Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-549

F/A-18E/F Super Hornet Aircraft (F/A-18E/F)

As of December 31, 2012

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Program Name

F/A-18E/F Super Hornet Aircraft (F/A-18E/F)

DoD Component

Navy

Responsible Office

Responsible Office

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Date Assigned July 14, 2011

References

SAR Baseline (Production Estimate)

Navy Acquisition Executive (NAE) Approved Acquisition Program Baseline (APB) dated September 17, 2000

Approved APB

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

Mission and Description

The F/A-18E/F Super Hornet is the second major model upgrade since the inception of the F/A-18 aircraft program. The single-seat F/A-18E and the two-seat F/A-18F are high performance, twin-engine, mid-wing, and multi-mission tactical aircraft designed to replace the F/A-18C (single-seat) and F/A-18D (two-seat) aircraft as they reach the end of their service lives and retire. The F/A-18E/F is designed to meet current Navy fighter escort and interdiction mission requirements, to maintain F/A-18 fleet air defense and close air support roles, as well as an increasing range of missions, including Forward Air Controller (Airborne) and Aerial Tanking, as the F/A-18E/F has proven capability to replace the S-3 as an aerial tanker. F/A-18E/F enhancements include increased range and improved carrier suitability required for the F/A-18 to continue its key strike fighter role against the advanced threats of the 21st century.

Executive Summary

The program continues to excel. Cost, schedule, and performance were superb during this reporting period, and the program continues to deliver aircraft ahead of schedule. As of March 27, 2013, the program has delivered 506 aircraft to the fleet (62 Low Rate Initial Production (LRIP) and 444 Full Rate Production (FRP)). This report solely reflects the domestic Program of Record (PoR) quantities.

As of January 30, 2013, Super Hornet aircraft have flown over 1,131,122 hours.

The F/A-18E/F and EA-18G are software-intensive systems that share a common Operational Flight Program (OFP). The current OFP is the H6E System Configuration Set (SCS), which was released to the fleet in October 2011. The H8E SCS represents the latest software upgrade that will replace the H6E SCS following Operational Test (OT). The program office delayed H8E entry into OT by four months to correct weapon integration and interoperability issues. The issues were resolved, and OT began in June 2012. H8E fleet release is scheduled for July 2013. Therefore, there are no significant software-related issues with this program at this time.

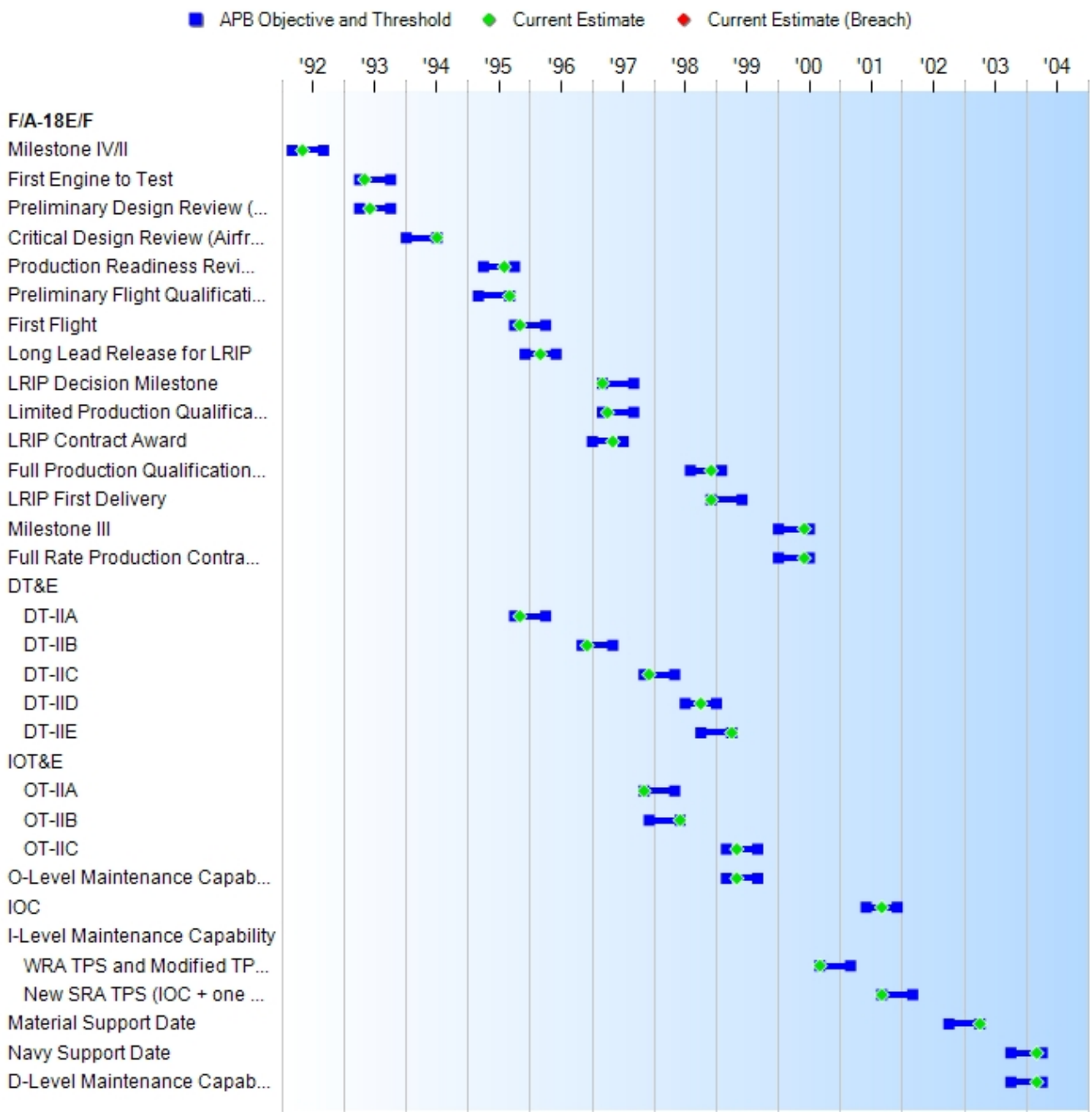
Because the program is more than 90 percent delivered, this is the final SAR submission for the F/A-18E/F Super Hornet Aircraft program (pursuant to section 2432 of title 10, United States Code).

Threshold Breaches

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

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Schedule


APB Objective and Threshold
Current Estimate
Current Estimate (Breach)
'92
'93
'94
'95
'96
'97
'98
'99
'00
'01
'02
'03
'04
F/A-18E/F
Milestone IV/II
First Engine to Test
Preliminary Design Review (...
Critical Design Review (Airfr...
Production Readiness Revi...
Preliminary Flight Qualificati...
First Flight
Long Lead Release for LRIP
LRIP Decision Milestone
Limited Production Qualifica...
LRIP Contract Award
Full Production Qualification...
LRIP First Delivery
Milestone III
Full Rate Production Contra...
DT&E
DT-IIA
DT-IIB
DT-IIC
DT-IID
DT-IIE
IOT&E
OT-IIA
OT-IIB
OT-IIC
O-Level Maintenance Capab...
IOC
I-Level Maintenance Capability
WRA TPS and Modified TP...
New SRA TPS (IOC + one ...
Material Support Date
Navy Support Date
D-Level Maintenance Capab...

Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate
Milestone IV/II	MAR 1992	MAR 1992	SEP 1992	MAY 1992
First Engine to Test	APR 1993	APR 1993	OCT 1993	MAY 1993
Preliminary Design Review (Airframe)	APR 1993	APR 1993	OCT 1993	JUN 1993
Critical Design Review (Airframe)	JAN 1994	JAN 1994	JUL 1994	JUL 1994
Production Readiness Review (Airframe)	APR 1995	APR 1995	OCT 1995	AUG 1995
Preliminary Flight Qualification (Engine)	MAR 1995	MAR 1995	SEP 1995	SEP 1995
First Flight	OCT 1995	OCT 1995	APR 1996	NOV 1995
Long Lead Release for LRIP	DEC 1995	DEC 1995	JUN 1996	MAR 1996
LRIP Decision Milestone	MAR 1997	MAR 1997	SEP 1997	MAR 1997
Limited Production Qualification (Engine)	MAR 1997	MAR 1997	SEP 1997	APR 1997
LRIP Contract Award	JAN 1997	JAN 1997	JUL 1997	MAY 1997
Full Production Qualification (Engine)	AUG 1998	AUG 1998	FEB 1999	DEC 1998
LRIP First Delivery	DEC 1998	DEC 1998	JUN 1999	DEC 1998
Milestone III	JAN 2000	JAN 2000	JUL 2000	JUN 2000
Full Rate Production Contract Award	JAN 2000	JAN 2000	JUL 2000	JUN 2000
DT&E				
DT-IIA	OCT 1995	OCT 1995	APR 1996	NOV 1995
DT-IIB	NOV 1996	NOV 1996	MAY 1997	DEC 1996
DT-IIC	NOV 1997	NOV 1997	MAY 1998	DEC 1997
DT-IID	JUL 1998	JUL 1998	JAN 1999	OCT 1998
DT-IIE	OCT 1998	OCT 1998	APR 1999	APR 1999
IOT&E				
OT-IIA	NOV 1997	NOV 1997	MAY 1998	NOV 1997
OT-IIB	DEC 1997	DEC 1997	JUN 1998	JUN 1998
OT-IIC	MAR 1999	MAR 1999	SEP 1999	MAY 1999
O-Level Maintenance Capability (OPEVAL)	MAR 1999	MAR 1999	SEP 1999	MAY 1999
IOC	JUN 2001	JUN 2001	DEC 2001	SEP 2001
I-Level Maintenance Capability				
WRA TPS and Modified TPSs (IOC)	SEP 2000	SEP 2000	MAR 2001	SEP 2000
New SRA TPS (IOC + one year)	SEP 2001	SEP 2001	MAR 2002	SEP 2001
Material Support Date	OCT 2002	OCT 2002	APR 2003	APR 2003
Navy Support Date	OCT 2003	OCT 2003	APR 2004	MAR 2004
D-Level Maintenance Capability	OCT 2003	OCT 2003	APR 2004	MAR 2004

Acronyms And Abbreviations

DT - Developmental Testing
DT&E - Developmental Test and Evaluation
IOC - Initial Operational Capability
IOT&E - Initial Operational Test and Evaluation
LRIP - Low Rate Initial Production
OPEVAL - Operational Evaluation
OT - Operational Testing
SRA - Shop Replaceable Assembly
TPS - Test Program Set
WRA - Weapon Replaceable Assembly

Change Explanations

None

Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Interoperability of the F/A-18E/F Communications & Data Link Suite	Achieve all IERs	Achieve all IERs	Achieve all Critical IERs	Achieve all Critical IERs	Achieve all Critical IERs
Deck Spot Factor (F/A-18A/B/C/D =1.2)	<= 1.4	<= 1.4	<1.5	1.46	1.46
Fighter Escort Radius (F/A-18E)(internal fuel) (Nm)	>=425	>=425	>=410	462	434
Interdiction Mission Radius (Nm)					
2 external tanks (retained)	>=400	>=400	>=390	444	419
3 external tanks (retained)	>=450	>=450	>=430	489	463
Combat Ceiling (max thrust) (ft)	>50000	>50000	>=50000	52,300	51,948
Launch: Catapult WOD (C-13-1 Catapult MAXTOGW (kts))	<=25	<=25	<=30	19	19
Recovery: WOD (MK-7MOD 3) (kts)	<=10	<=10	<=15	8	8
Recovery Payload (lbs)	>9000	>9000	>=9000	9494	9327
Usable Load Factor (Subsonic; Nz) (G's)	>= +7.5	>= +7.5	>= +7.5	+7.5	+7.5
Specific Excess Power (Max Thrust, .9M, 1G, 10kft) (fps)	>=650	>=650	>600	648	631
Acceleration (.8M to 1.2M at 35kft) (sec)	<=60	<=60	<70	65	69
Additional Internal Fuel Capacity (lbs) (greater than C/D)	>=3000	>=3000	>=3000	4090	4090
Mean Time Between Operational Mission Failure (MTBOMF) (Replaces MFHBF)	>=3.2	>=3.2	>=2.6	10.0	9.3
Direct Maintenance Manhours per Flight Hour (DMMH/FH) (Replaces MH/FH)	<=5.0	<=5.0	<=9.0	6.4	5.9

Speed (Mach) Fighter Escort Mission Configuration @10,000 ft with Intermediate Rated Thrust	.98	.98	.96	.96	.96
Empty Weight (lbs)	29950	29950	31950	30801	30968
Built-In Test (All Avionics)					
Fault Detection (%)	75	75	65	94.5	98.9
Fault Isolation (%)	90	90	85	90.5	97.6
False Alarm Rate (%)	30	30	45	33.5	39.6
Approach Speed (kts)	<=140	<=140	<=150	142	142

Requirements Source: Operational Requirements Document (ORD) dated March 22, 2000

Acronyms And Abbreviations

fps - feet per second
Ft - Feet
G - Gravitational Acceleration
IER - Information Exchange Requirement
kft - Thousand Feet
kts - knots
lbs - pounds
M - Mach Number
MAX TOGW - Maximum Take Off Gross Weight
MFHBF - Mean Flight Hours Between Failure
MH/FH - Maintenance Hours per Flight Hour
Nm - Nautical Mile/s
Nz - Normal Load Factor, Normal Acceleration
sec - second
WOD - Wind Over Deck

Change Explanations

None

Memo

Interdiction Mission Radius, Recovery Payload, Specific Excess Power, Additional Internal Fuel Capacity, Launch Wind Over Deck and Acceleration Time are estimates based on the F/A-18E aircraft.

Interdiction Mission Radius Nautical Miles payload with:

a. 2 external tanks + 2 Airborne Intercept Missile (AIM) -9 + 4 MK 83 Low Drag (LD) on Low Drag Pylons + Forward Looking Infrared Radar/Navigation Forward Looking Infrared Radar (FLIR/NAVFLIR).

b. 3 external tanks + 2 AIM-9 + 4 MK 83 LD on Low Drag Pylons + Forward Looking Infrared Radar/Navigation Forward Looking Infrared Radar (FLIR/NAVFLIR).

MK is part of a serial number; it is not an acronym or an abbreviation.

Current estimated performance is based on Lot 35 Full Rate Production (FRP) 12 configuration as of January 2013.

Recovery Payload: F/A-18F: 44,000 Carrier Landing Design Gross Weight (CLDGW). The F/A-18E/F at Initial Operating Capability (IOC) provided for a threshold/objective of 9,000 pounds of recovery payload.

Specific Excess Power: F/A-18E: (2) AIM-9 + (2) AIM-120 + Gun and Ammo with 60% internal fuel; and the equivalent design gross weight for the F/A-18F.

Track To Budget

RDT&E				
APPN 1319	BA 07	PE 0204136N	(Navy)	
	Project E2130	(E2130) F/A-18 Squadrons/Follow-on Variant		(Sunk)
Procurement				
APPN 1506	BA 01	PE 0204136N	(Navy)	
	ICN 0145	APN 1 F/A-18E/F (Fighter) Hornet (MYP)		
APPN 1506	BA 06	PE 0204136N	(Navy)	
	ICN 0605	APN 6 Spares	(Shared)	

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

Appropriation	BY2000 $M			BY2000 $M	TY $M		
	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	5889.4	5895.2	6484.7	5895.2	5574.0	5557.6	5557.6
Procurement	32995.3	41460.3	45606.3	39880.5	36063.3	46347.3	44501.0
Flyaway	27850.7	--	--	32673.3	30453.8	--	36368.0
Recurring	27001.3	--	--	31211.1	29575.6	--	34773.6
Non Recurring	849.4	--	--	1462.2	878.2	--	1594.4
Support	5144.6	--	--	7207.2	5609.5	--	8133.0
Other Support	4304.8	--	--	6091.1	4709.4	--	6920.3
Initial Spares	839.8	--	--	1116.1	900.1	--	1212.7
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	38884.7	47355.5	N/A	45775.7	41637.3	51904.9	50058.6

Confidence Level for Current APB Cost 50% - The Program of Record (PoR) decreased from 565 to 552 due to a reduction in procurement quantities in President's Budget (PB) Congress added an additional 11 F/A-18E aircraft to the program profile. These additional aircraft will be incorporated into the PoR with the next budget submission.

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E	0	0	0
Procurement	458	565	552
Total	458	565	552

The Program of Record (PoR) decreased from 565 to 552 due to a reduction in procurement quantities in President's Budget (PB) 2014.

Congress added an additional 11 F/A-18E aircraft to the program profile. These additional aircraft will be incorporated into the PoR with the next budget submission.

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2014 President's Budget / December 2012 SAR (TY$ M)

Appropriation	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
RDT&E	5557.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5557.6
Procurement	42173.0	2083.7	244.3	0.0	0.0	0.0	0.0	0.0	44501.0
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 2014 Total	47730.6	2083.7	244.3	0.0	0.0	0.0	0.0	0.0	50058.6
PB 2013 Total	47761.0	2083.7	1154.0	0.0	0.0	0.0	0.0	0.0	50998.7
Delta	-30.4	0.0	-909.7	0.0	0.0	0.0	0.0	0.0	-940.1

Program funding and production quantities listed in this SAR are consistent with the FY 2014 President's Budget (PB). The FY 2014 PB did not reflect the enacted DoD appropriation for FY 2013, nor sequestration; it reflected the President's requested amounts for FY 2013.

Quantity	Undistributed	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	526	26	0	0	0	0	0	0	552
PB 2014 Total	0	526	26	0	0	0	0	0	0	552
PB 2013 Total	0	526	26	13	0	0	0	0	0	565
Delta	0	0	0	-13	0	0	0	0	0	-13

Cost and Funding

Annual Funding By Appropriation

Annual Funding TY$
1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
1992	--	--	--	--	--	--	349.5
1993	--	--	--	--	--	--	842.1
1994	--	--	--	--	--	--	1396.2
1995	--	--	--	--	--	--	1246.0
1996	--	--	--	--	--	--	801.1
1997	--	--	--	--	--	--	345.4
1998	--	--	--	--	--	--	234.6
1999	--	--	--	--	--	--	195.6
2000	--	--	--	--	--	--	132.1
2001	--	--	--	--	--	--	13.9
2002	--	--	--	--	--	--	1.1
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**5557.6**

Annual Funding BY$
1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2000 $M	Non End Item Recurring Flyaway BY 2000 $M	Non Recurring Flyaway BY 2000 $M	Total Flyaway BY 2000 $M	Total Support BY 2000 $M	Total Program BY 2000 $M
1992	--	--	--	--	--	--	391.7
1993	--	--	--	--	--	--	922.4
1994	--	--	--	--	--	--	1501.2
1995	--	--	--	--	--	--	1314.4
1996	--	--	--	--	--	--	831.0
1997	--	--	--	--	--	--	354.0
1998	--	--	--	--	--	--	238.5
1999	--	--	--	--	--	--	196.5
2000	--	--	--	--	--	--	130.8
2001	--	--	--	--	--	--	13.6
2002	--	--	--	--	--	--	1.1
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**5895.2**

Annual Funding TY$
1506 | Procurement | Aircraft Procurement, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
1996	--	233.5	--	--	233.5	--	233.5
1997	12	1471.5	--	200.0	1671.5	436.8	2108.3
1998	20	1678.7	--	163.4	1842.1	331.0	2173.1
1999	30	2237.9	--	195.5	2433.4	451.3	2884.7
2000	36	2230.9	--	85.9	2316.8	580.3	2897.1
2001	39	2377.2	--	63.4	2440.6	524.0	2964.6
2002	48	2651.8	--	72.7	2724.5	531.2	3255.7
2003	45	2684.5	--	71.0	2755.5	482.1	3237.6
2004	42	2529.2	--	168.0	2697.2	503.6	3200.8
2005	42	2560.9	--	75.8	2636.7	401.1	3037.8
2006	38	2209.2	--	44.6	2253.8	514.2	2768.0
2007	37	2175.7	--	39.8	2215.5	474.8	2690.3
2008	37	2190.6	--	56.7	2247.3	537.5	2784.8
2009	23	1396.5	--	88.6	1485.1	404.0	1889.1
2010	18	1043.9	--	36.2	1080.1	399.6	1479.7
2011	31	1703.4	--	70.5	1773.9	467.0	2240.9
2012	28	1859.3	--	67.3	1926.6	400.4	2327.0
2013	26	1538.9	--	95.0	1633.9	449.8	2083.7
2014	--	--	--	--	--	244.3	244.3
Subtotal	**552**	**34773.6**	**--**	**1594.4**	**36368.0**	**8133.0**	**44501.0**

Annual Funding BY$
1506 | Procurement | Aircraft Procurement, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2000 $M	Non End Item Recurring Flyaway BY 2000 $M	Non Recurring Flyaway BY 2000 $M	Total Flyaway BY 2000 $M	Total Support BY 2000 $M	Total Program BY 2000 $M
1996	--	239.3	--	--	239.3	--	239.3
1997	12	1495.2	--	203.2	1698.4	443.8	2142.2
1998	20	1686.1	--	164.1	1850.2	332.5	2182.7
1999	30	2219.3	--	193.9	2413.2	447.5	2860.7
2000	36	2183.4	--	84.1	2267.5	567.9	2835.4
2001	39	2299.1	--	61.3	2360.4	506.8	2867.2
2002	48	2532.7	--	69.4	2602.1	507.4	3109.5
2003	45	2513.7	--	66.5	2580.2	451.4	3031.6
2004	42	2307.4	--	153.3	2460.7	459.4	2920.1
2005	42	2272.3	--	67.3	2339.6	355.9	2695.5
2006	38	1907.4	--	38.5	1945.9	443.9	2389.8
2007	37	1835.6	--	33.6	1869.2	400.6	2269.8
2008	37	1820.7	--	47.1	1867.8	446.8	2314.6
2009	23	1144.3	--	72.6	1216.9	331.1	1548.0
2010	18	836.3	--	29.0	865.3	320.2	1185.5
2011	31	1332.7	--	55.2	1387.9	365.4	1753.3
2012	28	1426.9	--	51.6	1478.5	307.4	1785.9
2013	26	1158.7	--	71.5	1230.2	338.7	1568.9
2014	--	--	--	--	--	180.5	180.5
Subtotal	**552**	**31211.1**	**--**	**1462.2**	**32673.3**	**7207.2**	**39880.5**

Cost Quantity Information
1506 | Procurement | Aircraft Procurement, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2000 $M
1996	--	--
1997	12	1493.4
1998	20	1839.1
1999	30	2200.2
2000	36	2132.9
2001	39	2359.9
2002	48	2545.6
2003	45	2516.7
2004	42	2311.8
2005	42	2274.7
2006	38	1908.2
2007	37	1864.4
2008	37	1826.4
2009	23	1141.1
2010	18	837.4
2011	31	1372.3
2012	28	1379.6
2013	26	1207.4
2014	--	--
Subtotal	**552**	**31211.1**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	3/26/1997	3/26/1997
Approved Quantity	62	62
Reference	Milestone II ADM	Milestone II ADM
Start Year	1997	1997
End Year	1999	1999

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the Quadrennial Defense Review (QDR). As a result of the QDR, the total procurement quantity for the program was reduced to a range of 548 to 785 aircraft, but there was not a change to the LRIP quantity. The LRIP quantity was approved during the LRIP Defense Acquisition Board (DAB) in March 1997.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost $M	Memo
Australia	4/14/2011		357.9	This case was implemented for the sustainment of 24 F/A-18F aircraft.
Australia	5/2/2007	24	2474.0	The Program Office has a Foreign Military Sales case with Australia for 24 F/A-18F aircraft. This case was implemented for acquisition and initial support.

Nuclear Cost

None

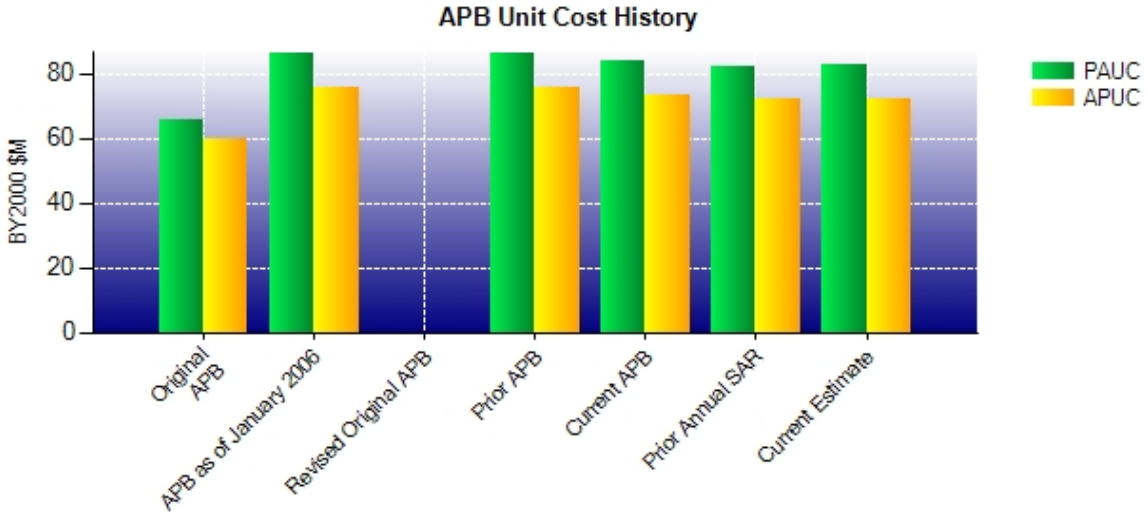
Unit Cost

Unit Cost Report

	BY2000 $M	BY2000 $M	
Unit Cost	**Current UCR Baseline (FEB 2011 APB)**	**Current Estimate (DEC 2012 SAR)**	**BY % Change**
Program Acquisition Unit Cost (PAUC)			
Cost	47355.5	45775.7	
Quantity	565	552	
Unit Cost	83.815	82.927	-1.06
Average Procurement Unit Cost (APUC)			
Cost	41460.3	39880.5	
Quantity	565	552	
Unit Cost	73.381	72.247	-1.55

	BY2000 $M	BY2000 $M	
Unit Cost	**Original UCR Baseline (JUN 1992 APB)**	**Current Estimate (DEC 2012 SAR)**	**BY % Change**
Program Acquisition Unit Cost (PAUC)			
Cost	65944.7	45775.7	
Quantity	1000	552	
Unit Cost	65.945	82.927	+25.75
Average Procurement Unit Cost (APUC)			
Cost	59976.8	39880.5	
Quantity	1000	552	
Unit Cost	59.977	72.247	+20.46

Unit Cost History



		BY2000 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	JUN 1992	65.942	59.970	94.583	88.750
APB as of January 2006	JUL 2003	86.175	75.505	91.968	81.871
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	JUL 2003	86.175	75.505	91.968	81.871
Current APB	FEB 2011	83.815	73.381	91.867	82.031
Prior Annual SAR	DEC 2011	82.395	71.961	90.263	80.427
Current Estimate	DEC 2012	82.927	72.247	90.686	80.618

SAR Unit Cost History

Initial SAR Baseline to Current SAR Baseline (TY $M)

Initial PAUC Dev Est	Changes								PAUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
94.583	-16.460	25.278	1.930	-2.510	0.670	0.000	-12.580	-3.672	90.911

Current SAR Baseline to Current Estimate (TY $M)

PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
90.911	0.460	-4.853	2.010	0.468	-2.520	0.000	4.210	-0.225	90.686

Initial SAR Baseline to Current SAR Baseline (TY $M)

Initial APUC Dev Est	Changes								APUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
88.750	-16.090	18.461	2.200	-2.510	0.510	0.000	-12.580	-10.009	78.741

Current SAR Baseline to Current Estimate (TY $M)

APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
78.741	0.503	-2.781	2.010	0.468	-2.533	0.000	4.210	1.877	80.618

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone I	N/A	N/A	N/A	N/A
Milestone II	DEC 1991	MAR 1992	MAR 1992	MAY 1992
Milestone III	DEC 1998	JAN 2000	JAN 2000	JUN 2000
IOC	N/A	SEP 2000	JUN 2001	SEP 2001
Total Cost (TY $M)	3974.4	94583.0	41637.3	50058.6
Total Quantity	N/A	1000	458	552
Prog. Acq. Unit Cost (PAUC)	N/A	94.583	90.911	90.686

Cost Variance

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	5574.0	36063.3	--	41637.3
Previous Changes				
Economic	-23.7	+170.6	--	+146.9
Quantity	--	+6942.6	--	+6942.6
Schedule	--	+1109.4	--	+1109.4
Engineering	--	+258.3	--	+258.3
Estimating	+7.3	-1299.4	--	-1292.1
Other	--	--	--	--
Support	--	+2196.3	--	+2196.3
Subtotal	-16.4	+9377.8	--	+9361.4
Current Changes				
Economic	--	+107.0	--	+107.0
Quantity	--	-1076.1	--	-1076.1
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	-98.8	--	-98.8
Other	--	--	--	--
Support	--	+127.8	--	+127.8
Subtotal	--	-940.1	--	-940.1
Total Changes	-16.4	+8437.7	--	+8421.3
CE - Cost Variance	5557.6	44501.0	--	50058.6
CE - Cost & Funding	5557.6	44501.0	--	50058.6

Summary Base Year 2000 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	5889.4	32995.3	--	38884.7
Previous Changes				
Economic	--	--	--	--
Quantity	--	+5421.9	--	+5421.9
Schedule	--	+998.1	--	+998.1
Engineering	--	+227.2	--	+227.2
Estimating	+5.8	-953.7	--	-947.9
Other	--	--	--	--
Support	--	+1968.9	--	+1968.9
Subtotal	+5.8	+7662.4	--	+7668.2
Current Changes				
Economic	--	--	--	--
Quantity	--	-795.1	--	-795.1
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	-75.8	--	-75.8
Other	--	--	--	--
Support	--	+93.7	--	+93.7
Subtotal	--	-777.2	--	-777.2
Total Changes	+5.8	+6885.2	--	+6891.0
CE - Cost Variance	5895.2	39880.5	--	45775.7
CE - Cost & Funding	5895.2	39880.5	--	45775.7

Previous Estimate: December 2011

Procurement	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+107.0
Quantity variance resulting from a decrease of 13 FA-18E/F from 565 to 552. (Quantity) (QR)	-609.4	-824.7
Additional quantity variance due to loss of 13 F/A-18E/F. (Quantity) (QR)	-185.7	-251.4
Adjustment for current and prior escalation. (Estimating)	-54.5	-70.9
Revised estimate to reflect actuals. (Estimating)	-22.1	-29.4
Revised estimate to reflect budget controls. (Estimating)	+0.8	+1.5
Adjustment for current and prior escalation. (Support)	-13.7	-17.8
Increase in Other Support costs due to additional Sustaining Engineering costs. (Support)	+110.7	+148.8
Decrease in Initial Spares. (Support) (QR)	-3.3	-3.2
Procurement Subtotal	-777.2	-940.1

(QR) Quantity Related

Contracts

Appropriation: Procurement	
Contract Name	**Airframe Multi-Year Procurement III (MYP III)**
Contractor	The Boeing Company
Contractor Location	6200 JS McDonnell Blvd St. Louis, MO 63134
Contract Number, Type	N00019-09-C-0019, FPIF
Award Date	December 04, 2008
Definitization Date	September 28, 2010

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
2770.5	2945.6	66	4506.6	4621.2	103	4506.6	4506.6

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this FPIF contract.

General Contract Variance Explanation

In accordance with Defense Federal Acquisition Regulation Supplement Subpart 234.2, Earned Value Management System, a waiver was obtained and approved on June 10, 2010, by the Deputy Assistant Secretary of the Navy (Acquisition and Logistics Management), to omit Earned Value Management requirements.

Contract Comments

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 (ECPs).

The MYP III contract value and quantities represent only the F/A-18E/F portion of the contract and do not include the EA-18G portion.

Appropriation: Procurement

Contract Name	**F414 Engine Production Lots 11-15**
Contractor	GE Aircraft Engines
Contractor Location	1000 Western Ave. Lynn, MA 01905-2655
Contract Number, Type	N00019-06-C-0088, FPEPA
Award Date	April 26, 2006
Definitization Date	September 26, 2007

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
255.9	N/A	224	1308.5	N/A	305	1308.5	1308.5

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this FPEPA contract.

General Contract Variance Explanation

There is no contract performance reporting required on this Fixed Price Economic Price Adjustment (FPEPA) contract.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to exercising contract options, incorporation of Engine Program Descriptions (EPDs) in support of the F414 Component Improvement Program (CIP), and procurement of long lead material in support of FY 2010 and FY 2011 engines.

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

The original quantity of 224 represents the total potential F/A-18E/F engine quantity. This quantity is based upon the base contract (68) and all option year (156) engines to be procured. This report solely reflects the domestic Program of Record (PoR) quantities.

Appropriation: Procurement

Contract Name	**F414 Engine Production Lots 16-17**
Contractor	GE Aircraft Engines
Contractor Location	1000 Western Ave. Lynn, MA 01905-2655
Contract Number, Type	N00019-11-C-0045, FFP
Award Date	April 20, 2011
Definitization Date	September 26, 2012

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
6.6	N/A	0	440.0	N/A	110	440.0	440.0

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this FFP contract.

Contract Comments

This is the first time this contract is being reported.

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the FY 2012 procurement of 56 engines and devices, two spare engines, one spare module as well as the FY 2013 procurement of long lead material, 52 engines and devices. This report solely reflects the domestic Program of Record (PoR) quantities.

The original contract value only reflects the procurement of FY 2013 F414 logistics and engineering support.

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, Type	N68936-09-D-0002, IDIQ/CPIF/CPFF
Award Date	December 19, 2008
Definitization Date	December 19, 2008

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
905.3	N/A	80	899.9	N/A	67	899.9	899.9

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this IDIQ/CPIF/CPFF contract.

General Contract Variance Explanation

In accordance with a contract addendum to Federal Acquisition Regulation Clause 52.234-4, Earned Value Management (EVM) will be implemented on individual orders. As stated in the contract, EVM is not applicable at the basic contract level.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to a contract modification realigning certain efforts from a Cost Plus Incentive Fee Contract Line Item Number (CLIN) to a Cost Plus Fixed Fee Level of Effort CLIN.

The initial contract price target for the basic contract reflects the total negotiated value at contract award. The current contract price target for the basic contract reflects the revised contract value.

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

This contract includes shared costs and quantities for the F/A-18E/F and EA-18G platforms; therefore, all data is duplicated in the EA-18G SAR.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	506	506	552	91.67%
Total Program Quantities Delivered	506	506	552	91.67%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	50058.6	Years Appropriated	22
Expenditures To Date	42116.9	Percent Years Appropriated	95.65%
Percent Expended	84.14%	Appropriated to Date	49814.3
Total Funding Years	23	Percent Appropriated	99.51%

The above data is current as of 3/26/2013.

Operating and Support Cost

F/A-18E/F

Assumptions and Ground Rules

Cost Estimate Reference:
Current Program: F/A-18 E/F
Flight Hours per aircraft per month: 28.2
Number of 12 Primary Authorized Aircraft (PAA) F/A-18E/F Squadrons in FY 2016: 19
Number of 10 PAA F/A-18E/F Squadrons in FY 2016: 11
Fleet Readiness Squadron (FRS) at 12-14 E & 29-31 F: 2
Consumption rate, gallons per hour: 1,291
Petroleum, Oil, and Lubricant (POL) Cost, JP-5 per Gallon FY 2000 $: 0.73
Number of Aircraft Operating Years: 9,128
Operational Service Life (OSL): 6,000 Flight Hours
Date of Estimate: February 2013
Source: Air-4.2 Operating & Support (O&S) Cost Estimate

Sustainment Strategy:
The F/A-18E/F support strategy is based on the following basing and utilization plans. The current Program of Record (PoR) consists of 19 - 12 PAA F/A-18E/F squadrons and 11 - 10 PAA Carrier Air Wing (CVW) deployable squadrons stationed at either Naval Air Station (NAS) Lemoore, CA, or NAS Oceana, VA. Two Fleet Replacement Squadrons (FRS) - NAS Lemoore and NAS Oceana - are comprised of 85 aircraft. Twenty-two additional aircraft are either currently stationed, or will be stationed at various test and training units throughout the Continental United States (CONUS). Additionally, four fleet squadrons are forward deployed to Atsugi, Japan. The majority of the airframe and engine components are supported via three-level maintenance plans. Avionics components, on the other hand, are predominantly supported by two-level maintenance plans.

The total F/A-18E/F aircraft procurement quantity is 552, which have a service life of 20 years. Two of the aircraft were used as EA-18G System Development and Demonstration (SDD) assets. Eight of the aircraft have been lost through attrition as Category 1 strikes.

Antecedent Information:
Antecedent Program: F/A-18C/D
Consumption Rate, Gallons per Hour: 1,127
Number of Aircraft Operating Years: 9,128 (See Total O&S Cost Comments below)
Flight Hours per Aircraft per Month: 23.5
POL Cost, JP-5 per gallon FY 2000 $: 0.73

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 flight hours. Some elements, such as personnel and associated indirect and training costs, are dependent on the number of squadrons and manning requirements. Other elements which are fixed in nature, such as sustaining engineering, are based on a cost-per-aircraft. Modification, airframe, support equipment and depot maintenance are estimated as the total requirement and applied on a cost-per-aircraft basis.

O&S Cost Variance Explanation

Variance Category	Causal Factor	Impact

Cost Estimating Methodologies	N/A	N/A
Cost Data Updates	Aviation Type/Model/Series Report (ATMSR) weapons training expendable stores and temporary additional duty rates rose significantly.	1.30%
Rates	The 2013 composite rates were lower than the 2012 rates, primarily due to a $1,880 reduction in the Medicare Eligible Retiree Health Care (MERHC) accrual rate.	-0.10%
Technical Inputs	The Aviation Depot Level Repairable (AVDLR) pricing for components previously managed Eligible Retiree Health Care (MERHC) accrual rate under F/A-18E/F Integrated Readiness Support Teaming (FIRST) rose significantly in 2013. This was offset by a $663M reduction in modifications during the FYDP.	-0.60%
Programmatics	The President's Budget (PB) 2014 removed 13 pipeline and attrition aircraft, resulting in a loss of 40 aircraft operating years.	-0.10%

Estimated Technical & Programmatic Updates

- Aircraft inventory updated to remove 13 aircraft
  - 11 during the Office of the Secretary of Defense (OSD) 2014 Bill Payer
  - Two during President's Budget (PB) 2014 as an End Game Offset
- Program of Record (PoR) life cycle end year changed to 2035
- Number of aircraft operating years decreased

Unitized O&S Costs BY2000 $K		
Cost Element	**F/A-18E/F Average Annual Cost per Aircraft**	**F/A-18C/D (Antecedent) Average Annual Cost per Aircraft**
Unit-Level Manpower	1.122	0.983
Unit Operations	0.497	0.289
Maintenance	1.760	2.097
Sustaining Support	0.084	0.078
Continuing System Improvements	0.518	0.524
Indirect Support	0.227	0.204
Other	0.000	0.000
Total	4.208	4.175

Unitized Cost Comments:

The Average Annual Cost Per Unit for the F/A-18E/F is calculated by dividing the total O&S cost by the total operational aircraft years for the program.

	Total O&S Cost $M			
	Current Production APB Objective/Threshold		Current Estimate	
	F/A-18E/F		F/A-18E/F	F/A-18C/D (Antecedent)
Base Year	36961.7	40657.9	38410.0	38112.0
Then Year	65103.8	N/A	67505.0	N/A

Total O&S Costs Comments:

For comparison purposes, the base year antecedent total O&S costs are the product of the antecedent's average annual cost per aircraft and the operational aircraft years of the new F/A-18E/F aircraft.

Disposal Costs

While disposal costs are not part of the Cost Assessment and Program Evaluation (CAPE) 2007 O&S Cost Element Structure (CES) and are not included in the totals above, the Life Cycle Cost (LCC) impact of disposal costs has been estimated at $58.9M in Base Year (BY) 2000 dollars and $99.5M in Then Year (TY) dollars.