



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-373



MQ-4C Triton Unmanned Aircraft System (MQ-4C Triton)

As of FY 2011 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

Broad Area Maritime Surveillance (BAMS) Unmanned Aircraft System (UAS) (BAMS UAS)

DoD Component

Navy

Responsible Office

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References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated February 7, 2009

Approved APB

DAE Approved Acquisition Program Baseline (APB) dated February 7, 2009

Mission and Description

Broad Area Maritime Surveillance (BAMS) Unmanned Aircraft System (UAS) will provide persistent maritime Intelligence, Surveillance, and Reconnaissance (ISR) data collection and dissemination as well as airborne communications relay capability to Combatant Commanders, Expeditionary Strike Group Commanders, Carrier Strike Group Commanders and other designated U.S. and Joint Commanders. The BAMS UAS mission payload has been optimized for the maritime and littoral environment. The addition of a de-icing capability over the baseline Global Hawk provides operators with an all weather capability that permits transitioning through icing conditions. The mission sensors installed on BAMS provide 360 degree radar and Electro-Optical/Infrared coverage. Additional functionality added to optimize the system for maritime search operations include the addition of Automatic Identification System and an Electronic Sensor Measure with Specific Emitter Identification.

Executive Summary

This is the initial submission of the Selected Acquisition Report for the Broad Area Maritime Surveillance (BAMS) Unmanned Aircraft System (UAS) program. The BAMS UAS is an integrated System of Systems and a force multiplier for the Joint Force and Fleet Commander, enhancing battlespace awareness and shortening the sensor-to-shooter kill chain by providing a multiple-sensor, persistent maritime and littoral Intelligence, Surveillance and Reconnaissance (ISR) capability. The BAMS UAS is a tactical, land-based, forward deployed, platform that will operate from five operational sites (orbits) worldwide. It will provide surveillance when no other naval forces are present, support operations in the littorals to include support for Marine Expeditionary Units conducting operations from Expeditionary Strike Groups. Furthermore, the asset will respond to Theater level operational or National strategic taskings. The system will ramp up to Full Operational Capability (FOC) over 4 years then operate for 20 years.

The BAMS UAS is an Acquisition Category (ACAT) ID program that entered System Development and Demonstration (SDD) based on a Milestone-B Acquisition Decision Memorandum (ADM) issued on April 18, 2008. The Milestone Decision Authority (MDA) for BAMS UAS is the Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)). Following a full and open competition, a Cost Plus Award Fee (CPAF) SDD contract with an option for Low Rate Initial Production (LRIP) Lot 1 was awarded to the Northrop Grumman Corporation (NGC) on April 22, 2008 based on a best value source selection process. On May 5, 2008, Lockheed-Martin filed a protest with the Government Accounting Office (GAO). The GAO denied the Lockheed-Martin protest on August 8, 2008. The contract restarted on August 11, 2008.

The program conducted a successful System Requirements Review (SRR) in January 2009, System Functional Review (SFR) in June 2009, a Schedule Risk Analysis (SRA) also in June 2009, Integrated Baseline Review in July 2009 and Preliminary Design Review in February 2010. The BAMS UAS program also continues to pursue opportunities for joint efficiencies with the Air Force Global Hawk program.

There are no significant software-related issues for 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

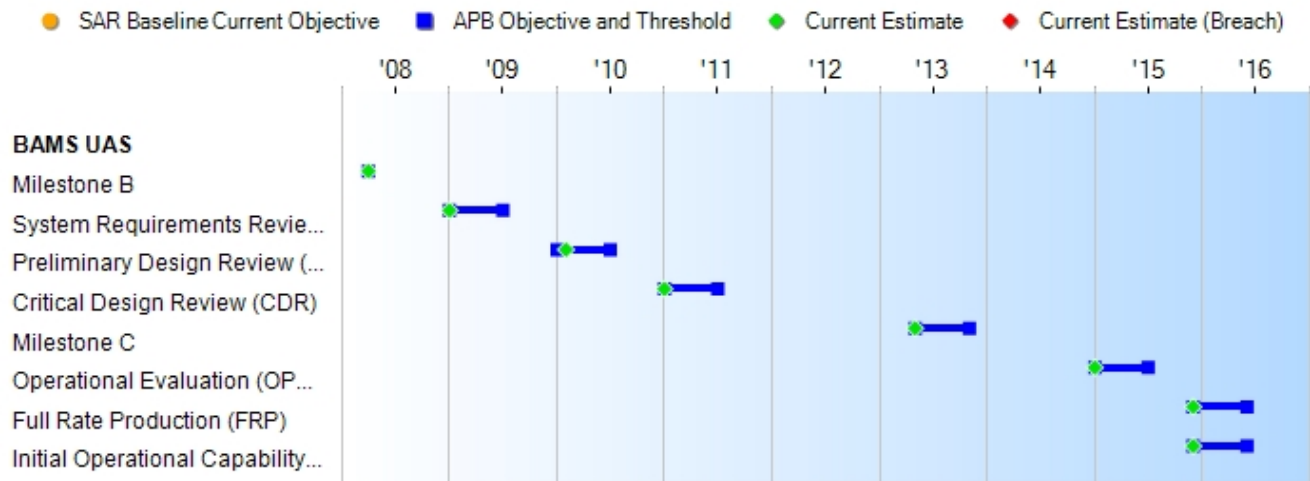
Current UCR Baseline

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
Milestone B	Apr 2008	Apr 2008	Apr 2008	Apr 2008
System Requirements Review (SRR)	Jan 2009	Jan 2009	Jul 2009	Jan 2009
Preliminary Design Review (PDR)	Jan 2010	Jan 2010	Jul 2010	Feb 2010
Critical Design Review (CDR)	Jan 2011	Jan 2011	Jul 2011	Jan 2011
Milestone C	May 2013	May 2013	Nov 2013	May 2013
Operational Evaluation (OPEVAL) Start	Jan 2015	Jan 2015	Jul 2015	Jan 2015
Full Rate Production (FRP)	Dec 2015	Dec 2015	Jun 2016	Dec 2015
Initial Operational Capability (IOC)	Dec 2015	Dec 2015	Jun 2016	Dec 2015

Change Explanations

None

Notes

The current estimate for Preliminary Design Review (PDR) changed from Jan 2010 to Feb 2010 to reflect a two week delay awaiting analysis of additional data on system design.

Performance

Performance Characteristics				
SAR Baseline Development Estimate	Current APB Development Objective/Threshold	Demonstrated Performance	Current Estimate	
Persistent multi-sensor maritime ISR at mission radius				
On station 24 hrs a day / 7 days a week for 30 consecutive days with an ETOS of $\geq 95\%$	On station 24 hrs a day / 7 days a week for 30 consecutive days with an ETOS of $\geq 95\%$	On station 24 hrs a day for 7 consecutive days with ETOS of $\geq 80\%$	TBD	On station 24 hrs a day / 7 days a week for 30 consecutive days with an ETOS of $\geq 95\%$ at a mission radius of 2,000 nm
Level of Interoperability 1-5				
BLOS and LOS from MOB/ FOB (Land Based) MCS	BLOS and LOS from MOB/ FOB (Land Based) MCS	BLOS and LOS from the MOB (Land Based) MCS	TBD	BLOS and LOS from MOB (Land Based) MCS
UA Mission Radius				
$\geq 3,000$ nm	$\geq 3,000$ nm	$\geq 2,000$ nm	TBD	$\geq 2,000$ nm
Level Of Interoperability 2 Capability				
LOS/BLOS multi-ISR payload reception to Maritime Forces	LOS/BLOS multi-ISR payload reception to Maritime Forces	LOS, ISR payload sensor data reception to Maritime Forces afloat (CVN, LHA/LHD)	TBD	LOS,ISR payload sensor data reception to Maritime Forces afloat (CVN, LHA/LHD)
Net Ready				
IAW CJCSI 6212.01D	IAW CJCSI 6212.01D	IAW CJCSI 6212.01D	TBD	IAW CJCSI 6212.01D
Operational Availability				
≥ 0.9	≥ 0.9	≥ 0.7 at IOT&E ≥ 0.8 at IOC plus two years	TBD	≥ 0.88

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

Requirements Reference

Joint Requirements Oversight Council (JROC) approved the Broad Area Maritime Surveillance Unmanned Aircraft System (BAMS UAS) Capability Development Document (CDD), JROCM 126-07, May 21, 2007.

Change Explanations

None

Notes

The Current Estimate value for each parameter is based upon the Northrop Grumman Corporation selected concept that was determined to be best value to the Government.

The BAMS UAS "unit of capability" is defined as five Unmanned Aircraft (UA) (with associated mission payload and avionics); one suite of communication systems (Line of Sight (LOS) and Beyond Line of Sight (BLOS)); and one Mission Control System (MCS).

Acronyms and Abbreviations

BLOS - Beyond Line of Sight
CJCSI - Chairman of the Joint Chiefs of Staff Instruction
CVN - Aircraft Carrier Nuclear
ETOS - Effective Time On Station
FOB - Forward Operating Base
hrs - hours
IAW - In Accordance With
IOC - Initial Operational Capability
IOT&E - Initial Operational Test & Evaluation
ISR - Intelligence, Surveillance, and Reconnaissance
LHA - Amphibious Assault Ship (General Purpose)
LHD - Amphibious Assault Ship (Multi Purpose)
LOS - Line of Sight
MCS - Mission Control System
MOB - Main Operating Base
nm - nautical miles
TBD - To Be Determined
UA - Unmanned Aircraft

Track to Budget

RDT&E

Appn	BA	PE
------	----	----

Navy 1319 07 0305220N

Project	Name
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A4020 BAMS UAS

Procurement

Appn	BA	PE
------	----	----

Navy 1506 04 0305220N

Line Item	Name
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0442 BAMS UAS

Navy 1506 06 0305220N

Line Item	Name
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0605 BAMS UAS (Shared)

MILCON

Appn	BA	PE
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Navy 1205 01 0816376N

Project	Name
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0428A263 (Shared)

Navy 1205 01 0815976N

Project	Name
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C1002153 (Shared)

C1002154 (Shared)

C1002155 (Shared)

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2008 \$M			BY 2008 \$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	2989.3	2989.3	3288.2	3042.9	3223.6	3223.6	3217.0
Procurement	8871.2	8871.2	9758.3	9176.8	11525.6	11525.6	11382.6
Flyaway	--	--	--	5556.8	--	--	6888.9
Recurring	--	--	--	5382.3	--	--	6689.0
Non Recurring	--	--	--	174.5	--	--	199.9
Support	--	--	--	3620.0	--	--	4493.7
Other Support	--	--	--	2505.5	--	--	3099.7
Initial Spares	--	--	--	1114.5	--	--	1394.0
MILCON	364.0	364.0	400.4	366.8	423.1	423.1	421.9
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	12224.5	12224.5	N/A	12586.5	15172.3	15172.3	15021.5

Cost Notes

Total Quantity			
Quantity	SAR Baseline Development Estimate	Current APB Development	Current Estimate
RDT&E	5	5	5
Procurement	65	65	65
Total	70	70	70

Quantity Notes

The Research, Development, Test and Evaluation (RDT&E) total quantity of five is comprised of two engineering development models and three Low Rate Initial Production (LRIP) Lot 1 Unmanned Aircraft (UA). The three LRIP UAs will be utilized for operational test and achieving Initial Operating Capability (IOC).

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2011 President's Budget / December 2009 SAR (TY\$ M)									
Appropriation	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
RDT&E	588.8	439.0	529.3	541.0	695.9	224.2	122.2	76.6	3217.0
Procurement	0.0	0.0	0.0	0.0	48.3	612.7	691.7	10029.9	11382.6
MILCON	0.0	0.0	42.2	2.3	0.0	57.7	54.3	265.4	421.9
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2011 Total	588.8	439.0	571.5	543.3	744.2	894.6	868.2	10371.9	15021.5
	--	--	--	--	--	--	--	--	--

Quantity Summary										
FY 2011 President's Budget / December 2009 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
Development	5	0	0	0	0	0	0	0	0	5
Production	0	0	0	0	0	0	4	4	57	65
PB 2011 Total	5	0	0	0	0	0	4	4	57	70
	--	--	--	--	--	--	--	--	--	--

Cost and Funding

Annual Funding By Appropriation

Annual Funding							
1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	--	--	--	--	19.8
2005	--	--	--	--	--	--	39.3
2006	--	--	--	--	--	--	--
2007	--	--	--	--	--	--	26.2
2008	--	--	--	--	--	--	83.1
2009	--	--	--	--	--	--	420.4
2010	--	--	--	--	--	--	439.0
2011	--	--	--	--	--	--	529.3
2012	--	--	--	--	--	--	541.0
2013	--	--	--	--	--	--	695.9
2014	--	--	--	--	--	--	224.2
2015	--	--	--	--	--	--	122.2
2016	--	--	--	--	--	--	76.6
Subtotal	5	--	--	--	--	--	3217.0

Annual Funding 1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2008 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	--	--	--	--	21.6
2005	--	--	--	--	--	--	41.8
2006	--	--	--	--	--	--	--
2007	--	--	--	--	--	--	26.4
2008	--	--	--	--	--	--	82.2
2009	--	--	--	--	--	--	411.2
2010	--	--	--	--	--	--	424.8
2011	--	--	--	--	--	--	505.1
2012	--	--	--	--	--	--	507.8
2013	--	--	--	--	--	--	642.3
2014	--	--	--	--	--	--	203.5
2015	--	--	--	--	--	--	109.0
2016	--	--	--	--	--	--	67.2
Subtotal	5	--	--	--	--	--	3042.9

The Research, Development, Test and Evaluation (RDT&E) total quantity of five is comprised of two engineering development models and three Low Rate Initial Production (LRIP) Lot 1 Unmanned Aircraft (UA). The three LRIP UAs will be utilized for operational test and achieving Initial Operating Capability (IOC).

Annual Funding 1506 Procurement Aircraft Procurement, Navy								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2013	--	48.3	--	--	48.3	--	48.3	
2014	4	373.1	--	56.0	429.1	183.6	612.7	
2015	4	391.9	--	40.0	431.9	259.8	691.7	
2016	5	517.3	--	51.6	568.9	385.2	954.1	
2017	5	468.6	--	43.5	512.1	437.0	949.1	
2018	5	482.2	--	8.8	491.0	494.0	985.0	
2019	5	507.1	--	--	507.1	300.3	807.4	
2020	5	496.0	--	--	496.0	291.1	787.1	
2021	5	512.1	--	--	512.1	297.8	809.9	
2022	5	539.9	--	--	539.9	321.4	861.3	
2023	5	529.2	--	--	529.2	312.0	841.2	
2024	5	547.2	--	--	547.2	319.5	866.7	
2025	5	577.6	--	--	577.6	345.2	922.8	
2026	5	500.7	--	--	500.7	335.3	836.0	
2027	2	197.8	--	--	197.8	211.5	409.3	
Subtotal	65	6689.0	--	199.9	6888.9	4493.7	11382.6	

Annual Funding 1506 Procurement Aircraft Procurement, Navy								
Fiscal Year	Quantity	BY 2008 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2013	--	44.0	--	--	44.0	--	44.0	
2014	4	334.1	--	50.2	384.3	164.4	548.7	
2015	4	345.1	--	35.2	380.3	228.8	609.1	
2016	5	447.9	--	44.7	492.6	333.6	826.2	
2017	5	399.0	--	37.0	436.0	372.1	808.1	
2018	5	403.7	--	7.4	411.1	413.5	824.6	
2019	5	417.4	--	--	417.4	247.2	664.6	
2020	5	401.5	--	--	401.5	235.6	637.1	
2021	5	407.6	--	--	407.6	237.0	644.6	
2022	5	422.5	--	--	422.5	251.6	674.1	
2023	5	407.2	--	--	407.2	240.1	647.3	
2024	5	414.0	--	--	414.0	241.8	655.8	
2025	5	429.7	--	--	429.7	256.9	686.6	
2026	5	366.3	--	--	366.3	245.3	611.6	
2027	2	142.3	--	--	142.3	152.1	294.4	
Subtotal	65	5382.3	--	174.5	5556.8	3620.0	9176.8	

Cost Quantity Information 1506 Procurement Aircraft Procurement, Navy		
Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned With Quantity) BY 2008 \$M
2013	--	--
2014	4	332.4
2015	4	331.6
2016	5	423.9
2017	5	397.6
2018	5	397.7
2019	5	420.2
2020	5	399.8
2021	5	401.4
2022	5	425.1
2023	5	405.4
2024	5	407.6
2025	5	432.3
2026	5	412.6
2027	2	194.7
Subtotal	65	5382.3

Annual Funding 1205 MILCON Military Construction, Navy and Marine Corps	
Fiscal Year	TY \$M
	Total Program
2011	42.2
2012	2.3
2013	--
2014	57.7
2015	54.3
2016	75.0
2017	150.0
2018	40.4
Subtotal	421.9

Annual Funding 1205 MILCON Military Construction, Navy and Marine Corps	
Fiscal Year	BY 2008 \$M
	Total Program
2011	39.6
2012	2.1
2013	--
2014	51.5
2015	47.7
2016	64.8
2017	127.4
2018	33.7
Subtotal	366.8

MILCON costs are for six sites: Patuxent River, Maryland (Test & Evaluation) in Fiscal Year (FY) 2011, Jacksonville, Florida in FY 2012 and FY 2018; Whidbey Island, Washington in FY 2014; Bahrain in FY 2015; Sigonella, Italy in FY 2016; and Guam in FY 2017. The FY 2012 funding is to procure a BAMS Fleet Replacement Squadron (FRS) training facility.

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	4/18/2008	4/18/2008
Approved Quantity	10	10
Reference	ADM	ADM
Start Year	2013	2013
End Year	2015	2015

The April 18, 2008 Broad Area Maritime Surveillance Unmanned Aircraft System (BAMS UAS) Milestone B Acquisition Decision Memorandum (ADM) signed by the Under Secretary of Defense for Acquisition, Technology and Logistics approved the planning for the program's Milestone C Low Rate Initial Production (LRIP) decision and stipulated the quantity will not exceed 10 unmanned aircraft systems and related ground control systems, which exceeds 10 percent of the production quantity. The requested quantity represents the minimum necessary to establish an initial production base for the system and to provide for an orderly and efficient increase in the production rate.

Foreign Military Sales

None

Nuclear Costs

None

Unit Cost

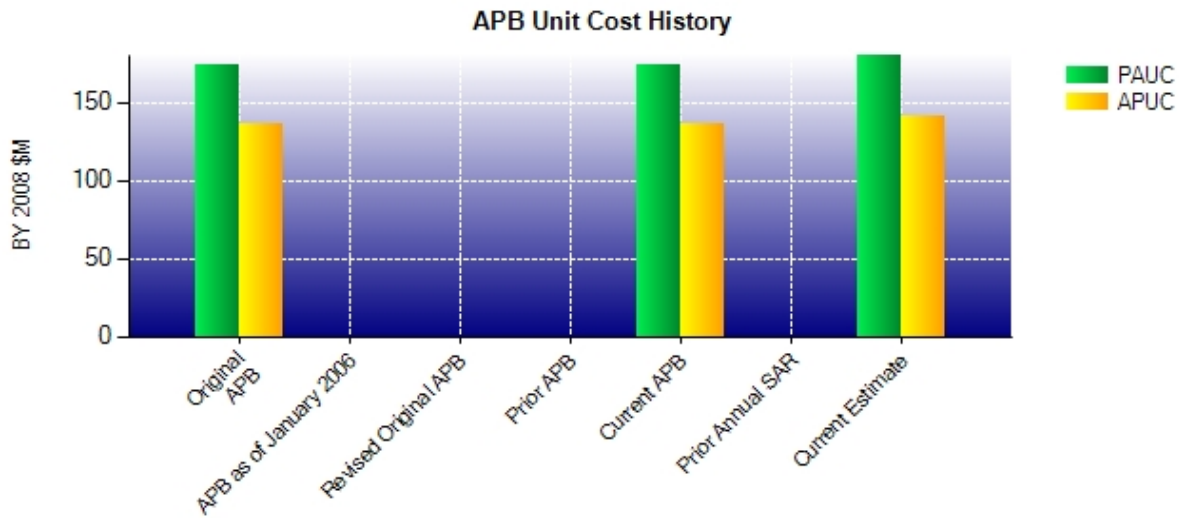
Unit Cost Report

Item	BY 2008 \$M	BY 2008 \$M	% Change
	Current UCR Baseline (Feb 2009 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost			
Cost	12224.5	12586.5	
Quantity	70	70	
Unit Cost	174.636	179.807	+2.96
Average Procurement Unit Cost			
Cost	8871.2	9176.8	
Quantity	65	65	
Unit Cost	136.480	141.182	+3.45

Item	BY 2008 \$M	BY 2008 \$M	% Change
	Original UCR Baseline (Feb 2009 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost			
Cost	12224.5	12586.5	
Quantity	70	70	
Unit Cost	174.636	179.807	+2.96
Average Procurement Unit Cost			
Cost	8871.2	9176.8	
Quantity	65	65	
Unit Cost	136.480	141.182	+3.45

The changes from the original Unit Cost Report (UCR) to current estimate are the result of the stretch-out of the program's production buy profile.

Unit Cost History



Item	Date	BY 2008 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Feb 2009	174.636	136.480	216.747	177.317
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	Feb 2009	174.636	136.480	216.747	177.317
Prior Annual SAR	N/A	N/A	N/A	N/A	N/A
Current Estimate	Dec 2009	179.807	141.182	214.593	175.117

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		
216.747	-9.870	0.000	0.617	0.000	2.476	0.000	4.623	-2.154	214.593	

Current SAR Baseline to Current Estimate (TY \$M)										
Initial APUC Development Estimate	Changes								APUC Current Estimate	
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total		
177.317	-9.212	0.000	0.665	0.000	1.369	0.000	4.978	-2.200	175.117	

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	Apr 2008	N/A	Apr 2008
Milestone C	N/A	May 2013	N/A	May 2013
IOC	N/A	Dec 2015	N/A	Dec 2015
Total Cost (TY \$M)	N/A	15172.3	N/A	15021.5
Total Quantity	N/A	70	N/A	70
PAUC	N/A	216.747	N/A	214.593

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	3223.6	11525.6	423.1	15172.3
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	-80.5	-598.8	-11.6	-690.9
Quantity	--	--	--	--
Schedule	--	+43.2	--	+43.2
Engineering	--	--	--	--
Estimating	+73.9	+89.0	+10.4	+173.3
Other	--	--	--	--
Support	--	+323.6	--	+323.6
Subtotal	-6.6	-143.0	-1.2	-150.8
Total Changes	-6.6	-143.0	-1.2	-150.8
Current Estimate	3217.0	11382.6	421.9	15021.5

Summary BY 2008 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	2989.3	8871.2	364.0	12224.5
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+53.6	+58.9	+2.8	+115.3
Other	--	--	--	--
Support	--	+246.7	--	+246.7
Subtotal	+53.6	+305.6	+2.8	+362.0
Total Changes	+53.6	+305.6	+2.8	+362.0
Current Estimate	3042.9	9176.8	366.8	12586.5

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 February 7, 2009

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-80.5
Adjustment for current and prior escalation. (Estimating)	+15.4	+15.8
Budget re-alignment to reflect Navy affordability goals (Estimating)	+38.2	+58.1
RDT&E Subtotal	+53.6	-6.6

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-598.8
Stretch-out of procurement buy profile resulted in an one year extention to the profile end date from 2026 to 2027. (Schedule)	0.0	+43.2
Revised estimate to account for advanced procurement methodology refinement. (Estimating)	+58.9	+89.0
Increase in Other Support due to the stretch-out of procurement buy profile. (Support)	+177.1	+232.6
Increase in Initial Spares due to the stretch-out of procurement buy profile . (Support)	+69.6	+91.0
Procurement Subtotal	+305.6	-143.0

MILCON	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-11.6
Program realigned to meet new production profile (Estimating)	+2.2	+9.8
Adjustment for current and prior escalation. (Estimating)	+0.6	+0.6
MILCON Subtotal	+2.8	-1.2

Contracts

Contract Identification

Appropriation: RDT&E
Contract Name: BAMS UAS SDD Contract
Contractor: Northrop Grumman Systems Corporation
Contractor Location: Bethpage, NY 11714
Contract Number: N00019-08-C-0023
Contract Type: Cost Plus Award Fee (CPAF)
Award Date: April 22, 2008
Definitization Date: April 22, 2008

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
1164.0	N/A	N/A	1812.4	N/A	N/A	1812.4	1812.4

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to

Contract Variance			
Item	Cost Variance		Schedule Variance
Cumulative Variances To Date (10/30/2009)	+6.4		+0.3
Previous Cumulative Variances	--		--
Net Change	+6.4		+0.3

Cost and Schedule Variance Explanations

General Contract Variance Explanation

The favorable net cost and schedule variances are due to early minor efficiencies within the Communications Integrated Product Team (IPT). These variances are insignificant and have no known impact on contract price.

Notes

This is the first time the BAMS UAS System Development and Demonstration contract is being reported. The increase in the initial contract price from \$1.164B to 1.812B was a result of a \$626.8M in-scope modification executed in February 2009 to incorporate risk reduction items identified by Northrop Grumman. During the preparation for the Systems Requirement Review the Government identified gaps in the Contractor's decomposition of the Government's requirements. This confirmed analysis and assumptions previously noted in source selection. The contract action contained no increase to the contracts fee and profit and aligned with the system specification requirements. Additionally, a Wing Load Test effort was added to the contract.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	5	0.00%
Production	0	0	65	0.00%
Total Program Quantity Delivered	0	0	70	0.00%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	15021.5	Years Appropriated	7
Expended to Date	448.7	Percent Years Appropriated	29.17%
Percent Expended	2.99%	Appropriated to Date	1027.8
Total Funding Years	24	Percent Appropriated	6.84%

Operating and Support Cost

Assumptions and Ground Rules

All costs were estimated in Fiscal Year (FY) 2008 dollars, the Base Year (BY) of the estimate.

The BAMS UAS Operation and Support (O&S) costs are based on a 2-level maintenance concept. Life cycle is phase-in +20 years of operation per aircraft. Maintenance at Milestone B planned a combination of contractor and Military personnel.

This early estimate was based on historical program costs with an organic 3-level maintenance concept adjusted to a 2-level maintenance concept.

Average annual cost per aircraft is calculated by dividing total O&S cost by the sum of the operational aircraft years.

BAMS Total Operating Aircraft Years:	428.17
Estimate Duration:	FY 2015 - 2038
Average Flight Hours per Month per Aircraft:	226
Flight Hours per Aircraft per Year	2712
Aircraft Attrition Rate:	4 per 100K Flight Hours
Aircraft per Main Operating Base (MOB):	4
Primary Authorized Aircraft (PAA)	20
Total Operational Aircraft Procured:	68

Date of estimate: February 2010

Cost Estimate Reference:

None

Sustainment Strategy:

None

Antecedent Information:

None

Unitized O&S Costs BY2008 \$M		
Cost Element	BAMS UAS Cost Per Air Vehicle Per Year	No Antecedent (Antecedent)
Mission Pay & Allowance	0.765	--
Unit Level Consumption	9.980	--
Intermediate Maintenance	--	--
Depot Maintenance	0.453	--
Contractor Support	3.703	--
Sustaining Support	1.504	--
Indirect	0.597	--
Other	--	--
Total	17.002	--

Unitized Cost Comments:

None

Item	Total O&S Cost \$M				No Antecedent (Antecedent)
	BAMS UAS			Current Estimate	
	Current Development APB Objective/Threshold				
Base Year	6912.1	7603.3	7279.7	N/A	
Then Year	10494.5	N/A	12558.4	N/A	

Total O&S Cost Comment

BAMS UAS has no antecedent program.

Disposal Estimate Details

Date of Estimate:

Source of Estimate:

Disposal/Demilitarization Total Cost (BY 2008 \$M):