Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-468

B61 Mod 12 Life Extension Program Tailkit Assembly (B61 Mod 12 LEP TKA)

As of FY 2017 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

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

B61 Mod 12 Life Extension Program Tailkit Assembly (B61 Mod 12 LEP TKA)

DoD Component

Air Force

Responsible Office

Mr. John Mistretta
207 West D Ave, Bldg 350
Eglin Air Force Base, FL 32542

john.mistretta@us.af.mil

Phone: 850-883-0671
Fax: 850-882-6637
DSN Phone: 875-0671
DSN Fax: 872-6637
Date Assigned: January 1, 2012

References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 14, 2012

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 14, 2012

Mission and Description

The B61 Mod 12 Life Extension Program (LEP) will consolidate Mods 3, 4, 7 and 10 into a single Mod (B61-12) while extending the system's service life. B61-12 is an air-delivered nuclear gravity weapon providing nuclear capability on existing legacy aircraft and dual capable aircraft. The single variant will operate in two modes, System 1 (analog/ballistic mode) and System 2 (digital/guided mode).

The B61 Mod 12 LEP Tailkit Assembly (TKA) (hereby referred to as B61-12 TKA) is the enabler for realizing System 2. This is an Air Force led ACAT ID Program. The DoD responsibility is executed by the Air Force Nuclear Weapons Center (AFNWC). In accordance with the Air Force Materiel Command mission assignment memorandum (dated February 11, 2011) and the National Nuclear Security Administration (NNSA)/AFNWC Memorandum of Understanding (dated June 28, 2012), AFNWC/NDB (Eglin) is responsible for the development, acquisition, and delivery of a guided TKA and AFNWC/NTW (Kirtland) is responsible for All Up Round technical integration, system qualification, Operational Safety, Suitability, and Effectiveness and fielding of the B61-12 variant.

The DOE/NNSA is responsible for the B61-12 Bomb Assembly and all aspects of the nuclear warhead, including design, manufacture, and portions of sustainment. Funding of these activities will be shared between the DoD and DOE.

Executive Summary

In November 2012, in conjunction with the Milestone B decision, certification was made pursuant to section 2366b of Title 10, United States Code. Based on program maturity, the B61-12 TKA was deemed ready to enter the EMD phase; however, the USD(AT&L) waived four of the 2366b provisions. In July 2014, the program satisfied two of the four waived provisions, (a)(1)(B) and (a)(1)(D) (now (a)(3)(B) and (a)(3)(D), respectively), on the basis that the program was fully funded in the FYDP associated with the FY 2015 PB. In November 2014, the program satisfied the requirement for provision, (a)(2) (now (a)(1)) following completion of the Preliminary Design Review (PDR) and post-PDR assessment (the program demonstrated a high likelihood of accomplishing its intended mission). Based on the maturity of the required technology, USD(AT&L) determined that a Technology Readiness Assessment for the B61-12 TKA is not needed; however, the Assistant Secretary of Defense for Research and Engineering will conduct an independent review and assessment to satisfy the certification requirement for the fourth waived provision, (a)(3)(D) (now (a)(2)). This review will be based upon the point of departure design, test data from a guided test flight, and the change point analysis between the point of departure design and guided test configuration. Initial data to support this assessment will be available in April 2016. The Department will continue to review the B61-12 TKA program at least annually until this last certification component is satisfied.

In May 2015, B61-12 TKA provided a program briefing to USD(AT&L) and members of the Nuclear Weapons Council. The program briefing highlighted the implementation plan for the radiation hardened inertial measurement unit (IMU 3.5), which will be integrated into the TKA and support DoD and Department of Energy (DOE) B61-12 testing.

During July - November 2015, the B61-12 TKA conducted three guided test flights to verify design performance leading to Critical Design Review (CDR). B61-12 CDR was conducted January 2016. Additionally B61-12 TKA provided deliverables in support of DOE Flight Test Development Unit tests occurring from July - October 2015.

In December 2015, the B61-12 TKA program office awarded a Cost Plus Incentive Fee contract to Boeing for EMD Phase 2.

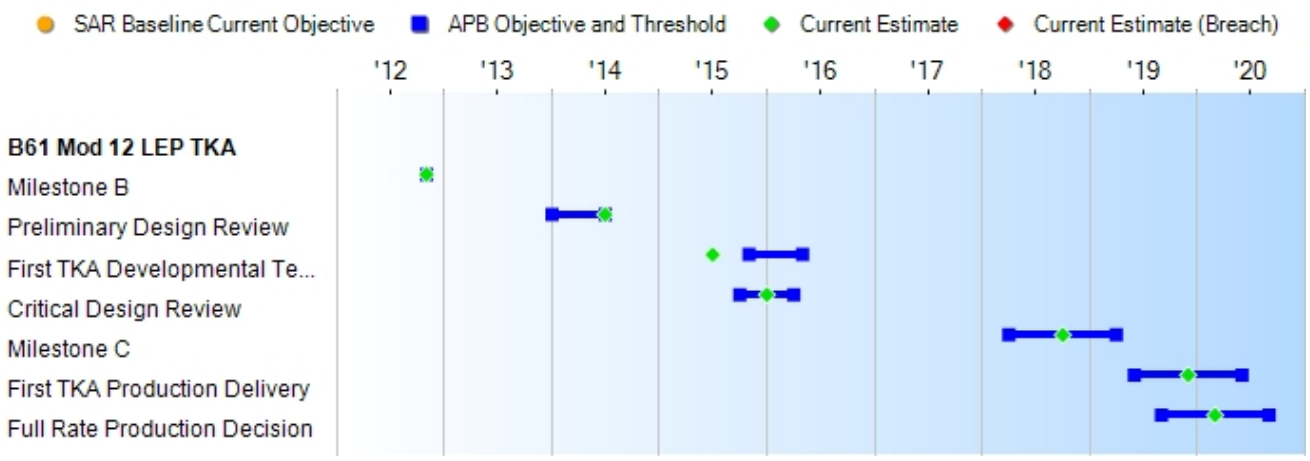
There are no significant software-related issues with this program at this time.

Threshold Breaches

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

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 B	Nov 2012	Nov 2012	Nov 2012	Nov 2012	
Preliminary Design Review	Jan 2014	Jan 2014	Jul 2014	Jul 2014	
First TKA Developmental Test Flight	Nov 2015	Nov 2015	May 2016	Jul 2015	(Ch-1)
Critical Design Review	Oct 2015	Oct 2015	Apr 2016	Jan 2016	(Ch-2)
Milestone C	Apr 2018	Apr 2018	Apr 2019	Oct 2018	(Ch-3)
First TKA Production Delivery	Jun 2019	Jun 2019	Jun 2020	Dec 2019	(Ch-3)
Full Rate Production Decision	Sep 2019	Sep 2019	Sep 2020	Mar 2020	(Ch-3)

Change Explanations

(Ch-1) The First TKA Developmental Test Flight event changed from November 2015 to July 2015 which is when the GTV 1 flight test was conducted.
(Ch-2) The CDR event changed from October 2015 to January 2016 which is when the CDR was conducted. The shift in the CDR date allowed for finalization of flight test data and requirements update.
(Ch-3) The Milestone C event changed from April 2018 to October 2018. Similarly The First TKA Production Delivery event changed from June 2019 to December 2019. The FRP Decision event shifted from September 2019 to March 2020. At Milestone B, the TKA program planned on utilizing some DOE AUR System Qualification tests to support the evaluation of the TKA reliability prior to Milestone C. Given schedule adjustments to both DOE and DoD efforts, leveraging AUR System Qualification flight test for the TKA may not be feasible. The TKA program is pursuing a plan for additional TKA flight test to ensure the TKA program can adequately address its reliability requirement prior to Milestone C. To accommodate a total of 35 TKA development flight tests, a shift in Milestone C to October 2018 is projected. Similarly, a 6 month Milestone C shift, equates to a First TKA Production Delivery and FRP Decision shift by 6 months.

Notes

Risks associated with parallel development activities being conducted by the DoD and the DOE drive threshold dates that are one year beyond objective dates for Milestone C, First TKA Production Delivery, and FRP Decision.

Delivery of the first production unit (First TKA Production Delivery) is used as a surrogate for IOC; DOE is responsible for production integration of the Bomb Assembly with the TKA and subsequent AUR deliveries to the field for IOC.

Acronyms and Abbreviations

AUR - All Up Round
CDR - Critical Design Review
DOE - Department of Energy
GTV - Guided Test Vehicle
PDR - Preliminary Design Review

Performance

Performance Characteristics				
SAR Baseline Development Estimate	**Current APB Development Objective/Threshold**		**Demonstrated Performance**	**Current Estimate**
Aircraft Integration (KPP)				
B61-12 TKA, when mated to the B61-12 BA, must be integrated on the F-35A and LRS-B for System 2 guided delivery; F-16C/D (Blk 40-52), F-16 MLU, and PA-200 for System 1 ballistic delivery.	B61-12 TKA, when mated to the B61-12 BA, must be integrated on the F-35A and LRS-B for System 2 guided delivery; F-16C/D (Blk 40-52), F-16 MLU, and PA-200 for System 1 ballistic delivery.	B61-12 TKA, when mated to the B61-12 BA, must be integrated on B-2A and F-15E aircraft for System 2 guided delivery.	TBD	B61-12 TKA, when mated to the B61-12 BA, must be integrated on the B-2A, F-15E, F-35A and LRS-B for System 2 guided delivery; F-16C/D (Blk 40-52), F-16 MLU, and PA-200 for System 1 ballistic delivery.
WS3 Vault Compatibility (KPP)				
B61-12 TKA, while mated to the B61-12 BA, must permit the storage of four (4) B61-12 AURs in a single WS3 vault.	B61-12 TKA, while mated to the B61-12 BA, must permit the storage of four (4) B61-12 AURs in a single WS3 vault.	B61-12 TKA, while mated to the B61-12 BA, must permit the storage of four (4) B61-12 AURs in a single WS3 vault.	Verified by fit checks conducted at Sheppard AFB on April 9, 2013.	B61-12 TKA, while mated to the B61-12 BA, must permit the storage of four (4) B61-12 AURs in a single WS3 vault.
HEMP Survivability (KSA)				
B61 TKA achieves the accuracy KPP after exposure to the HEMP environment.	B61 TKA achieves the accuracy KPP after exposure to the HEMP environment.	B61 TKA achieves the accuracy KPP after exposure to the HEMP environment.	TBD	B61 TKA achieves the accuracy KPP after exposure to the HEMP environment.

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

Requirements Reference

CDD dated September 20, 2012

Change Explanations

None

Acronyms and Abbreviations

AFB - Air Force Base
AUR - All Up Round
BA - Bomb Assembly
HEMP - High Altitude Electro-Magnetic Pulse
KSA - Key System Attribute
LRS-B - Long Range Strike-Bomber
MLU - Mid-Life Upgrade
TKA - Tailkit Assembly
WS3 - Weapon Storage and Security System

Track to Budget

RDT&E

Appn	BA	PE
Air Force	05	0101125F

Project	Name
657007	B61 LEP

Procurement

Appn	BA	PE
Air Force	01	0101125F

Line Item	Name
354040	B61

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2012 $M			BY 2012 $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	1007.6	1007.6	1108.4	892.9	1090.7	1090.7	958.3
Procurement	314.0	314.0	345.4	301.2	361.1	361.1	355.1
Flyaway	--	--	--	301.2	--	--	355.1
Recurring	--	--	--	301.2	--	--	355.1
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	0.0	--	--	0.0
Other Support	--	--	--	0.0	--	--	0.0
Initial Spares	--	--	--	0.0	--	--	0.0
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	1321.6	1321.6	N/A	1194.1	1451.8	1451.8	1313.4

Confidence Level

Confidence Level of cost estimate for current APB: 56%

The confidence level for the EMD total estimate is 56%; the confidence level for the Procurement estimate is 51%; and the confidence level for the (O&S) estimate is 50%.

The APB costs reflect the SCP, which was approved on October 19, 2012. The SCP aims to provide sufficient resources to execute the program under normal conditions, encountering average levels of technical, schedule, and programmatic risk and external interference. It is consistent with average resource expenditures on historical efforts of similar size, scope, and complexity. Therefore, the approved SCP represents a mean cost estimate.

Total Quantity			
Quantity	SAR Baseline Development Estimate	Current APB Development	Current Estimate
RDT&E	77	77	77
Procurement	813	813	813
Total	890	890	890

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2017 President's Budget / December 2015 SAR (TY$ M)									
Appropriation	Prior	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
RDT&E	325.3	212.1	137.9	151.0	95.6	36.4	0.0	0.0	958.3
Procurement	0.0	0.0	0.0	145.4	207.2	2.5	0.0	0.0	355.1
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 2017 Total	325.3	212.1	137.9	296.4	302.8	38.9	0.0	0.0	1313.4
PB 2016 Total	345.4	212.1	206.3	299.0	308.3	50.7	0.0	0.0	1421.8
Delta	-20.1	0.0	-68.4	-2.6	-5.5	-11.8	0.0	0.0	-108.4

Funding Notes

Prior year decrements represent a Below Threshold Reprogramming and Small Business Innovation Research reduction for a total of $20.1M. An Above Threshold Reprogramming for $40M was also approved but it is not reflected in the current or prior year PB totals.

Quantity Summary										
FY 2017 President's Budget / December 2015 SAR (TY$ M)										
Quantity	Undistributed	Prior	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Development	77	0	0	0	0	0	0	0	0	77
Production	0	0	0	0	250	563	0	0	0	813
PB 2017 Total	77	0	0	0	250	563	0	0	0	890
PB 2016 Total	77	0	0	0	250	563	0	0	0	890
Delta	0	0	0	0	0	0	0	0	0	0

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
2012	--	--	--	--	--	--	81.6
2013	--	--	--	--	--	--	62.4
2014	--	--	--	--	--	--	33.0
2015	--	--	--	--	--	--	148.3
2016	--	--	--	--	--	--	212.1
2017	--	--	--	--	--	--	137.9
2018	--	--	--	--	--	--	151.0
2019	--	--	--	--	--	--	95.6
2020	--	--	--	--	--	--	36.4
Subtotal	77	--	--	--	--	--	958.3

Annual Funding 3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	BY 2012 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2012	--	--	--	--	--	--	80.8
2013	--	--	--	--	--	--	60.8
2014	--	--	--	--	--	--	31.7
2015	--	--	--	--	--	--	141.2
2016	--	--	--	--	--	--	198.9
2017	--	--	--	--	--	--	126.9
2018	--	--	--	--	--	--	136.4
2019	--	--	--	--	--	--	84.6
2020	--	--	--	--	--	--	31.6
Subtotal	77	--	--	--	--	--	892.9

Annual Funding 3011 | Procurement | Procurement of Ammunition, 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
2018	250	145.4	--	--	145.4	--	145.4
2019	563	207.2	--	--	207.2	--	207.2
2020	--	--	2.5	--	2.5	--	2.5
Subtotal	813	352.6	2.5	--	355.1	--	355.1

Annual Funding 3011 | Procurement | Procurement of Ammunition, Air Force							
Fiscal Year	Quantity	BY 2012 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2018	250	124.8	--	--	124.8	--	124.8
2019	563	174.3	--	--	174.3	--	174.3
2020	--	--	2.1	--	2.1	--	2.1
Subtotal	813	299.1	2.1	--	301.2	--	301.2

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	11/19/2012	11/19/2012
Approved Quantity	250	250
Reference	Milestone B ADM	Milestone B ADM
Start Year	2018	2018
End Year	2019	2019

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the low production run and the need to sychronize DoD deliveries with the Department of Energy B61-12 Bomb Assembly program.

Foreign Military Sales

None

Nuclear Costs

Nuclear costs related to the B61-12 TKA program are captured in the Department of Energy Bomb Assembly SAR.

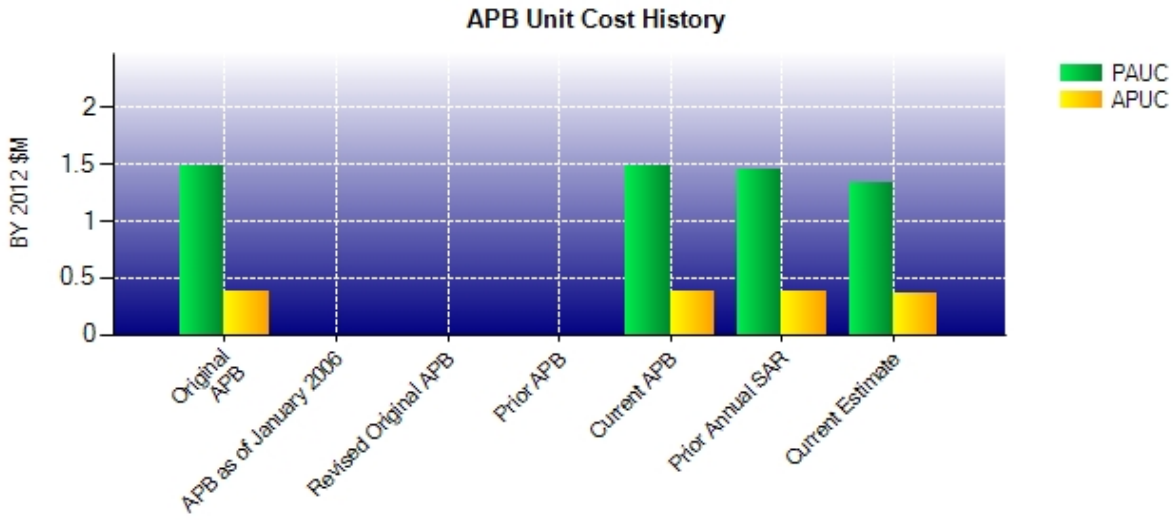
Unit Cost

Unit Cost Report

Item	BY 2012 $M Current UCR Baseline (Dec 2012 APB)	BY 2012 $M Current Estimate (Dec 2015 SAR)	% Change
Program Acquisition Unit Cost			
Cost	1321.6	1194.1	
Quantity	890	890	
Unit Cost	1.485	1.342	-9.63
Average Procurement Unit Cost			
Cost	314.0	301.2	
Quantity	813	813	
Unit Cost	0.386	0.370	-4.15

Item	BY 2012 $M Original UCR Baseline (Dec 2012 APB)	BY 2012 $M Current Estimate (Dec 2015 SAR)	% Change
Program Acquisition Unit Cost			
Cost	1321.6	1194.1	
Quantity	890	890	
Unit Cost	1.485	1.342	-9.63
Average Procurement Unit Cost			
Cost	314.0	301.2	
Quantity	813	813	
Unit Cost	0.386	0.370	-4.15

Unit Cost History



Item	Date	BY 2012 $M		TY $M	
		PAUC	APUC	PAUC	APUC
Original APB	Dec 2012	1.485	0.386	1.631	0.444
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 2012	1.485	0.386	1.631	0.444
Prior Annual SAR	Dec 2014	1.458	0.386	1.598	0.440
Current Estimate	Dec 2015	1.342	0.370	1.476	0.437

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	
1.631	-0.004	0.000	-0.076	0.000	-0.075	0.000	0.000	-0.155	1.476

Current SAR Baseline to Current Estimate (TY $M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.444	0.011	0.000	0.000	0.000	-0.019	0.000	0.000	-0.008	0.437

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	Nov 2012	N/A	Nov 2012
Milestone C	N/A	Apr 2018	N/A	Oct 2018
IOC	N/A	N/A	N/A	N/A
Total Cost (TY $M)	N/A	1451.8	N/A	1313.4
Total Quantity	N/A	890	N/A	890
PAUC	N/A	1.631	N/A	1.476

First Tailkit Assembly (TKA) Production Delivery is used as a surrogate for IOC; the Department of Energy is responsible for production integration of the Bomb Assembly/TKA and subsequent All Up Round deliveries to the field for IOC.

Cost Variance

Summary TY $M				
Item	**RDT&E**	**Procurement**	**MILCON**	**Total**
SAR Baseline (Development Estimate)	1090.7	361.1	--	1451.8
Previous Changes				
Economic	-6.4	-2.6	--	-9.0
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-20.2	-0.8	--	-21.0
Other	--	--	--	--
Support	--	--	--	--
Subtotal	-26.6	-3.4	--	-30.0
Current Changes				
Economic	-6.4	+11.8	--	+5.4
Quantity	--	--	--	--
Schedule	-68.4	--	--	-68.4
Engineering	--	--	--	--
Estimating	-31.0	-14.4	--	-45.4
Other	--	--	--	--
Support	--	--	--	--
Subtotal	-105.8	-2.6	--	-108.4
Total Changes	-132.4	-6.0	--	-138.4
CE - Cost Variance	958.3	355.1	--	1313.4
CE - Cost & Funding	958.3	355.1	--	1313.4

Summary BY 2012 $M				
Item	**RDT&E**	**Procurement**	**MILCON**	**Total**
SAR Baseline (Development Estimate)	1007.6	314.0	--	1321.6
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-23.5	-0.5	--	-24.0
Other	--	--	--	--
Support	--	--	--	--
Subtotal	-23.5	-0.5	--	-24.0
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	-62.9	--	--	-62.9
Engineering	--	--	--	--
Estimating	-28.3	-12.3	--	-40.6
Other	--	--	--	--
Support	--	--	--	--
Subtotal	-91.2	-12.3	--	-103.5
Total Changes	-114.7	-12.8	--	-127.5
CE - Cost Variance	892.9	301.2	--	1194.1
CE - Cost & Funding	892.9	301.2	--	1194.1

Previous Estimate: December 2014

RDT&E	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-6.4
Revised estimate to align with FY 2017 PB which resulted in program rephasing. (Schedule)	-62.9	-68.4
Revised estimate due to Small Business Innovative Research reduction. (Estimating)	-9.6	-10.1
Revised estimate due to Below Threshold Reprogramming action taken. (Estimating)	-9.5	-10.0
Revised estimate due to Air Force-wide inflationary adjustment. (Estimating)	-11.8	-13.6
Adjustment for current and prior escalation. (Estimating)	+2.6	+2.7
RDT&E Subtotal	-91.2	-105.8

Procurement	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+11.8
Revised estimate due to Air Force-wide inflationary adjustments. (Estimating)	-2.2	-2.6
Adjustment for current and prior escalation. (Estimating)	-10.1	-11.8
Procurement Subtotal	-12.3	-2.6

Contracts

Contract Identification

Appropriation: RDT&E
Contract Name: B61-12 TKA EMD Phase 1
Contractor: Boeing
Contractor Location: 2600 N 3rd Street
St. Charles, MO 63301
Contract Number: FA2103-13-C-0006
Contract Type: Cost Plus Incentive Fee (CPIF)
Award Date: November 27, 2012
Definitization Date: November 27, 2012

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
178.6	N/A	N/A	186.3	N/A	N/A	184.9	193.4

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to additional modifications post initial contract award.

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (9/30/2015)	-1.3	-11.4
Previous Cumulative Variances	+3.0	-4.8
Net Change	-4.3	-6.6

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to increased cost in performance of work packages for the Inertial Measurement Unit, primary structure; environmental testing, munitions software, on board test equipment, and guidance algorithms.

The unfavorable net change in the schedule variance is due to delays regarding the actuators, munitions assembly test and checkout, environmental testing, and mission computer.

Notes

Cost and Schedule variances are as of September 30, 2015. Boeing has declared an Over Target Schedule for EMD Phase 1. The EVM data has been temporarily suspended until the action items from the February Integrated Baseline Review are complete.

Deliveries and Expenditures

Deliveries				
Delivered to Date	**Planned to Date**	**Actual to Date**	**Total Quantity**	**Percent Delivered**
Development	0	0	77	0.00%
Production	0	0	813	0.00%
Total Program Quantity Delivered	0	0	890	0.00%

Expended and Appropriated (TY $M)			
Total Acquisition Cost	1313.4	Years Appropriated	5
Expended to Date	274.3	Percent Years Appropriated	55.56%
Percent Expended	20.88%	Appropriated to Date	537.4
Total Funding Years	9	Percent Appropriated	40.92%

The above data is current as of February 29, 2016.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	October 19, 2012
Source of Estimate:	SCP
Quantity to Sustain:	824
Unit of Measure:	Tailkit Assembly (TKA)
Service Life per Unit:	20.00 Years
Fiscal Years in Service:	FY 2019 - FY 2040

- Unit of Measure = Tailkit Assembly (TKA)
- Total Quantity = 824
  -- Production quantity: 813
  -- Development Trainers: 11
- 77 test assets in RDT&E are expended; not sustained. The 11 development trainers are not included in this number.
- Estimate assumes wooden round -- Production Lifetime Sparing Concept
- Contractor services retained for failure analysis, test support, logistical support, destructive testing, etc.
- Projected contractor labor rates are through FY 2040
  -- Used 4% increase in base pay rate to account for differences in contractor inflation versus OSD published inflation
- No nuclear certification required for Tailkit Assembly Stand-Alone Test Sets
- Continental United States (CONUS) shipping costs for Weapon System Evaluation Program assets paid by the Department of Energy
- Personnel Outside of the CONUS locations exist solely to support this weapon

Sustainment Strategy

B61-12 TKA Sustainment Strategy is based on system reliability requirements/projections. Planned Material Availability is sustained through a 20-year service life spares buy that is included in the TKA production quantities. Air Force Materiel Command (AFMC) has determined no organic depot level repair requirements at this time. Organizational/Intermediate level maintenance is limited to replacement, inspection, disassembly/reassembly of TKA from All Up Round (B61-12 All Up Round). A TKA Business Case Analysis (BCA) projected for late FY 2016 will evaluate cost effectiveness of selecting an optional warranty, organic, or Contractor Logistics Support (CLS) based on final reliability projections, test set design, support equipment, and engineering requirements.

Antecedent Information

No Antecedent

Annual O&S Costs BY2012 $M		
Cost Element	**B61 Mod 12 LEP TKA Average Annual Cost Per Tailkit Assembly (TKA)**	**No Antecedent (Antecedent)**
Unit-Level Manpower	0.069	--
Unit Operations	0.001	--
Maintenance	0.005	--
Sustaining Support	0.015	--
Continuing System Improvements	0.000	--
Indirect Support	0.042	--
Other	0.000	--
Total	0.132	--

Data Source: SCP

Item	Total O&S Cost $M			
	B61 Mod 12 LEP TKA			No Antecedent (Antecedent)
	Current Development APB Objective/Threshold		Current Estimate	
Base Year	2283.3	2511.6	2283.3	N/A
Then Year	2887.3	N/A	2887.3	N/A

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Equation to Translate Annual Cost to Total Cost

Average Annual Unitized Cost = (Total O&S Cost/Quantity)/(Service Life plus trainer lead-in time) = ($2283.3M/824)/(20+1)

O&S Cost Variance		
Category	**BY 2012 $M**	**Change Explanations**
Prior SAR Total O&S Estimates - Dec 2014 SAR	2283.3	
Programmatic/Planning Factors	0.0	
Cost Estimating Methodology	0.0	
Cost Data Update	0.0	
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	0.0	
Other	0.0	
Total Changes	0.0	
Current Estimate	2283.3	

Disposal Estimate Details

Date of Estimate:	October 19, 2012
Source of Estimate:	SCP
Disposal/Demilitarization Total Cost (BY 2012 $M):	Total costs for disposal of all Tailkit Assembly (TKA) are 0.1

$0.190M in TY dollars ~ $.120M in BY 2012 dollars.