment that the	TBD	FMC w/o damage/ degradation, throughout the nuclear environment that the air

	craft is expected to survive, while meeting PCMR requirements	aircraft is expected to survive, while meeting PCMR requirements	aircraft is expected to survive, while meeting PCMR requirements		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 interoperabil-ity with legacy AF 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 and received Information	Protect all transmitted and received Information	Protect all transmitted and received Information	NSA Evaluation of Block 6 completed June 2009. Multiple	Protect all transmitted and received Information

				Interim Authority To Test (IATT) authorizatio-ns received in 2009. Full certification expected FY 2012	
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 dissemina-tion and FE report back	Enable EAM dissemina-tion and FE report back	Enable EAM dissemina-tion and FE report back	Successful demonstrati-on via laboratory test completed in FY 2011	Enable EAM disseminati-on 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	Demonstrati-on 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, NPES,	Compatibility with legacy EHF baseband functions associated with individual AEHF service/ networks, SCIS, NPES,	Compatibility with legacy EHF baseband functions associated with individual AEHF service/ networks, SCIS, NPES,	Serial interface demonstrati-on planned in FY 2012	Compatibility with legacy EHF baseband functions associated with individual EHF service/ networks, SCIS, NPES, IEMATS,

	IEMATS, DIRECT and the Red Switch	IEMATS, DIRECT and the Red Switch	IEMATS, DIRECT and the Red Switch		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 interoperabil-ity 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 Requirements Document (ORD) dated March 29, 2004 and Command Post Terminal (CPT) ORD dated March 12, 2002

Acronyms And Abbreviations

AEHF - Advanced Extremely High Frequency
AF - Air Force
APB - Acquisition Program Baseline
ASMCS - AEHF Satellite Mission Control Subsystem
AWT - Advanced Wideband Terminal
BC - Backward Compatible
C&A - Certification & Accreditation
CPT - Command Post Terminal
DAA - Designated Approving Authority
DIACAP - DoD Information Assurance Certification & Accreditation Process
DIRECT - Defense IEMATS Replacement Command and Control Terminal
DITSCAP - Defense Information Technology Security Certification and Accreditation Process
DoDI - Department of Defense Instruction
EAM - Emergency Action Message
EHF - Extremely High Frequency
EPS - Enhanced Polar System
FE - Force Element
FMC - Fully Mission Capable
IA - Information Assurance
IAW - In Accordance With
IEMATS - Improved Emergency Message Automatic Transmission System
IER - Information Exchange Requirement
JCS - Joint Chief of Staff
LDR - Low Data Rate
MPSS - Mission Planning Support System
NPES - Nuclear Planning and Execution System
NSA - National Security Agency
PCMR - Probability of Correct Message Receipt
SCIS - Secure Communications Integrated System
TS/SCI - Top Secret/Special Compartmented Information
UFO-E/EE - UHF Follow On - EHF/EHF Enhanced
w/o - without

Change Explanations

None

Memo

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 Operational Requirements Document (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 Tracking Telemetry and Control (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 Advanced Narrowband Digital Voice Terminal (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 Digital Secure Voice Terminal (DSVT) KY-68, Asynchronous T1, Demand Assignment Multiple Access (DAMA) Limited Beam Management, LDR Full Beam Management of default agile locations, and Medium Data Rate (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 Extended Data Rate (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 FY 2012; 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 Program Element (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)	(Sunk)
	Project 672489	FAB-T Alternative		(Sunk)
	Project 672490	Family of Adv Beyond Line of Sight Terminals (FAB-T)		

Procurement

APPN 3010	BA 06	PE 0303601F	(Air Force)
	ICN 000999	Initial Spares/Repair Parts	(Shared)
APPN 3010	BA 05	PE 0303601F	(Air Force)
	ICN OTHACF	Other Aircraft	(Shared)
APPN 3080	BA 03	PE 0303601F	(Air Force)
	ICN 836780	MILSATCOM Space	(Shared)
APPN 3080	BA 05	PE 0303601F	(Air Force)
	ICN 861900	Spares and Repair Parts	(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	**1895.7** [1]	1431.1	1456.1	2210.6
Procurement	1368.5	1677.3	1845.0	1742.8	1736.3	2166.1	2464.0
Flyaway	1097.8	--	--	1290.1	1393.0	--	1827.7
Recurring	1069.1	--	--	1290.1	1357.6	--	1827.7
Non Recurring	28.7	--	--	0.0	35.4	--	0.0
Support	270.7	--	--	452.7	343.3	--	636.3
Other Support	0.0	--	--	137.9	0.0	--	188.8
Initial Spares	270.7	--	--	314.8	343.3	--	447.5
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	3638.5	3167.4	3622.2	4674.6

[1] ***APB Breach***

Distribution of procurement funds and quantities will be adjusted based on funding priorities and terminal schedules as a result of the production competition.

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
FY2014 President's Budget / December 2012 SAR (TY$ M)

Appropriation	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
RDT&E	1912.6	97.9	140.2	55.9	4.0	0.0	0.0	0.0	2210.6
Procurement	11.2	9.6	74.9	120.0	299.6	267.0	271.8	1409.9	2464.0
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 2014 Total	1923.8	107.5	215.1	175.9	303.6	267.0	271.8	1409.9	4674.6
PB 2013 Total	1914.0	107.5	159.4	169.1	303.0	270.7	571.5	1207.5	4702.7
Delta	9.8	0.0	55.7	6.8	0.6	-3.7	-299.7	202.4	-28.1

Program funding and production quantities listed in this SAR are consistent with the FY 2014 President's Budget (PB). The FY 2014 PB did not reflect the enacted DoD appropriation for FY 2013, nor sequestration; it reflected the President's requested amounts for FY 2013.

Distribution of procurement funds will be adjusted based on terminal schedules and priorities as a result of production competition.

Quantity	Undistributed	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
Development	30	0	0	0	0	0	0	0	0	30
Production	0	0	0	4	9	19	16	16	152	216
PB 2014 Total	30	0	0	4	9	19	16	16	152	246
PB 2013 Total	30	0	0	0	10	20	24	42	120	246
Delta	0	0	0	4	-1	-1	-8	-26	32	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	--	--	--	--	--	--	263.9
2012	--	--	--	--	--	--	226.7
2013	--	--	--	--	--	--	97.9
2014	--	--	--	--	--	--	140.2
2015	--	--	--	--	--	--	55.9
2016	--	--	--	--	--	--	4.0
Subtotal	**30**	**--**	**--**	**--**	**--**	**--**	**2210.6**

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	--	--	--	--	--	--	159.4
2011	--	--	--	--	--	--	217.7
2012	--	--	--	--	--	--	183.3
2013	--	--	--	--	--	--	77.4
2014	--	--	--	--	--	--	108.8
2015	--	--	--	--	--	--	42.6
2016	--	--	--	--	--	--	3.0
Subtotal	**30**	**--**	**--**	**--**	**--**	**--**	**1895.7**

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	--	1.9	--	--	1.9	--	1.9
2015	4	25.3	--	--	25.3	12.6	37.9
2016	3	17.0	--	--	17.0	10.8	27.8
2017	1	5.7	--	--	5.7	7.2	12.9
2018	1	5.7	--	--	5.7	7.4	13.1
2019	35	215.8	--	--	215.8	62.5	278.3
2020	50	312.5	--	--	312.5	85.0	397.5
2021	50	312.5	--	--	312.5	85.0	397.5
Subtotal	**144**	**910.4**	**--**	**--**	**910.4**	**270.5**	**1180.9**

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	--	3.5	--	--	3.5	--	3.5
2014	--	1.4	--	--	1.4	--	1.4
2015	4	18.7	--	--	18.7	9.4	28.1
2016	3	12.4	--	--	12.4	7.8	20.2
2017	1	4.1	--	--	4.1	5.1	9.2
2018	1	4.0	--	--	4.0	5.2	9.2
2019	35	148.2	--	--	148.2	43.0	191.2
2020	50	210.7	--	--	210.7	57.3	268.0
2021	50	206.7	--	--	206.7	56.3	263.0
Subtotal	**144**	**617.5**	**--**	**--**	**617.5**	**184.1**	**801.6**

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	4	17.2
2016	3	12.9
2017	1	4.3
2018	1	4.3
2019	35	150.0
2020	50	214.4
2021	50	214.4
Subtotal	**144**	**617.5**

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	4	67.4	--	--	67.4	5.6	73.0
2015	5	41.9	--	--	41.9	40.2	82.1
2016	16	190.0	--	--	190.0	81.8	271.8
2017	15	167.2	--	--	167.2	86.9	254.1
2018	15	183.9	--	--	183.9	74.8	258.7
2019	17	260.1	--	--	260.1	76.5	336.6
Subtotal	**72**	**917.3**	**--**	**--**	**917.3**	**365.8**	**1283.1**

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	4	52.5	--	--	52.5	4.3	56.8
2015	5	32.0	--	--	32.0	30.7	62.7
2016	16	142.5	--	--	142.5	61.3	203.8
2017	15	123.0	--	--	123.0	64.0	187.0
2018	15	132.8	--	--	132.8	54.0	186.8
2019	17	184.3	--	--	184.3	54.3	238.6
Subtotal	**72**	**672.6**	**--**	**--**	**672.6**	**268.6**	**941.2**

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	4	37.4
2015	5	46.7
2016	16	149.5
2017	15	140.1
2018	15	140.1
2019	17	158.8
Subtotal	**72**	**672.6**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	7/5/2009	4/5/2012
Approved Quantity	101	24
Reference	Acquistion Strategy Production Phase Addendum	Acquisition Strategy Amendment
Start Year	2010	2014
End Year	2012	2015

The Current Total LRIP Quantity is more than 10% of the total production quantity due to schedule to meet FY 2019 Initial Operational Capability (IOC) for Presidential & National Voice Conferencing capability.

The December 2011 SAR reported against the January 2009 Acquisition Strategy, which reflected a 3-year LRIP schedule and included Advanced Wideband Terminals to accomplish Initial Operational Test & Evaluation (IOT&E) with LRIP assets.

The Under Secretary of Defense for Acquisition, Technology & Logistics Acquisition Decision Memorandum,dated August 23, 2012, directed a new Acquisition Program Baseline (APB) be developed prior to the Production pre-award In-Process Review Defense Acquisition Board (DAB). To support this DAB, planned for 4th quarter FY 2013, an Independent Cost Estimate (ICE) will be developed to support an updated APB. The APB will include updated LRIP quantities.

Foreign Military Sales

None

Nuclear Cost

None

Unit Cost

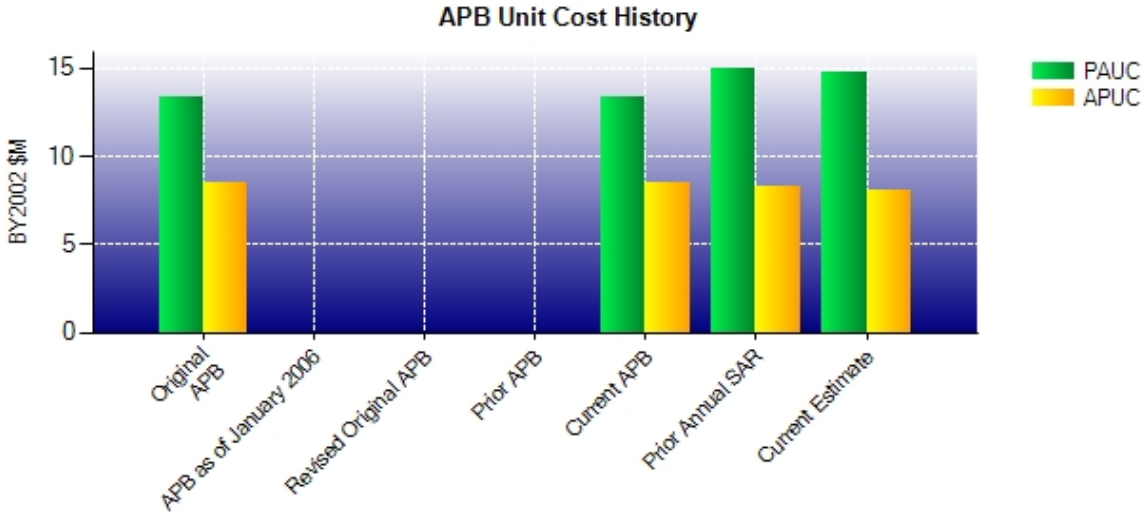
Unit Cost Report

Unit Cost	BY2002 $M Current UCR Baseline (DEC 2007 APB)	BY2002 $M Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	2960.5	3638.5	
Quantity	222	246	
Unit Cost	13.336	**14.791** [1]	+10.91
Average Procurement Unit Cost (APUC)			
Cost	1677.3	1742.8	
Quantity	197	216	
Unit Cost	8.514	8.069	-5.23

Unit Cost	BY2002 $M Original UCR Baseline (DEC 2007 APB)	BY2002 $M Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	2960.5	3638.5	
Quantity	222	246	
Unit Cost	13.336	14.791	+10.91
Average Procurement Unit Cost (APUC)			
Cost	1677.3	1742.8	
Quantity	197	216	
Unit Cost	8.514	8.069	-5.23

[1] **APB Unit Cost Breach**

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 2011	15.002	8.333	19.117	11.582
Current Estimate	DEC 2012	14.791	8.069	19.002	11.407

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	0.173	-1.002	0.732	0.710	2.580	0.000	1.145	4.338	19.002

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	0.130	-0.222	0.834	0.000	0.270	0.000	1.304	2.316	11.407

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	FEB 2014
IOC	N/A	JUN 2013	N/A	SEP 2019
Total Cost (TY $M)	N/A	3167.4	N/A	4674.6
Total Quantity	N/A	216	N/A	246
Prog. Acq. Unit Cost (PAUC)	N/A	14.664	N/A	19.002

Cost Variance

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	1431.1	1736.3	--	3167.4
Previous Changes				
Economic	+11.3	-12.3	--	-1.0
Quantity	+14.1	+179.5	--	+193.6
Schedule	--	+169.7	--	+169.7
Engineering	+174.7	--	--	+174.7
Estimating	+569.8	+105.2	--	+675.0
Other	--	--	--	--
Support	--	+323.3	--	+323.3
Subtotal	+769.9	+765.4	--	+1535.3
Current Changes				
Economic	+3.2	+40.3	--	+43.5
Quantity	--	--	--	--
Schedule	--	+10.4	--	+10.4
Engineering	--	--	--	--
Estimating	+6.4	-46.8	--	-40.4
Other	--	--	--	--
Support	--	-41.6	--	-41.6
Subtotal	+9.6	-37.7	--	-28.1
Total Changes	+779.5	+727.7	--	+1507.2
CE - Cost Variance	2210.6	2464.0	--	4674.6
CE - Cost & Funding	2210.6	2464.0	--	4674.6

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	+458.9	+81.8	--	+540.7
Other	--	--	--	--
Support	--	+213.8	--	+213.8
Subtotal	+616.6	+431.5	--	+1048.1
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+5.3	-25.4	--	-20.1
Other	--	--	--	--
Support	--	-31.8	--	-31.8
Subtotal	+5.3	-57.2	--	-51.9
Total Changes	+621.9	+374.3	--	+996.2
CE - Cost Variance	1895.7	1742.8	--	3638.5
CE - Cost & Funding	1895.7	1742.8	--	3638.5

Previous Estimate: December 2011

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+3.2
Adjustment for current and prior escalation. (Estimating)	-0.9	-1.2
Funding increased to support competition by introduction of an Alternate Source Development effort (Raytheon). (Estimating)	+6.2	+7.6
RDT&E Subtotal	+5.3	+9.6

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+40.3
Adjustment for current and prior escalation. (Estimating)	-0.1	-0.1
Rephasing of procurement buy profile from FY 2015 - FY 2021. (Schedule)	0.0	+21.1
Acceleration of procurement buy profile from FY 2014 - FY 2019. (Schedule)	0.0	-10.7
Revised estimate based on competitive acquisition strategy and rephased buy profile. (Subtotal)	-25.3	-46.7
Reduced contractor cost estimate for ground terminals based on competitive acquisition strategy (Appropriation 3010). (Estimating)	(-17.4)	(-29.3)
Reduced contractor cost estimate for airborne terminals based on competitive acquisition strategy (Appropriation 3080). (Estimating)	(-7.9)	(-17.4)
Revised estimate and reallocated costs for Interim Contractor Support and Depot Activation costs based on rephasing of buy profile. (Subtotal)	-27.6	-38.5
Reduced proportion of Interim Contractor Support and Depot Activation costs allocated to airborne platforms based on rephasing of buy profile and reduced quantity of airborne terminals fielded prior to Depot stand-up (Appropriation 3010). (Support)	(-44.8)	(-60.3)
Increased proportion of Interim Contractor Support and Depot Activation costs allocated to ground sites based on rephasing of buy profile and larger quantity of ground terminals fielded prior to Depot stand-up (Appropriation 3080). (Support)	(+17.2)	(+21.8)
Revised estimate for initial spares based on rephasing of buy schedule. (Subtotal)	-4.2	-3.1
Revised phasing for airborne platform spares based on buy profile (Appropriation 3010). (Support)	(+17.6)	(+29.3)
Revised phasing for ground site spares based on buy profile (Appropriation 3080). (Support)	(-21.8)	(-32.4)
Procurement Subtotal	-57.2	-37.7

Contracts

Appropriation: RDT&E

Contract Name	**Boeing FAB-T Development**
Contractor	Boeing
Contractor Location	Huntington Beach, CA 92647-2099
Contract Number, Type	F19628-02-C-0048, FFP
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	1773.1	N/A	30	1773.1	1773.1

Cost And Schedule Variance Explanations

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

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 Boeing Development contract was converted to Firm Fixed-Price in April 2012.

Appropriation: RDT&E

Contract Name	**Raytheon CPT Development**
Contractor	Raytheon
Contractor Location	1001 Boston Post Road E Marlborough, MA 01752-2377
Contract Number, Type	FA8307-12-C-0013, FPIF
Award Date	September 07, 2012
Definitization Date	

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
70.0	N/A	N/A	70.0	N/A	N/A	70.0	70.0

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this FPIF contract.

General Contract Variance Explanation

The contract is Fixed Price Incentive Firm, but Under Secretary of Defense (Acquisition Technology & Logistics) (USD(AT&L)) determined that earned value reporting was not required based on the short period of performance.

Contract Comments

This is the first time this contract is being reported.

The initial contract award covers a 10-month period of performance. Definitization of the contract, including all development options, is planned no later than June 2013.

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	4674.6	Years Appropriated	13
Expenditures To Date	1804.2	Percent Years Appropriated	61.90%
Percent Expended	38.60%	Appropriated to Date	2031.3
Total Funding Years	21	Percent Appropriated	43.45%

The above data is current as of 2/28/2013.

Operating and Support Cost

FAB-T

Assumptions and Ground Rules

Cost Estimate Reference:

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).

Sustainment Strategy:

FAB-T consists of 216 ground and airborne terminals with an assumed 20-year life per terminal after installation. 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. No additional manpower requirements are assumed and no increase to Indirect Support is required. Sustaining Support consists of sustaining engineering and software maintenance, which includes correction of deficiencies.

Antecedent Information:

FAB-T consists of Command Post Terminals (CPT) and Advanced 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 terminals to be replaced in the B-52, B-2, and RC-135 aircraft. There are 82 MILSTAR terminals, each with an expected service life of 18 years.

Unitized O&S Costs BY2002 $K

Cost Element	FAB-T Average Annual Cost per Terminal	MILSTAR (Antecedent) Average Annual Cost per Terminal
Unit-Level Manpower	0.000	0.000
Unit Operations	903.972	178.000
Maintenance	0.000	0.000
Sustaining Support	95.565	132.000
Continuing System Improvements	0.000	0.000
Indirect Support	0.000	0.000
Other	0.000	0.000
Total	999.537	310.000

Unitized Cost Comments:

FAB-T unitized costs are calculated as BY 2002 Total O&S Cost of $4,318M/216 terminals/20 years per terminal = $999.537K annual terminal cost.

	Total O&S Cost $M			
	Current Development APB Objective/Threshold		Current Estimate	
	FAB-T		FAB-T	MILSTAR (Antecedent)
Base Year	0.0	0.0	4318.1	0.0
Then Year	0.0	N/A	7181.0	0.0

Total O&S Costs Comments:
None

Disposal Costs

The O&S estimate did not include disposal costs.