



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-378



EA-18G Growler Aircraft (EA-18G)

As of FY 2017 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Common Acronyms and Abbreviations for MDAP Programs	3
Program Information	5
Responsible Office	5
References	5
Mission and Description	6
Executive Summary	7
Threshold Breaches	8
Schedule	9
Performance	10
Track to Budget	12
Cost and Funding	13
Low Rate Initial Production	22
Foreign Military Sales	23
Nuclear Costs	23
Unit Cost	24
Cost Variance	27
Contracts	30
Deliveries and Expenditures	36
Operating and Support Cost	37

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

EA-18G Growler Aircraft (EA-18G)

DoD Component

Navy

Responsible Office

CAPT David Kindley, USN
Program Executive Officer (PMA265)
Bldg 2272, Suite 445, NAVAIRSYSCOMHQ
47123 Buse Road, Unit IPT
Patuxent River, MD 20670-1547

Phone: 301-757-7669
Fax: 301-757-7520
DSN Phone: 757-7669
DSN Fax: 757-7520
Date Assigned: July 16, 2015

david.kindley@navy.mil

References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated July 18, 2007

Approved APB

Navy Acquisition Executive (NAE) Approved Acquisition Program Baseline (APB) dated February 15, 2011

Mission and Description

The EA-18G Growler Aircraft (EA-18G) is the fourth major variant of the F/A-18 family of aircraft. The EA-18G serves as the Navy's replacement for the EA-6B providing a capability to detect, identify, locate, and suppress hostile emitters. The EA-18G provides organic accurate emitter targeting for employment of onboard suppression weapons such as High-Speed Anti-Radiation Missile. The EA-18G aircraft is a missionized F/A-18F airframe coupled with the integration of its primary Airborne Electronic Attack systems that include the ALQ-99 Tactical Jamming System pods, AN/ALQ-218 Receiver, Communication Countermeasures Set with functionality equivalent to the USQ-113, and the Multi-Mission Advanced Tactical Terminal.

Executive Summary

The procurement profile of the FY 2017 PB adds 7 EA-18G aircraft in FY 2016. The result of this addition will be a FY 2016 FRP contract for Lot 40 EA-18G aircraft, which increases the total Program of Record (PoR) from 150 to 157. As part of the A-12 settlement, the EA-18G Program received three EA-18G airframes, Contractor Furnished Equipment (CFE), and Airborne Electronic Attack (AEA) kits from the Boeing Company. The value to the program was \$198M. These aircraft are in the process of delivery and are annotated as Lot 37A aircraft. There was not a Total Obligation Authority (TOA) increase to the program. The three Growler aircraft have been added to FY 2013 and will be included in the PoR. FY 2016 \$198 Million A-12 In-kind Settlement does not reflect TOA. No additional resources were provided in FY 2016 to the Department of the Navy.

The Assistant Secretary of the Navy, Research, Development, and Acquisition (ASN (RD&A)) acknowledged and concurred with the FY 2015 Program Deviation Report (PDR) on June 2, 2015. ASN(RD&A) approved the APB on October 15, 2015. The additional 7 EA-18G aircraft and related support in FY 2016 caused Procurement and O&S cost breaches. Additionally, an RDT&E breach occurred as a result of increased funding for Complex Emitter, Tactical Targeting Network Technology, and Distributed Targeting Processor-Networked efforts. As a result, a PDR and updated APB will be submitted.

A contract modification to the Lot 38 FRP contract for the Lot 39 FRP procurement awarded on October 26, 2015.

As of November 30, 2015, EA-18G aircraft have flown 141,141 hours.

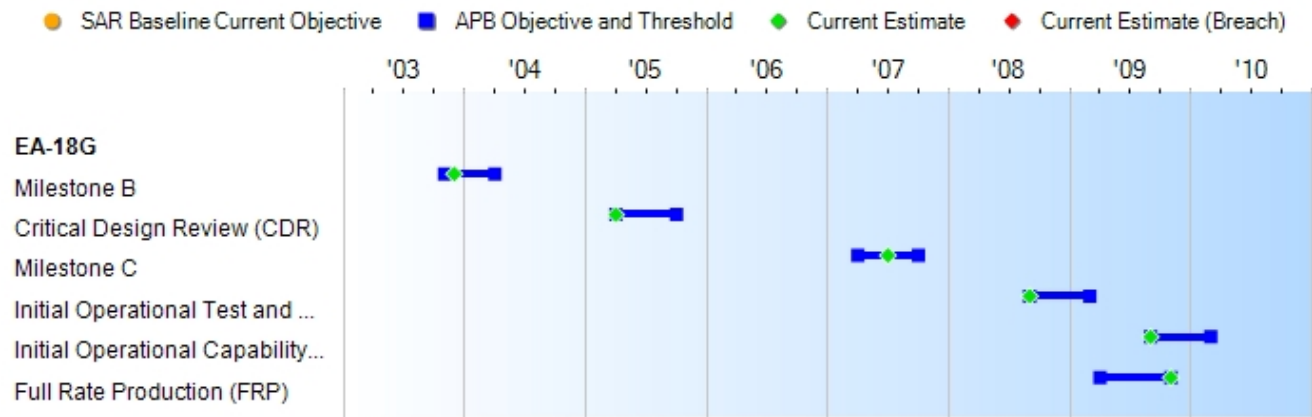
As of January 31, 2016, the program has delivered 114 aircraft to the Fleet.

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

Threshold Breaches

APB Breaches			Explanation of Breach
Schedule		<input type="checkbox"/>	As a result of the changes in the FY 2017 PB, the EA-18G program APB thresholds for RDT&E, Procurement, and O&S cost are breached.
Performance		<input type="checkbox"/>	
Cost	RDT&E	<input checked="" type="checkbox"/>	
	Procurement	<input checked="" type="checkbox"/>	
	MILCON	<input type="checkbox"/>	
	Acq O&M	<input type="checkbox"/>	
O&S Cost		<input checked="" type="checkbox"/>	The RDT&E cost breach is the result of increased funding for Complex Emitter, Tactical Targeting Network Technology, and Distributed Targeting Processor-Networked efforts.
Unit Cost	PAUC	<input type="checkbox"/>	The Procurement cost breach is the result of 7 aircraft being added to the Program of Record (PoR) in FY 2016.
	APUC	<input type="checkbox"/>	
Nunn-McCurdy Breaches			The O&S cost breach is the result of updated methodology being used to estimate flight hours to more closely align flight hour projections with those in the Naval Synchronization Tool (NST). The updated methodology calculates aircraft operating years based on EA -18G Total Aircraft Inventory (TAI) that includes pipeline aircraft to align with NST. Previous methodology utilized Primary Aircraft Authorized (PAA) that does not include pipeline aircraft. Also contributing to the O&S cost breach are 7 aircraft being added to the POR in FY 2016 (Lot 40). A Program Deviation Report and an APB will be prepared for submission to the Assistant Secretary of the Navy, Research, Development, and Acquisition for review and approval.
Current UCR Baseline			
	PAUC	None	
	APUC	None	
Original UCR Baseline			
	PAUC	None	
	APUC	None	

Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
Milestone B	Dec 2003	Nov 2003	Apr 2004	Dec 2003
Critical Design Review (CDR)	Apr 2005	Apr 2005	Oct 2005	Apr 2005
Milestone C	Jul 2007	Apr 2007	Oct 2007	Jul 2007
Initial Operational Test and Evaluation (IOT&E)(Start)	Sep 2008	Sep 2008	Mar 2009	Sep 2008
Initial Operational Capability (IOC)	Sep 2009	Sep 2009	Mar 2010	Sep 2009
Full Rate Production (FRP)	Apr 2009	Apr 2009	Nov 2009	Nov 2009

Change Explanations

None

Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Net-ready				
EA-18G must fully support execution of joint critical operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services, 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and nonrepudiation, and issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and information assurance attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.	EA-18G must fully support execution of joint critical operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services, 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and nonrepudiation, and issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and information assurance attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.	EA-18G must fully support execution of joint critical operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services, 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and nonrepudiation, and issuance of an IATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and information assurance attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.	Meets all Net-Centric Requirements	Meets all Net-Centric Requirements
Receive Azimuth Coverage				
360 deg	360 deg	360 deg	360 deg	360 deg
Operational Availability				
>=0.98	>=0.98	>=0.85	0.98	>=0.98
Carrier Suitability				
Launch Catapult WOD (Max Gross Weight, Tropical Day)				

<=25 knots	<=25 knots	<=30 knots	21 knots	<=25 knots
Deck Spot Factor				
<=1.4	<=1.4	<=1.5	1.46	1.46
Recovery Payload (empty wing and centerline pylons and nacelle ejectors, 47,000 lbs, 14 knots WOD)				
>=9,000 lbs	>=9,000 lbs	>=9,000 lbs	11,037 lbs	>=9,000 lbs
Additional Internal Fuel Capacity (over F/A-18C/D)				
>=3,000 lbs	>=3,000 lbs	>=3,000 lbs	3,802 lbs	>=3,000 lbs

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

Requirements Reference

CPD Change 1 dated October 19, 2009

Change Explanations

None

Acronyms and Abbreviations

ATO - Authority to Operate
DAA - Designated Approval Authority
deg - Degrees
DISR - DoD Information Technology Standards and Profile Registry
GIG IT - Global Information Grid Information Technology
IATO - Interim Authority to Operate
KIP - Key Interface Profile
lbs - Pounds
NCOW RM - Net-Centric Operations and Warfare Reference Model
TV - Technical View
WOD - Wind Over Deck

Track to Budget

RDT&E			
Appn	BA	PE	
Navy	1319	05	0604269N
	Project	Name	
	3063	EA-18G Development	
Procurement			
Appn	BA	PE	
Navy	1506	01	0204154N
	Line Item	Name	
	0143	EA-18G	
Navy	1506	06	0204154N
	Line Item	Name	
	0605	Spares and Repair Parts (Shared) (Sunk)	
MILCON			
Appn	BA	PE	
Navy	1205	01	0703676N
	Project	Name	
	P193	EA-18G Facility Improvements (Sunk)	

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2004 \$M			BY 2004 \$M	TY \$M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	1755.3	1700.8	1870.9	2120.5 ¹	1899.9	1832.3	2419.3
Procurement	5754.6	8329.7	9162.7	11045.0 ¹	6712.5	9693.8	13229.1
Flyaway	--	--	--	9328.2	--	--	11138.0
Recurring	--	--	--	9239.8	--	--	11036.9
Non Recurring	--	--	--	88.4	--	--	101.1
Support	--	--	--	1716.8	--	--	2091.1
Other Support	--	--	--	1477.6	--	--	1815.4
Initial Spares	--	--	--	239.2	--	--	275.7
MILCON	20.9	21.4	23.5	21.4	24.0	24.0	24.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	7530.8	10051.9	N/A	13186.9	8636.4	11550.1	15672.4

¹ APB Breach

Confidence Level

Confidence Level of cost estimate for current APB: 50%

The current estimate recommendation 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.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E	0	0	0
Procurement	84	114	160
Total	84	114	160

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	1814.8	46.9	116.8	165.0	142.8	65.6	67.4	0.0	2419.3
Procurement	12371.1	858.0	0.0	0.0	0.0	0.0	0.0	0.0	13229.1
MILCON	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2017 Total	14209.9	904.9	116.8	165.0	142.8	65.6	67.4	0.0	15672.4
PB 2016 Total	14089.6	56.9	47.3	104.4	56.4	40.6	0.0	0.0	14395.2
Delta	120.3	848.0	69.5	60.6	86.4	25.0	67.4	0.0	1277.2

Funding Notes

As part of the A-12 settlement, the EA-18G Program received three EA-18G airframes, Contractor Furnished Equipment (CFE), and Airborne Electronic Attack (AEA) kits from the Boeing Company. The value to the program was \$198M. These aircraft are in the process of delivery and are annotated as Lot 37A aircraft. There was not a TOA increase to the program. The three Growler aircraft have been added to FY 2013 and will be included in the Program of Record.

FY 2016 \$198 Million A-12 In-kind Settlement does not reflect Total Obligation Authority (TOA). No additional resources were provided in FY 2016 to the Department of the Navy. The three EA-18G aircraft from the A-12 settlement and the FY 2017 PB addition of 7 EA-18G aircraft in FY 2016 increases the total PoR from 150 to 160.

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	0	0	0	0	0	0	0	0	0	0
Production	0	153	7	0	0	0	0	0	0	160
PB 2017 Total	0	153	7	0	0	0	0	0	0	160
PB 2016 Total	0	150	0	0	0	0	0	0	0	150
Delta	0	3	7	0	0	0	0	0	0	10

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	--	--	--	--	--	--	203.7
2005	--	--	--	--	--	--	353.7
2006	--	--	--	--	--	--	379.7
2007	--	--	--	--	--	--	361.0
2008	--	--	--	--	--	--	269.4
2009	--	--	--	--	--	--	115.7
2010	--	--	--	--	--	--	55.5
2011	--	--	--	--	--	--	20.2
2012	--	--	--	--	--	--	14.8
2013	--	--	--	--	--	--	11.8
2014	--	--	--	--	--	--	10.6
2015	--	--	--	--	--	--	18.7
2016	--	--	--	--	--	--	46.9
2017	--	--	--	--	--	--	116.8
2018	--	--	--	--	--	--	165.0
2019	--	--	--	--	--	--	142.8
2020	--	--	--	--	--	--	65.6
2021	--	--	--	--	--	--	67.4
Subtotal	--	--	--	--	--	--	2419.3

Annual Funding							
1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2004 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	--	--	--	--	199.6
2005	--	--	--	--	--	--	337.8
2006	--	--	--	--	--	--	351.6
2007	--	--	--	--	--	--	326.3
2008	--	--	--	--	--	--	239.2
2009	--	--	--	--	--	--	101.4
2010	--	--	--	--	--	--	47.9
2011	--	--	--	--	--	--	17.0
2012	--	--	--	--	--	--	12.3
2013	--	--	--	--	--	--	9.7
2014	--	--	--	--	--	--	8.6
2015	--	--	--	--	--	--	14.9
2016	--	--	--	--	--	--	36.9
2017	--	--	--	--	--	--	90.2
2018	--	--	--	--	--	--	125.1
2019	--	--	--	--	--	--	106.1
2020	--	--	--	--	--	--	47.8
2021	--	--	--	--	--	--	48.1
Subtotal	--	--	--	--	--	--	2120.5

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	
2005	--	8.2	--	--	8.2	--	8.2	
2006	4	308.0	--	7.5	315.5	55.7	371.2	
2007	9	638.7	--	5.8	644.5	104.9	749.4	
2008	21	1396.4	--	63.4	1459.8	164.9	1624.7	
2009	22	1563.3	--	17.1	1580.4	157.3	1737.7	
2010	22	1482.0	--	--	1482.0	85.6	1567.6	
2011	12	819.0	--	0.2	819.2	144.4	963.6	
2012	12	799.4	--	0.3	799.7	147.7	947.4	
2013	15	816.0	--	0.1	816.1	184.0	1000.1	
2014	21	1463.9	--	6.7	1470.6	426.7	1897.3	
2015	15	1178.9	--	--	1178.9	325.0	1503.9	
2016	7	563.1	--	--	563.1	294.9	858.0	
Subtotal	160	11036.9	--	101.1	11138.0	2091.1	13229.1	

Annual Funding 1506 Procurement Aircraft Procurement, Navy								
Fiscal Year	Quantity	BY 2004 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2005	--	7.7	--	--	7.7	--	7.7	
2006	4	281.1	--	6.8	287.9	50.9	338.8	
2007	9	569.7	--	5.2	574.9	93.5	668.4	
2008	21	1227.0	--	55.7	1282.7	145.0	1427.7	
2009	22	1354.8	--	14.8	1369.6	136.4	1506.0	
2010	22	1258.1	--	--	1258.1	72.6	1330.7	
2011	12	681.7	--	0.2	681.9	120.2	802.1	
2012	12	656.0	--	0.2	656.2	121.3	777.5	
2013	15	662.5	--	0.1	662.6	149.4	812.0	
2014	21	1173.3	--	5.4	1178.7	341.9	1520.6	
2015	15	930.8	--	--	930.8	256.7	1187.5	
2016	7	437.1	--	--	437.1	228.9	666.0	
Subtotal	160	9239.8	--	88.4	9328.2	1716.8	11045.0	

Cost Quantity Information		
1506 Procurement Aircraft Procurement, Navy		
Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned With Quantity) BY 2004 \$M
2005	--	--
2006	4	288.8
2007	9	569.7
2008	21	1227.0
2009	22	1354.8
2010	22	1258.1
2011	12	681.7
2012	12	656.0
2013	15	662.5
2014	21	1173.3
2015	15	930.8
2016	7	437.1
Subtotal	160	9239.8

Annual Funding 1205 MILCON Military Construction, Navy and Marine Corps	
Fiscal Year	TY \$M
	Total Program
2007	24.0
Subtotal	24.0

Annual Funding 1205 MILCON Military Construction, Navy and Marine Corps		
Fiscal Year	BY 2004 \$M	
	Total Program	
2007		21.4
Subtotal		21.4

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	12/18/2003	5/8/2008
Approved Quantity	9	30
Reference	Milestone B ADM	Milestone C ADM
Start Year	2006	2006
End Year	2009	2009

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the determination that 30 EA-18G aircraft would be the minimum requirement to conduct LRIP, permit a systematic increase in the production rate of the ALQ-218 system, and avoid a break in the production line.

In LRIP I (FY 2007), the EA-18G program office procured nine EA-18G systems (including one FY 2007 supplemental). For LRIP II (FY 2008), the EA-18G program office procured 21 EA-18G systems (including three FY 2008 supplementals).

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost \$M	Description
Australia	9/24/2013	0	17.7	FMS Case, AT-P-GTM, provides for EA-18G Aircrew initial training and support related to AT-P-SCI and AT-P-LEN FMS Cases.
Australia	7/4/2013	12	1346.7	FMS Case, AT-P-SCI, provides for the procurement of 12 EA-18G aircraft and support. The 12 aircraft were included in the Lot 38 procurement contract, which was awarded on June 30, 2014.
Australia	8/30/2012	12	992.4	FMS Case, AT-P-LEN, provides for the procurement of 12 Airborne Electronic Attack (AEA) kit sets, the modification effort to convert six Australian Lot 33 F/A-18F to AEA-18G Aircraft, and support. Per AT-P-SCI, Australia elected to obtain 12 new build EA-18G aircraft vice converting six Australian Lot 33 F/A-18F to EA-18G.

Notes

Nuclear Costs

None

Unit Cost

Unit Cost Report

Item	BY 2004 \$M	BY 2004 \$M	% Change
	Current UCR Baseline (Feb 2011 APB)	Current Estimate (Dec 2015 SAR)	

Program Acquisition Unit Cost

Cost	10051.9	13186.9	
Quantity	114	160	
Unit Cost	88.175	82.418	-6.53

Average Procurement Unit Cost

Cost	8329.7	11045.0	
Quantity	114	160	
Unit Cost	73.068	69.031	-5.52

Item	BY 2004 \$M	BY 2004 \$M	% Change
	Original UCR Baseline (Dec 2003 APB)	Current Estimate (Dec 2015 SAR)	

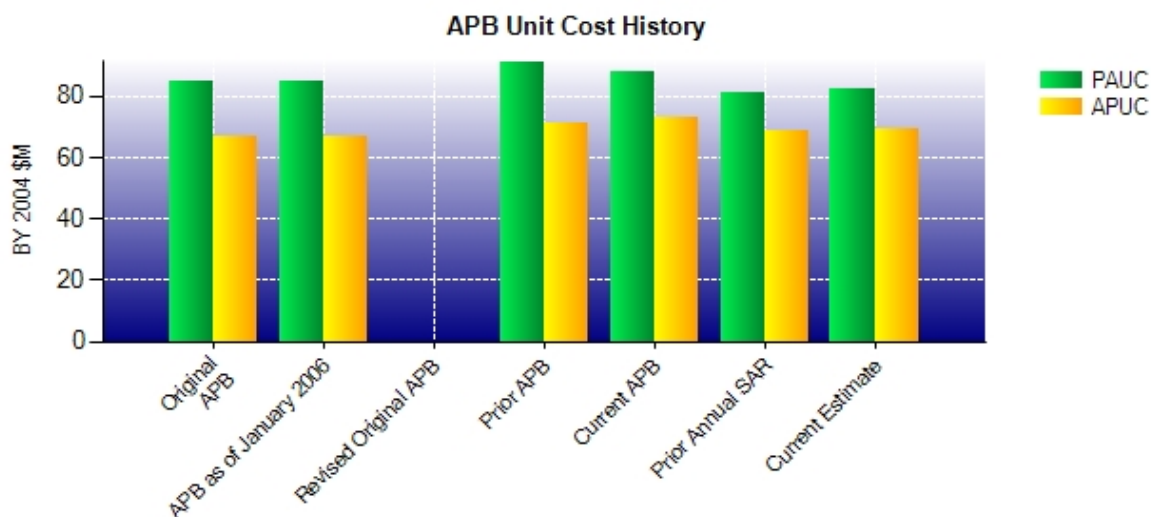
Program Acquisition Unit Cost

Cost	7662.6	13186.9	
Quantity	90	160	
Unit Cost	85.140	82.418	-3.20

Average Procurement Unit Cost

Cost	6030.5	11045.0	
Quantity	90	160	
Unit Cost	67.006	69.031	+3.02

Unit Cost History



Item	Date	BY 2004 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Dec 2003	85.140	67.006	93.573	74.600
APB as of January 2006	Dec 2003	85.140	67.006	93.573	74.600
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Jan 2010	90.989	71.149	103.828	82.449
Current APB	Feb 2011	88.175	73.068	101.317	85.033
Prior Annual SAR	Dec 2014	81.188	68.401	95.968	81.672
Current Estimate	Dec 2015	82.418	69.031	97.952	82.682

SAR Unit Cost History

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
93.573	4.150	1.442	-0.319	0.947	-0.348	0.000	3.369	9.241	102.814

Current SAR Baseline to Current Estimate (TY \$M)									
PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
102.814	-0.522	-11.764	-0.082	1.062	-2.048	0.000	8.492	-4.862	97.952

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
74.600	3.679	0.057	-0.319	0.138	-1.613	0.000	3.369	5.311	79.911

Current SAR Baseline to Current Estimate (TY \$M)									
APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
79.911	-0.593	-0.885	-0.082	0.000	-4.161	0.000	8.492	2.771	82.682

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 2003	Dec 2003	Dec 2003
Milestone C	N/A	Apr 2007	Jul 2007	Jul 2007
IOC	N/A	Sep 2009	Sep 2009	Sep 2009
Total Cost (TY \$M)	N/A	8421.6	8636.4	15672.4
Total Quantity	N/A	90	84	160
PAUC	N/A	93.573	102.814	97.952

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	1899.9	6712.5	24.0	8636.4
Previous Changes				
Economic	+13.5	-70.9	--	-57.4
Quantity	--	+5180.2	--	+5180.2
Schedule	--	-6.7	--	-6.7
Engineering	+170.0	--	--	+170.0
Estimating	+37.0	-444.0	--	-407.0
Other	--	--	--	--
Support	--	+879.7	--	+879.7
Subtotal	+220.5	+5538.3	--	+5758.8
Current Changes				
Economic	-2.2	-24.0	--	-26.2
Quantity	--	+751.5	--	+751.5
Schedule	--	-6.4	--	-6.4
Engineering	--	--	--	--
Estimating	+301.1	-221.8	--	+79.3
Other	--	--	--	--
Support	--	+479.0	--	+479.0
Subtotal	+298.9	+978.3	--	+1277.2
Total Changes	+519.4	+6516.6	--	+7036.0
CE - Cost Variance	2419.3	13229.1	24.0	15672.4
CE - Cost & Funding	2419.3	13229.1	24.0	15672.4

Summary BY 2004 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	1755.3	5754.6	20.9	7530.8
Previous Changes				
Economic	--	--	--	--
Quantity	--	+4159.9	--	+4159.9
Schedule	--	-4.2	--	-4.2
Engineering	+126.1	--	--	+126.1
Estimating	+15.2	-354.8	+0.5	-339.1
Other	--	--	--	--
Support	--	+704.7	--	+704.7
Subtotal	+141.3	+4505.6	+0.5	+4647.4
Current Changes				
Economic	--	--	--	--
Quantity	--	+586.3	--	+586.3
Schedule	--	-0.4	--	-0.4
Engineering	--	--	--	--
Estimating	+223.9	-176.1	--	+47.8
Other	--	--	--	--
Support	--	+375.0	--	+375.0
Subtotal	+223.9	+784.8	--	+1008.7
Total Changes	+365.2	+5290.4	+0.5	+5656.1
CE - Cost Variance	2120.5	11045.0	21.4	13186.9
CE - Cost & Funding	2120.5	11045.0	21.4	13186.9

Previous Estimate: December 2014

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-2.2
Adjustment for current and prior escalation. (Estimating)	+0.4	+0.5
Revised estimate for Tactical Targeting Network Technology in FY 2017 to FY 2019. (Estimating)	+38.5	+50.9
Revised estimate for Distributed Targeting Processor-Networked in FY 2017 to FY 2021. (Estimating)	+38.1	+52.4
Revised estimate for Complex Emitter in FY 2017 to FY 2020. (Estimating)	+154.8	+207.3
Decrease in FY 2016 funding due to Congressional reduction. (Estimating)	-7.9	-10.0
RDT&E Subtotal	+223.9	+298.9

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-24.0
Quantity variance resulting from an increase of 7 aircraft from 153 to 160. (Subtotal)	+562.2	+720.7
Quantity variance resulting from an increase of 7 aircraft from 153 to 160. (Quantity)	(+586.3)	(+751.5)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.4)	(-0.5)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-23.7)	(-30.3)
Acceleration of procurement buy profile. (Schedule) (QR)	0.0	-5.9
Decrease in FY 2013, FY 2014, and FY 2015 due to internal Navy realignments. (Estimating)	-168.5	-211.4
Adjustment for current and prior escalation. (Estimating)	+16.1	+19.9
Adjustment for current and prior escalation. (Support)	+3.2	+4.1
Increase in Other Support resulting from increase in 7 additional aircraft. (Support) (QR)	+371.5	+474.5
Increase in Initial Spares resulting from increase in 7 additional aircraft. (Support) (QR)	+0.3	+0.4
Procurement Subtotal	+784.8	+978.3

(QR) Quantity Related

Contracts

Contract Identification

Appropriation: Procurement
Contract Name: Airframe Multi-Year Procurement III (MYP III)
Contractor: The Boeing Company
Contractor Location: 6200 JS McDonnell Blvd.
 St. Louis, MO 63166
Contract Number: N00019-09-C-0019
Contract Type: Firm Fixed Price (FFP)
Award Date: December 04, 2008
Definitization Date: September 28, 2010

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
2528.7	N/A	58	2644.3	N/A	58	2644.3	2644.3

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to multiple funded modifications and the incorporation of Engineering Change Proposals.

Cost and Schedule Variance Explanations

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

Notes

The EA-18G aircraft (Lots 34 through 37) are being procured on the MYP III contract from FY 2010 through FY 2013. The MYP III contract values above reflect the EA-18G portion of this contract only.

The MYP III contract was awarded on December 4, 2008, for the advance procurement of long-lead materials. A contract modification, P00009, funded the contract for the procurement of Lot 34 aircraft and associated requirements.

This contract is more than 90% complete; therefore, this is the final report for this contract.

Contract Identification

Appropriation: Procurement
Contract Name: F414 Engine Production Lots 16-19
Contractor: GE Aircraft Engines
Contractor Location: 1000 Western Ave.
 Lynn, MA 01910
Contract Number: N00019-11-C-0045
Contract Type: Firm Fixed Price (FFP)
Award Date: April 20, 2011
Definitization Date: September 26, 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
5.2	N/A	0	507.9	N/A	114	507.9	507.9

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the FY 2012 procurement of 24 engines and devices, FY 2013 procurement of long lead material, FY 2013 procurement of 18 engines and devices, modifications executed for advanced procurement for FY 2014 engines, modification executed for the FY 2014 procurement of 42 engines and devices, and the modification executed for the FY 2015 procurement of 30 engines and devices.

Cost and Schedule Variance Explanations

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

Notes

The original contract value only reflects the procurement of time-critical long-lead material in support of the FY 2012 F414 engine production.

Contract Identification

Appropriation: Procurement
Contract Name: EA-18G FRP AEA Kits
Contractor: The Boeing Company
Contractor Location: 6200 JS McDonnell Blvd.
 St. Louis, MO 63166-0516
Contract Number: N00019-09-C-0086
Contract Type: Firm Fixed Price (FFP)
Award Date: December 23, 2008
Definitization Date: May 11, 2009

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
50.3	N/A	N/A	993.8	N/A	92	993.8	993.8

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to adding Lots 33, 34, 35, 36, 37 and Royal Australian Air Force Airborne Electronic Attack (AEA) kits after program approval into FRP, dated November 23, 2009.

Cost and Schedule Variance Explanations

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

Notes

The original contract value reflected the advanced procurement of time-critical parts only.

The December 2013 SAR erroneously reported a Current Quantity of 68 kits vice 92 kits. There are no additional quantity changes this year and the Current Contract Price and Estimated Price at Completion values remain the same.

AEA kit deliveries on this contract were completed ahead of schedule.

This contract is more than 90% complete; therefore, this is the final report for this contract.

Contract Identification

Appropriation: Procurement
Contract Name: System Configuration Sets (SCS) Contract
Contractor: The Boeing Company
Contractor Location: 6200 JS McDonnell Blvd.
 St. Louis, MO 63166
Contract Number: N68936-14-D-0008
Contract Type: Indefinite Delivery Indefinite Quantity (IDIQ), Cost Plus Incentive Fee (CPIF), Cost Plus Fixed Fee (CPFF)
Award Date: December 12, 2013
Definitization Date: December 12, 2013

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
872.8	N/A	90	872.8	N/A	90	872.8	872.8

Cost and Schedule Variance Explanations

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

Notes

The Program Executive Officer for Tactical Aircraft Programs approved a deviation (dated July 24, 2013) to exclude EVM requirements for CPFF level-of-effort task orders on this contract. There have been no CPIF orders awarded on this contract. As a result, there are no EVM metrics reported.

The Current Contract Price Target for the basic contract reflects the value at contract award.

The value, quantities, and funding for each delivery or task order issued under this IDIQ contract are individually negotiated.

This contract includes shared costs and quantities for U.S. Navy and Royal Australian Air Force F/A-18 and EA-18G platforms.

Contract Identification

Appropriation: RDT&E
Contract Name: EA-18G ALQ-218 Operational Test Program Sets (OTPSs)
Contractor: The Boeing Company
Contractor Location: 6200 James S McDonnell Boulevard
 Berkeley, MO 63134
Contract Number: N68335-10-G-0012/46
Contract Type: Cost Plus Fixed Fee (CPFF)
Award Date: September 25, 2013
Definitization Date: September 25, 2013

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
41.8	N/A	14	49.8	N/A	14	49.8	49.8

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to contract modifications being awarded to fund technical support for the development efforts from Northrop Grumman (NGC) to Boeing on CLIN 0001.

Contract Variance			
Item	Cost Variance	Schedule Variance	
Cumulative Variances To Date (1/28/2016)	+2.4	-1.2	
Previous Cumulative Variances	+1.8	-0.7	
Net Change	+0.6	-0.5	

Cost and Schedule Variance Explanations

The favorable net change in the cost variance is due to the ability to automate requirements generation, use of existing Boeing Unigraphics models of Weapons Replaceable Assemblies, and use of existing cable designs provided by Northrop Grumman.

The unfavorable net change in the schedule variance is due to additional time required to complete requirements documentation primarily due to Critical Design Review documentation associated with the Ancillary Set, resulting in a scheduled delay starting Integration.

Contract Identification

Appropriation: Procurement
Contract Name: EA-18G FRP (Lot 38-39)
Contractor: The Boeing Company
Contractor Location: 6200 JS McDonnell Blvd.
 St. Louis, MO 63166
Contract Number: N00019-14-C-0032
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: June 30, 2014
Definitization Date: June 30, 2014

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
1466.9	1488.9	33	2568.0	2635.3	48	2568.0	2568.0

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the contract modification to include the procurement of Lot 38-39 AEA kits, Airborne Electronic Attack (AEA) specific obsolescence efforts, and Royal Australian Air Force (RAAF) unique hardware and support.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FPIF) contract.

Notes

The EA-18G FRP (Lot 38) contract was awarded on June 30, 2014 for the procurement of 33 EA-18G aircraft with Airborne Electronic Attack (AEA) kits, which includes 21 U.S. Navy (USN) aircraft and 12 RAAF aircraft. A contract modification was awarded on October 26, 2015 for the procurement of 15 EA-18G aircraft with AEA kits.

The Deputy Assistant Secretary of the Navy for Acquisition and Procurement approved a deviation (Deviation No. 14-N-907, dated May 29, 2014) to exclude EVM requirements on this contract.

All contract values above reflect the procurement of the EA-18G variant only.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	114	114	160	71.25%
Total Program Quantity Delivered	114	114	160	71.25%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	15672.4	Years Appropriated	13
Expended to Date	10583.0	Percent Years Appropriated	72.22%
Percent Expended	67.53%	Appropriated to Date	15114.8
Total Funding Years	18	Percent Appropriated	96.44%

The above data is current as of February 17, 2016.

The previous reported aircraft deliveries of 116 aircraft was an error due to miscalculation.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	February 16, 2016
Source of Estimate:	POE
Quantity to Sustain:	160
Unit of Measure:	Aircraft
Service Life per Unit:	29.00 Years
Fiscal Years in Service:	FY 2008 - FY 2046

The variable components of the cost estimate such as the Flying Hour Program (FHP) are based on the number of aircraft operational years available and the flight hours which they generate. Some elements such as personnel and their associated indirect and training costs are dependent on the number of squadrons and their manning requirements. Other fixed elements such as sustaining engineering are based on a cost per aircraft. Modification and airframe and support equipment depot maintenance are estimated as the total requirement and then applied on a cost per aircraft basis.

Consumption rate, gallons per hour: 1,305

Number of Aircraft Operating Years: 4,449

Flight Hours per aircraft per month: 26.4

Petroleum, Oil, Lubrication (POL) cost, JP-5 per gallon FY 2004\$: 1.00

Fatigue Life (Flight Hours): 7,500

Operational Service Life (Flight Hours): 9,000

Total Life Cycle Flight Hours: 1,334,563

Sustainment Strategy

The EA-18G Support strategy is based on the following assumptions for basing and utilization.

Primary Mission Authorized Aircraft (PMAA) will be comprised of ten Carrier Air Wing (CVW) squadrons (each with 7 PMAA), one of which will be part of the Forward Deployed Naval Force (FDNF) stationed out of Yokosuka, Japan, five Expeditionary Squadrons (each with 5 PMAA), and one reserve Squadron (5 PMAA). All squadrons are manned to the level required to execute the Expeditionary mission for a total of 100 PMAA aircraft. The Fleet Replacement Squadron will consist of 26 Aircraft Primary Training Aircraft Authorization (PTAA) aircraft.

EA-18G and F/A-18E/F common maintenance training will be conducted at Naval Air Station (NAS), Lemoore, California (CA), with peculiar EA-18G AEA maintenance training being conducted at NAS Whidbey Island, WA. Initial aircrew training will be conducted at NAS Whidbey Island, WA.

EA-18G and F/A-18E/F common Intermediate Level (I-Level) maintenance will be conducted at NAS Lemoore, CA to include the F414 engine. Limited I-Level for some EA-18G and F/A-18E/F common maintenance tasks has been established at Whidbey Island, WA. Airborne Electronic Attack (AEA) I-Level maintenance will be stood up at Whidbey Island and aboard the CVWs commencing FY18. EA-18G Depot Level (D-Level) maintenance will follow the directives as

published in the ILS, SCM and F414 support contracts. This support strategy focuses on the integration of existing F/A-18F support, support that was developed for the EA-6B equipment common to the EA-18G, and development of support for EA-18G unique design circumstances. While the EA-18G AEA equipment is based on the ICAP-III system that was developed for the EA-6B, much of it is repackaged, some with added EA-18G unique components, and some new design EA-18G equipment.

Antecedent Information

Antecedent program: EA-6B

Consumption rate, gallons per hour: 1,084

Number of Aircraft Operating Years: 4,449 (not actual, but used in order to provide a comparison between the EA-18G and its antecedent platform)

Flight Hours per aircraft per month: 29.2

POL Cost, JP-5 per gallon FY 2004\$: 1.00

Source of Antecedent Information: Naval Visibility and Management Operating and Support Costs (VAMOSC) database Aircraft Type Model Series Report (ATMSR)

For comparison purposes, the BY Antecedent's Average Annual Cost per Aircraft is derived from total FY 2010 - FY 2014 cost from the Navy VAMOSC ATMSR, divided by the total number of aircraft in ATMSR for FY 2010 - FY 2014. This value is then multiplied by the total number of aircraft operating years associated with EA-18G to provide a point of comparison.

Annual O&S Costs BY2004 \$M			
Cost Element	EA-18G Average Annual Cost Per Aircraft		EA-6B (Antecedent) Average Annual Cost Per Aircraft
Unit-Level Manpower	1.470		2.043
Unit Operations	0.625		0.535
Maintenance	2.390		3.313
Sustaining Support	0.132		0.290
Continuing System Improvements	1.053		1.629
Indirect Support	0.341		0.341
Other	0.000		0.000
Total	6.011		8.151

Item	Total O&S Cost \$M			
	EA-18G			EA-6B (Antecedent)
	Current Production APB Objective/Threshold	Current Estimate		
Base Year	14743.0	16217.3	26743.0 ¹	36262.8
Then Year	24508.2	N/A	48459.2	N/A

¹ APB O&S Cost Breach

Due to an updated methodology being used to estimate flight hours to more closely align flight hour projections with those in the Naval Synchronization Tool (NST) an additional 691 aircraft operating years and \$3,062 BY 2004 \$M was added to the O&S Cost Estimate. The updated methodology calculates aircraft operating years based on EA-18G Total Aircraft Inventory (TAI) that includes pipeline aircraft to align with NST. Previous methodology utilized Primary Aircraft Authorized (PAA) that does not include pipeline aircraft. Due to the addition of 7 aircraft to the Program of Record (PoR) in FY 2016 (Lot 40), 203 operating years have been added to the PoR which adds \$868 BY 2004 \$M to the O&S Cost Estimate. Both of these contributed to the O&S cost breach.

Equation to Translate Annual Cost to Total Cost

The Average Annual Cost Per Aircraft for the EA-18G is calculated by Dividing the Total O&S Cost of \$26,743.0 BY 2004 \$M by the Total Aircraft Operating Years of 4,449 for the program resulting in \$6.011 BY 2004 \$M per aircraft per year.

O&S Cost Variance		
Category	BY 2004 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2014 SAR	23232.6	
Programmatic/Planning Factors	868.2	Seven EA-18G aircraft added to Lot 40: PMAA of CVW squadrons increased from six to seven.
Cost Estimating Methodology	3061.9	Updated methodology used to calculate flight hours to more closely align with the flight hour projections in the NST.
Cost Data Update	60.2	Updates in aviation depot-level repairable and aviation fleet maintenance pricing.
Labor Rate	14.9	Slight increases in FY 2016 composite labor rates.
Energy Rate	-103.7	Decrease in fuel price.
Technical Input	-391.1	Decrease in the Service Life Extension Program (SLEP) estimate and increase in F414 Engine/Module Mean Engine Flight Hour Between Repair (MEFHBR).
Other	0.0	
Total Changes	3510.4	
Current Estimate	26743.0	

Disposal Estimate Details

Date of Estimate: February 16, 2016
Source of Estimate: POE
Disposal/Demilitarization Total Cost (BY 2004 \$M): Total costs for disposal of all Aircraft are 29.8

The TY \$M value is \$55.1.