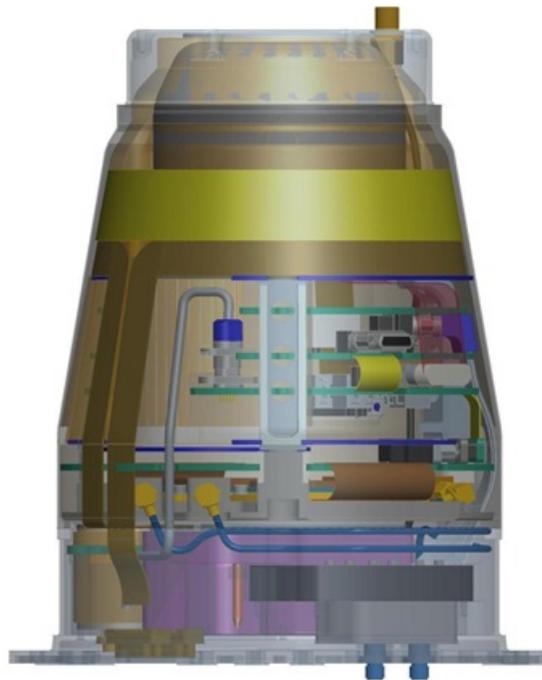




Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-498



Air Force Intercontinental Ballistic Missile Fuze Modernization (ICBM Fuze Mod)

As of FY 2016 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Common Acronyms and Abbreviations for MDAP Programs

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

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

Program Information

Program Name

Air Force Intercontinental Ballistic Missile Fuze Modernization (ICBM Fuze Mod)

DoD Component

Air Force

Responsible Office

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Date Assigned: June 27, 2013

References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated September 29, 2014

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated September 29, 2014

Mission and Description

The mission of the Air Force Intercontinental Ballistic Missile Fuze Modernization (ICBM Fuze Mod) program is to develop and produce a form, fit, functional replacement Mk21 Arming and Fuzing Assembly for the legacy Mk21 fuze, which is utilized with the W87 warhead.

The Air Force ICBM Minuteman III (MMIII) fuzes require recapitalization due to the legacy fuze being three times past the original design life. In MMIII sustainment, there is an ongoing refurbishment program; however, this activity will not meet fuze quantity requirements under the current known force structure. The Mk21 replacement fuze is being designed for a 30-year design life which will meet current and future Combatant Command ICBM needs for MMIII and Ground Based Strategic Deterrent. The Air Force is leveraging the Navy's Mk5 Alteration 370 program to maximize commonality and achieve cost savings/avoidance over the lifecycle.

Executive Summary

This is the initial SAR submission for the ICBM Fuze Mod program.

USD(AT&L), as the Chairman of the Nuclear Weapons Council, authorized use of the joint DoD/Department of Energy (DOE) Instruction 5030.55 for the implementation of the ICBM Fuze Mod program and entry into Phase 6.3 Development Engineering. This decision is documented in the ADM, dated August 18, 2013, entitled "Air Force Intercontinental Ballistic Missile Fuze Program Phase 6.3 Development Engineering Authorization." The APB was approved September 29, 2014.

This initial SAR will not yet include EVM data. The government executed an Integrated Baseline Review jointly with the Navy from February 26, 2015 - March 6, 2015, and, upon final concurrence of an executable baseline, the design agent (Sandia National Laboratories) will begin to officially report EVM data. The program plans for an FY 2022 First Production Unit and a delivery to War Reserve of 693 fuzes by FY 2030.

Certification pursuant to section 2366b of title 10, United States Code, and the ICE for the ICBM Fuze Mod program are currently in development consistent with the determination that the program is an MDAP. The MDAP determination was made subsequent to the latest acquisition milestone approval, Air Force ICBM Fuze Program Phase 6.3 "Engineering Development" Authorization (August 11, 2013). Until this determination was made, the program was executed solely under the direction of the Nuclear Weapons Council using the joint DoD/DOE Phase 6.X process as documented in the Phase 6.2/6.2A Feasibility and Cost Study for W88/Mk5 Arming, Fuzing, and Firing System Alteration (August 1, 2011), which did not require an ICE or 2366b certification.

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

Threshold Breaches

APB Breaches

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

Nunn-McCurdy Breaches

Current UCR Baseline

PAUC	None
APUC	None

Original UCR Baseline

PAUC	None
APUC	None

Schedule



Schedule Events				
Events	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate
DOE Phase 6.3 Milestone Decision (Program Initiation)	Aug 2013	Aug 2013	Aug 2013	Aug 2013
Component Conceptual Design Review	Oct 2014	Oct 2014	Apr 2015	Oct 2014
Baseline Design Review	Mar 2017	Mar 2017	Sep 2017	Mar 2017
Prototype Design Review	Feb 2018	Feb 2018	Aug 2018	Feb 2018
DOE Phase 6.4 Milestone Decision (Production Engineering)	Jan 2019	Jan 2019	Jan 2020	Jan 2019
Final Design Review	Dec 2019	Dec 2019	Jun 2020	Dec 2019
Production Readiness Review	Feb 2022	Feb 2022	Aug 2022	Feb 2022
DOE Phase 6.5 Milestone Decision (First Production)	Sep 2022	Sep 2022	Sep 2023	Sep 2022
DOE Phase 6.6 Milestone Decision (Full Scale Production)	Apr 2023	Apr 2023	Apr 2024	Apr 2023
RAA	Jul 2023	Jul 2023	Jul 2024	Jul 2023

Change Explanations

None

Notes

The USD(AT&L), as the Chairman of the Nuclear Weapons Council, authorized use of the joint DoD/DOE Instruction 5030.55 for the implementation of the ICBM Fuze Mod program and entry into Phase 6.3 Development Engineering. This decision is documented in the ADM, dated August 18, 2013, entitled "Air Force Intercontinental Ballistic Missile Fuze Program Phase 6.3 Development Engineering Authorization." For the purpose of acquisition oversight and the APB, the Phase 6.3 milestone is roughly equivalent to Milestone B. During Phase 6.3, the program is executing an LOPB strategy as authorized in the FY 2015 National Defense Authorization Act to maintain commonality with the Navy's Mk5 Alteration 370 program. The production funding supporting LOPB is only being utilized to procure raw materials and sub-parts to minimize nuclear qualification costs during Phase 6.3.

Phase 6.4, "Production Engineering," does not line up with an equivalent milestone under DoD 5000.02. The purpose of Phase 6.4 is to adapt the development design into a design suitable for quantity production. At this point, the provisioning of spares also occurs in conjunction with the DoD. At Phase 6.4, the program will seek authorization from the MDA to execute production funding to build components and fuzes supporting test. There is no equivalent LRIP decision point in the program; however, the program will ensure the Phase 6.4 milestone gains authorization for the purpose of LRIP. Between Phase 6.4 and Phase 6.5 "First Production Unit" the program will execute production funding to support build-up, production process prove-in, and nuclear certification of the ICBM Fuze.

Milestones with threshold dates of 12 months beyond the objective dates reflect the nominal time to recover from an ICBM flight test failure.

RAA is being used as a surrogate for IOC. RAA is defined as ten Mk21 fuzes available for deployment with the technical data, test equipment, and technical training materials required to support wing operations.

Acronyms and Abbreviations

DOE - Department of Energy
ICBM - Intercontinental Ballistic Missile
LOPB - Life of Program Buy
RAA - Required Assets Available

Performance

Performance Characteristics				
SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
System Qualification Attribute 4: Fuze Replacement Design Life				
30-year service life upon DoD custody.	30-year service life upon DoD custody.	20-year service life upon DoD custody.	TBD	30-year service life upon DoD custody.

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

Requirements Reference

AFGSC ICBM Fuze Program Requirements Traceability Memorandum dated December 12, 2013

Change Explanations

None

Notes

The ICBM Fuze Mod program is a form, fit, and functionally equivalent replacement for the existing legacy Mk21 Arming and Fuzing Assembly utilizing the joint DoD/DOE 6.X acquisition process with no planned capability increase. As a form, fit, and function replacement, the AFGSC published the ICBM Fuze Program Requirements Traceability Memorandum, which documents the requirements that must be met by the Mk21 replacement fuze.

Acronyms and Abbreviations

AFGSC - Air Force Global Strike Command
 DOE - Department of Energy
 ICBM - Intercontinental Ballistic Missile

Track to Budget

RDT&E

Appn	BA	PE	
Air Force	3600	05	0604222F
	Project	Name	
	654236	Engineering Analysis (Sunk)	
Air Force	3600	05	0604851F
	Project	Name	
	657006	ICBM EMD: Fuze Support (Sunk)	
Air Force	3600	05	0604933F
	Project	Name	
	655082	ICBM Fuze Modernization	

Notes

In FY 2011, program efforts began in PE 0604222F and are represented in the Joint Fuze major thrust of project 654236. In FY 2012, program efforts were assigned the unique project number 657006 and were transferred to PE 0604851F. In FY2013, program efforts were assigned the unique project number 655082 and were transferred to the unique PE 0604933F. Funding remains in PE 0604933F throughout the remainder of the life of the RDT&E efforts.

Procurement

Appn	BA	PE	
Air Force	3020	03	0101213F
	Line Item	Name	
	M30MLG	MM III Modifications (Shared)	
	Notes:	The ICBM Fuze Mod has an individual modification number of 5915 / ICBM Fuze Modernization (Service Life Extension).	

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2014 \$M			BY 2014 \$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	1151.3	1151.3	1266.4	1159.9	1246.1	1246.1	1246.1
Procurement	663.5	663.5	729.9	666.8	829.6	829.6	829.9
Flyaway	--	--	--	666.8	--	--	829.9
Recurring	--	--	--	666.8	--	--	829.9
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	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	1814.8	1814.8	N/A	1826.7	2075.7	2075.7	2076.0

Current APB Cost Estimate Reference

Service Cost Position dated June 12, 2014

Confidence Level

Confidence Level of cost estimate for current APB: 55%

The life-cycle cost estimate reflects the expected value, or mean, of the cost estimate distribution. It takes into consideration relevant risks, including ordinary levels of external and unforeseen events, aiming to provide sufficient resources to execute the program under normal conditions encountering average levels of technical, schedule, and programmatic risk and external influence.

Total Quantity			
Quantity	SAR Baseline Development Estimate	Current APB Development	Current Estimate
RDT&E	88	88	88
Procurement	693	693	693
Total	781	781	781

Quantity Notes

The funded quantity of 781 includes all of the units necessary for development, testing, operational fielding, aging and surveillance, and replenishment spares.

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2016 President's Budget / December 2014 SAR (TY\$ M)									
Appropriation	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
RDT&E	191.4	59.8	142.6	191.0	180.2	169.7	159.2	152.2	1246.1
Procurement	0.0	4.7	13.7	17.4	6.4	9.9	12.3	765.5	829.9
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 2016 Total	191.4	64.5	156.3	208.4	186.6	179.6	171.5	917.7	2076.0
	--	--	--	--	--	--	--	--	--

Funding Notes

The ICBM Fuze Mod program is being executed via a "Work for Others" agreement with the National Nuclear Security Administration and is 100% funded by the Air Force. There are no Department of Energy funds being used to support the design and production of the ICBM Fuze Mod program.

Quantity Summary										
FY 2016 President's Budget / December 2014 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Development	88	0	0	0	0	0	0	0	0	88
Production	0	0	0	0	0	0	0	0	6	693
PB 2016 Total	88	0	0	0	0	0	0	0	6	781
	--	--	--	--	--	--	--	--	--	--

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
2011	--	--	--	--	--	--	9.7
2012	--	--	--	--	--	--	39.7
2013	--	--	--	--	--	--	65.4
2014	--	--	--	--	--	--	76.6
2015	--	--	--	--	--	--	59.8
2016	--	--	--	--	--	--	142.6
2017	--	--	--	--	--	--	191.0
2018	--	--	--	--	--	--	180.2
2019	--	--	--	--	--	--	169.7
2020	--	--	--	--	--	--	159.2
2021	--	--	--	--	--	--	123.3
2022	--	--	--	--	--	--	28.9
Subtotal	88	--	--	--	--	--	1246.1

Annual Funding 3600 RDT&E Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	BY 2014 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2011	--	--	--	--	--	--	10.1
2012	--	--	--	--	--	--	40.5
2013	--	--	--	--	--	--	65.6
2014	--	--	--	--	--	--	75.6
2015	--	--	--	--	--	--	58.3
2016	--	--	--	--	--	--	136.7
2017	--	--	--	--	--	--	179.8
2018	--	--	--	--	--	--	166.4
2019	--	--	--	--	--	--	153.6
2020	--	--	--	--	--	--	141.3
2021	--	--	--	--	--	--	107.3
2022	--	--	--	--	--	--	24.7
Subtotal	88	--	--	--	--	--	1159.9

Annual Funding							
3020 Procurement Missile Procurement, Air Force							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2015	--	4.7	--	--	4.7	--	4.7
2016	--	13.7	--	--	13.7	--	13.7
2017	--	17.4	--	--	17.4	--	17.4
2018	--	6.4	--	--	6.4	--	6.4
2019	--	9.9	--	--	9.9	--	9.9
2020	6	9.4	2.9	--	12.3	--	12.3
2021	20	32.9	6.6	--	39.5	--	39.5
2022	80	74.0	14.6	--	88.6	--	88.6
2023	106	92.3	20.3	--	112.6	--	112.6
2024	118	105.4	24.2	--	129.6	--	129.6
2025	121	113.2	26.5	--	139.7	--	139.7
2026	121	98.8	30.4	--	129.2	--	129.2
2027	121	75.6	31.9	--	107.5	--	107.5
2028	--	2.3	5.4	--	7.7	--	7.7
2029	--	1.8	3.4	--	5.2	--	5.2
2030	--	4.1	1.8	--	5.9	--	5.9
Subtotal	693	661.9	168.0	--	829.9	--	829.9

Annual Funding 3020 Procurement Missile Procurement, Air Force							
Fiscal Year	Quantity	BY 2014 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2015	--	4.5	--	--	4.5	--	4.5
2016	--	12.9	--	--	12.9	--	12.9
2017	--	16.0	--	--	16.0	--	16.0
2018	--	5.8	--	--	5.8	--	5.8
2019	--	8.8	--	--	8.8	--	8.8
2020	6	8.2	2.5	--	10.7	--	10.7
2021	20	28.0	5.6	--	33.6	--	33.6
2022	80	61.8	12.1	--	73.9	--	73.9
2023	106	75.5	16.6	--	92.1	--	92.1
2024	118	84.6	19.4	--	104.0	--	104.0
2025	121	89.0	20.9	--	109.9	--	109.9
2026	121	76.2	23.4	--	99.6	--	99.6
2027	121	57.1	24.2	--	81.3	--	81.3
2028	--	1.7	4.0	--	5.7	--	5.7
2029	--	1.3	2.5	--	3.8	--	3.8
2030	--	2.9	1.3	--	4.2	--	4.2
Subtotal	693	534.3	132.5	--	666.8	--	666.8

Cost Quantity Information		
3020 Procurement Missile Procurement, Air Force		
Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned With Quantity) BY 2014 \$M
2015	--	--
2016	--	--
2017	--	--
2018	--	--
2019	--	--
2020	6	4.6
2021	20	15.4
2022	80	61.7
2023	106	81.7
2024	118	91.0
2025	121	93.3
2026	121	93.3
2027	121	93.3
2028	--	--
2029	--	--
2030	--	--
Subtotal	693	534.3

Low Rate Initial Production

There is no LRIP for this program.

Foreign Military Sales

None

Nuclear Costs

None

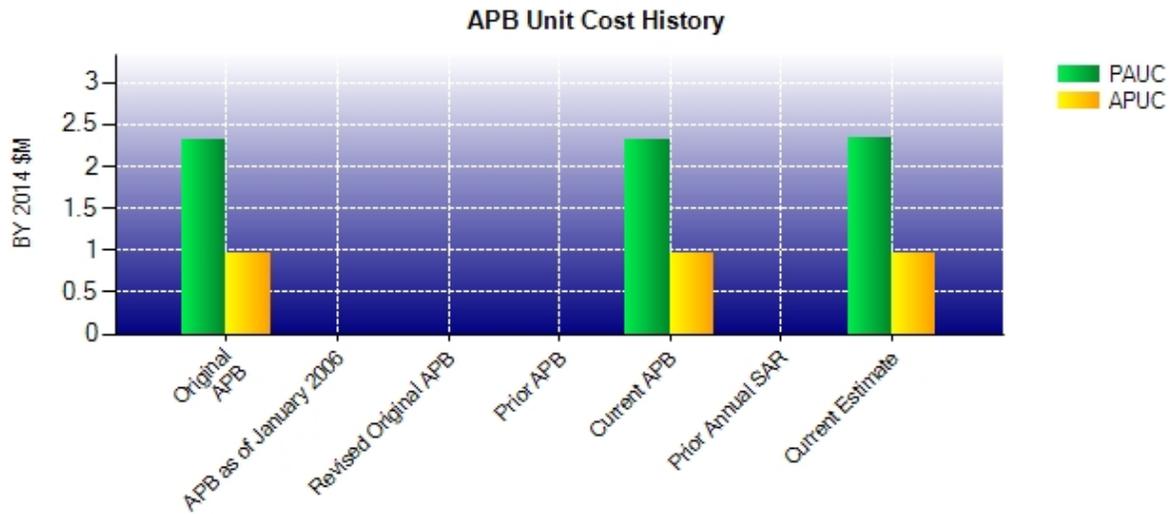
Unit Cost

Unit Cost Report

Item	BY 2014 \$M	BY 2014 \$M	% Change
	Current UCR Baseline (Sep 2014 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	1814.8	1826.7	
Quantity	781	781	
Item	2.324	2.339	+0.66
Average Procurement Unit Cost			
Cost	663.5	666.8	
Quantity	693	693	
Unit Cost	0.957	0.962	+0.48

Item	BY 2014 \$M	BY 2014 \$M	% Change
	Original UCR Baseline (Sep 2014 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	1814.8	1826.7	
Quantity	781	781	
Unit Cost	2.324	2.339	+0.66
Average Procurement Unit Cost			
Cost	663.5	666.8	
Quantity	693	693	
Unit Cost	0.957	0.962	+0.48

Unit Cost History



Item	Date	BY 2014 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Sep 2014	2.324	0.957	2.658	1.197
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	Sep 2014	2.324	0.957	2.658	1.197
Prior Annual SAR	N/A	N/A	N/A	N/A	N/A
Current Estimate	Dec 2014	2.339	0.962	2.658	1.198

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	
2.658	-0.019	0.000	0.000	0.000	0.019	0.000	0.000	0.000	2.658

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
1.197	-0.006	0.000	0.000	0.000	0.007	0.000	0.000	0.001	1.198

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	Aug 2013	N/A	Aug 2013
Milestone C	N/A	Sep 2022	N/A	Feb 2022
IOC	N/A	Jul 2023	N/A	Jul 2023
Total Cost (TY \$M)	N/A	2075.7	N/A	2076.0
Total Quantity	N/A	781	N/A	781
PAUC	N/A	2.658	N/A	2.658

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	1246.1	829.6	--	2075.7
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	-10.3	-4.4	--	-14.7
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+10.3	+4.7	--	+15.0
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	+0.3	--	+0.3
Total Changes	--	+0.3	--	+0.3
CE - Cost Variance	1246.1	829.9	--	2076.0
CE - Cost & Funding	1246.1	829.9	--	2076.0

Summary BY 2014 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	1151.3	663.5	--	1814.8
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+8.6	+3.3	--	+11.9
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+8.6	+3.3	--	+11.9
Total Changes	+8.6	+3.3	--	+11.9
CE - Cost Variance	1159.9	666.8	--	1826.7
CE - Cost & Funding	1159.9	666.8	--	1826.7

Initial SAR - Above variances (if any) reflect changes since the SAR Baseline/APB.

SAR Baseline Reference: Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated September 29, 2014

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-10.3
Adjustment for current and prior escalation. (Estimating)	+0.6	+0.6
Revised estimate due to the increased fidelity of the labor hours required to complete certain tasks. (Estimating)	+8.0	+9.7
RDT&E Subtotal	+8.6	0.0

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-4.4
Revised estimate due to the life of program buy funding covering only the basic quantity of 693 rather than the quantity of 1,328 in the POE. (Estimating)	+3.3	+4.7
Procurement Subtotal	+3.3	+0.3

Contracts

Contract Identification

Appropriation: RDT&E
Contract Name: ICBM FUZE WEAPONS SYSTEM INTEGRATION
Contractor: LOCKHEED MARTIN CORPORATION
Contractor Location: 230 MALL BLVD
 KING OF PRUSSIA, PA 19406-2902
Contract Number: FA8214-14-D-0002/3
Contract Type: Cost Plus Fixed Fee (CPFF), Cost (CR)
Award Date: January 29, 2015
Definitization Date: January 29, 2015

Contract Price

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
96.2	N/A	0	96.2	N/A	0	96.2	96.2

Contract Variance

Item	Cost Variance	Schedule Variance
Cumulative Variances To Date	0.0	0.0
Previous Cumulative Variances	--	--
Net Change	+0.0	+0.0

Cost and Schedule Variance Explanations

None

General Contract Variance Explanation

Cost and schedule variances are not reported for this contract, because EVM reporting has not yet commenced due to this contract being recently awarded.

Notes

This is the first time this contract is being reported.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	88	0.00%
Production	0	0	693	0.00%
Total Program Quantity Delivered	0	0	781	0.00%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	2076.0	Years Appropriated	5
Expended to Date	160.6	Percent Years Appropriated	25.00%
Percent Expended	7.74%	Appropriated to Date	255.9
Total Funding Years	20	Percent Appropriated	12.33%

The above data is current as of January 28, 2015.

The funded quantity of 781 includes all of the units necessary for development, testing, operational fielding, aging and surveillance, and replenishment spares.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	June 12, 2014
Source of Estimate:	SCP
Quantity to Sustain:	450
Unit of Measure:	Missile
Service Life per Unit:	30.00 Years
Fiscal Years in Service:	FY 2027 - FY 2060

ICBM Fuze Mod O&S costs are the additive costs for sustaining the Mk21 replacement fuze being delivered by this program. O&S costs for the Mk21 replacement fuze, and current Mk12A and Mk21 fuzes, will be collected as part of the overall Minuteman III weapon system. The funded quantity of 781 includes all of the units necessary for development, testing, operational fielding, aging and surveillance, and replenishment spares. The sustainment strategy is built around sustaining the 450 operational missiles, not the total quantity of fuzes.

Sustainment Strategy

Throughout the O&S phase, National Security Campus (formerly Kansas City Plant) will provide aging and surveillance and depot level testing and support for the new fuze; Sandia National Laboratories will provide systems engineering, sustainment engineering support, and surveillance engineering support from both California and New Mexico.

It is anticipated that there will be annual shipments of Mk21 replacement fuzes from the three wings to the new National Security Campus depot each year for aging and surveillance, reliability testing and depot repair. As items are received at the depot from the wings, replenishment spares will be shipped to the wings from the depot on an annual basis.

The National Nuclear Safety Administration will provide management and oversight support to the Intercontinental Ballistic Missile Systems Directorate for the Mk21 replacement fuzes throughout their 30-year life cycle.

Antecedent Information

No Antecedent

Cost Element	Annual O&S Costs BY2014 \$K	
	ICBM Fuze Mod Average Annual Cost Per Missile	None (Antecedent) None
Unit-Level Manpower	0.000	--
Unit Operations	0.000	--
Maintenance	6.873	--
Sustaining Support	11.994	--
Continuing System Improvements	0.000	--
Indirect Support	0.000	--
Other	0.000	--
Total	18.867	--

Item	Total O&S Cost \$M			
	ICBM Fuze Mod			None (Antecedent)
	Current Development APB Objective/Threshold		Current Estimate	
Base Year	259.0	285.0	254.7	N/A
Then Year	466.0	N/A	456.0	N/A

Disposal Cost is included in the Operating and Support Cost of the current APB objective and threshold for this program.

Because the fuze is a relatively small component within the framework of the much larger Minuteman III weapon system it is not expected that there will be any change to unit level manpower, continuing system improvements, or indirect support at the wings or depot.

Equation to Translate Annual Cost to Total Cost

Average Annual Missile O&S Cost = Total O&S cost / number of missiles / service life of fuze
 \$18.9K = \$254.7M / 450 / 30

O&S Cost Variance		
Category	BY 2014 \$M	Change Explanations
Prior SAR Total O&S Estimates -	0.0	
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	0.0	

Disposal Estimate Details

Date of Estimate: June 12, 2014
Source of Estimate: SCP
Disposal/Demilitarization Total Cost (BY 2014 \$M): Total costs for disposal of all Missile are 4.3

Demilitarization and disposal will be a coordinated effort between the Air Force and the National Nuclear Security Administration Complex. Older fuzes that are no longer fielded will remain in storage in the Nuclear Materials storage facility located at Hill Air Force Base (AFB), Utah, until demilitarization begins in FY 2056.

Beginning in FY 2056, the Air Force will begin receiving shipments of aged-out fuzes for demilitarization and disposal. It is expected that quarterly shipments from each wing will be sent to the Nuclear Materials storage area at Hill AFB in preparation for demilitarization and disposal.

Demilitarization engineering support will be provided by a support contractor to coordinate removal of precious and environmentally sensitive material from the Mk21 replacement fuzes prior to disposal.

An environmentally protective container will be used to house the demilitarized fuzes for the disposal process. Each container is estimated to hold approximately 66 fuzes.

Fuzes ready for disposal will be transferred from the National Security Campus to the approved disposal site. The projected disposal process will consist of deep earth burial on the Utah Test and Training Range in demilitarized containers.