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Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-431



B-2 Defensive Management System - Modernization (B-2 DMS-M)

As of FY 2019 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Sensitivity Originator

No originator info Available at this time.

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

B-2 Defensive Management System - Modernization (B-2 DMS-M)

DoD Component

Air Force

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Date Assigned: June 27, 2016

References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated May 16, 2016

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated May 16, 2016

Mission and Description

The B-2 Defensive Management System (DMS) is a principal enabler of survivability for the B-2 stealth bomber aircraft. The legacy DMS Threat Emitter Locator System (TELS) detects, identifies, and locates enemy radar systems and provides real-time threat avoidance, threat warning, and threat situational awareness information to the aircrew. Shortcomings within the TELS limits overall B-2 operational capability and survivability necessitating modernization.

A B-2 equipped with DMS Modernization must be capable of operating in current and projected threat environments during all mission phases and against a broad range of threats. Continued and rapid developments and/or technological improvements in worldwide air defense capabilities will place a premium on developing flexible and expandable B-2 aircraft survivability systems.

Executive Summary

B-2 DMS-M is an ACAT ID program in the EMD Phase.

After completing the Technology Maturation and Risk Reduction (TMRR) phase and System Preliminary Design Review (PDR) the DMS-M program was deemed ready to enter the EMD phase. The USD (AT&L) signed the Milestone B ADM on March 24, 2016 authorizing entrance into the EMD phase and contract award. A Cost-Plus Incentive Fee (CPIF) contract for the EMD portion of the DMS-M Program was awarded to Northrop Grumman Aerospace Systems (NGAS) Corporation on March 25, 2016. Production will be via LRIP and FRP contracts awarded at a future date.

Milestone B Certification was made pursuant to 10 United States Code 2366b; however, provision (a)(3)(D) was waived by the USD (AT&L). The program required a USD (AT&L) waiver because the Air Force FY 2017 President's Budget position was less than the Service Cost Position (SCP) reflected in the FYDP and the Department would be unable to meet critical national security objectives if there was a delay in obtaining the DMS-M capability for the B-2. Per the program ADM dated, March 24, 2016, the Air Force updated the SCP in November 2016 and fully funded the DMS-M program to the updated SCP.

The MDA approved an updated Acquisition Strategy and signed an ADM on May 11, 2017. The ADM authorizes the program to change the technical architecture and contract type via Engineering Change Proposal (ECP). The program awarded an Undefinitized Contract Action (UCA) on May 24, 2017 to implement the changes. The program will continue to have software development, integration and test efforts. All efforts are being made to maintain original APB Schedule Threshold dates.

Since UCA award the program has successfully conducted a delta System Requirements Review and System Functional Review on August 28, 2017 (Integrated Master Plan Event B). The definitization proposal was received October 10, 2017 and is currently being evaluated. Contract information in this report will be updated upon UCA definitization.

The program office will accomplish a new SCP pursuant to the May 2017 Acquisition Strategy ADM. Initial drafts of the updated SCP initiated cost saving architecture trades which concluded in January 2018. Efforts to update the SCP have resumed. Potential changes in design configuration have resulted in Preliminary Design Review (PDR) moving from first quarter FY 2018 to second quarter FY 2018 and Critical Design Review (CDR) from third quarter FY 2018 to fourth quarter FY 2018. Projected dates are PM assessments pending an Integrated Baseline Review approved Integrated Master Schedule expected in second quarter FY 2018.

NGAS is behind schedule with software version PD7.1 development. Their development team has not been able to achieve required staff increases or Agile Sprint efficiencies necessary to expeditiously complete functionality planned for each Sprint. NGAS mitigation strategies to recover include expanded overtime for existing staff while additional staff are hired and acquire the appropriate clearances. Additional software development teams have been made available at two additional Northrop Grumman locations and efforts are under way to identify any additional existing software that can be leveraged to reduce the development scope. These mitigation strategies produced encouraging results during January 2018 resulting in the highest quantity of story points completed to date. The program office continues to closely monitor the effectiveness of these mitigations.

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	
Material Development Decision	Jun 2010	Jun 2010	Jun 2010	Jun 2010	
Milestone A	Aug 2011	Aug 2011	Aug 2011	Aug 2011	
Milestone B	Mar 2016	Mar 2016	Mar 2016	Mar 2016	
Post Block 30 Development 7.1 Certification	Dec 2018	Dec 2018	Jun 2019	Jun 2019	(Ch-1)
Milestone C	Dec 2019	Dec 2019	Jun 2020	Jun 2020	(Ch-2)
Initial Operational Test and Evaluation Start	Jun 2020	Jun 2020	Dec 2020	Dec 2020	(Ch-3)
RAA	Dec 2021	Dec 2021	Jun 2022	Jun 2022	(Ch-4)

Change Explanations

(Ch-1) Post Block 30 Development 7.1 Certification current estimate has changed from April 2019 to June 2019 due to the initial software development delays.

(Ch-2) Milestone C current estimate has changed from April 2020 to June 2020 due to incorporation of the new system architecture per the May 2017 Acquisition Strategy update.

(Ch-3) Initial Operational Test and Evaluation Start current estimate has changed from August 2020 to December 2020 due to incorporation of the new system architecture per the May 2017 Acquisition Strategy update.

(Ch-4) RAA current estimate has changed from February 2022 to June 2022 due to incorporation of the new system architecture per the May 2017 Acquisition Strategy update.

Notes

RAA is defined by Air Force Global Strike Command as:

- Eight aircraft modified with operational B-2 DMS M system
- Sufficient spare parts to support modified aircraft
- Sufficient support equipment for modified aircraft

- Updated aircrew and maintenance technical manuals, maintenance training and academic courseware
- Mission planning system software updated to provide B-2 DMS M compatibility

There are known risks with this program. Please see "Change Explanations" noting software development.

Acronyms and Abbreviations

RAA - Required Assets Available

Performance

Performance Characteristics				
SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
Survivability				
The aircraft with B-2 DMS Mod installed shall meet RCS levels of the B-2 WSS, Appendix 70	The aircraft with B-2 DMS Mod installed shall meet RCS levels of the B-2 WSS, Appendix 70	(T=O) The aircraft with B-2 DMS Mod installed shall meet RCS levels of the B-2 WSS, Appendix 70	TBD	The aircraft with B-2 DMS Mod installed shall meet RCS levels of the B-2 WSS, Appendix 70
Sustainment (Availability) has two components: Ao & Am				
The Ao of the B-2 DMS Mod upgrade shall be a minimum of 99.7% at system maturity. B-2 DMS Mod shall support the B-2 DMS Mod B-2 fleet platform Am target of 60% without the need for component cannibalizations.	The Ao of the B-2 DMS Mod upgrade shall be a minimum of 99.7% at system maturity. B-2 DMS Mod shall support the B-2 DMS Mod B-2 fleet platform Am target of 60% without the need for component cannibalizations.	(T=O) The Ao of the B-2 DMS Mod upgrade shall be a minimum of 99.7% at system maturity. B-2 DMS Mod shall support the B-2 DMS Mod B-2 fleet platform Am target of 60% without the need for component cannibalizations.	TBD	The Ao of the B-2 DMS Mod upgrade shall be a minimum of 99.7% at system maturity. B-2 DMS Mod shall support the B-2 DMS Mod B-2 fleet platform Am target of 60% without the need for component cannibalizations.
DPU Functionality				
B-2 DMS Mod shall maintain mission-critical legacy DPU capability in addition to enhancements provided by B-2 DMS Mod consistent with Integrated Functional Capability Production Version 6 baseline.	B-2 DMS Mod shall maintain mission-critical legacy DPU capability in addition to enhancements provided by B-2 DMS Mod consistent with Integrated Functional Capability Production Version 6 baseline.	(T=O) B-2 DMS Mod shall maintain mission-critical legacy DPU capability in addition to enhancements provided by B-2 DMS Mod consistent with Integrated Functional Capability Production Version 6 baseline.	TBD	B-2 DMS Mod shall maintain mission-critical legacy DPU capability in addition to enhancements provided by B-2 DMS Mod consistent with Integrated Functional Capability Production Version 6 baseline.

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

Requirements Reference

CDD - JROC approved April 15, 2013 and Air Force Requirements Oversight Council revalidated June 12, 2015

Change Explanations

None

Acronyms and Abbreviations

AFROC - Air Force Requirements Oversight Council

Am - Materiel Availability

Ao - Aircraft Availability

DMS - Defensive Management System

DPU - Display Processing Unit

RCS - Radar Cross Section

WSS - Weapons System Specification

Track to Budget

General Notes

3010 and 3600 funding for the B-2 Defensive Management System Modernization (DMS-M) program were originally embedded within the primary B-2 Program Element. These lines are shared with other B-2 programs that support the B-2 weapon system. DMS-M RDT&E was realigned to PE 605931F in 2013.

RDT&E

Appn	BA	PE	
Air Force	3600	07	0101127F
	Project	Name	
	675345	B-2 Modernization (Sunk)	
	676023	B-2 DMS-M (Sunk)	
Air Force	3600	05	0605931F
	Project	Name	
	653844	B-2 Defensive Management System	

Procurement

Appn	BA	PE	
Air Force	3010	07	0101127F
	Line Item	Name	
	000075	Other Production Charges (Shared)	
Air Force	3010	06	0101127F
	Line Item	Name	
	000999	Initial Spares/Repair Parts (Shared)	
Air Force	3010	05	0101127F
	Line Item	Name	
	B00200	B-2 Defensive Management System: Modifications (Shared)	
Air Force	3010	07	0101127F
	Line Item	Name	
	B00200	B-2 Defensive Management System: Depot Activation (Shared)	
Air Force	3010	05	0101127F
	Line Item	Name	
	B2DMS0	B-2 Defensive Management System: Modifications	

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2016 \$M			BY 2016 \$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	1821.9	1821.9	2004.1	1849.4	1846.2	1846.2	1880.5
Procurement	734.3	734.3	807.7	774.6	838.3	838.3	886.1
Flyaway	--	--	--	701.9	--	--	801.3
Recurring	--	--	--	701.9	--	--	801.3
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	72.7	--	--	84.8
Other Support	--	--	--	33.9	--	--	39.5
Initial Spares	--	--	--	38.8	--	--	45.3
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	2556.2	2556.2	N/A	2624.0	2684.5	2684.5	2766.6

Current APB Cost Estimate Reference

B-2 DMS Mod SCP dated October 02, 2015

Cost Notes

In accordance with Section 842 of the National Defense Authorization Act for FY 2017, which amended title 10 U.S.C. § 2334, the Director of Cost Assessment and Program Evaluation, and the Secretary of the military department concerned or the head of the Defense Agency concerned, must issue guidance requiring a discussion of risk, the potential impacts of risk on program costs, and approaches to mitigate risk in cost estimates for MDAPs and major subprograms. The information required by the guidance is to be reported in each SAR. This guidance is not yet available; therefore, the information on cost risk is not contained in this SAR.

Total Quantity			
Quantity	SAR Baseline Development Estimate	Current APB Development	Current Estimate
RDT&E	4	4	4
Procurement	16	16	16
Total	20	20	20

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2019 President's Budget / December 2017 SAR (TY\$ M)									
Appropriation	Prior	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
RDT&E	1267.3	194.6	261.8	135.7	20.7	0.2	0.2	0.0	1880.5
Procurement	0.0	0.0	0.0	279.8	389.7	107.3	109.3	0.0	886.1
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 2019 Total	1267.3	194.6	261.8	415.5	410.4	107.5	109.5	0.0	2766.6
PB 2018 Total	1276.4	194.6	263.7	418.7	413.5	108.5	0.0	0.0	2675.4
Delta	-9.1	0.0	-1.9	-3.2	-3.1	-1.0	109.5	0.0	91.2

Quantity Summary										
FY 2019 President's Budget / December 2017 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Development	4	0	0	0	0	0	0	0	0	4
Production	0	0	0	0	6	10	0	0	0	16
PB 2019 Total	4	0	0	0	6	10	0	0	0	20
PB 2018 Total	4	0	0	0	6	10	0	0	0	20
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
2011	--	--	--	--	--	--	85.2
2012	--	--	--	--	--	--	46.8
2013	--	--	--	--	--	--	249.8
2014	--	--	--	--	--	--	249.0
2015	--	--	--	--	--	--	95.4
2016	--	--	--	--	--	--	262.7
2017	--	--	--	--	--	--	278.4
2018	--	--	--	--	--	--	194.6
2019	--	--	--	--	--	--	261.8
2020	--	--	--	--	--	--	135.7
2021	--	--	--	--	--	--	20.7
2022	--	--	--	--	--	--	0.2
2023	--	--	--	--	--	--	0.2
Subtotal	4	--	--	--	--	--	1880.5

Annual Funding							
3600 RDT&E Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	BY 2016 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2011	--	--	--	--	--	--	90.5
2012	--	--	--	--	--	--	48.9
2013	--	--	--	--	--	--	256.5
2014	--	--	--	--	--	--	252.2
2015	--	--	--	--	--	--	95.7
2016	--	--	--	--	--	--	259.7
2017	--	--	--	--	--	--	270.4
2018	--	--	--	--	--	--	185.9
2019	--	--	--	--	--	--	245.6
2020	--	--	--	--	--	--	124.9
2021	--	--	--	--	--	--	18.7
2022	--	--	--	--	--	--	0.2
2023	--	--	--	--	--	--	0.2
Subtotal	4	--	--	--	--	--	1849.4

Annual Funding							
3010 Procurement Aircraft 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
2020	6	278.3	--	--	278.3	1.5	279.8
2021	10	362.5	--	--	362.5	27.2	389.7
2022	--	79.5	--	--	79.5	27.8	107.3
2023	--	81.0	--	--	81.0	28.3	109.3
Subtotal	16	801.3	--	--	801.3	84.8	886.1

Annual Funding 3010 Procurement Aircraft Procurement, Air Force							
Fiscal Year	Quantity	BY 2016 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2020	6	248.4	--	--	248.4	1.3	249.7
2021	10	317.2	--	--	317.2	23.8	341.0
2022	--	68.2	--	--	68.2	23.8	92.0
2023	--	68.1	--	--	68.1	23.8	91.9
Subtotal	16	701.9	--	--	701.9	72.7	774.6

Cost Quantity Information		
3010 Procurement Aircraft Procurement, Air Force		
Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned With Quantity) BY 2016 \$M
2020	6	263.2
2021	10	438.7
2022	--	--
2023	--	--
Subtotal	16	701.9

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	3/24/2016	3/24/2016
Approved Quantity	6	6
Reference	Milestone B ADM	Milestone B ADM
Start Year	2020	2020
End Year	2020	2020

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the B-2 being a small fleet of only 20 aircraft. The need for six kits during LRIP is based on lessons learned and factors experienced during other B-2 development and production programs (i.e., Radar Modernization and Extremely High Frequency).

Foreign Military Sales

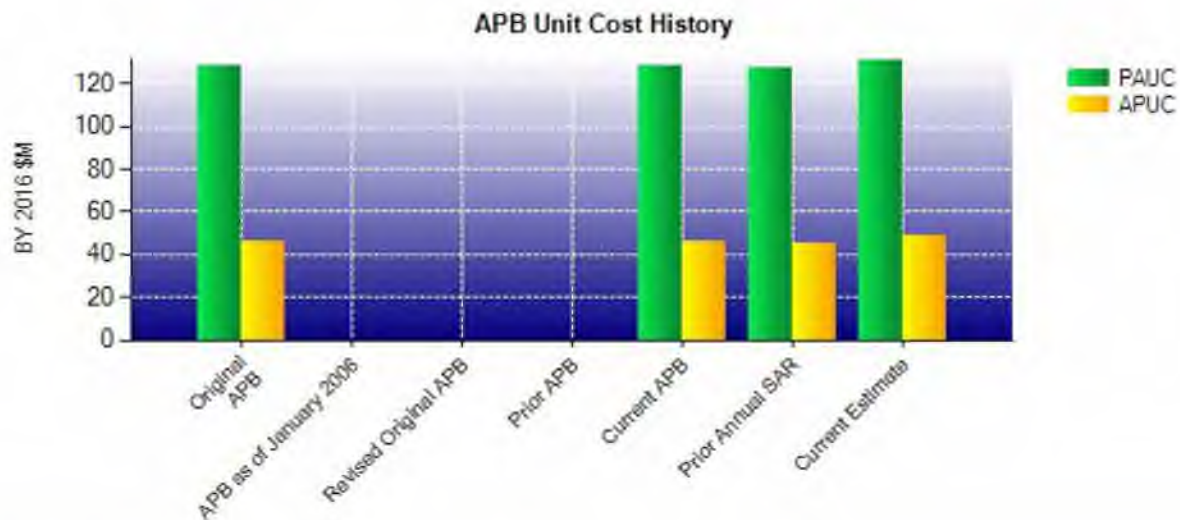
None

Nuclear Costs

None

Unit Cost

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2016 \$M	BY 2016 \$M	% Change
	Current UCR Baseline (May 2016 APB)	Current Estimate (Dec 2017 SAR)	
Program Acquisition Unit Cost			
Cost	2556.2	2624.0	
Quantity	20	20	
Unit Cost	127.810	131.200	+2.65
Average Procurement Unit Cost			
Cost	734.3	774.6	
Quantity	16	16	
Unit Cost	45.894	48.412	+5.49
Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2016 \$M	BY 2016 \$M	% Change
	Original UCR Baseline (May 2016 APB)	Current Estimate (Dec 2017 SAR)	
Program Acquisition Unit Cost			
Cost	2556.2	2624.0	
Quantity	20	20	
Unit Cost	127.810	131.200	+2.65
Average Procurement Unit Cost			
Cost	734.3	774.6	
Quantity	16	16	
Unit Cost	45.894	48.412	+5.49



APB Unit Cost History					
Item	Date	BY 2016 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	May 2016	127.810	45.894	134.225	52.394
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	May 2016	127.810	45.894	134.225	52.394
Prior Annual SAR	Dec 2016	126.875	45.556	133.770	52.056
Current Estimate	Dec 2017	131.200	48.412	138.330	55.381

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)									
PAUC Development Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
134.225	-0.230	0.000	0.000	0.000	12.685	0.000	-8.350	4.105	138.330

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
52.394	-0.281	0.000	0.000	0.000	13.706	0.000	-10.438	2.987	55.381

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A	N/A	Aug 2011	N/A	Aug 2011
Milestone B	N/A	Mar 2016	N/A	Mar 2016
Milestone C	N/A	Dec 2019	N/A	Jun 2020
IOC	N/A	Dec 2021	N/A	Jun 2022
Total Cost (TY \$M)	N/A	2684.5	N/A	2766.6
Total Quantity	N/A	20	N/A	20
PAUC	N/A	134.225	N/A	138.330

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	1846.2	838.3	--	2684.5
Previous Changes				
Economic	+5.6	+0.8	--	+6.4
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-9.3	+189.3	--	+180.0
Other	--	--	--	--
Support	--	-195.5	--	-195.5
Subtotal	-3.7	-5.4	--	-9.1
Current Changes				
Economic	-5.7	-5.3	--	-11.0
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+43.7	+30.0	--	+73.7
Other	--	--	--	--
Support	--	+28.5	--	+28.5
Subtotal	+38.0	+53.2	--	+91.2
Total Changes	+34.3	+47.8	--	+82.1
CE - Cost Variance	1880.5	886.1	--	2766.6
CE - Cost & Funding	1880.5	886.1	--	2766.6

Summary BY 2016 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	1821.9	734.3	--	2556.2
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-13.3	+165.9	--	+152.6
Other	--	--	--	--
Support	--	-171.3	--	-171.3
Subtotal	-13.3	-5.4	--	-18.7
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+40.8	+21.9	--	+62.7
Other	--	--	--	--
Support	--	+23.8	--	+23.8
Subtotal	+40.8	+45.7	--	+86.5
Total Changes	+27.5	+40.3	--	+67.8
CE - Cost Variance	1849.4	774.6	--	2624.0
CE - Cost & Funding	1849.4	774.6	--	2624.0

Previous Estimate: December 2016

RDT&E		\$M	
Current Change Explanations		Base Year	Then Year
Revised escalation indices. (Economic)		N/A	-5.7
Adjustment for current and prior escalation. (Estimating)		+2.4	+2.5
Revised estimate due to Below Threshold Reprogramming and Small Business Innovation Research. (Estimating)		-8.8	-9.1
Revised estimate due to realignment of Advanced Procurement to Research, Development, Test, and Evaluation (Estimating)		+44.2	+47.1
Revised estimate to reflect application of new outyear escalation indices. (Estimating)		+3.0	+3.2
RDT&E Subtotal		+40.8	+38.0

Procurement		\$M	
Current Change Explanations		Base Year	Then Year
Revised escalation indices. (Economic)		N/A	-5.3
Revised estimate due to realignment of Advanced Procurement to Research, Development, Test, and Evaluation and baseline extension of program. (Estimating)		+17.6	+25.1
Revised estimate to reflect application of new outyear escalation indices. (Estimating)		+4.3	+4.9
Increase in Other Support due to baseline extension to program. (Support)		+11.1	+13.3
Increase in Initial Spares due to baseline extension of program. (Support)		+12.7	+15.2
Procurement Subtotal		+45.7	+53.2

Contracts

Contract Identification

Appropriation: RDT&E
Contract Name: FAST II Delivery Order: EMD DMS-M
Contractor: Northrop Grumman Corporation Aerospace Systems
Contractor Location: 3520 E. Avenue M
 Palmdale, CA 93550
Contract Number: FA8616-14-D-6060/2
Contract Type: Firm Fixed Price (FFP), Cost Plus Fixed Fee (CPFF)
Award Date: May 24, 2017
Definitization Date:

Contract Price								
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)		
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager	
741.0	N/A	0	741.0	N/A	0	741.0	741.0	

Cost and Schedule Variance Explanations

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

General Contract Variance Explanation

Schedule variance is not reported for this contract because the program office received approval from USD(AT&L) to make a contract and technical change to the program in May 2017. This delivery order is now a Firm Fixed Price contract type. Cost Plus Fixed Fee portions of the contract that cover items like flight test and over and above costs have not begun to execute yet. Subsequently, the program office directed the contractor to set schedule and performance equal to zero, eliminating all cost and schedule variances.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	4	0.00%
Production	0	0	16	0.00%
Total Program Quantity Delivered	0	0	20	0.00%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	2766.6	Years Appropriated	8
Expended to Date	1090.2	Percent Years Appropriated	61.54%
Percent Expended	39.41%	Appropriated to Date	1461.9
Total Funding Years	13	Percent Appropriated	52.84%

The above data is current as of February 12, 2018.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:

Source of Estimate:

Quantity to Sustain:

Unit of Measure:

Service Life per Unit:

Fiscal Years in Service:

B-2 DMS-M O&S costs are not included in the APB or SAR per direction of the MDA. The associated O&S cost is included and tracked at the overall B-2 system level. Per signed ADM, B-2 DMS-M O&S costs are estimated to be less than 1% of the total B-2 fleet O&S costs.

Sustainment Strategy

Antecedent Information

Annual O&S Costs BY2016 \$K		
Cost Element	B-2 DMS-M	No Antecedent (Antecedent)
Unit-Level Manpower	--	--
Unit Operations	--	--
Maintenance	--	--
Sustaining Support	--	--
Continuing System Improvements	--	--
Indirect Support	--	--
Other	--	--
Total	--	--

Item	Total O&S Cost \$M		
	B-2 DMS-M		No Antecedent (Antecedent)
	Current Development APB Objective/Threshold	Current Estimate	
Base Year	0.0	0.0	0.0
Then Year	0.0	N/A	0.0

O&S Cost Variance

Category	BY 2016 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2016 SAR	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:

Source of Estimate:

Disposal/Demilitarization Total Cost (BY 2016 \$M):